The \texttt{tablestyles} package

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\textbf{Abstract}

\LaTeX{} unfortunately does not include a good separation of text and style in tables. This package tries to solve this problem by defining reusable table commands and an interface to define a style for table. Furthermore the package defines common used column styles and a bugfix command for lists in tables.

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1 Introduction

This package provides commands to be used inside a tabular environment, which allow the user to define the style of a table once but apply it to every table using the commands defined by this package. The styles are divided into the head, subhead and the body of the table. Further this package introduces new column types and enhancing the typesetting of lists inside tables.

2 Usage

The usage is first described using a brief review of the possibilities to change the layout of a table using the font size, font color, line appearance and the background colors of special and alternating cells. The latter is based on the xcolor/colortab package. Subsequent the commands provided by the package are explained in detail followed by a description of the creation of new styles.

2.1 Loading

The package is loaded with

\usepackage{tablestyles}

It should be loaded after the xcolor package and before the hyperref package.

2.2 Tutorial

The code listing 1 shows a tabular with all commands necessary to set up the style of the table displayed below (table 1). In this code the commands of this package are not used. The equivalent code with the commands of this package is provided in the following code listing 2.

\begin{table}
\footnotesize % fontsize
\sffamily % font family = sans serif
\centering % alignment of tabular
\renewcommand{\arraystretch}{1.4} % larger cell height
\rowcolors{1}{colorrow}{colorbody} %
\begin{tabular}{*{2}{p{0.45\textwidth}}}
\hline
\rowcolor{colorhead}
\bfseries header & \bfseries header \\
\hline
\end{tabular}
\end{table}
Table 1: table with bold header font

The aim of this package is to generalize the generation of such tabular styles. The code listing 2 demonstrates the usage, with the result shown in table 2, which is identical with the previous one (table 1).
The following sections show the possibilities of applying a style in general and how to style a heading or subheading

**applying styles**

\texttt{\textbf{\textbackslash{tablestyle}}} The command \texttt{\textbackslash{tablestyle}}[\texttt{(style)}] is used to choose the style of the table. It redefines all commands that apply changes to font, colors, lines, etc. It is required before the tabular environment to apply the changes to the complete table. If not inserted the last chosen layout, or if never applied the standard layout is used.

To apply lines or any other elements at the top and bottom of a table the commands \texttt{\textbackslash{begin}} at the beginning \texttt{\textbackslash{end}} at the end of the table are used.
headings and subheadings

If a table starts with a header \begin{tstart} is replaced by \theadstart and the following main table content starts with \tbody (as shown in the previous code listing 3).

In general the commands \theadstart and \tsubheadstart set up the color of the heading row and print out a line by default. \theadend and \tsubheadend can be used to print out a line afterwards (or apply any other useful properties at the end), but are empty by default. The properties of each cell in the heading are applied with \thead and \tsubhead. Unfortunately the cell property command must be applied to each cell. The code listing 4 demonstrates the implementation of heading and subheading.

\begin{verbatim}
\begin{table}
\tablestyle[stylename]
\begin{tabular}{*{2}{p{0.45\textwidth}}}
\theadstart
\thead header & \thead header \\
\theadend % not necessary in default styles
\tbody
\content{} & \content{} \\
\content{} & \content{} \\
\tbody

\tsubheadstart
\tsubhead subhead & \tsubhead subhead \\
\tsubheadend % not necessary in default styles
\end{tabular}
\end{table}
\end{verbatim}

Listing 3: code example with table style applied.

Listing 4: code for heading and subheading.

If a heading or subheading shall span all columns of a table this can be achieved with the simplified commands \theadrow{⟨number of cells⟩}{⟨text⟩} and the
\subheadrow equivalent \subheadrow\{\textit{number of cells}\}\{(text)\}. Note that these automatically insert a \tabularnewline. The first parameter therefore must match the number of columns in the table.

\begin{tabular}{|c|c|}
\hline
content & content \\
\hline
\end{tabular}

Listing 5: example for multi column rows.

