Setup Pico project in CLion

Create a new folder for your project

Copy CMakeLists.txt and main.c from the workspace Documents/Example_project into the folder you created.

Start CLion.

Open the folder in CLion.

Open Project Wizard will start. You can either enter the environment variables by hand in the wizard or you can set the required environment variables to your profile before starting CLion.

To set the variables type "Edit the system environment variables" in Windows search box.

You can find PICO_SDK_PATH by starting Pico – Developer command Prompt or Pico – Developer PowerShell. The command to print all environment variables is "set" in command prompt and "dir env:" in PowerShell. Add PICO_SDK_PATH your profile's environment variables to make it available to CLion. Add PICO_TOOLCHAIN_PATH to the environment. The toolchain directory is near the sdk directory – only the last folder is different. The toolchain directory is called "gcc-arm-none-eabi". See the examples below.
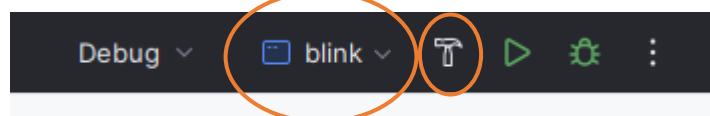

The values depend on where you installed the Pico SDK
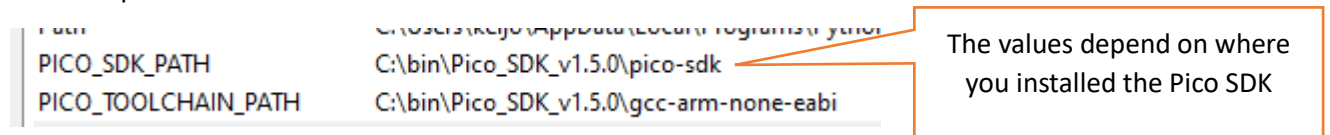
If your environment variables are set then you can close the wizard by clicking OK. If not then follow the steps below to set the values.

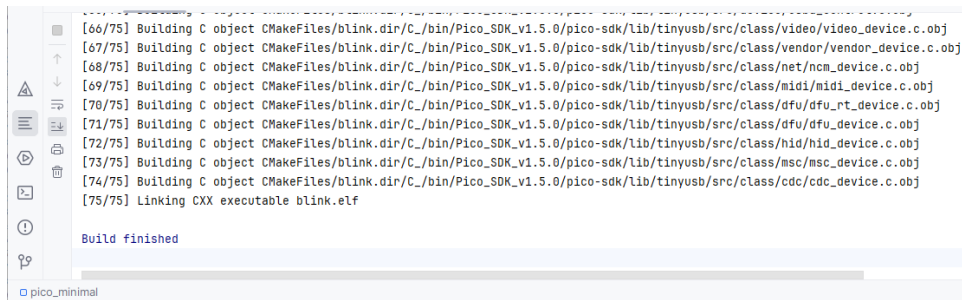Add PICO_SDK_PATH and PICO_TOOLCHAIN_PATH
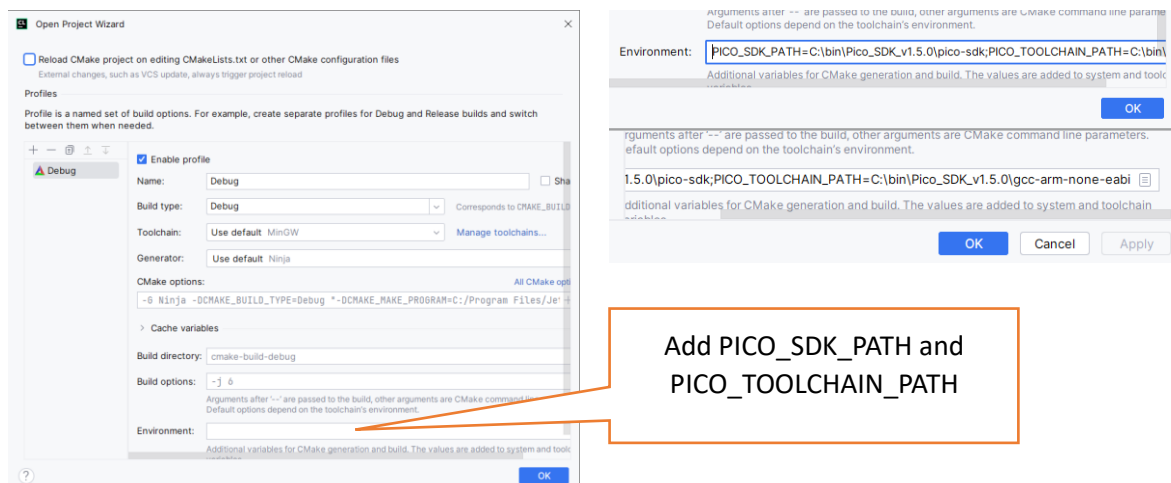
When you have entered the values click OK.

