1 The Supertabular

Here is the description of a new style file called `supertab`. This new style offers a new environment, the `supertabular` environment. As the name says it is an extension of the normal `tabular` environment.

With the original `tabular` environment a tabular must always fit on *one* page. If the tabular becomes too large the text overwrites the page's bottom margin and you get an `Overfull vbox` message.

The `supertabular` environment uses the `tabular` environment internally, but it evaluates the used space every time it gets a `\\` command. If the tabular reaches the textheight, it automatically inserts an `\end{tabular}` command, starts a new page and inserts the tablehead on the new page continuing the tabular.

New commands to use with `supertabular` are:

`\tablefirsthead{...}`	defines the contents of the first occurence of the tabular head. The use of this command is optional. Don't forget to close the head by a `\\` or `\newline`.
`\tablehead{...}`	defines the contents of all subsequent ocurrences of the tabular head. Don't forget to close the head by a `\\` or `\newline`.
`\tabletail{...}`	defines something which should be inserted before each `\end{tabular}`, except the last.
`\tablelasttail{...}`	defines something which should be inserted before the last `\end{tabular}`. The use of this command is optional.
`\topcaption{...}`	
`\bottomcaption{...}`	
`\tablecaption{...}`	Provide a caption for the super-table, either at the top or at the bottom of the table. When `\tablecaption` is used the caption will be placed at the default location, which is at the top.

Note that you define new lines inside the supertabular as normal by `\\` or `\\[...pt]`. All column definition commands can be used, including `@{...}` and `p{...}`. You can *not* use the optional positioning argument and the width argument which are possible with the `\begin{tabular}` command.

Here is an example of a supertabular. You will find the definitions at the end of the supertabular.

Number	Number^2	Number^4	Number!
1	1	1	1
2	4	16	2
3	9	81	6
4	16	256	24
5	25	625	120

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Number	Number^2	Number^4	Number!
6	36	1296	720
7	49	2401	5040
8	64	4096	40320
9	81	6561	362880
10	100	10000	3628800
11	121	14641	39916800
12	144	20736	479001600
13	169	28561	6.22702080E+9
14	196	38416	8.71782912E+10
15	225	50625	1.30767437E+12
16	256	65536	2.09227899E+13
17	289	83521	3.55687428E+14
18	324	104976	6.40237370E+15
19	361	130321	1.21645100E+17
20	400	160000	2.43290200E+18

Table 1: This table is split across pages

And here are the definitions:

```
\newcommand{\tbsp}{\rule{0pt}{18pt}}
                   % I use \tbsp to get a vertical distance after \hline
\tablefirsthead{\hline  \multicolumn{1}{|c}{\tbsp Number}
                        & \multicolumn{1}{c}{Number$^2$}
                        & Number$^4$
                        & \multicolumn{1}{c|}{Number!} \\ \hline\tbsp  }
\tablehead{\hline \multicolumn{4}{|l|}%
                 {\small\sl continued from previous page}\\
            \hline \multicolumn{1}{|c}{\tbsp Number}
                        & \multicolumn{1}{c}{Number$^2$}
                        & Number$^4$
                        & \multicolumn{1}{c|}{Number!} \\ \hline\tbsp  }
\tabletail{\hline\multicolumn{4}{|r|}%
                 {\small\sl continued on next page}\\\hline}
\tablelasttail{\hline}
\bottomcaption{This table is split across pages}
\begin{supertabular}{| r@{\hspace{6.5mm}}| r@{\hspace{5.5mm}}| r | r|}
1   &     1  &        1  &           1    \\
2   &     4  &       16  &           2    \\
3   &     9  &       81  &           6    \\
4   &    16  &      256  &          24    \\[5mm]
```

```
...
19  &   361  &   130321  &  1.21645100E+17\\
20  &   400  &   160000  &  2.43290200E+18\\
\end{supertabular}
```

Here is another example whith a `p` column-definition. The tablehead is the same as above. The tabletail is a double `\hline \arraystretch` is set to `1.5` and font size is `\small`.

Table 2: This table should also be split accross pages.

Number	Number^2	Number^4	Number!
1	1	1	here is a relative short entry
2	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
3	1	1	here is also a long entry, where also a line break should occur
4	1	1	here is also a long entry, where also a line break should occur
5	1	1	here is a relative short entry
6	1	1	here is also a long entry, where also a line break should occur
7	1	1	here is also a long entry, where also a line break should occur
8	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
9	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
10	1	1	here is also a long entry, where also a line break should occur
11	1	1	here is also a long entry, where also a line break should occur
12	1	1	here is a relative short entry
13	1	1	here is also a long entry, where also a line break should occur
14	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
15	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur

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Number	Number^2	Number^4	Number!
16	1	1	here is also a long entry, where also a line break should occur
17	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
18	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur

Here is the same table again, but this time using the supertabular* environment and stretching the table to the full width of the text.

Number	Number^2	Number^4	Number!
1	1	1	here is a relative short entry
2	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
3	1	1	here is also a long entry, where also a line break should occur
4	1	1	here is also a long entry, where also a line break should occur
5	1	1	here is a relative short entry
6	1	1	here is also a long entry, where also a line break should occur
7	1	1	here is also a long entry, where also a line break should occur
8	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
9	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
10	1	1	here is also a long entry, where also a line break should occur
11	1	1	here is also a long entry, where also a line break should occur
12	1	1	here is a relative short entry
13	1	1	here is also a long entry, where also a line break should occur

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Number	Number^2	Number^4	Number!
14	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur
15	1	1	and here is a long entry, where line breaks and line breaks and line breaks have to occur

2 Known problems

- When a float occurs on the same page as the start of a supertabular you can expect unexpected results.

  When the float was defined on the same page you might end up with the first part of the supertabular on a page by its own.

- You should not use the supertabular *inside* a floating-environment such as `table` as this will result in TEX trying to put the whole supertabular on *one* page.

- In some instances you might still end up with overfull `\vbox` messages. These instances are described in the (documented version of) the style file itself.

- Sometimes the last page of the supertabular contains just an empty head an tail.