Node.js Installation and Configuration Guide

Step 1: Download Node.js

1. Visit the official website: https://nodejs.org/en
2. Download the recommended LTS version.

Step 2: Installation

1. Run the downloaded .msi file and click "**Next**".
2. Customize the installation path
   - It is recommended to install Node.js outside the C: drive
   - For example: **D:\nodejs** or **E:\Program Files\nodejs** according to your preference
   - Alternatively, you can use the default path: **C:\Program Files\nodejs**
3. Click "**Next**", then "**Install**", and finally click "**Finish**" after completion.
4. Create two new folders in your Node.js installation directory:
   - **node_global** (for globally installed packages)
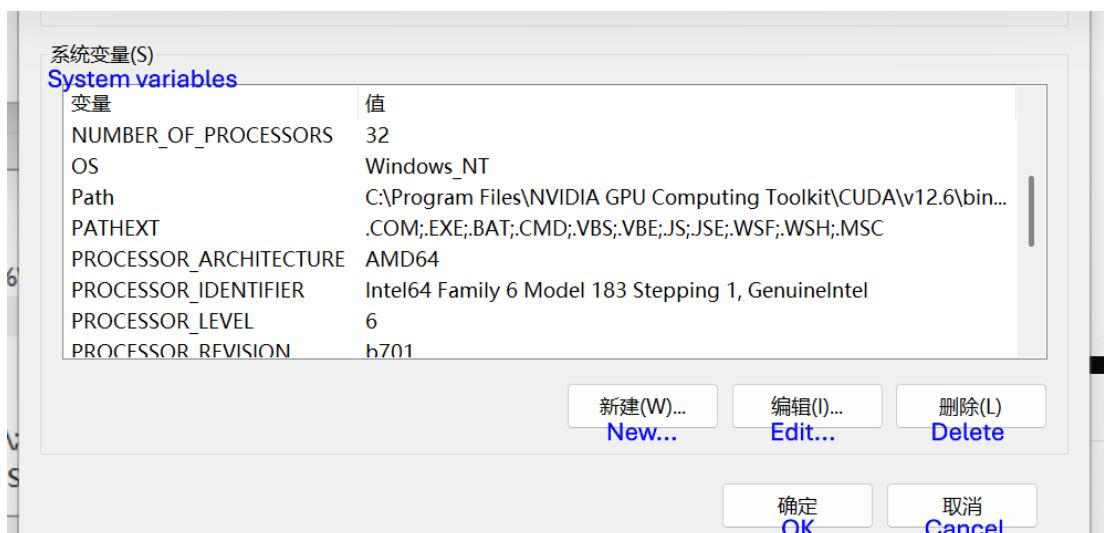   - **node_cache** (for npm cache)

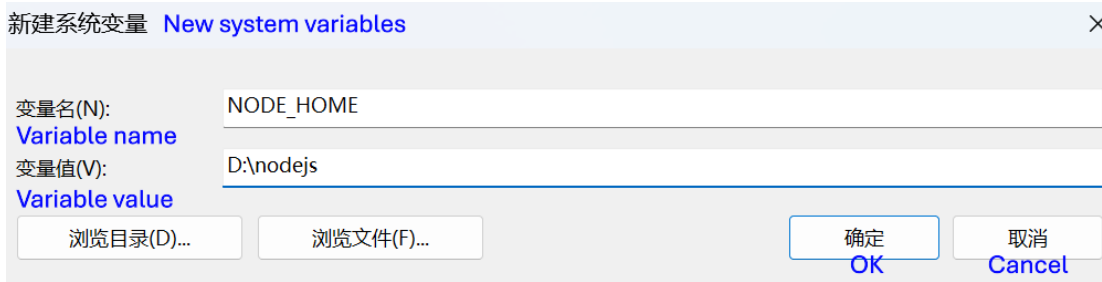   For example: **D:\nodejs\node_global** and **D:\nodejs\node_cache**