Your project is now configured and target "blink" should be selected by default.
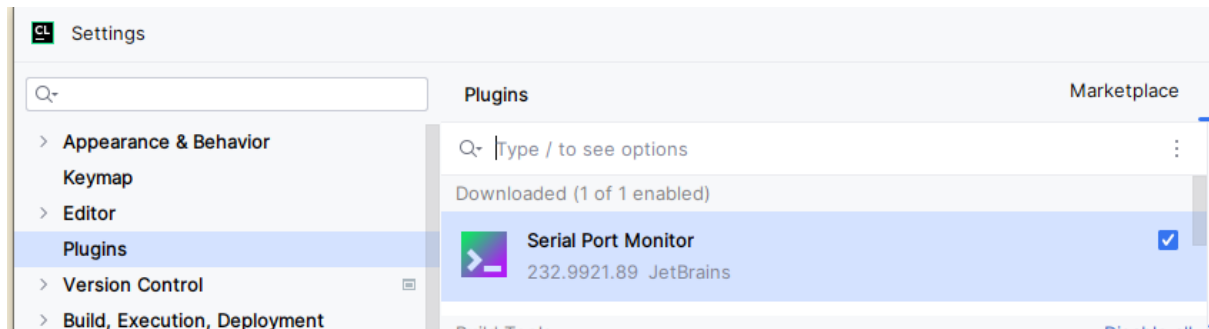
Click build (the hammer icon).

When build is finished navigate to cmake-build-debug folder.

Press and hold bootsel on your Pico and press reset. A mass storage device should appear. Drag blink.uf2 to the mass storage device.
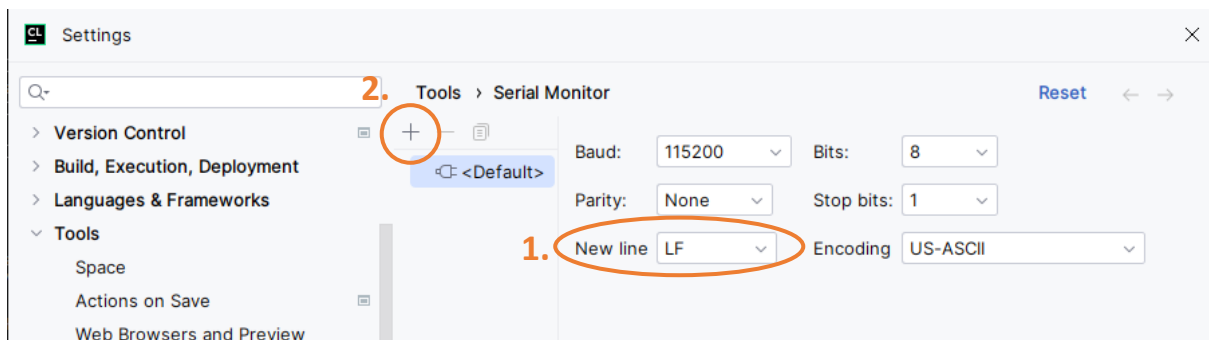
Led D1 should start blinking.

Install Serial Port Monitor plugin. File→Settings→Plugins
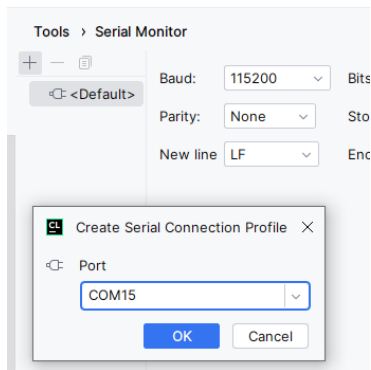

Go to Tools→Serial Monitor

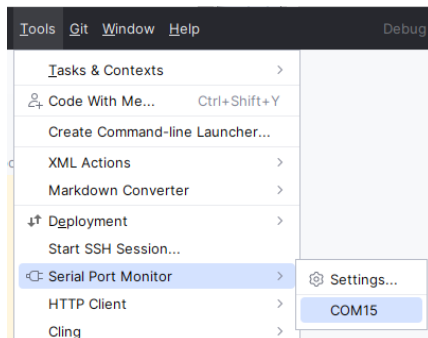Change default New line to LF and click + to create a serial profile.

You should get a dialog box with COM-ports to choose from. On a typical windows laptop you have just one to choose from.
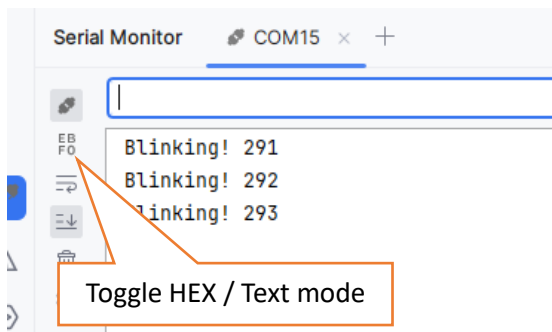
 Select port and click OK.

Now you can start serial monitor from the Tools menu.

Now you should see printing from your program:

Toggle HEX / Text mode

If you need to make changes you can find CMake settings from the sidebar. After the changes reset cache and reload project to apply the changes.