

Tutorial: Setting Up PDF Export in Jupyter Notebooks

This guide provides step-by-step instructions for setting up your environment to export Jupyter Notebooks to PDF format.

Prerequisites

- A working installation of Jupyter Notebook.
- Internet access to download software packages.

Step 1: Install Pandoc

Pandoc is a tool that Jupyter uses to convert notebooks into different formats, including PDF. Follow these instructions based on your operating system:

- Windows:

1. Download Pandoc from the [Pandoc official download page] (<https://pandoc.org/installing.html#for-windows>).
2. Run the installer and follow the on-screen instructions to complete the installation.

- macOS:

1. Open the Terminal and run the following command if you have Homebrew installed:

```
bash
```

```
brew install pandoc
```

2. Alternatively, you can download the installer from the [Pandoc official download page] (<https://pandoc.org/installing.html#for-mac-os-x>).

- Linux (Ubuntu/Debian-based systems):

1. Open the Terminal and run:

```
bash
```

```
sudo apt install pandoc
```

Step 2: Install a LaTeX Distribution

For exporting to PDF, you will also need a LaTeX distribution because it handles the PDF rendering. Depending on your operating system, here are the options:

- Windows: MiKTeX

1. Download MiKTeX from its official website:
<https://miktex.org/download>.
2. Run the installer and follow the instructions. During installation, allow MiKTeX to install missing packages on-the-fly.

- macOS: MacTeX

1. Download MacTeX from the official website:
<https://www.tug.org/mactex/>.
2. Install MacTeX by following the on-screen instructions.

- Linux: TeX Live

1. Open the Terminal and run the following command to install TeX Live:

```
bash  
  
sudo apt install texlive-full
```

2. This will install the complete TeX Live distribution, including all the required tools like XeLaTeX.

Step 3: Verify the Installation of Pandoc and XeLaTeX

To check if Pandoc and XeLaTeX are installed correctly, run the following commands in a Jupyter Notebook cell using the `!` syntax:

```
!pandoc --version  
  
!xelatex --version
```

- If Pandoc is installed correctly, it should display the version number.
- If XeLaTeX is installed correctly, it should display the version number as well. If any warning showed, just ignore it.

Step 4: Exporting Jupyter Notebooks to PDF

1. Open the Jupyter Notebook you want to convert to PDF.
2. Go to the menu and click on:
 - File > Download as > PDF via LaTeX (.pdf)
3. If everything is installed properly, your notebook should be converted to a PDF without any errors.

Handling the Installation Prompts During PDF Export

When you first attempt to export a notebook to PDF, you might see a blank tab open in your browser with multiple prompts asking to install various LaTeX packages. Here's what to do:

1. Responding to Installation Prompts:

- You may see a dialog box with the option to install required LaTeX packages. Click the Install button for each package to ensure that all necessary components are downloaded.

2. Simplifying Future Installations:

- To avoid these prompts in the future, you can disable the option that says "Always show this dialog box" before you click the Install button.

- This will enable automatic installation of the required packages without asking for your confirmation every time, making the process smoother and faster.

3. Complete the Installation:

- Once all required packages are installed, the notebook should be successfully exported to PDF without any further interruptions.

Troubleshooting

1. Pandoc not found error:

- Make sure you have installed Pandoc properly.
- Restart your terminal or command prompt after installing.

2. XeLaTeX not found error:

- Ensure you have installed the appropriate LaTeX distribution (MiKTeX for Windows, MacTeX for macOS, TeX Live for Linux).
- Make sure the installation directory is added to your system's PATH.