

The `tabularht` package

Heiko Oberdiek*

2016/05/16 v2.6

Abstract

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

Contents

1	Usage	2
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	4
2	Implementation	4
2.1	Environments	4
2.2	Options	7
2.3	Option <code>vlines</code> , driver independent stuff	7
2.4	Driver <code>pdftex</code>	8
2.5	DVI drivers	11
3	Installation	14
3.1	Download	14
3.2	Bundle installation	14
3.3	Package installation	14
3.4	Refresh file name databases	15
3.5	Some details for the interested	15
4	History	15
	[2005/09/22 v1.0]	15
	[2005/10/16 v2.0]	16
	[2005/10/18 v2.1]	16
	[2006/02/20 v2.2]	16
	[2006/12/22 v2.3]	16
	[2007/03/21 v2.4]	16
	[2007/04/11 v2.5]	16
	[2016/05/16 v2.6]	16
5	Index	16

*Please report any issues at <https://github.com/ho-tex/oberdiek/issues>

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:

```
\interrow space[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=**.

```
\interrow space [\langle list \rangle] {\langle height \rangle}
\interrow fill [\langle list \rangle]
\interrow start [\langle list \rangle] ... \interrow stop
```

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 }
```

```

12   lower left corner & lower right corner\\%
13   \end{tabularht*}%
14 }
15 \end{document}
16 \end{example1}

```

1.4.2 Example 2

```

17 \begin{example2}
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 \begin{package}

```

Package identification.

```

48 \NeedsTeXFormat{LaTeX2e}
49 \ProvidesPackage{tabularht}%
50 [2016/05/16 v2.6 Tabular with height specified (HO)]

```

2.1 Environments

```

51 \let\toarrayheight\@empty
52 \let\tabH@array@init\@empty
53
54 \toks@={%
55   \begin{group
56     \long\def\x#1\vcenter\fi\fi\bgroup#2\@sharp#3#4\@nil{%
57       \end{group
58       \gdef\@array[##1]##2{%
59         \tabH@array@init
60         #1%
61         \vcenter\fi\fi

```

```

62      \@toarrayheight
63      \bgroup
64      \let\@toarrayheight\@empty
65      #2\@sharp###3#4%
66    }%
67  }%
68  \expandafter\x\@array[#1]{#2}\@nil % hash-ok
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   \tabH@@setheight#1==\@nil
92 }
93 \def\tabH@@setheight#1=#2=#3\@nil{%
94   \ifx\#2#3\%
95     \setlength{\dimen@}{#1}%
96     \edef\@toarrayheight{\the\dimen@}%
97   \else
98     \edef\tabH@temp{\zap@space#1 \@empty}%
99     \ifx\tabH@temp\tabH@to
100    \else
101      \ifx\tabH@temp\tabH@spread
102      \else
103        \PackageError{tabularht}{%
104          Unknown height specifier %
105          '\expandafter\strip@prefix\meaning\tabH@temp'%
106        }{%
107          The height dimension for tabular height can be prefixed%
108          \MessageBreak
109          with 'to=' or 'spread=', default is 'to='.%
110        }%
111        \let\tabH@temp\tabH@to
112      \fi
113    \fi
114    \setlength{\dimen@}{#2}%
115    \edef\@toarrayheight{\tabH@temp\the\dimen@}%
116  \fi
117 }
118 \def\tabH@to{to}
119 \def\tabH@spread{spread}

