The \texttt{subfigmat} package

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defines an array/matrix-type environment for subfigures and subtables of the form,

\begin{subfigmatrix}{NC}
\subfigure[]{}{..}
...
\end{subfigmatrix}

where \(\langle NC\rangle\) is the number of subfigures per row (i.e., the number of columns). the subfigures are ordered from left-to-right, then top-to-bottom.

the environment is used within a float environment such as \texttt{figure} or \texttt{table}. each subfigure should have a variable width tied to the local \texttt{\linewidth} value so each can be shrunk or expanded to accomodate the requested layout.

The environment does not require “square” matrices since it only works on a row-by-row basis; thus you could have a \(2 \times 4\), a \(1 \times 3\), or a \(4 \times 2\) if you so choose.

if you neglect to give it a full row, such as the case of a \(3 \times 3\) matrix with only 8 elements, it simply fills the rows from left to right until it runs out of elements.

\textbf{1 further example:}

if you wanted to create a figure with four subfigures in a tiled or matrix format of \(2 \times 2\), the following would suffice,

\begin{verbatim}
\begin{figure}
\begin{subfigmatrix}{2}
\subfigure[]{}{...}
\subfigure[]{}{...}
\end{subfigmatrix}
\end{figure}
\end{verbatim}
the result would look similar to the following,

\begin{subfigmatrix}
\begin{tabular}{cc}
(a) & (b) \\
(c) & (d)
\end{tabular}
\end{subfigmatrix}

Figure 1: Example.

2 notes:

comments, bugs, fixes can be sent to \texttt{w.l.kleb@larc.nasa.gov} what becomes of them is another story. ;)

each subfigure is placed within a \texttt{minipage} of the proper width to fit \langle NC\rangle subfigures within the current float's \texttt{linewidth}, accounting for \(2 \times \texttt{tabcolsep}\)'s worth of space between each adjacent subfigure.

\texttt{linewidth} is a fairly general length. it is equal to \texttt{textwidth} for single-column formats, \texttt{columnwidth} for multiple-column documents (and also single-column documents), or according to a \texttt{parbox} or \texttt{minipage} environment.

if you are using the \texttt{graphicx} package, the subfigure widths are automatically set to the local \texttt{linewidth}.

the separation between figures can be changed via the \texttt{sfmcolsep} variable, e.g.,

\setlength{\sfmcolsep}{\hspace{0.2in}}

to set a “hard” inter-column spacing as opposed to the default behavior of tying the inter-column spacing to the documents tabular column spacing (\texttt{tabcolsep}).

3 to do:

\begin{itemize}
\item transposed ordering: from top-to-bottom, then left-to-right.
\end{itemize}
4 history:

25 Feb 1999 Bil Kleb <w.l.kleb@larc.nasa.gov> [v1.0]
   Edited for Arseneau-style release to CTAN. Changed \sfm@colsep to a more
   user-tunable \sfmcolsep.

27 Feb 1997 Bil Kleb <w.l.kleb@larc.nasa.gov>
   Minor changes.

27 Feb 1997 Steven Douglas Cochran <sdc+@cs.cmu.edu>
   Created.

24 Feb 1997 Bil Kleb <w.l.kleb@larc.nasa.gov>
   Posted question to news:comp.text.tex.

5 distribution:

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