

Effective Programming Practices for Economists

Miscellaneous Tools

Why use shells today?

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Command line interfaces vs. GUIs

CLI

- Faster if you know commands
- More precise
- Do everything in one place and don't change windows
- Multiple steps can be chained and automated to become one

GUI

- Faster for beginners
- Less need to memorize
- Use an interface that is designed specifically for your task
- No potential for automation or command chaining

| Task that can be done in a Shell | Alternative | Recommendation |
|--|------------------|----------------|
| Install packages and manage environments | - | Shell |
| Version control with git | Git GUI, VS Code | Shell |
| Run tests for your Python project | VS Code | Shell |
| Run your fully automated research pipeline | VS Code | Shell |
| Debug your python code with a debugger | VS Code | You decide |
| Create, copy and delete files | File Explorer | You decide |
| Try out things in a Python REPL | Jupyter Notebook | You decide |
| Edit files in vim | Modern Editor | Modern Editor |

Aside: Learn typing

- You won't be fast in the command line if you cannot touch-type
- After one or two days of practice you will be as fast as before
- Huge payoffs in the long run!
- Many free apps to learn it!
- No single person has ever regretted to have learned it