```

First argument is the height of the table, then the original arguments for tabular follow.

```

120 \newenvironment{tabularht}[1]{%
121   \tabH@setheight{#1}%
122   \tabular
123 }{%
124   \endtabular
125 }
126
127 \newenvironment{tabularht*}[1]{%
128   \tabH@setheight{#1}%
129   \@nameuse{tabular*}%
130 }{%
131   \@nameuse{endtabular*}%
132 }
133
134 \newenvironment{tabularhtx}[1]{%
135   \tabH@setheight{#1}%
136   \tabularx
137 }{%
138   \endtabularx
139 }
140
141 \newenvironment{arrayht}[1]{%
142   \tabH@setheight{#1}%
143   \array
144 }{%
145   \endarray
146 }
147
148 \def\interrowSPACE{%
149   \noalign\bgroup
150     \tabH@interrowSPACE
151 }
152 \newcommand*\tabH@interrowSPACE}[2] [] {%
153   \tabH@vspace{#1}{#2}%
154   \egroup
155 }
156 \def\interrowfill{%
157   \noalign\bgroup
158     \tabH@interrowfill
159 }
160 \newcommand*\tabH@interrowfill}[1] [] {%
161   \tabH@vspace{#1}{\fill}%
162   \egroup
163 }
164 \def\tabH@vspace#1#2{%
165   \tabH@vspace@start{#1}%
166   \vspace{#2}%
167   \tabH@vspace@stop
168 }
169 \let\tabH@vspace@start\@gobble
170 \let\tabH@vspace@stop\@empty
171
172 \newcommand*\interrowstart{%
173   \noalign\bgroup
174     \tabH@interrowstart
175 }

```

```

176 \newcommand*{\tabH@interrowstart}[1] [] {%
177     \tabH@vspace@start{#1}%
178     \egroup
179 }
180 \newcommand*{\interrowstop}{%
181     \noalign{\tabH@vspace@stop}%
182 }

```

2.2 Options

```

183 \providecommand*{\tabH@driver}{}
184
185 \DeclareOption{vlines}{%
186     \let\tabH@temp\relax
187 }
188 \DeclareOption{pdftex}{}
189 \DeclareOption{dvips}{%
190     \def\tabH@driver{dvips}%
191 }
192 \ProcessOptions*\relax
193
194 \ifx\tabH@temp\relax
195 \else
196     \expandafter\endinput
197 \fi
198
199 \begingroup
200     \@ifundefined{eTeXversion}{%
201         \PackageError{tabularht}{%
202             Option ‘vlines’ requires eTeX%
203         }{%
204             Use of eTeX is recommended for LaTeX, see ltnews16.%
205         }%
206     \endgroup
207     \endinput
208 }{}%
209 \endgroup

```

2.3 Option vlines, driver independent stuff

```

210 \begingroup
211     \let\@addtoreset\@gobbletwo
212     \newcounter{tabH@unique}%
213 \endgroup
214 \let\tabH@currenttab\@empty
215
216 \def\tabH@array@init{%
217     \ifx\@toarrayheight\@empty
218         % ignore vertical lines of nested tabular environments
219         \let\tabH@currenttab\@empty
220     \else
221         \stepcounter{tabH@unique}%
222         \edef\tabH@currenttab{\the\c@tabH@unique}%
223     \fi
224 }
225
226 \renewcommand*{\@arrayrule}{%
227     \@addtopreamble{%
228         \hskip -.5\arrayrulewidth
229         \ifx\tabH@currenttab\@empty

```

```

230 \else
231 \tabH@vrule{\tabH@currenttab}%
232 \fi
233 \begingroup
234 \expandafter\ifx\csname CT@arc@\endcsname\relax
235 \else
236 \expandafter\CT@arc@
237 \fi
238 \vline
239 \endgroup
240 \hskip -.5\arrayrulewidth
241 }%
242 }
243 \let\tabH@arrayrule\@arrayrule
244 \AtBeginDocument{%
245 \ifpackageloaded{colortbl}{%
246 \let\@arrayrule\tabH@arrayrule
247 }{}%
248 }
249
250 \let\tabH@vrule\@gobble

