Installation Guide for win_flex_bison, MinGW, Chocolatey, and Make

A) Install win_flex_bison and add to PATH

- 1. Download win_flex_bison from:
 - https://github.com/lexxmark/winflexbison/releases
 - (choose win_flex_bison-2.5.25.zip).
- 2. Extract the ZIP file to a permanent folder, e.g., C:\Tools\win_flex_bison.
- 3. Rename executables inside the folder:
 - win bison.exe \rightarrow bison.exe
 - win_flex.exe \rightarrow flex.exe
- 4. Add folder to PATH:
 - Open Environment Variables \to Edit system variables \to Path \to New \to Add: C:\Tools\win_flex_bison.

B) Install MinGW (GCC/G++), select packages, and add to PATH

- 5. Download MinGW installer from: https://sourceforge.net/projects/mingw/files/latest/download?source=files.
- 6. Run mingw-get-setup.exe and install in C:\MinGW.
- 7. Open MinGW Installation Manager and under Basic Setup, mark the following packages for installation:
 - mingw-developer-toolkit
 - mingw32-base
 - mingw32-gcc-g++
 - mingw32-libpdcurses
 - (Optional) mingw32-gcc-objcect.
- 8. Go to Installation \rightarrow Apply Changes \rightarrow Apply.
- 9. Add MinGW paths to PATH:
 - C:\MinGW\bin
 - $C:\MinGW\msys\1.0\bin$
- 10. Verify GCC in cmd:

```
gcc --version g++ --version
```

C) Install Chocolatey and make, then verify

Click following link:

https://chocolatey.org/install

then scroll down. You will a command like given:

With PowerShell, you must ensure Get-ExecutionPolicy is not Restricted. We suggest using Bypass to bypass the policy to get things installed or AllSigned for quite a bit more security.

ORUN Get-ExecutionPolicy If it returns Restricted, then run Set-ExecutionPolicy AllSigned or Set-ExecutionPolicy Bypass -Scope Process .

Now run the following command:

> Set-ExecutionPolicy Bypass -Scope Process -Force; [System.Net.ServicePointManager]::SecurityProtocol = [System.Net.ServicePointManager]::SecurityProtocol -bor 30

- 11. Open PowerShell as Administrator.
- 12. Run the copied command:
- 13. Open a new PowerShell and verify Chocolatey:

choco -v

14. Install make:

choco install make -y

15. Verify make in cmd:

make --version

Quick Troubleshooting

- 16. If gcc or make is not recognized, reopen the terminal after editing PATH.
- 17. Use the command: where gcc and where make to confirm installation.
- 18. Make sure to use --version (two hyphens), not -version.