Abstract

csvsimple provides a simple \LaTeX{} interface for the processing of files with comma
separated values (CSV). csvsimple relies heavily on a key value syntax which results
in an easy way of usage. Filtering and table generation is especially supported. Since
the package is considered as a lightweight tool, there is no support for data sorting
or data base storage.

1 Package Options

csvsimple is a stub which merely selects to load exclusively one of the following packages:

- **«The csvsimple-l3 package»**:  
  This is the pure \LaTeX{}3 version of csvsimple. It is considered to be the *current* version. New documents are encouraged to use this package.

  csvsimple-l3 is loaded with *one* of the following alternatives inside the preamble:

  \begin{verbatim}
  \usepackage[l3]{csvsimple}
  \% or alternatively (not simultaneously!)
  \usepackage{csvsimple-13}
  \end{verbatim}

- **«The csvsimple-legacy package»**:  
  This is the \LaTeX{}2ε version of csvsimple. It is considered to be the *superseded* version identical to version 1.22 of csvsimple. Documents based on that former version do *not have to be changed* and stay compilable in future.

  csvsimple-legacy is loaded with *one* of the following alternatives inside the preamble:

  \begin{verbatim}
  \usepackage{csvsimple}
  \% or alternatively (not simultaneously!)
  \usepackage[legacy]{csvsimple}
  \% or alternatively (not simultaneously!)
  \usepackage{csvsimple-legacy}
  \end{verbatim}
2 Differences between \texttt{csvsimple-13} and \texttt{csvsimple-legacy}

This section is intended for users who know \texttt{csvsimple} before version 2.00.

\texttt{csvsimple-13} is a \textit{nearly} drop-in replacement for \texttt{csvsimple-legacy}. Although old documents have no need to be changed, adopting the new \LaTeX{}3 version for existing documents should impose not too much effort. Actually, it depends on how intense \texttt{pgfkeys} specific styles were used.

That brings us to the differences between the two packages and a more precise understanding what \textit{nearly} drop-in replacement means. The following enumeration does not list new features of \texttt{csvsimple-13} (if any), but takes an upgrade point of view.

- Any patches or additions using undocumented internals of \texttt{csvsimple-legacy} will stop to function, because \texttt{csvsimple-13} has a completely implementation.

- \texttt{csvsimple-13} is programmed in \texttt{expl3} code using the \LaTeX{}3 interfaces. No additional packages are loaded or needed with exception of several options which allow to access methods from \texttt{ifthen}, \texttt{etoolbox}, \texttt{longtable}, etc. On the other hand, \texttt{csvsimple-legacy} is programmed in \LaTeX{}2ε with dirty tricks from here and there.

- The most significant change of the user interface is that the key value engine of \texttt{csvsimple-legacy} is \texttt{pgfkeys} (root \texttt{/csv/}) while \texttt{csvsimple-13} uses \texttt{13keys} (root \texttt{/csvsim/}). Names and usage of the keys are \textit{unchanged}. But, if you made own \texttt{pgfkeys} \texttt{styles} using the \texttt{pgfkeys} style handler, these \texttt{styles} have to be adapted to \texttt{.meta} keys of \texttt{13keys}. The good news is that styles made with \verb|\csvstyle| become \texttt{.meta} keys automatically.

- The macro \verb|\csvheadset| is removed. It is not supportable by the new implementation. I never used it and I forgot why I ever wrote it – I hope the same is true for you. If not, \texttt{csvsimple-legacy} can be used for documents which needs it.

- Option \texttt{/csv/filter} is removed. Instead, \texttt{/csvsim/filter ifthen} can be used (also true with \texttt{/csv/filter ifthen} for the old version).

- The deprecated options \texttt{/csv/nofilter} and \texttt{/csv/nohead} are removed. They were not documented any more since years. Obviously, use \texttt{/csvsim/no filter} and \texttt{/csvsim/no head} instead.

- Compilation problems are to be expected, if an \texttt{S} column of the \texttt{siunitx} package is used as first or last column. Documents neglecting this rule successfully for \texttt{csvsimple-legacy}, may fail to compile with \texttt{csvsimple-13}.

- The \LaTeX{} counters \texttt{csvinputline} and \texttt{csvrow} are replaced by \LaTeX{}3 integers \texttt{g_csvsim_inputline_int} and \texttt{g_csvsim_row_int}, but accessors \verb|\thecsvinputline| and \verb|\thecsvrow| are still valid.

- The packages \texttt{pgfrcs}, \texttt{pgfkeys}, \texttt{ifthen}, \texttt{etoolbox}, and \texttt{shellesc} are not included anymore (include manually, if needed).

- \texttt{\csviffirstrow} and \texttt{\csvifoddrow} are deprecated and replaced by \texttt{\ifcsvfirstrow} \texttt{\ifcsvoddrow} which are more consistent in nomenclature.

- For \texttt{csvsimple-13}, data lines are allowed to begin with an backslash.

- Assigned macros like \texttt{\myname} for e.g. the third column contain not \texttt{\csvcoliii} anymore, but are equal to the content of \texttt{\csvcoliii} now.

- Character code changes with \texttt{/csvsim/respect percent} etc. and the tabulator as separator should work for \texttt{csvsimple-13} as expected in every situation (not always worked
A drawback of `csvsimple-l3` against `csvsimple-legacy` is a higher compilation time. This may vary by used compiler. An example document of 5061 pages using a CSV file with 166,992 lines took about 28 seconds with `csvsimple-legacy` and about 51 seconds with `csvsimple-l3` on my machine (just a singular observation, no scientific analysis at all).