2.3 Setup of styles

Style are applied to the table with the following commands

- \begin
- \tbody
- \tend
- \thead
- \theadstart
- \theadend
- \subheadstart
- \subheadend
- \subhead
- \theadrow
- \subheadrow

which were described in the previous section. To define the style the following commands are used which define the font, the color, and other settings.

\fontsize

\setuptablefontsize \tablefontsize

Font sizes can be set up using \setuptablefontsize\{\textit{name}\}\{\textit{size definition}\} and be retrieved with \tablefontsize\{\textit{name}\}. Predefined are sizes for \textit{body} and \textit{head}.

% definition
\setuptablefontsize\{body\}\{\small\}
...
% request size
\tablefontsize\{body\} % outputs \small
colors

Colors are defined and requested similar to font sizes, here with the commands \setuptablecolor{(color name)}{(color definition)} and \tablecolor{(color name)}. The color definition must be in the notation of xcolor. Predefined are colors for body, head, subhead and row.

% definition
\setuptablecolor{body}{white!100}
...
% request color
\tablecolor{body} % outputs white!100

alternating row colors

Alternating rows are implemented using the \rowcolors command of the colortbl package (should be loaded by xcolor). Here the colors body and row are alternated. They are introduced using \tablealtcolored and can be disabled (until the style of tables is reset using \tablestyle) with \disablealternatecolors. The examples below show the effect.

\begin{table}[H]
\tablestyle % using \tablealtcolored
\begin{tabular}{*{2}{p{0.25\textwidth}}}
  \begin{tabular}{ll}
  content & content \\ 
  content & content \\ 
  content & content \\ 
  content & content \\
  \end{tabular}
\end{tabular}
\end{table}

Listing 8: automatic alternating row colors.
colored lines in tables

Horizontal lines are inserted with \hline and vertical lines with \vline. These can be changed in color with \arrayrulecolor{red}\hline and \color{red}\vline. This package provides the commands \coloredhline{(color)} and \coloredvline{(color)} in order to generalise the setting of line colors. The code listing 10 shows an example of their usage. Note that this example uses tabularx and makes use of the new columnstyle ‘C’.

\begin{table}
\tablestyle
% Overwriting style, instead of defining a new one
\renewcommand{\tbody}{\coloredhline{blueline}}
\renewcommand{\tbody}{\coloredhline{blueline}}
\renewcommand{\tbody}{\coloredhline{blueline}}
\begin{tabularx}{0.8\textwidth}{l!{\coloredvline{grayline}}CC!{\coloredvline{grayline}}CC!{\coloredvline{grayline}}C}
\theadstart
\thead header & \multicolumn{2}{>{\columncolor{\tablecolor{head}}\thead}c!{\coloredvline{grayline}}}\{header} & \multicolumn{2}{>{\columncolor{\tablecolor{head}}\thead}c!{\coloredvline{grayline}}}\{header} & \multicolumn{2}{>{\columncolor{\tablecolor{head}}\thead}c!{\coloredvline{grayline}}}\{header} &
\end{tabularx}
\end{table}

Listing 9: disabled alternating row colors.
<table>
<thead>
<tr>
<th>header</th>
<th>header</th>
<th>header</th>
<th>header</th>
</tr>
</thead>
<tbody>
<tr>
<td>description</td>
<td>0.3</td>
<td>0.35</td>
<td>0.5</td>
</tr>
<tr>
<td>description</td>
<td>0.3</td>
<td>0.35</td>
<td>0.5</td>
</tr>
<tr>
<td>description</td>
<td>0.3</td>
<td>0.35</td>
<td>0.5</td>
</tr>
<tr>
<td>description</td>
<td>0.3</td>
<td>0.35</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Table 3: table with colored vertical and horizontal lines

Table styles

\texttt{\textbackslash \tablestyle} Complete styles are applied using \texttt{\tablestyle[style name]} and defined with \texttt{\setuptablestyle (style name)\{style definition\}. If no argument is given for the command \texttt{\tablestyle} the style with name \texttt{default} is used. Within the definition of styles the command \texttt{\resettablestyle} has a special meaning. Its purpose is to reset a style before the actual style definitions are applied. Any change to this command has thus an influence to all styles using this command.