```

2.4 Driver pdftex

```

251 \RequirePackage{ifpdf}
252 \ifpdf
253 \begingroup
254 \ifundefined{pdfsavepos}{%
255 \PackageError{tabularht}{%
256 Your pdfTeX is too old%
257 }{%
258 \string\pdfsavepos\space is missing.%
259 }%
260 \endgroup
261 \csname fi\endcsname
262 \endinput
263 }{}%
264
265 \let\on@line\@empty
266 \PackageInfo{tabularht}{%
267 Using driver 'pdftex' because of pdfTeX in PDF mode%
268 }%
269 \endgroup
270
271 \protected\def\tabH@vrule#1{%
272 \if@files@
273 \pdfsavepos
274 \protected@write\@auxout{%
275 \let\tabH@lastxpos\relax
276 }{%
277 \tabH@aux@vrule{#1}{\tabH@lastxpos}%
278 }%
279 \fi
280 }%
281
282 \def\tabH@lastxpos{\the\pdflastxpos}%
283 \def\tabH@lastypos{\the\pdflastypos}%
284
285 % The .aux file contains three commands:

```



```

286 % \tabH@aux@vrule{tabular id}{x position}
287 % \tabH@aux@vstart{tabular id}{row id}{x position}{y position}
288 % \tabH@aux@vstop{y position}
289 %
290 \AtBeginDocument{%
291   % The .aux files are read the first time before
292   % \AtBeginDocument and later at \end{document}.
293   % \tabH@aux@done is a marker to distinguish
294   % between these two readings. Only in the first
295   % case we need the \tabH@aux@... commands.
296   \let\tabH@aux@done\@empty
297   \if@files
298     \immediate\write\@mainaux{%
299       \@percentchar\@percentchar BeginProlog: tabularht%
300     }%
301     % items in the aux file are executed,
302     % if tabularht is loaded
303     % and during the aux file read at \begin{document} only
304     \immediate\write\@mainaux{%
305       \detokenize{%
306         % the \tabH@aux@... commands are needed only if
307         % tabularht is loaded with driver pdftex.
308         \@ifundefined{tabH@aux@vrule}\@secondoftwo\@firstofone
309       }%
310       % disable commands except for the first .aux files reading
311       \@ifundefined{tabH@aux@done}\@gobble\@firstofone
312     }%
313     {%
314       \let\tabH@aux@vrule\@gobbletwo
315       \let\tabH@aux@vstart\@gobblefour
316       \let\tabH@aux@vstop\@gobble
317     }%
318   }%
319 }%
320 \immediate\write\@mainaux{%
321   \@percentchar\@percentchar EndProlog: tabularht%
322 }%
323 \fi
324 }%
325
326 % the x positions of vrules are stored in
327 % \tabH@<tabcount>list with distinct values
328 \protected\def\tabH@aux@vrule#1#2{%
329   \@ifundefined{tabH@#1list}{%
330     \expandafter\xdef\csname tabH@#1list\endcsname{%
331       \noexpand\do{#2}%
332     }%
333   }{%
334     \begingroup
335     \def\x{#2}%
336     \let\y\@undefined
337     \let\do\tabH@do@add
338     \expandafter\xdef\csname tabH@#1list\endcsname{%
339       \csname tabH@#1list\endcsname\@empty
340       \ifx\y\@undefined
341         \noexpand\do{\x}%
342       \fi
343     }%

