Installing and Setting Up Git on Windows

N Green

2025-09-29

Introduction

Git is an essential version control system for software development and data science projects. This guide will walk you through the process of installing and configuring Git on a Windows machine.

---

1. Installation

First, you need to download and install Git for Windows.

1. **Download the Installer**: Navigate to the official Git website at git-scm.com. The download for the latest 64-bit version should start automatically.
2. **Run the Installer**: Once the download is complete, open the installer `.exe` file. You'll be prompted to allow the app to make changes to your device; click **Yes**.
3. **Follow the Setup Wizard**: The installer offers many customization options. For most users, the default settings are perfect. Here are a few key screens:
    - **Select Components**: The default selections are fine. You can optionally add a Git icon to the Desktop.
    - **Choosing the default editor for Git**: The installer will default to Vim. If you're not comfortable with Vim and almost everyone isn't so I would seriously recommending not using this at least for now, you can select a different editor like Visual Studio Code, Notepad++, or Sublime Text from the dropdown menu.
    - **Adjusting the name of the initial branch in new repositories**: The default is `main`. It's recommended to stick with this modern standard.

- **Adjusting your PATH environment**: The recommended option, "**Git from the command line and also from 3rd-party software**," is the best choice. This allows you to use Git from both Git Bash and the Windows Command Prompt/PowerShell.
- **All other steps**: For the remaining steps (choosing SSH executable, server certificates, line ending conversions, terminal emulator, etc.), the default options are sensible and work well. Click **Next** through these screens and finally click **Install**.

---

2. Configuration

After the installation is complete, you need to configure your user information. Git uses this information to label your commits.

You can run these commands from **any** terminal on your system, including **Windows Terminal (PowerShell)**, the classic **Command Prompt**, or **Git Bash** (which was installed with Git).

Open your preferred terminal.

1. **Set Your Username**: This name will appear on your commits. Type the following command, replacing "Your Name" with your actual name.

   ```
   git config --global user.name "Your Name"
   ```

2. **Set Your Email Address**: This email will be associated with your commits. It's crucial to use the same email address that you use for services like GitHub or GitLab.

   ```
   git config --global user.email "youremail@example.com"
   ```

---

3. Verify Your Configuration

To check that your configuration was set correctly, you can run the following commands.

1. **Check Your Settings**: To see your global configuration settings, use this command:

   ```
   git config --list
   ```

   You should see the `user.name` and `user.email` you just set in the output.

2. **Check Git Version**: To ensure Git was installed properly, you can check its version.

```
git --version
```

   This will output the installed version of Git, for example, `git version 2.45.1.windows.1`.

Next Steps

Congratulations! 🏆 You have successfully installed and configured Git on your Windows machine. You are now ready to start using it for version control.

You can begin by:

- Creating a new repository with `git init`.
- Cloning an existing repository from a service like GitHub with `git clone <repository-url>`.