The default style for example is defined by the code listing 11. It sets up font sizes for body and head (used in \texttt{\head} and \texttt{\subhead}), defines the font style using the sans serif font family, redefines the \texttt{\arraystretch} and introduces alternating row colors with \texttt{\tablealtcolored}.

\texttt{\setuptablestyle{default}[]} %
\resettablestyle
\renewcommand{\arraystretch}{1.4}
\centering
\sffamily
\upshape%
\tablefontsize{body}
\tablealtcolored%
The package defines the styles

- default (sans serif fonts, alternating row colors, header with gray background color)
- roman (as default style, but with roman fonts)
- sansbold (as default style, but with bold heading font)
- sansboldbw (as sansbold style, but with darker heading background)

These styles are demonstrated by the following tables 4 - 7.

<table>
<thead>
<tr>
<th>header</th>
<th>header</th>
</tr>
</thead>
<tbody>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>subhead</td>
<td>subhead</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
</tbody>
</table>

Table 4: default style

<table>
<thead>
<tr>
<th>header</th>
<th>header</th>
</tr>
</thead>
<tbody>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>subhead</td>
<td>subhead</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
</tbody>
</table>

Table 5: roman style
2.4 Column type definitions

\TeX defines itself only the column types left (l), right (r) and center (c). Unfortunately these do not automatically wrap text in cells, even if the text overruns the width of the page. For fixed width columns this can be solved using the p-column type. These default column types are shown in listing 12 and table 8. However a combination of paragraph like columns and non-justified alignment requires the definition of new column types, which are shown hereafter.

\begin{verbatim}
\begin{table}
\tablestyle
% \begin{tabular}{|l|c|r|p{0.3\linewidth}|}
\theadstart
 \thead \centering header l & \\
 \thead \centering header c & \\
 \thead \centering header r & \\
 \thead \centering header p \tabularnewline
\tbody
 left & center & right & \\
\end{tabular}%
\end{table}
\end{verbatim}

Table 6: sansbold style

<table>
<thead>
<tr>
<th>header</th>
<th>header</th>
</tr>
</thead>
<tbody>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>subhead</td>
<td>subhead</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
</tbody>
</table>

Table 7: sansboldbw style

<table>
<thead>
<tr>
<th>header</th>
<th>header</th>
</tr>
</thead>
<tbody>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>subhead</td>
<td>subhead</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
<tr>
<td>content</td>
<td>content</td>
</tr>
</tbody>
</table>
Listing 12: example of default column types.

<table>
<thead>
<tr>
<th>header l</th>
<th>header c</th>
<th>header r</th>
<th>header p</th>
</tr>
</thead>
<tbody>
<tr>
<td>left</td>
<td>center</td>
<td>right</td>
<td>text which is considerably longer than the width of the column</td>
</tr>
</tbody>
</table>

Table 8: standard column types (lcrp)

The array package provides further the column types middle (m) and bottom (b), which act like the p-type, but provide a different vertical alignment as demonstrated in listing 13 and table 9.

Listing 13: example of paragraph column types.

<table>
<thead>
<tr>
<th>header p</th>
<th>header m</th>
<th>header b</th>
</tr>
</thead>
<tbody>
<tr>
<td>text which is considerably longer than the width of the column</td>
<td>text which is considerably longer than the width of the column</td>
<td>text which is considerably longer than the width of the column</td>
</tr>
</tbody>
</table>

Table 9: column types (pmb)
The `tabularx`-package provides a further column type (X), which uses automatically calculated column width. This package defines additional column types based on X for centered (Z) and right (Y) aligned columns, shown table ??, which is using the column definition:

\begin{table}
\tablestyle
\begin{tabularx}{\textwidth}{|X|Z|Y|}
\end{tabularx}
\end{table}

Listing 14: example of `tabularx` type columns.

