The \texttt{l3benchmark} package
Experimental benchmarking

The \LaTeX{} Project\textsuperscript{*}
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1 Benchmark

\begin{verbatim}
\g_benchmark_duration_target_fp
This variable (default value: 1) controls roughly for how long \texttt{benchmark:n} will repeat code to more accurately benchmark it. The actual duration of one call to \texttt{benchmark:n} typically lasts between half and twice \texttt{\g_benchmark_duration_target_fp} seconds, unless of course running the code only once already lasts longer than this.

\g_benchmark_time_fp \g_benchmark_ops_fp
These variables store the results of the most recently run benchmark. \texttt{\g_benchmark_time_fp} stores the time \TeX{} took in seconds, and \texttt{\g_benchmark_ops_fp} stores the estimated number of elementary operations. The latter is not set by \texttt{benchmark:-tic:}/\texttt{benchmark_toc:}.

\benchmark_once:n \benchmark_once_silent:n {⟨code⟩}
\benchmark_once:n {⟨code⟩}
Determines the time \texttt{\g_benchmark_time_fp} (in seconds) taken by \TeX{} to run the \langle\texttt{code}\rangle, and an estimated number \texttt{\g_benchmark_ops_fp} of elementary operations. In addition, \texttt{\benchmark_once:n} prints these values to the terminal. The \langle\texttt{code}\rangle is run only once so the time may be quite inaccurate for fast code.

\benchmark:n \benchmark_silent:n \benchmark_tic: ⟨slow code⟩ \benchmark_toc:
\benchmark:n {⟨code⟩}
Determines the time \texttt{\g_benchmark_time_fp} (in seconds) taken by \TeX{} to run the \langle\texttt{code}\rangle, and an estimated number \texttt{\g_benchmark_ops_fp} of elementary operations. In addition, \texttt{\benchmark:n} prints these values to the terminal. The \langle\texttt{code}\rangle may be run many times and not within a group, thus code with side-effects may cause problems.

\benchmark_tic: \benchmark_toc:
When it is not possible to run \texttt{benchmark:n} (e.g., the code is part of the execution of a package which cannot be looped) the tic/toc commands can be used instead to time between two points in the code. When executed, \texttt{\benchmark_tic:} will print a line to the terminal, and \texttt{\benchmark_toc:} will print a matching line with a time to indicate the duration between them in seconds. These commands can be nested.
\end{verbatim}

\textsuperscript{*}E-mail: latex-team@latex-project.org
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