



Quick start guide for the WOWCube® Development Kit

Intro

WOWCube® Development Kit is a set of tools that allows developing applications for WOWCube® devices. It gives access to the majority of features of CubiOS, the WOWCube's operating system.

The **WOWCube® Development Kit** has two main components: an extension to **Microsoft Visual Studio Code (VS Code)** and a **Software Development Kit (SDK)**. The files provided with the SDK are used for building the WOWCube applications, while VS Code extension makes the development process convenient and robust.

System requirements - see at <https://wowcube.com/devkit>.

Installation

Step 1

Download and install [Visual Studio Code](#) and then [WOWCube® SDK](#) Visual Studio Code Extension

Step 2

Download Software Development Kit depending on your operating system:

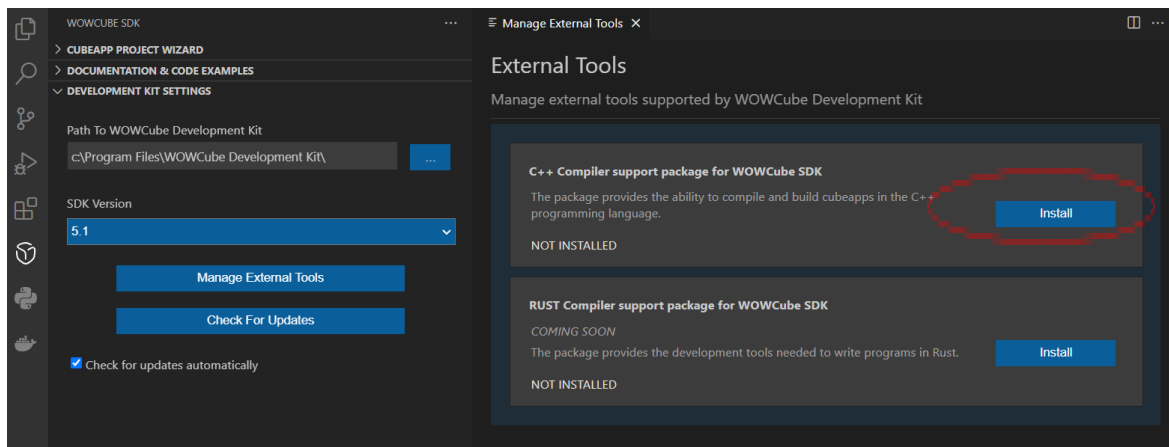
- [SDK for macOS](#)
- [SDK for Windows](#)

Follow the instructions on the screen for guidance through the installation process and setup.

Step 3 (optional)

Install the C++ compiler support package for building C++ projects

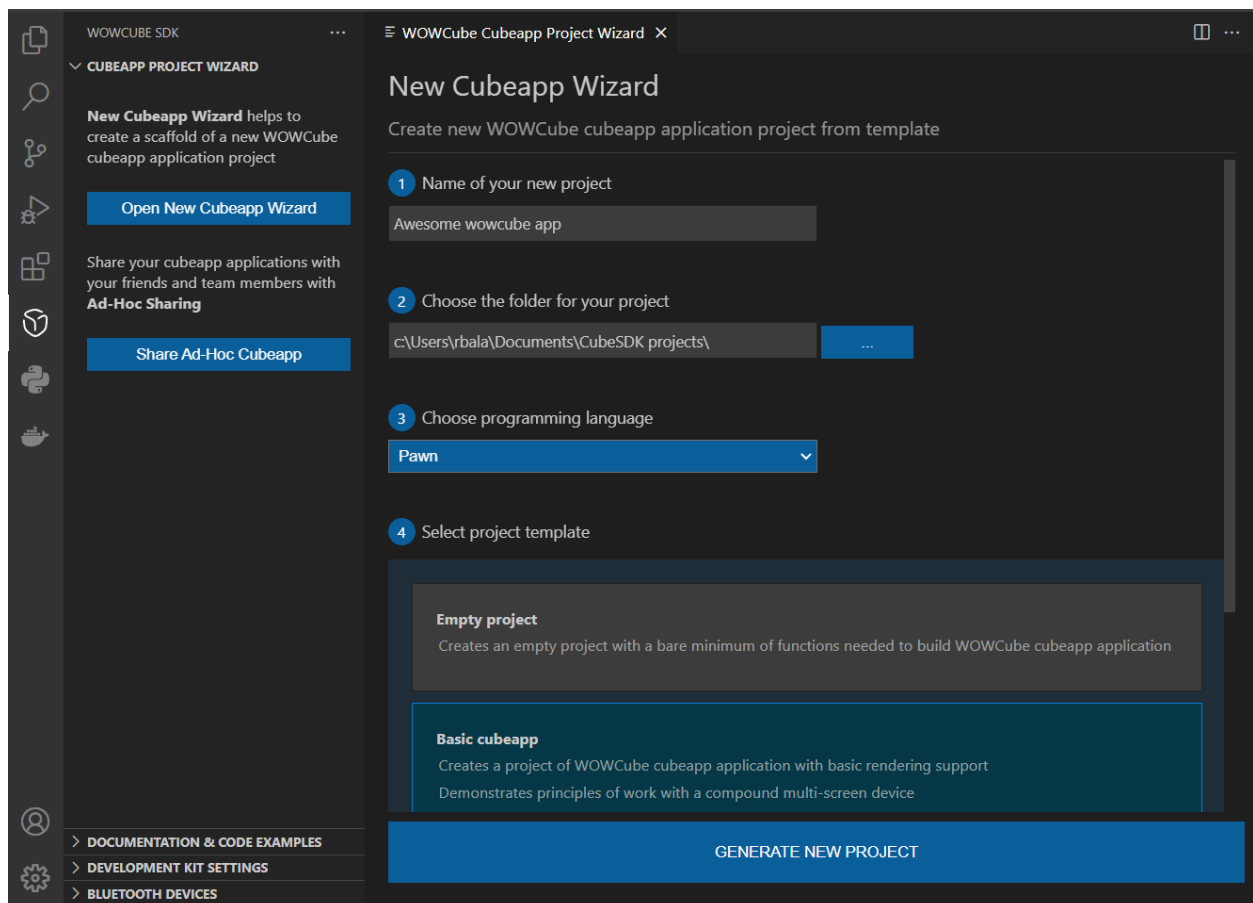
- In the Visual Studio Code go to the ``WOWCube SDK`` tab by pressing the  icon, expand the 'Development Kit Settings' section, click 'Manage External Tools', and click 'Install'