```

```

344     \endgroup
345 }%
346 }%
347 \def\tabH@do@add#1{%
348   \ifx\y\@undefined
349     \ifnum#1<\x\space
350     \else
351       \expandafter\ifx\csname y\endcsname\relax\fi
352       \ifnum#1>\x\space
353         \noexpand\do{\x}%
354       \fi
355     \fi
356   \fi
357   \noexpand\do{#1}%
358 }%
359
360 \def\tabH@vspace@start#1{%
361   \if@files
362     \stepcounter{tabH@unique}%
363     \edef\tabH@currentrow{\the\c@tabH@unique}%
364     \pdfsavepos
365     \protected@write\@auxout{%
366       \let\tabH@lastxpos\relax
367       \let\tabH@lastypos\relax
368     }{%
369       \tabH@aux@vstart{\tabH@currenttab}{\tabH@currentrow}%
370       {\tabH@lastxpos}{\tabH@lastypos}%
371     }%
372   \fi
373   \begingroup
374     \edef\@{tabH@\tabH@currenttab row\tabH@currentrow}%
375     \expandafter\let\expandafter\x\csname\@ x\endcsname
376     \ifx\x\relax
377     \else
378       \expandafter\let\expandafter\y\csname\@ y\endcsname
379       \expandafter\let\expandafter\l
380       \csname tabH@\tabH@currenttab list\endcsname
381       \ifx\l\relax
382       \else
383         \def\f{#1}%
384         \ifx\f\@empty
385           \let\do\tabH@do@set
386         \else
387           \count@=\z@
388           \let\do\tabH@do@filter
389         \fi
390         \setbox\z@=\hbox{\l}%
391         \wd\z@=\z@
392         \dp\z@=\z@
393         \copy\z@
394       \fi
395     \fi
396   \endgroup
397 }%
398 \def\tabH@vspace@stop{%
399   \if@files
400     \pdfsavepos
401     \protected@write\@auxout{%

```

```

402     \let\tabH@lastypos\relax
403   }{%
404     \tabH@aux@vstop{\tabH@lastypos}%
405   }%
406   \fi
407 }%
408 \def\tabH@do@set#1{%
409   \hbox to \z@{%
410     \hskip \dimexpr #1sp - \x sp\relax
411     \vrule \width\arrayrulewidth
412           \depth\dimexpr \y sp\relax
413     \hss
414   }%
415 }%
416 \def\tabH@do@filter{%
417   \@tempswafalse
418   \advance\count@ \@ne
419   \@for\@e:=\f\do{%
420     \ifnum\@e=\count@
421       \@tempswatrue
422     \fi
423   }%
424   \if@tempswa
425     \expandafter\tabH@do@set
426   \else
427     \expandafter\@gobble
428   \fi
429 }%
430
431 \protected\def\tabH@aux@vstart#1#2#3#4{%
432   \def\tabH@current@vstart{{#1}{#2}{#3}{#4}}%
433 }%
434 \protected\def\tabH@aux@vstop{%
435   \expandafter\tabH@aux@v\tabH@current@vstart
436 }%
437 \def\tabH@aux@v#1#2#3#4#5{%
438   \expandafter\gdef\csname tabH@#1row#2x\endcsname{#3}%
439   \expandafter\xdef\csname tabH@#1row#2y\endcsname{%
440     \the\numexpr #4 - #5\relax
441   }%
442 }%
443
444 \csname fi\endcsname
445 \endinput
446
447 \fi

```

2.5 DVI drivers

```

448 \ifx\tabH@driver\empty
449   \PackageError{tabularht}{%
450     Missing DVI driver, option ‘vlines’ disabled%
451   }{%
452     Supported DVI drivers: dvips.%
453   }%
454   \expandafter\endinput
455 \fi
456
457 \def\tabH@driver@dvips{%

