The sTeX VSCode IDE *

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This is the user manual for the sTeX Plugin for VSCode, available at https://marketplace.visualstudio.com/items?itemName=kwarc.stexide. For the manual for the sTeX package itself, see the sTeX3 Manual.

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1.1 Minimal Setup for the sTeX Package

In the best of all worlds, there is no setup, as you already have a new version of TeXLive on your system as a LaTeX enthusiast. If not now is the time to install it; see [TL]. You can usually update TeXLive via a package manager or the TeXLive manager **tlmgr**. sTeX requires a TeX kernel newer than February 2022.

Alternatively, you can install sTeX from CTAN, the Comprehensive TeX Archive Network; see [ST] for details. We assume you have the sTeX package in at least version 3.2 (September 2022).

1.2 GIT-based Setup for the sTeX Development Version

If you want use the latest and greatest sTeX packages that have not even been released to CTAN, then you can directly clone them from the sTeX development repository [sTeX] by the following command-line instructions:

```
cd <stexdir>
git clone https://github.com/slatex/sTeX.git
```

and keep it updated by pulling updates via `git pull` in the cloned sTeX directory. Make sure to either clone the sTeX repository into a local texmf-tree or to update your `TEXINPUTS` environment variable, e.g. by placing the following line in your `.bashrc`:

```
export TEXINPUTS="$(TEXINPUTS):<sTeXDIR>//:"
```

1.3 Setting your MathHub Directory

One of sTeX's features is a proper *module system* of interconnected document snippets for mathematical content. Analogously to *object-oriented programming*, it allows for "object-oriented mathematics" via individual combinable and, importantly, *reusable* modules, developed collaboratively.

To make use of such modules, the sTeX system needs to be told where to find them. There are several ways to do so (see **??**), but the most convenient way to do so is via a system variable.

To do so, create a directory `MathHub` somewhere on your local file system and set the environment variable `MATHHUB` to the file path to that directory.

In linux, you can do so by writing

```
export MATHHUB="/path/to/your/MathHub"
```

in your `~/.profile` (for all shells) or `~/.bashrc` (for the bash terminal only) file.

Chapter 2

Setting up the sTeX IDE

The sTeX IDE consists of two components using the *Language Server Protocol (LSP)*: A *client* in the form of a VSCode extension, and a *server* included in the Mmt system. Installing the extension will open up a setup routine that will guide you through the rest.

2.1 The sTeX VSCode Extension

If you have not already, you should first install the VSCode editor available at https://code.visualstudio.com/.

Next, open VSCode and install the sTeX extension by clicking on the *extensions* menu on the very left of the VSCode window and searching for "sTeX" in the *"Search Extensions in Marketplace"* field, as in Figure 1, and clicking the *Install*-button of the sTeX extension by KWARC.

2.2 Setting up Mmt

Next, open any directory (`File` → `Open Folder...`) that contains a `.tex`-file, and a setup window as in Figure 2 will pop up. Clik on the highlighted link '*here*' and download the latest version of the `MMT.jar` file (at least version 23.0.0) anywhere you like. Then click the *"Browse..."*-button and select your freshly downloaded `MMT.jar`.

If you have already set a system variable for your MathHub-directory, you are now done and can click *"Finish"*. If you have not, you can now also enter a directory path in the lower text field, and the VSCode extension will attempt to globally set one up for you, depending on your operating system.

Once you click *"Finish"*, the client will connect to https://stexmmt.mathhub.info/:sTeX, query for available archives, download the core libraries required for all (or most) semantic services (`MMT/urtheories` and `sTeX/meta-inf`) and set up RusTeX for you automatically.

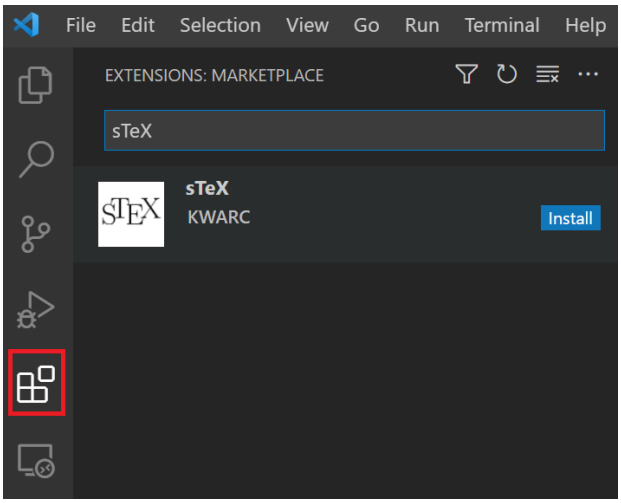

Figure 1: Installing the sTeX extension for VSCode

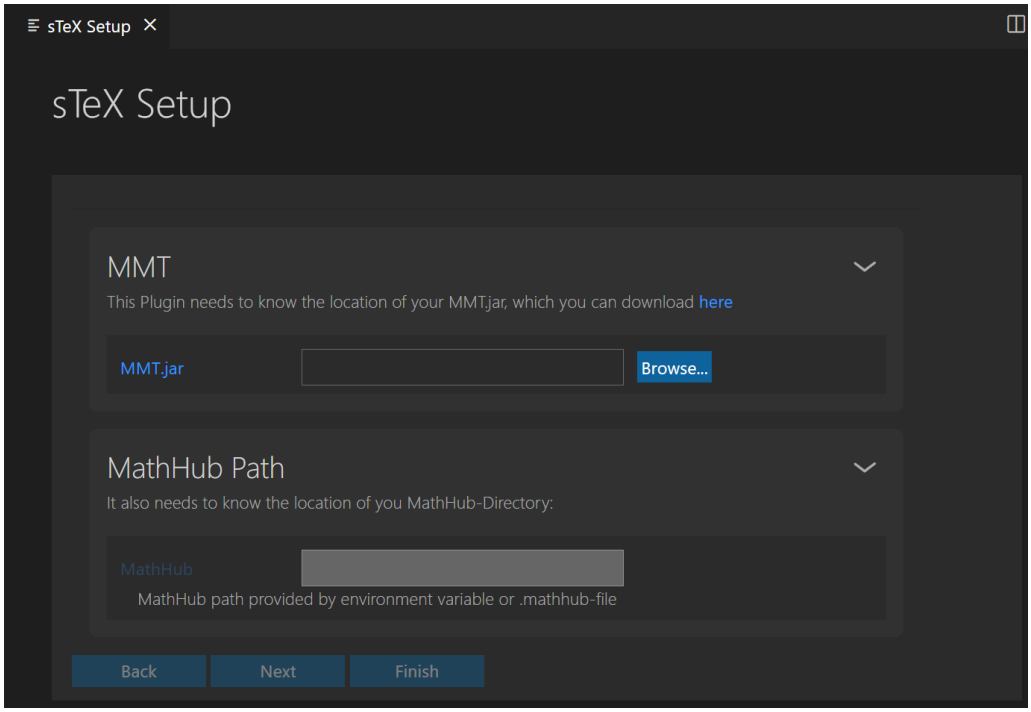

Figure 2: sTeX Setup Routine

References

[ST] *sTeX – An Infrastructure for Semantic Preloading of LaTeX Documents*. URL: https://ctan.org/pkg/stex (visited on 04/22/2022).

[sTeX] *sTeX: A semantic Extension of TeX/LaTeX*. URL: https://github.com/sLaTeX/sTeX (visited on 05/11/2020).

[TL] *TeX Live*. URL: http://www.tug.org/texlive/ (visited on 12/11/2012).