Step 3: Environment Configuration

Configure System Variables

1. Right-click on "**This PC**" or "**My Computer**" and select "**Properties**".
2. Click on "**Advanced system settings**".
3. In the System Properties Window, click the "**Environment Variables**" button
4. Under "**System variables**" section, click "**New**" and add the following:
   - Variable name: **NODE_HOME**
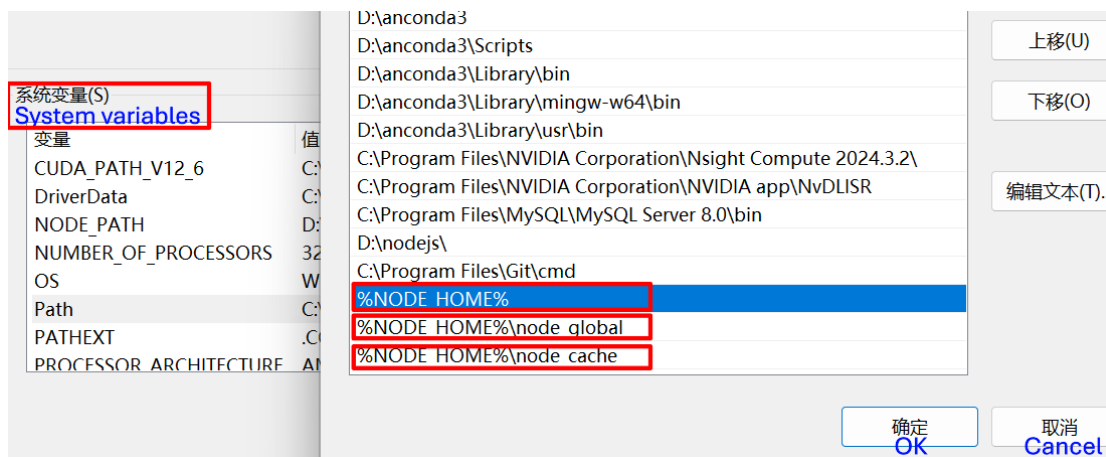   - Variable value: **D:\nodejs** (or your actual installation path)
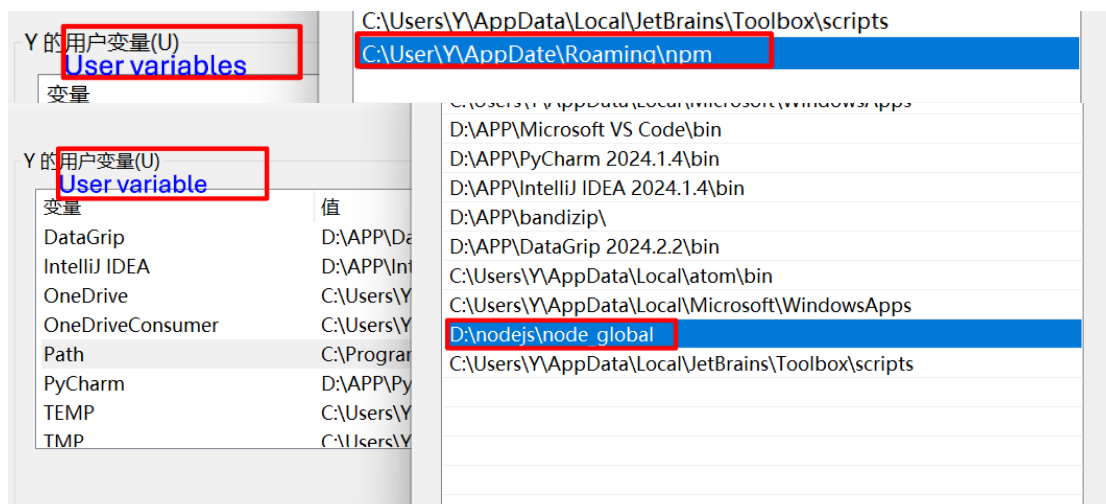5. Click "**OK**"

(Figures are shown below.)

新建系统变量　New system variables

变量名(N): NODE_HOME
Variable name

变量值(V): D:\nodejs
Variable value

浏览目录(D)...　浏览文件(F)...　确定 OK　取消 Cancel

Add to Path Variable

1. In the same "**System Variables**" section, find and select "**Path**", then click "**Edit**"
2. Click "**New**" and add the following entries one by one:
   - **%NODE_HOME%**
   - **%NODE_HOME%\node_global**
   - **%NODE_HOME%\node_cache**
3. Click "**OK**"

Fix User Variables

1. In the "**User Variables**" section, find the "**Path**" variable and click "**Edit**".
2. If you see **C:\Users\[username]\AppData\Roaming\npm**, remove it and add **D:\nodejs\node_global** (or your equivalent path).
3. Click "**OK**" to save changes.

Configure NPM default Directories

Open Command Prompt as Administrator and run following commands:

- `npm config set prefix "D:\nodejs\node_global"`
- `npm config set cache "D:\nodejs\node_cache"`

Step 4: Verification

1. Close and reopen Command Prompt (ensure you're not using PowerShell)
2. Verify Node.js installation by entering: `node -v`
3. Verify npm installation by entering: `npm -v`
4. Both commands should display their respective version numbers.

Troubleshooting

- If commands are not recognized, ensure you've restarted Command Prompt after setting environment variables.
- You may need to restart your computer for environment variable changes to take effect.
- If you encounter permission errors, run Command Prompt as Administrator.