```

```

458 \def\tabH@literalps##1{\special{ps:SDict begin ##1 end}}%
459 \def\tabH@headerps##1{\special{! ##1}}%
460 }
461
462 \@onelevel@sanitize\tabH@driver
463 \@ifundefined{tabH@driver}\tabH@driver}{%
464 \PackageError{tabularht}{%
465   Unsupported driver '\tabH@driver'%
466 }{%
467   Supported DVI drivers: dvips.%
468 }%
469 \endinput
470 }{}
471
472 \begingroup
473 \let\on@line\@empty
474 \PackageInfo{tabularht}{%
475   Using driver '\tabH@driver'%
476 }%
477 \endgroup
478 \csname tabH@driver@\tabH@driver\endcsname
479
480 \protected\def\tabH@vrule#1#2\vrule#3\arrayrulewidth{%
481   #2% \fi or empty
482   % hack to get rid of maxdrift rounding of dvips,
483   % thus simulate a large motion
484   \kern1in\relax
485   \tabH@literalps{%
486     #1 tabH.vrule %
487     Resolution neg 0 translate%
488   }%
489   \vrule#3\arrayrulewidth
490   \tabH@literalps{Resolution 0 translate}%
491   \kern-1in\relax
492 }
493
494 \def\tabH@vspace@start#1{%
495   \begingroup
496   \let\y\@empty
497   \@for\x:=#1\do{%
498     \ifx\y\@empty
499       \edef\y{\x}%
500     \else
501       \edef\y{\y\space\x}%
502     \fi
503   }%
504   \tabH@literalps{\tabH@currenttab[\y]currentpoint exch pop}%
505   \endgroup
506 }
507 \def\tabH@vspace@stop{%
508   \tabH@literalps{%
509     currentpoint exch pop %
510     \number\dimexpr\arrayrulewidth\relax\space
511     tabH.vspace%
512   }%
513 }
514
515 \tabH@headerps{%

```

```

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

```

```

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

```

3 Installation

3.1 Download

Package. This package is available on CTAN¹:

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

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

Bundle. All the packages of the bundle ‘oberdiek’ are also available in a TDS compliant ZIP archive. There the packages are already unpacked and the documentation files are generated. The files and directories obey the TDS standard.

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

TDS refers to the standard “A Directory Structure for T_EX Files” ([CTAN:pkg/tds](#)). Directories with `texmf` in their name are usually organized this way.

3.2 Bundle installation

Unpacking. Unpack the `oberdiek.tds.zip` in the TDS tree (also known as `texmf` tree) of your choice. Example (linux):

```
unzip oberdiek.tds.zip -d ~/texmf
```

3.3 Package installation

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

```
tex tabularht.dtx
```

¹[CTAN:pkg/tabularht](#)

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

```
tabularht.sty      → tex/latex/oberdiek/tabularht.sty
tabularht.pdf       → doc/latex/oberdiek/tabularht.pdf
tabularht-example1.tex → doc/latex/oberdiek/tabularht-example1.tex
tabularht-example2.tex → doc/latex/oberdiek/tabularht-example2.tex
tabularht.dtx       → source/latex/oberdiek/tabularht.dtx
```

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`.

3.4 Refresh file name databases

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

3.5 Some details for the interested

Unpacking with \LaTeX . The `.dtx` chooses its action depending on the format:

plain \TeX : Run `docstrip` and extract the files.

\LaTeX : Generate the documentation.

If you insist on using \LaTeX for `docstrip` (really, `docstrip` does not need \LaTeX), then inform the autodetect routine about your intention:

```
latex \let\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 `pdf \LaTeX` :

```
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`.
- `\interrow space`, `\interrow fil`, and `\interrow start... \interrow stop` 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`.

[2007/03/21 v2.4]

- Fix: Counter `tabh@unique` must not be changed by `\include`.

[2007/04/11 v2.5]

- Line ends sanitized.

[2016/05/16 v2.6]

- Documentation updates.

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; plain numbers refer to the code lines where the entry is used.

