T_EX Live and Overleaf revisited

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TₑX Live and Overleaf revisited

Overleaf makes an annual deployment of TₑX Live, and we are wondering whether there is an opportunity for both Overleaf and the TₑX Live maintainers and LATₑX developers to benefit from our deployments and related testings.

We already gave a presentation[1] on this in 2020, and would like to follow up with more recent changes. An open discussion on the topic will follow a brief presentation.

My personal goal:

Gather more feedback from people here!

[1]see youtube.com/watch?v=HTUVsowOYn8

Outline

About TₑX Live

- All you need* to use LATₑX
- (binaries, packages, fonts, etc.)
- Annual freeze in Q1, but packages updated on daily basis
- tug.org/texlive and ctan.org
- tlmgr update --all

About Overleaf

- LATₑX editing platform
- Uses TₑX Live for LATₑX
- Annual deployment of TₑX Live in Q3*
- overleaf.com
- About 2M active users each month
- (Almost) no mid-year updates

Crash course: How to deploy TₑX Live to millions of people

1. Prepare an intial Docker image
   - Self-contained VM with linux and texlive
2. tlmgr update --all*
3. Make sure it has all it needs
   - R and Python packages, fonts
   - 3rd party tools (think ImageMagick or Inkscape)
4. Optimize
   - Remove duplicate fonts, remove documentation
   - Precompile fonts
5. Test, test and test ... (crucial!)
6. Document[2]
7. Go live & Monitor

[2]e.g. overleaf.com/blog/tex-live-2022-now-available

Testing

- Overleaf Gallery Templates — overleaf.com/gallery
    - Use as current TeX Live version as possible
    - Make sure that all templates work correctly
    - Benchmarking
- Manual testing/debugging
    - Done on failing gallery templates
    - Also on user-reported past issues
- Discussing with authors & maintainers — last year's example:
    - Unterminated \romannumerals and infinite loops over unprotected font commands
    - Both issues caught by our testing, and swiftly solved (thanks!)[3]

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[3]cf. chat.stackexchange.com/rooms/41/conversation/tex-live-2022-bugfixing-part-1
and chat.stackexchange.com/rooms/41/conversation/tex-live-2022-bugfixing-part-2

Discussion

(please use the microphone at all times)

1

2

3

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Discussion

(please use the microphone at all times)

1. Should we feed back our findings to package maintainers?

2. Quicker/frequent TeX Live deployments — pros and cons!

3.

4.

5.

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