TEX services at `texlive.info`

Norbert Preining

TEX Live has grown over the years from a DVD distributed once a year to a full-fledged network-enabled system with daily updates. Development of TEX Live is done in the Subversion repository on `tug.org`, and coordinated on several mailing lists.[1] The network distribution of TEX Live is served by CTAN and their mirror system, relieving us from serving huge amounts of data to the world, or reimplementing another mirror system. (Thanks much to CTAN.)

Around the main distribution of TEX Live, several additional services have accumulated over the years — and in particular in recent months — so that we thought it a good idea to summarize and present all the available services in this article. Details about each follow the overview.

1 Overview of the services

- TEX historic archives via rsync
  `rsync://texlive.info/historic`
- tlnet archive via https
  `https://texlive.info/tlnet-archive`
- tlpretest mirror
  – via https
    `https://texlive.info/tlpretest`
  – via rsync
    `rsync://texlive.info/tlpretest`
- CTAN
  – mirror via https
    `https://texlive.info/CTAN`
  – mirror via rsync
    `rsync://texlive.info/CTAN`
  – git repository
    `git://git.texlive.info/CTAN`
  – git web interface
    `https://git.texlive.info/CTAN`
- TEX Live git mirror
  – repository
    `git://git.texlive.info/texlive`
  – web interface
    `https://git.texlive.info/texlive`
  – statistics
    `https://texlive.info/tlstats`
- TEX Live GnuPG
  – repository
    `https://texlive.info/tlgpg`
  – git web interface
    `https://git.texlive.info/tlgpg`
  – git repository
    `git://git.texlive.info/tlgpg`

- TEX Live contrib
  – repository
    `https://contrib.texlive.info`
  – git web interface
    `https://git.texlive.info/tlcontrib`
  – git repository
    `git://git.texlive.info/tlcontrib`

For the git services, anonymous checkouts are supported. If a developer wants to have push rights, please contact me.

2 TEX Live historic archive

The TEX Live historic archive[2] hierarchy contains many items of interest in TEX history, from individual files to entire systems. See the *TUGboat* article by Ulrik Vieth [1] for an overview.

We provide a mirror, available via rsync:
`rsync://texlive.info/historic`

3 tlnet archive

TEX Live is distributed via the CTAN network at `http://mirror.ctan.org/systems/texlive/tlnet`. The packages there are updated on a daily basis, mostly stemming from uploads to CTAN that are imported into the TEX Live repository. This has created some problems for distributions requiring specific versions, as well as problems with rollbacks in case of buggy packages.

As of 2019-08-30, we archive (by date) the daily tlnet updates, available at `https://texlive.info/tlnet-archive`. We have also added the final tlnet for TEX Live releases going back about ten years.

4 tlpretest mirror

During preparation of a new TEX Live release (the pretest phase[3]) we are distributing preliminary builds via a few tlpretest mirrors.[4] The present server will also provide access to tlpretest:

- via https
  `https://texlive.info/tlpretest`
- via rsync
  `rsync://texlive.info/tlpretest`

5 CTAN-related services

Besides providing another mirror for CTAN, we have taken steps to insert the continual updates at CTAN into a git repository. In a perfect world we could get separate git commits for each package update, but that requires significant work from the CTAN team (maybe this will happen in the future); so for now there is one commit per day containing all changes.

---

[1] `https://tug.org/texlive/lists.html`

[2] `https://tug.org/historic`
[3] `https://tug.org/texlive/pretest.html`
[4] `https://tug.org/texlive/mirmon`

Considering the total size of CTAN (currently around 40GB), we decided to ignore files of types that provide no useful information when put into git, namely large binary files. The concrete list is: `cab deb dmg exe iso jar pkg rpm tar tgz zip`, including names containing one of these extensions (meaning that files like `foo.iso.gz` will be ignored too). This keeps the size of the `.git` directory at something reasonable (a few GB for now).

We will see how the git repository grows over time, and whether we can support this permanently.

While we exclude the above large files from being recorded in the git repository, the actual CTAN directory is complete and contains all files, so everything is available through rsync or https.

Access to these services is provided as follows:

- mirror via https
  `https://texlive.info/CTAN`
- mirror via rsync
  `rsync://texlive.info/CTAN`
- git repository
  `git://git.texlive.info/CTAN`
- git web interface:
  `https://git.texlive.info/CTAN`

6   TEX Live svn/git mirror

Since I prefer to work with git, and developing new features with git on separate branches is much more convenient than working with Subversion, I am running a git–svn mirror of the whole TEX Live subversion repository.[5] It is updated every 15 minutes.

There are also git branches matching the subversion branches, and also some `dev/` branches where I am working on new features. The git repository carries, similar to the subversion, the full history back to our switch from Perforce to Subversion in 2005. This repository is quite large, so don't do a casual checkout — the size is currently close to 40GB.

We also (at irregular intervals) compute some statistics of this repository using gitstats.[6]

- git repository
  `git://git.texlive.info/texlive`
- git web interface
  `https://git.texlive.info/texlive`
- statistics
  `https://texlive.info/tlstats`

(Incidentally, the TEX Live repository on github, `https://github.com/TeX-Live/texlive-source`, contains only the relatively small tree of source files to be compiled, due to github limitations.)

7   TEX Live GnuPG

Starting with the 2016 release, TEX Live provides facilities to verify authenticity of the TEX Live database using cryptographic signatures. This requires a working GnuPG program, either `gpg` (version 1) or `gpg2` (version 2). To ease adoption of verification, this repository provides a TEX Live package `tlgpg` that ships GnuPG binaries for Windows and MacOS (`universal` and `x86_64`). On other systems we expect GnuPG to be installed.

- repository
  `https://texlive.info/tlgpg`
- git web interface
  `https://git.texlive.info/tlgpg`
- git repository
  `git://git.texlive.info/tlgpg`

8   TEX Live contrib

The TEX Live Contrib repository[7] is a companion to the core TEX Live (tlnet) distribution in much the same way as Debian's non-free tree is a companion to the normal distribution. The goal is not to replace TEX Live — packages that could go into TEX Live itself should stay (or be added) there. The TEX Live Contrib tries to fill a gap for users by providing ready made packages for software that cannot be distributed in TEX Live proper due to license reasons, support for non-free software, etc.:

- repository
  `https://contrib.texlive.info`
- git web interface
  `https://git.texlive.info/tlcontrib`
- git repository
  `git://git.texlive.info/tlcontrib`

9   Supporting these services

We will try to keep this service up and running as long as server space, connectivity, and bandwidth allow. If you find them useful, I happily accept donations via PayPal[8] or Patreon[9] to support the server as well as my time and energy!

⋄ Norbert Preining
Accelia Inc., Tokyo, Japan
`preining.info`

References

[1] U. Vieth. Overview of the TEX historic archive. *TUGboat* 29:1 (2008), pp. 73–76.
`https://tug.org/TUGboat/tb29-1/tb91vieth.pdf`

---

5 `https://tug.org/texlive/svn`
6 `http://gitstats.sourceforge.net`

---

7 `https://contrib.texlive.info`
8 `https://tinyurl.com/preining-paypal`
9 `https://www.patreon.com/norbert`