Symbols	
<code>\@@array</code>	<u>72</u> , <u>73</u>
<code>\@addtopreamble</code>	<u>227</u>
<code>\@addtoreset</code>	<u>211</u>
<code>\@array</code>	<u>58</u> , <u>68</u> , <u>72</u> , <u>73</u>
<code>\@arrayrule</code>	<u>226</u> , <u>243</u> , <u>246</u>
<code>\@auxout</code>	<u>274</u> , <u>365</u> , <u>401</u>
<code>\@depth</code>	<u>412</u>
<code>\@empty</code>	<u>51</u> , <u>52</u> , <u>64</u> , <u>98</u> , <u>170</u> , <u>214</u> , <u>217</u> , <u>219</u> , <u>229</u> , <u>265</u> , <u>296</u> , <u>339</u> , <u>384</u> , <u>448</u> , <u>473</u> , <u>496</u> , <u>498</u>
<code>\@firstofone</code>	<u>308</u> , <u>311</u>
<code>\@for</code>	<u>419</u> , <u>497</u>
<code>\@gobble</code>	<u>169</u> , <u>250</u> , <u>311</u> , <u>316</u> , <u>427</u>
<code>\@gobblefour</code>	<u>315</u>
<code>\@gobbletwo</code>	<u>211</u> , <u>314</u>
<code>\@ifpackageloaded</code>	<u>82</u> , <u>84</u> , <u>245</u>
<code>\@ifundefined</code>	<u>200</u> , <u>254</u> , <u>308</u> , <u>311</u> , <u>329</u> , <u>463</u>
<code>\@mainaux</code>	<u>298</u> , <u>304</u> , <u>320</u>
<code>\@nameuse</code>	<u>129</u> , <u>131</u>
<code>\@ne</code>	<u>418</u>
<code>\@nil</code>	<u>56</u> , <u>68</u> , <u>91</u> , <u>93</u>
<code>\@onelevel@sanitize</code>	<u>462</u>
<code>\@percentchar</code>	<u>299</u> , <u>321</u>
<code>\@secondoftwo</code>	<u>308</u>

\@sharp	56, 65	\hline	25, 27, 31, 34, 35, 38, 40, 42
\@tempswafalse	417	\hskip	228, 240, 410
\@tempswattrue	421	\hss	413
\@toarrayheight	51, 62, 64, 96, 115, 217		
\@undefined	336, 340, 348		
\@width	411		
\\	8, 10, 12, 26, 32, 37, 41, 94		
A		I	
\a	374, 375, 378	\if@filesw	272, 297, 361, 399
\addlinespace	29	\if@tempswa	424
\advance	418	\ifnum	349, 352, 420
\array	143	\ifpdf	252
\arrayrulewidth		\ifx	72, 94,
	228, 240, 411, 480, 489, 510		99, 101, 194, 217, 229, 234, 340,
\AtBeginDocument	83, 244, 290, 292		348, 351, 376, 381, 384, 448, 498
		\immediate	298, 304, 320
B		\interrowfill	2, 156
\begin	5, 7, 22, 24, 303	\interrowSPACE	2, 39, 148
		\interrowstart	2, 28, 33, 172
C		\interrowstop	30, 36, 180
\c@tabH@unique	222, 363		
\copy	393	K	
\count@	387, 418, 420	\kern	484, 491
\csname	234, 261, 330, 338, 339, 351,		
	375, 378, 380, 438, 439, 444, 478	L	
\CT@arc@	236	\l	379, 381, 390
D		M	
\DeclareOption	185, 188, 189	\meaning	105
\detokenize	305	\MessageBreak	108
\dimen@	95, 96, 114, 115	\multicolumn	10
\dimexpr	410, 412, 510		
\do	331, 337,	N	
	341, 353, 357, 385, 388, 419, 497	\NeedsTeXFormat	48
\documentclass	2, 18	\newcommand	152, 160, 172, 176, 180
\dp	392	\newcounter	212
		\newenvironment	120, 127, 134, 141
E		\noalign	9, 11, 149, 157, 173, 181
\e	419, 420	\number	510
\end	13, 15, 43, 45, 292	\numexpr	440
\endarray	145		
\endcsname		O	
	234, 261, 330, 338, 339, 351,	\on@line	265, 473
	375, 378, 380, 438, 439, 444, 478		
\endinput	196, 207, 262, 445, 454, 469	P	
\endtabular	124	\PackageError	103, 201, 255, 449, 464
\endtabularx	138	\PackageInfo	266, 474
\extracolsep	7	\pdflastxpos	282
		\pdflastypos	283
F		\pdfsavepos	258, 273, 364, 400
\f	383, 384, 419	\ProcessOptions	192
\fbox	6	\protected	271, 328, 431, 434, 480
\fill	7, 161	\protected@write	274, 365, 401
		\providecommand	183
G		\ProvidesPackage	49
\gdef	58, 438		
		R	
H		\renewcommand	226
\hbox	390, 409	\RequirePackage	251
		\reserved@a	73, 75, 78
		S	
		\setbox	390
		\setlength	95, 114