<table>
<thead>
<tr>
<th>header X</th>
<th>header Z</th>
<th>header Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>text which is considerably longer than the width of the column</td>
<td>text which is considerably longer than the width of the column</td>
<td>text which is considerably longer than the width of the column</td>
</tr>
</tbody>
</table>

Table 10: column types (XZY)

Furthermore, this package provides additional column types with fixed with and left (L), centered (C) and right (R) aligned column, each derived from the p-column type. In the example (table ??) the advantage of using ragged text alignment (L) in tables over the justified alignment (p) is clearly visible.

<table>
<thead>
<tr>
<th>header p</th>
<th>header L</th>
<th>header C</th>
<th>header R</th>
<th>header X</th>
</tr>
</thead>
<tbody>
<tr>
<td>text which is considerably longer than the width of the column</td>
<td>text which is considerably longer than the width of the column</td>
<td>text which is considerably longer than the width of the column</td>
<td>text which is considerably longer than the width of the column</td>
<td></td>
</tr>
</tbody>
</table>

Table 11: column types (LCR)

The column definition for table 11 is shown in listing 15:

\begin{table}
\tablestyle
\begin{tabularx}{\textwidth}{|p{0.17\linewidth}|L{0.17\linewidth}|C{0.17\linewidth}|R{0.17\linewidth}|X|}
\end{tabularx}
\end{table}

Listing 15: example of new p-type columns.

Further column definitions can be defined similar to the definitions used here. The implementation is demonstrated in section 3.6.
2.5 Items in tables

Itemized, enumerated or other list typically introduce a horizontal indentation which should not appear within a tabular environment. Therefore the command \texttt{\textbackslash tableitemize} is introduced to remove the indentation.

<table>
<thead>
<tr>
<th>header X</th>
<th>header items (X)</th>
<th>header enums (X)</th>
</tr>
</thead>
</table>
| The \LaTeX{} document preparation system is a special version of Donald Knuth’s \TeX{} program. \TeX{} is a sophisticated program designed to produce high-quality typesetting, especially for mathematical text. | • The \LaTeX{} document preparation system is a special version of Donald Knuth’s \TeX{} program.  
• \TeX{} is a sophisticated program designed to produce high-quality typesetting,  
• especially for mathematical text. | 1. The \LaTeX{} document preparation system is a special version of Donald Knuth’s \TeX{} program.  
2. \TeX{} is a sophisticated program designed to produce high-quality typesetting,  
3. especially for mathematical text. |

Table 12: table item list using tableitemize

In table 12 this is realized by inserting the command \texttt{\textbackslash tableitemize} directly before the beginning of a list, as shown in listing 16.

```latex
\begin{itemize}
\item The ...
\item \TeX{} is a ...
\item especially ...
\end{itemize}
```

```latex
\begin{enumerate}
\item The ...
\item \TeX{} is a ...
\item especially ...
\end{enumerate}
```

Listing 16: example of tableitemize.
3 Implementation

3.1 Setup and packages

The following packages are loaded by this package. array is required for most of the tables anyway, xcolor with the option ‘table’ is required for the color definitions (table loads colortbl for all commands of colors in tables. ragged2e is used for the new column types and etoolbox for the implementation of the code.

\NeedsTeXFormat{LaTeX2e}[1994/12/01]
\ProvidesPackage{tablestyles} [2011/10/01 v0.1 tablestyles]