Working with the WOWCube® SDK Extension

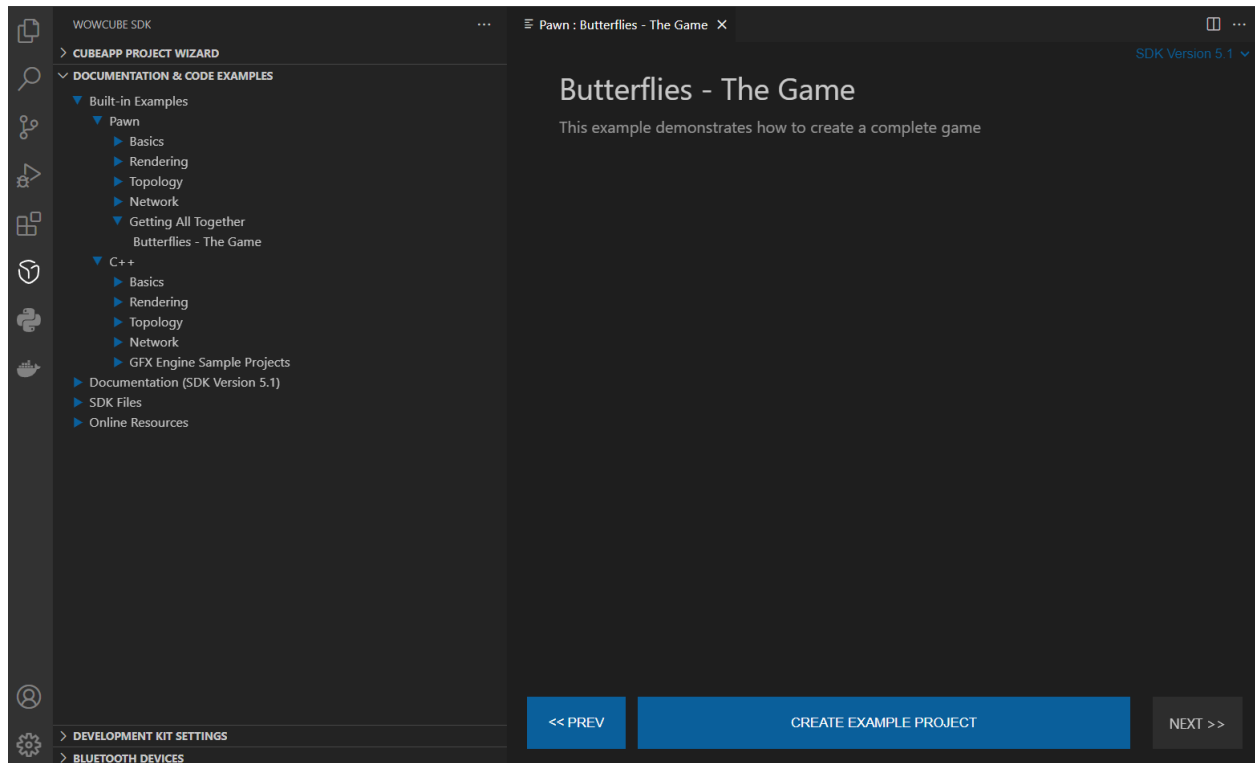
Create project from template

- 1) Go to the `WOWCube SDK` tab by pressing the  icon
- 2) Expand the `Cubeapp Project Wizard` section
- 3) Press the `Open New Cubeapp Wizard` button
- 4) In the opened WOWCube Cubeapp project wizard tab:
 - a) Enter the **name** of your new project
 - b) Choose the project **folder**
 - c) Choose the **programming language**
 - d) Select **template**
 - e) Press the `Generate New Project` button