<code>\space</code>	258, 349, 352, 501, 510	<code>\tabH@temp</code>	98,
<code>\special</code>	458, 459		99, 101, 105, 111, 115, 186, 194
<code>\stepcounter</code>	221, 362	<code>\tabH@to</code>	99, 111, 118
<code>\strip@prefix</code>	105	<code>\tabH@vrule</code>	231, 250, 271, 480
T		<code>\tabH@vspace</code>	153, 161, 164
<code>\tabH@</code>	327	<code>\tabH@vspace@start</code>	
<code>\tabH@@setheight</code>	91, 93		165, 169, 177, 360, 494
<code>\tabH@array@init</code>	52, 59, 216	<code>\tabH@vspace@stop</code>	
<code>\tabH@arrayrule</code>	243, 246		167, 170, 181, 398, 507
<code>\tabH@aux@</code>	295, 306	<code>\tabular</code>	122
<code>\tabH@aux@done</code>	293, 296	<code>\tabularx</code>	136
<code>\tabH@aux@v</code>	435, 437	<code>\the</code> .	70, 96, 115, 222, 282, 283, 363, 440
<code>\tabH@aux@vrule</code> ...	277, 286, 314, 328	<code>\toks@</code>	54, 70
<code>\tabH@aux@vstart</code> ..	287, 315, 369, 431	U	
<code>\tabH@aux@vstop</code> ...	288, 316, 404, 434	<code>\usepackage</code>	3, 19, 20
<code>\tabH@current@vstart</code>	432, 435	V	
<code>\tabH@currentrow</code>	363, 369, 374	<code>\vcenter</code>	56, 61
<code>\tabH@currenttab</code>	214, 219,	<code>\vfill</code>	9, 11
	222, 229, 231, 369, 374, 380, 504	<code>\vline</code>	238
<code>\tabH@do@add</code>	337, 347	<code>\vrule</code>	411, 480, 489
<code>\tabH@do@filter</code>	388, 416	<code>\vspace</code>	166
<code>\tabH@do@set</code>	385, 408, 425	W	
<code>\tabH@driver</code>	183,	<code>\wd</code>	391
	190, 448, 462, 463, 465, 475, 478	<code>\write</code>	298, 304, 320
<code>\tabH@driver@dvi</code>	457	X	
<code>\tabH@headerps</code>	459, 515	<code>\x</code>	56, 68, 335, 341, 349, 352,
<code>\tabH@interrowfill</code>	158, 160		353, 375, 376, 410, 497, 499, 501
<code>\tabH@interrow</code>	150, 152	Y	
<code>\tabH@interrowstart</code>	174, 176	<code>\y</code>	336, 340, 348,
<code>\tabH@lastxpos</code>	275, 277, 282, 366, 370		378, 412, 496, 498, 499, 501, 504
<code>\tabH@lastypos</code>	283, 367, 370, 402, 404	Z	
<code>\tabH@literalps</code>	458, 485, 490, 504, 508	<code>\z@</code>	387, 390, 391, 392, 393, 409
<code>\tabH@patch@@array</code>	71, 80, 85	<code>\zap@space</code>	98
<code>\tabH@patch@array</code>	70, 77		
<code>\tabH@setheight</code>	90, 121, 128, 135, 142		
<code>\tabH@spread</code>	101, 119		