\RequirePackage{array}
\RequirePackage{etoolbox}
%% check that xcolor is not loaded
@ifpackageloaded{xcolor}{%\MessageBreak
  \ifcsdef{rowcolors}{}{%\MessageBreak
    \PackageError{tablestyles}{%\MessageBreak
      Package 'xcolor' must be loaded with the option 'table'.%\MessageBreak
      'tables'. Otherwise the command rowcolors is not available.
    }{}%\MessageBreak
  }%\MessageBreak
}{}%\MessageBreak
\PackageError{tablestyles}{%\MessageBreak
  Package 'tabularx' must be loaded, otherwise tablestyles will not work.
}{}%\MessageBreak
\PassOptionsToPackage{table}{xcolor}
\RequirePackage{xcolor}
\RequirePackage{ragged2e}
\AtBeginDocument{%\MessageBreak
  \ifpackageloaded{tabularx}{%\MessageBreak
    \PackageError{tablestyles}{%\MessageBreak
      \MessageBreak
      Package 'tabularx' must be loaded.
    }{}%\MessageBreak
  }%\MessageBreak
  \endinput}%\MessageBreak
}{}%\MessageBreak

3.2 Configuration commands

The heart of this package is the definition of the table styles, which are very simply only saved as a command sequence. An error are printed out if a style is requested, which has not been defined before.

\setuptablestyle \% define table styles (save the code)
\newcommand{\setuptablestyle}{}%
{\ifcsdef{tsty@style@#1}{}
{\PackageWarning{tablestyles}{}
{\MessageBreak
\tablestyle `#1' is already defined.}
{}
{}
\csdef{tsty@style@#1}{#2}
}
}
%

\tablestyle \% apply table styles (use the code)
\newcommand{\tablestyle}{}[default]{}
{\ifcsdef{tsty@style@#1}{}
{\PackageError{tablestyles}{}
{\MessageBreak
\tablestyle `#1' is not defined.}
{\endinput%}
{}
{}
\csuse{tsty@style@#1}
}
%

Font sizes are save in a special command sequence, so that they can be reused, and identified using their names:

\setuptablefontsize \% save font size with name
\newcommand{\setuptablefontsize}{}[2]{}
{\csdef{tsty@font@#1@size}{#2}
}
%

\tablefontsize \% apply font size with name
\newcommand{\tablefontsize}{}[1]{}
{\ifcsdef{tsty@font@#1@size}{\csuse{tsty@font@#1@size}{}
{}
\csuse{tsty@font@#1@size}}
The default values for the predefined sizes `body` and `head` are set to \texttt{\small} since tables should always be printed slightly smaller than the normal text.

The definition of colors is almost identical to the definition of font sizes. This definition is restricted to the xcolor way of defining colors.

\begin{verbatim}
\setuptablecolor  \% save color with name
\newcommand{\setuptablecolor}[2]{% \\
  \colorlet{tsty@color@#1}{#2}% \\
}  \\
\tablecolor  \% apply color with name
\newcommand{\tablecolor}[1]{tsty@color@#1}  \\
\end{verbatim}

The default colors are defined as

\begin{verbatim}
\tsty@defaultcolors  \% default colors
\newcommand{\tsty@defaultcolors}{ \\
  \setuptablecolor{body}{white!100} \\
  \setuptablecolor{row}{gray!10} \\
  \setuptablecolor{head}{gray!25} \\
  \setuptablecolor{subhead}{gray!30} \\
}  \\
\end{verbatim}

and executed afterwards.

\begin{verbatim}
\% executed default colors
\tsty@defaultcolors  \\
\end{verbatim}
Alternating row colors are simplified with the command \texttt{\tablealtcolored}, which reuses the \texttt{\rowcolors} and the table color definitions for row and body.

\begin{verbatim}
\tablealtcolored \%
\newcommand\tablealtcolored{\%
\rowcolors{1}{\tablecolor{row}}{\tablecolor{body}}\%
}
\%
\end{verbatim}

The alternating rows are disabled by changing the row color identical to the body color. Since every tablestyle should load \texttt{\tsty@defaultcolors} this is reset at every applied tablestyle.

\begin{verbatim}
\disablealternatecolors \%
\newcommand{\disablealternatecolors}{\%
\setuptablecolor{row}{\tablecolor{body}}\%
}
\%
\end{verbatim}

The \texttt{\coloredhline} uses the \texttt{\arrayrulecolor} of the colortbl-package.

\begin{verbatim}
\coloredhline \%
\providecommand{\coloredhline}[1]{\%
\arrayrulecolor{#1}\hline
\arrayrulecolor{black}
}
\%
\end{verbatim}

