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Notes

This document contains compiled notes from various modules.

Generated automatically from individual self note files.

Native Text-Based Note Taking System

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A powerful, lightweight note-taking system that generates PDF and HTML documents natively from plain text files using Pandoc and LaTeX.

Overview

This project provides a streamlined workflow for creating professional-looking notes and presentations from simple text files. It automatically compiles individual note files into comprehensive PDF documents and HTML presentations, making it perfect for students, researchers, and professionals who prefer text-based note-taking.

Features

- **Native Text Input:** Write notes in simple markdown/text format
- **Automatic Compilation:** Generate PDF and HTML outputs with a single command
- **Structure Discovery:** Auto-detects `MS*` and `mod*` folders, or processes any folder of `.md/.txt`
- **Modular Organization:** Organize notes by year and module
- **Professional Output:** Clean, readable PDFs with table of contents

- **HTML Presentations:** Generate HTML slides for web viewing
- **Batch Processing:** Compile all notes or specific modules at once
- **Custom Styling:** LaTeX and HTML templates live next to the script

Project Structure

```
notes-exp/
  README.md          # This file
  notes              # Main compilation script (run this)
  about.md           # Intro content automatically included in PDFs
  fonts.tex          # LaTeX font configuration (used by script)
  slidy.html          # HTML presentation template (used by script)
  MS1/               # Year 1 notes
    MS1.pdf          # Compiled year PDF
    mod1/            # Module 1 (folder name is arbitrary)
      Any Name.txt    # Any .txt/.md filenames are supported
      Another.md
      mod1.pdf        # Compiled module PDF
      mod1.html       # Compiled module HTML
```

Dependencies & Software Requirements

Core Dependencies

1. **Pandoc** (Required)
 - Universal document converter
 - Installation:
 - # macOS*
brew install pandoc
 - # Ubuntu/Debian*
sudo apt-get install pandoc
 - # Windows*
choco install pandoc
2. **LuaLaTeX** (Required for PDF generation)
 - LaTeX engine with Unicode support
 - Installation:
 - # macOS*
brew install --cask mactex
 - # Ubuntu/Debian*
sudo apt-get install texlive-luatex texlive-latex-extra
 - # Windows*
choco install mactex
3. **Ghostscript** (Optional, for PDF merging)
 - Used to merge multiple PDFs into single documents
 - Installation:
 - # macOS*
brew install ghostscript
 - # Ubuntu/Debian*
sudo apt-get install ghostscript

```
# Windows
choco install ghostscript
```

Additional Tools

4. **Bash** (Required)
 - Shell environment (usually pre-installed on Unix systems)

LaTeX Packages (Auto-installed with LuaLaTeX)

The following packages are used and will be automatically installed: - **fontspec** - Font selection for XeLaTeX and LuaLaTeX - **geometry** - Page layout control - **hyperref** - Hyperlinks in PDF - **tocloft** - Table of contents formatting

Installation

1. **Clone or download this repository**

```
git clone <repository-url>
cd notes-exp
```

2. **Install dependencies** (see above)
3. **Make the script executable**

```
chmod +x notes
```

4. (Optional) Add the script to your PATH or create an alias

Usage

Usage

The script takes a work directory and an optional subfolder. It auto-discovers **MS*** and **mod*** directories and compiles all **.md/.txt** files it finds (no naming convention required).

```
# Compile everything under a work directory
./notes /path/to/notes
```

```
# Compile a specific MS folder (e.g., MS1)
./notes /path/to/notes MS1
```

```
# Compile a specific module folder (e.g., MS1/mod1)
./notes /path/to/notes MS1/mod1
```

Outputs: - For each module directory: **<module>/<module>.pdf** and **<module>/<module>.html** - For each MS directory: **MSX.pdf** (merged of all module PDFs in that MS)

Note File Format

No special front-matter is required. Any **.md** or **.txt** file will be included.

Example (optional structure only):

```
# Title

## Main Points
- Point 1
- Point 2
```

Details

Your notes here...

Output Files

- **PDF:** Professional documents with table of contents
- **HTML:** Web-ready presentations with slide formatting
- **Merged PDFs:** Combined module PDFs into year-level documents

Customization

Fonts

Edit `fonts.tex` to change LaTeX fonts:

```
\setromanfont{Latin Modern Roman}
```

HTML Styling

Modify `slidy.html` to customize HTML presentation appearance.

Script Behavior & Configuration

- Templates are taken from the script directory: `about.md`, `fonts.tex`, `slidy.html`
- You do NOT need to copy templates into your workdir
- File discovery: all `.md` and `.txt` files in each module directory (non-recursive per module)
- PDF merging uses Ghostscript when available

Troubleshooting

Common Issues

1. **LuaLaTeX not found**
 - Ensure TeXLive or MacTeX is properly installed
 - Check PATH includes LaTeX binaries
2. **Pandoc errors**
 - Verify Pandoc installation: `pandoc --version`
 - Check input file format
3. **Font issues**
 - Ensure fonts are available on your system
 - Modify `fonts.tex` for different fonts
4. **Permission denied**
 - Make script executable: `chmod +x notes`

Getting Help

- Check Pandoc documentation: <https://pandoc.org/>
- LaTeX documentation: <https://www.latex-project.org/>
- LuaLaTeX guide: <https://www.luaTeX.org/>

Acknowledgments

- 12 Years Ago Vim notetaking tips - YouTube Video
- @github/Connermcd/notes
- Built with Pandoc
- Powered by LuaLaTeX
- HTML styling based on Slidy