PreTeXt Quick Reference:
Command Line Interface (CLI)

CLI version 2.0.0, 2023-09-12
Full documentation: `pretextbook.org`
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Setup

Check requirements

<u>Note</u>: `python` might be called `python3` if you have MacOS or Linux.

`python --version` : the CLI requires Python version 3.8 or later
`pip --version` : pip is the package installer for Python
`xelatex --version` : some PreTeXt features require LaTeX

Install PreTeXt

`python -m pip install pretext` : install PreTeXt
`pretext --version` : check version to verify install

Create a new project

`pretext new book` : creates a new PreTeXt book in `new-pretext-project`
`pretext new article` : creates a new PreTeXt article `new-pretext-project`

Update a project to use the CLI

`pretext init`: creates project manifest (`project.ptx`), and publication file (`publication/publication.ptx`). Edit these files appropriately before proceeding.
`pretext pretext init --refresh`: creates new copies of project manifest and publication file to compare for new features.

Upgrade PreTeXt

`python -m pip install --upgrade pretext`: upgrade to latest stable release

Get Help

`pretext --help`: show general help
`pretext build --help`: show help for build command. Each subcommand has its own help.

Basic Usage

Build a PreTeXt document

`pretext build`: Builds the project to the format of the first target in `project.ptx`.
`pretext build print`: Create pdf version (assuming `<target name="print">`) is in `project.ptx`

Generate source images and WeBWorK

If your book has any WeBWorK, latex-image, asymptote, sageplot, interactive, etc. assets will be generated on each build. You can generate separately with:

`pretext generate`: Generate all assets for first target in `project.ptx`.
`pretext generate webwork`: Generate webwork for first target in `publication.ptx`
`pretext generate sageplot -t print`: Generate sageplot for target "print".
`pretext generate latex-image -x img-graph1`: Generate latex-image with xml:id "img-graph1" (for first target).

View a PreTeXt document (local)

`pretext view`: Creates a local server to preview the first target in `project.ptx`
`pretext view print`: Views the "print" target

Deploy to GitHub Pages

`pretext deploy` : deploys Git-managed project to GitHub Pages

Project Manifest

The file `project.ptx` describes your build targets. Each target has a *name* (e.g. "print-latex") that you build or view with, e.g. `pretext build print-latex`.

Structure of a target:

```
<target name="web" format="html"\>
```

`format` can be html, latex, pdf, custom, epub, kindle, or braille
Additional attributes:
`source` is the path to the root ptx document. Default: `source/main.ptx`
`publication` is the path to the publication file. Default `publication/publication.ptx`
`output-dir` is the path the the folder that will hold output. Default is `output/[target name]`

Recommended Project Structure

`assets`: Contains all static assets.
`generated-assets`: Contains the products of running `pretext generate`. Should not be edited manually.
`output`: Contains the products of running `pretext build`. Should not be edited manually.
`publication`: Contains your publication file(s) (e.g. `publication/publication.ptx`).
`source`: Contains your PreTeXt source file(s) (e.g. `source/main.ptx`).
`project.ptx`: Describes your project's targets (e.g. `web`, `print-latex`) and executables.
`requirements.txt`: Specifies version of CLI used to build your project.
`.gitignore`: Specifies files not shared publicly when using Git or `pretext deploy`.