The `vtable` package

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2019-05-13

1 Introduction

This package allow vertical alignement of table cell by providing `Z`, `L`, `C`, `R`, `J` and `I` column types and `\nextRow`, `\lb`, `\setMultiColRow`, `\setMultiColumn`, `\setMultiRow` and `\tableFormatedCell` commands for `tabular` and similar environment.

2 Column types

2.1 `Z`

`Z` column type have 6 arguments:

1. max width of cell
2. min width of cell (optional – can be empty)
3. horizontal align mode, supported values:

   l left
   c center
   r right
   j justify
4. number of columns to span this cell
5. vertical align mode, supported values:

   t top
   m middle
   b bottom
6. number of rows to span this cell

2.2 `L`, `C`, `R` and `J`

`L`, `C`, `R` and `J` column types are shortcuts for Z column type and have 3 arguments:

1. max width of cell
2. min width of cell (optional – can be empty)
3. vertical align mode, supported values:

   t top
   m middle
   b bottom

`L` is left ragged column, `C` is center ragged column, `R` is right ragged column and `J` is justifying column.

2.3 I

`I` column type insert vertical frame line and have 3 arguments:

1. formatting command (eg. `\color`)
2. line width, second argument of `\hdashrule`
3. line style, third argument of `\hdashrule`

3 Commands

3.1 nextRow an lb

Each row (even last) MUST be ended with `\nextRow` command (insted of `\\` or `\tabularnewline`). Line break in table cell can be do with `\lb` (shortcut for `\linebreak`), `\linebreak` or `\newline`.

3.2 setMultiColRow

`\setMultiColRow{col num}{row num}{max width}{min width}{hmode}{vmode}{left sep}{right sep}{text}` command allow span cells on rows and columns create multi column at the same time. It have 9 arguments:

col num number of columns to span this cell

row num number of rows to span this cell

max width max width of cell

min width min width of cell (optional – can be empty)

hmode horizontal align mode, supported values:

- **l** left
- **c** center
- **r** right
- **j** justify

vmode vertical align mode, supported values:

- **t** top
- **m** middle
- **b** bottom

left sep left cell frame element

right sep right cell frame element

text cell content

`\setMultiColRow` command MUST be repeated in each row of multirow set. Only first call CAN (and MUST) have not empty last argument (cell content). Every next call of `\setMultiColRow` in single multirow set MUST have empty last argument (cell content).

3.3 setMultiColumn

`\setMultiColumn{col num}{max width}{min width}{hmode}{vmode}{left sep}{right sep}{text}` command allow create multi column cell. It have 8 arguments meaningful as corresponding args in `\setMultiColRow` command.

3.4 setMultiRow

`\setMultiRow{col num}[minimal height]{text}` command allow create multi row cell. Next cells in multirow set should be empty. Horizontal lines between cells in multirow set should be manualy removed (via setting `\hhline` parametrs).

3.5 tableFormatedCell

`\tableFormatedCell{max width}[min width]{hmode}{vmode}` command allow change formatting for single cell. It have 4 arguments meaningful as corresponding args in `\setMultiColRow` command.

3.6 forceRowHeight

`\forceRowHeight{value}` enforce current row minimum height to value.

4 Examples

<table>
<tr><th>top</th><th>middle</th><th>bottom</th><th>middle left</th><th>top right</th><th>top justify</th></tr>
<tr><td>A
xxx
X</td><td>B</td><td>C</td><td rowspan="3">– Lorem ipsum dolor sit amet, consectetuer adipiscing elit. – – Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. –</td><td>q</td><td>q</td></tr>
<tr><td>D
d</td><td>E
xxx xx
X
X</td><td>F
f</td><td>q</td><td>q</td></tr>
<tr><td>G</td><td>H</td><td>I
xxx
Xj</td><td>q</td><td>q</td></tr>
<tr><td>G</td><td colspan="2">top, center:
Curabitur dictum gravida mauris.</td><td>xx</td><td>q</td><td>q</td></tr>
<tr><td>G</td><td colspan="2">top, left:

Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna.</td><td>LL LL
xxx
X
X</td><td>RR RR
xxx
X
X</td><td>BB BB
xxx
X
X</td></tr>
<tr><td>G</td><td>I I
xxxxxxx
a a Xj</td><td>y</td><td>Lorem ipsum dolor sit amet, consectetuer adipiscing elit.</td><td>Lorem ipsum dolor sit amet, consectetuer adipiscing elit.</td><td>Lorem ipsum dolor sit amet, consectetuer adipiscing elit.</td></tr>
</table>

```
\begin{tabular}{
    | C{2cm}{}{t} | C{2cm}{1.5cm}{m} | C{2cm}{}{b} | L{2cm}{}{m} |
    R{2cm}{}{t} | J{2cm}{}{t} I{\color{red}}{1pt}{0.5mm 0.5mm 0.5mm 0mm}
  }
  \hline
    top & middle & bottom & middle left & top right & top justify
  \nextRow \hline
    A \lb xxx \lb X & B & C &
      \setMultiRow{3}{ -- \lipsum[1][1] -- \lb -- \lipsum[1][2] -- } &
      q & q
  \nextRow \hhline{------}
    D \lb d & E \lb xxx xx \lb X \lb X & F \lb f & & q & q
  \nextRow \hhline{------}
    G & H & I \lb xxx \lb Xj & & q & q
  \nextRow \hline
    G &
    \setMultiColumn{2}{4cm}{3cm}{c}{t}{}{|} {top, center: \lb \lipsum[1][3]} &
    xx & q & q
```

```
  \nextRow \hline
    G &
    \multicolumn{2}{Z{4cm}{3cm}{l}{2}{t}{1}|} {top, left: \lb \lb \lipsum[1][4]} &
    LL LL\lb xxx\lb X\lb X & RR RR\lb xxx\lb X\lb X & BB BB\lb xxx\lb X\lb X
  \nextRow \hline
    G &
    \tableFormatedCell{3.5cm}[3cm]{r}{b}I I \lb xxxxxxx \lb a a Xj &
    y & \lipsum[1][1] & \lipsum[1][1] & \lipsum[1][1]
  \nextRow \hline
\end{tabular}
```

4.1 multicolumn, multirow

multi multi multi multi multi multi multi multi multi multi multi multi		c1	d1
		c2	d2
		c3	d3
a4	b4	c4	d4

```
\begin{tabular}{| C{2cm}{}{t} | C{2cm}{}{m} | C{2cm}{}{b} | L{2cm}{}{m} |}
  \hline
  \setMultiColRow{2}{3}{4cm}{3cm}{c}{m}{|}{|}{ multi multi multi multi multi multi multi
  ↪  multi multi } & c1 & d1
  \nextRow\hhline{~~~~}
  \setMultiColRow{2}{3}{4cm}{3cm}{c}{m}{|}{|}{} & c2 & d2
  \nextRow\hhline{~~~~}
  \setMultiColRow{2}{3}{4cm}{3cm}{c}{m}{|}{|}{} & c3 & d3
  \nextRow\hline
  a4 & b4 & c4 & d4
  \nextRow\hline
\end{tabular}
```