TeX Live 2020 news

Karl Berry

TeX Live 2020 was released online on April 10, 2020. The TeX Collection DVD is in process.

As new versions of packages are uploaded to CTAN, they are imported into TL, and available over the Internet via the `tlmgr` program. See the TL web site and documentation if needed.

As always, in the 2020 release there are pervasive updates to hundreds of packages and programs. We can't list them all, but here are some major user-visible changes in the principal programs.

General. The `\input` primitive in all TeX engines, including `tex`, now also accepts a group-delimited filename argument, as a system-dependent extension. The usage with a standard space/token-delimited filename is completely unchanged. The group-delimited argument was previously implemented in LuaTeX; now it is available in all engines. ASCII double quote characters (`"`) are removed from the filename, but it is otherwise left unchanged after tokenization. This does not currently affect LaTeX's `\input` command, as that is a macro redefinition of the standard `\input` primitive.

New option `--cnf-line` for `kpsewhich`, `tex`, `mf`, and all other engines, to support arbitrary configuration settings on the command line.

The addition of primitives to the engines in this and previous years is intended to result in a common set of functionality available across all engines; see LaTeX News #31 in this issue, pp. 34–38.

eptex, euptex. New primitives `\Uchar`, `\Ucharcat`, `\current(x)spacingmode`, `\ifincsname`; revise `\iffontchar` and `\fontchar??`. For `euptex` only: `\currentcjktoken`.

LuaTeX. Integration with HarfBuzz library, as new engines `luahbtex` and `luajithbtex`; `luahbtex` is now the engine used for the `lualatex` format.

Loading of dso (`.dll`/`.so`) objects is now forbidden if `--shell-restricted`.

New primitives `\eTeXglue[stretch|shrink]order`.

Scaling of virtual fonts supported.

Enhancements to `tex.runtoks`, which permits limited nested running of TeX.

pdfTeX. New primitive `\pdfmajorversion`; this merely changes the version number in the PDF output, and has no effect on PDF content.

`\pdfximage` and similar now search for image files in the same way as `\openin`.

pTeX. New primitives `\ifjfont`, `\iftfont`. Also in `eptex`, `uptex`, and `euptex`.

XƎTeX. Fixes for `\Umathchardef`, `\pdfsavepos`, `\xetexinterchartoks`.

dvips. Output encodings for bitmap fonts, for better copy/paste capability.

tlmgr, TL infrastructure. Automatically retry (once) packages that fail to download, try to reinitialize LWP connection after several errors.

New option `tlmgr check texmfdbs`, to check consistency of `ls-R` files and `!!` specifications.

Use versioned filenames for package containers, as in `tlnet/archive/`*pkgname*`.rNNN.tar.xz`; should be invisible to users, but a notable change in distribution.

MacTeX. MacTeX and `x86_64-darwin` now require macOS 10.13 or higher (High Sierra, Mojave, Catalina); `x86_64-darwinlegacy` supports 10.6 and newer.

MacTeX is now notarized and command line programs have hardened runtimes, as now required by Apple for install packages. BibDesk and TeX Live Utility are no longer in MacTeX because they are not notarized, but a `README` file lists urls where they can be obtained.

More information, including urls for all references, is online.

⋄ Karl Berry
  karl (at) freefriends dot org
  https://tug.org/texlive