The \texttt{\coloredvline} applies the color to the \texttt{\vline} with a standard \texttt{\color} command.

\begin{verbatim}
\coloredvline \%
\providecommand{\coloredvline}[1]{\%
\color{#1}\vline
}
\%
\end{verbatim}

### 3.3 Style applying commands

The lines for the top (above the header), middle (below the header) and the bottom of the table (at the end) are defined with \texttt{\tlinetop}, \texttt{\tlinemid} and \texttt{\tlinebottom}
\texttt{tlinetop} \%
\% commands for the style of the lines
\newcommand{\tlinetop}{\coloredhline{black}}
\%

\texttt{tlinemid} \newcommand{\tlinemid}{\coloredhline{black}}
\%

\texttt{tlinebottom} \newcommand{\tlinebottom}{\coloredhline{black}}
\%

These are supposed to be inserted in the table with the commands \texttt{tbegin}, \texttt{tbody} and \texttt{tend}, which prints out the last line and restores color, font and size.

\texttt{tbegin} \%
\% commands for the separations (includes the lines)
\newcommand{\tbegin}{\tlinetop}
\%

\texttt{tbody} \newcommand{\tbody}{\tlinemid}
\%

\texttt{tend} \newcommand{\tend}{\tlinebottom}
\%

The predefined \texttt{thead} includes only the font size. The same applies for \texttt{tsubhead}

\texttt{thead} \%
\% default head style (only fontsize)
\newcommand\thead{%
  \tablefontsize{head}
}
\%

\texttt{tsubhead} \%
\% default subhead style (only fontsize)
\newcommand\tsubhead{%
  \tablefontsize{head}
}
\%

Both head and subhead have a start and an end command. By default the start includes a hline and the rowcolor, whereas the end command does nothing.
The commands \theadrow and the equivalent \tsubheadrow define a multicolumn row for the whole table width. It should be used to have a full width spanning header. This command includes the background color and the cell properties using \thead and \tsubhead.
3.4 Style definitions

The following \resettablestyle is meant to be used with in the definition of a table style. It resets most commands to a default value equivalent to what a table would look like without any style applied. New styles should be built on this basis. The content of this command can be changed. However it means that this changes are applied to all styles of this package.

\resettablestyle
\newcommand{\resettablestyle}{%
\normalcolor\normalfont\normalsize%
\renewcommand{\arraystretch}{1}%
\rmfamily%
\tsty@defaultcolors%
\renewcommand{\tlinetop}{\coloredhline{black}}
\renewcommand{\tlinemid}{\coloredhline{black}}
\renewcommand{\tlinebottom}{\coloredhline{black}}
\renewcommand{\theadstart}{\tlinetop\rowcolor{\tablecolor{head}}}%
\renewcommand{\tbegin}{\tlinetop}%
\renewcommand{\tbody}{\tlinemid}%
\renewcommand{\tend}{\tlinebottom}%
}%

\default
\setuptablestyle{default}{%
\resettablestyle
\renewcommand{\arraystretch}{1.4}%
\centering%
\sffamily%
\upshape%
\tablefontsize{body}%
\tablealtcolored%
\renewcommand{\thead}{%
\tablefontsize{head}%
}\ignorespaces%
\renewcommand{\tsubhead}{%
\tablefontsize{head}%
}\ignorespaces%
}%
\ignorespaces%
}%
\ignorespaces%
}%
\ignorespaces%
roman

