

LaTeX-on-HTTP: L^AT_EX as a cloud service for application developers

TUG2020

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July 26, 2020

Of course...

Because developers do not
use L^AT_EX

... in their applications

Why then developers do not
use L^AT_EX

for automating PDF edition?

Reason #1: Customs

Cultural glass walls

\LaTeX as the "academia thing"

- ▶ Known as the hegemonic paper tool
- ▶ But not thought as a solution for web developments

\LaTeX mental bucket:



Webapps mental bucket:

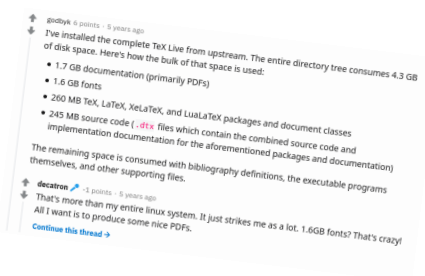


Reason #2: Technical barriers

Mainly runtime requirements

L^AT_EX runtime requirements are heavy and complex

- ▶ Who will argue with DevOps about adding several *hundred megabytes* (or several gigabytes) of dependencies for "some nice PDFs"?



Reason #3: Knowledge

About documentation and lazyness

Developers love copy-pastable code to get started

- ▶ how to call \LaTeX properly from the application?
- ▶ also how to manage CTAN packages? updates?
- ▶ missing *Hello World* and typical scenario code snippets



If not L^AT_EX...

What developers (currently) use to
edit PDFs

in their applications?

HTML/CSS to PDF converters

Libraries:

WK<html>TOpdf

>weasyprint



...

Cloud services:



...

Sample:

```
import weasyprint

weasyprint.HTML(
    "document.html"
).write_pdf(
    "output.pdf",
    stylesheets=[
        weasyprint.CSS("document.css")
    ]
)
```

"Instruction-based" PDF generators

in the developer native languages

Libraries:

PDFKit



...

Sample:

```
require('fpdf/fpdf.php');  
  
$pdf = new FPDF();  
$pdf->AddPage();  
$pdf->SetFont('Arial','B',16);  
$pdf->Cell(40,10, 'Hello_World!');  
$pdf->Output();
```

Ok now...

What can we do

for developers to

(more frequently)

use \LaTeX in their applications?

LaTeX-on-HTTP

Putting \LaTeX behind a developer-friendly

HTTP API

... with the convenience of modern cloud services



Demo time



Access demo code on [GitHub](#)

Scenario:

We're a web developer.

Our boss asked us to integrate PDF edition in his freelancing platform.

The aim is to create good-looking invoices and proposals.

It's Wednesday 2:30pm. It must be finished before next week.

Acknowledgments

Jonathan Fine
for inviting me to talk

Inspirations:

- ▶ Andrey Lushnikov's LaTeX.Online;
- ▶ ShareLaTeX/Overleaf CLSI.

YtoTech

Read more, contribute and report issues

github.com/YtoTech/latex-on-http

Live interactive demo

latex-http-demo.ytotech.com

Feedbacks and cheering welcome

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