How to set up the WF TDM Python Environment

Step 1: Open Visual Studio Code

If you don't have Visual Studio Code, download it [here](). Next, open the WF TDM model folder in Visual Studio. This can be done by right clicking on the folder in File Explorer, and selecting `Open with Code`. Alternatively, you can open Visual Studio and select `File/Open Folder` from the main selection options.

You can use a different text editor, however we recommend the Visual Studio IDE platform.

Step 2: Download Python and Jupyter Extensions

After open Visual Studio, ensure that the `Python` and `Jupyter` extensions are downloaded. You can do this by navigating to `Extensions` window or pressing `Ctrl+Shift+X`. Next search for `Python` and `Jupyter` extensions and download them.

Step 3: Refresh Visual Studio

- Press `Ctrl+Shift+P` to open the command prompt in Visual Studio.
- Type `Reload: Window` and select it.
- After reloading, close out Visual Studio and then reopen it.
- Open or create a Jupyter Notebook file (`.ipynb`).

Step 4: Locate the Python Interpreter

- Press `Ctrl+Shift+P`
- Type `Python: Select Interpreter`
- Navigate to the `python.exe` path that exists within the model. `2_ModelScripts/_Python/py-tdm-env`.

Step 5: Create a New Kernel Spec

Open a terminal or command prompt and navigate to the folder containing the python interpreter. In Visual Studio, simply click `Terminal/New Terminal` from the main selection options.

Create a new kernel specification using the specific python interpreter. This tells Jupyter to use this interpreter when running notebooks.

```
# Navigate to the directory containing the python interpreter
cd 2_ModelScripts/_Python/py-tdm-env

# Install kernelspec for future use of jupyter notebooks
./python -m ipykernel install --user --name=py-tdm-env --display-name "py-tdm-env"
```

After creating the new kernel spec, reload Visual Studio.

Step 6: Select Kernel

The new environment should be automatically selected . If its not automatically selected, select the newly created kernel from the kernel selection box (top-right corner) with `Select Kernel/Jupyter Kernel../py-`

`tdm-env`. Alternatively, you may also select the Python environment from the kernel selection box (top-right corner) with `Select Kernel/Python Environments../py-tdm-env`. Both should allow you to run cells in a Jupyter Notebook file.

Note: The `Select Kernel` option only shows when a Jupyter notebook file is open.

Troubleshooting

A few basic troubleshooting ideas include:

- Reloading the Visual Studio Window
- Closing out of Visual Studio
- Restarting your Computer

If you are still having trouble, feel free to reach out to Chris Day at WFRC (cday@wfrc.org) and he'd be happy to assist.