This style differs from the default style only in the exchange of the `\sffamily` with `\rmfamily`.

```latex
\% style: roman
\setuptablestyle{roman}{%
  \resettablestyle
  \renewcommand{\arraystretch}{1.4}
  \centering
  \rmfamily
  \upshape
  \tablefontsize{body}
  \tablealtcolored
  \renewcommand{\thead}{%
    \tablefontsize{head}
    \bfseries
    \upshape
    \ignorespaces%
  }
  \renewcommand{\tsubhead}{%
    \tablefontsize{head}
    \upshape
    \ignorespaces%
  }
}
%}
```

sansbold

This style differs from the default style in the inclusion of `\bfseries` in the heading commands.

```latex
\% style: sansbold
\setuptablestyle{sansbold}{%
  \resettablestyle
  \renewcommand{\arraystretch}{1.4}
  \centering
  \sffamily
  \upshape
  \tablefontsize{body}
  \tablealtcolored
  \renewcommand{\thead}{%
    \tablefontsize{head}
    \bfseries
    \upshape
    \ignorespaces%
  }
  \renewcommand{\tsubhead}{%
    \tablefontsize{head}
    \upshape
    \ignorespaces%
  }
}
```
This style differs from the sansbold style in exchange of the table colors with much darker heading colors and a white heading font, which is printed slanted.

```latex
\setuptablestyle{sansboldbw}%
\resettablestyle
\setuptablecolor{body}{white!100}
\setuptablecolor{row}{gray!15}
\setuptablecolor{head}{black!60}
\setuptablecolor{subhead}{gray!40}
%
\renewcommand{\arraystretch}{1.4}
\centering
\sffamily
\upshape%
\tablefontsize{body}
\tablealtcolored%
\renewcommand{\thead}{\leavevmode\color{white}\tablefontsize{head}%%%%}
\bfseries
\slshape
\ignorespaces%%
\renewcommand{\tsubhead}{\tablefontsize{head}%%%%}
\bfseries
\ignorespaces%
}
%
```

### 3.5 Support for itemized lists in tables

```latex
\tsty@removeindentation%% bugfix code for lists in tables
\newcommand{\tsty@removeindentation}%%%%
\leftmargini=\labelsep%
\advance\leftmargini by \labelsep%
}%
%
3.6 New columntype definitions

The `\arraybackslash` is required to restore the definition of `\` after its redefinition. `\hspace{0pt}` is included to allow hyphenation also of the first word.

New columntype definitions:

```latex
\newcommand{\newcolumntype}{
    \@minipagetrue%
    \textcon@removeindentation
}
%

% New columntype definitions:
% centered (X):
\newcolumntype{Z}{>{\centering\arraybackslash\hspace{0pt}}X}
% right (X):
\newcolumntype{Y}{>{\RaggedLeft\arraybackslash\hspace{0pt}}X}
% left (X):
\newcolumntype{W}{>{\RaggedRight\arraybackslash\hspace{0pt}}X}
% left (p):
\newcolumntype{L}[1]{>{\RaggedRight\arraybackslash\hspace{0pt}}p{#1}}
% right (p):
\newcolumntype{R}[1]{>{\RaggedLeft\arraybackslash\hspace{0pt}}p{#1}}
% centered (p):
\newcolumntype{C}[1]{>{\Centering\arraybackslash\hspace{0pt}}p{#1}}
%

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.

\begin{tabular}{|ll|}
\hline
B & L \\
\hline
\texttt{\backslash b} & \texttt{\backslash \L} \\
\hline
12 & 13 \\
\hline
\texttt{\backslash \resettablestyle} & \texttt{. 1, 9} \\
\hline
C & S \\
\hline
\texttt{\backslash \textcolor{red}{\textbackslash line}} & \texttt{\backslash \textcolor{red}{\textbackslash vline}} \\
\hline
\texttt{\textcolor{red}{\textbackslash \centering\arraybackslash\hspace{0pt}}} & \texttt{\textcolor{red}{\backslash \R}} \\
\hline
1, 8 & 1, 7 \\
\hline
\texttt{\resettablestyle} & \texttt{\resettablestyle} \\
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\hline
\end{tabular}

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<table>
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</tr>
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<td>\tableitemize</td>
<td>1.13</td>
</tr>
<tr>
<td>\tablestyle</td>
<td>1.4, 9</td>
</tr>
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<td>\tbegin</td>
<td>1.4</td>
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<td>\tbody</td>
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<td>12</td>
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</tbody>
</table>