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[13]{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 It is considered to be the superseded version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}

---

1 Prof. Dr. Dr. Thomas F. Sturm, Institut für Mathematik und Informatik, Universität der Bundeswehr
München, D-85577 Neubiberg, Germany; email: thomas.sturm@unibw.de
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 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 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{l3keys} (root \texttt{/csvsim/}). Names and usage of the keys are unchanged. But, if you made own \texttt{pgfkeys} styles using the \texttt{pgfkeys} style handler, these styles have to be adapted to \texttt{.meta} keys of \texttt{l3keys}. The good news is that styles made with \texttt{\csvstyle} become \texttt{.meta} keys automatically.
- The macro \texttt{\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 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{\texttt{g_csvsim_inputline_int}} and \texttt{\texttt{g_csvsim_row_int}}, but accessors \texttt{\thecsvinputline} and \texttt{\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{\csvcoliiii} anymore, but are equal to the content of \texttt{\csvcoliiii} 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
for csvsimple-legacy).

- 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).