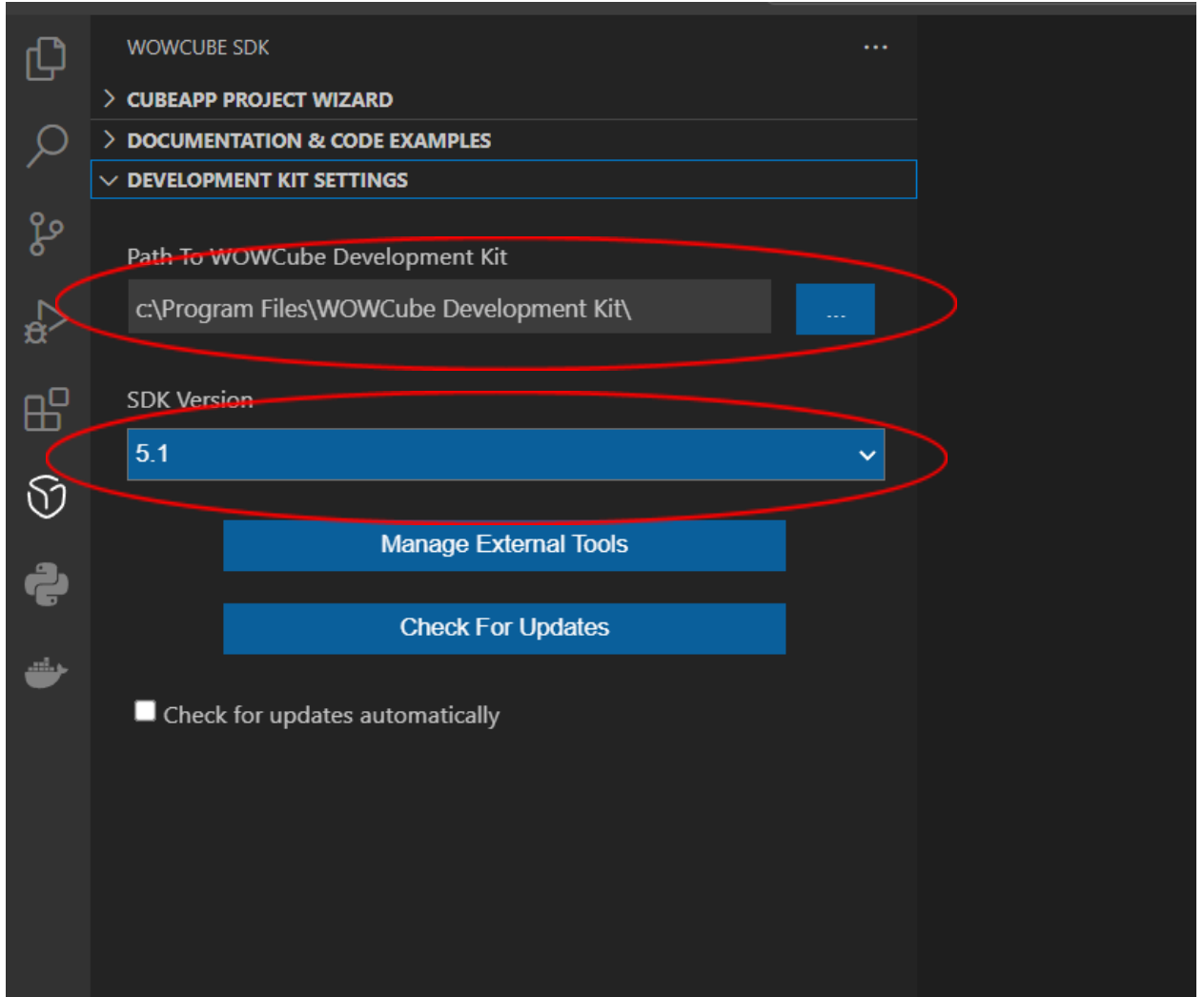
Generate an example project from Documentation

1. Go to the **WOWCube SDK** tab
2. Expand the **Documentation & Code Examples** section
3. Expand the **Built-in Examples** and choose one of the examples
4. Press the **Generate Example Project** button.
5. Select folder for the project, and press **Select folder and create project**



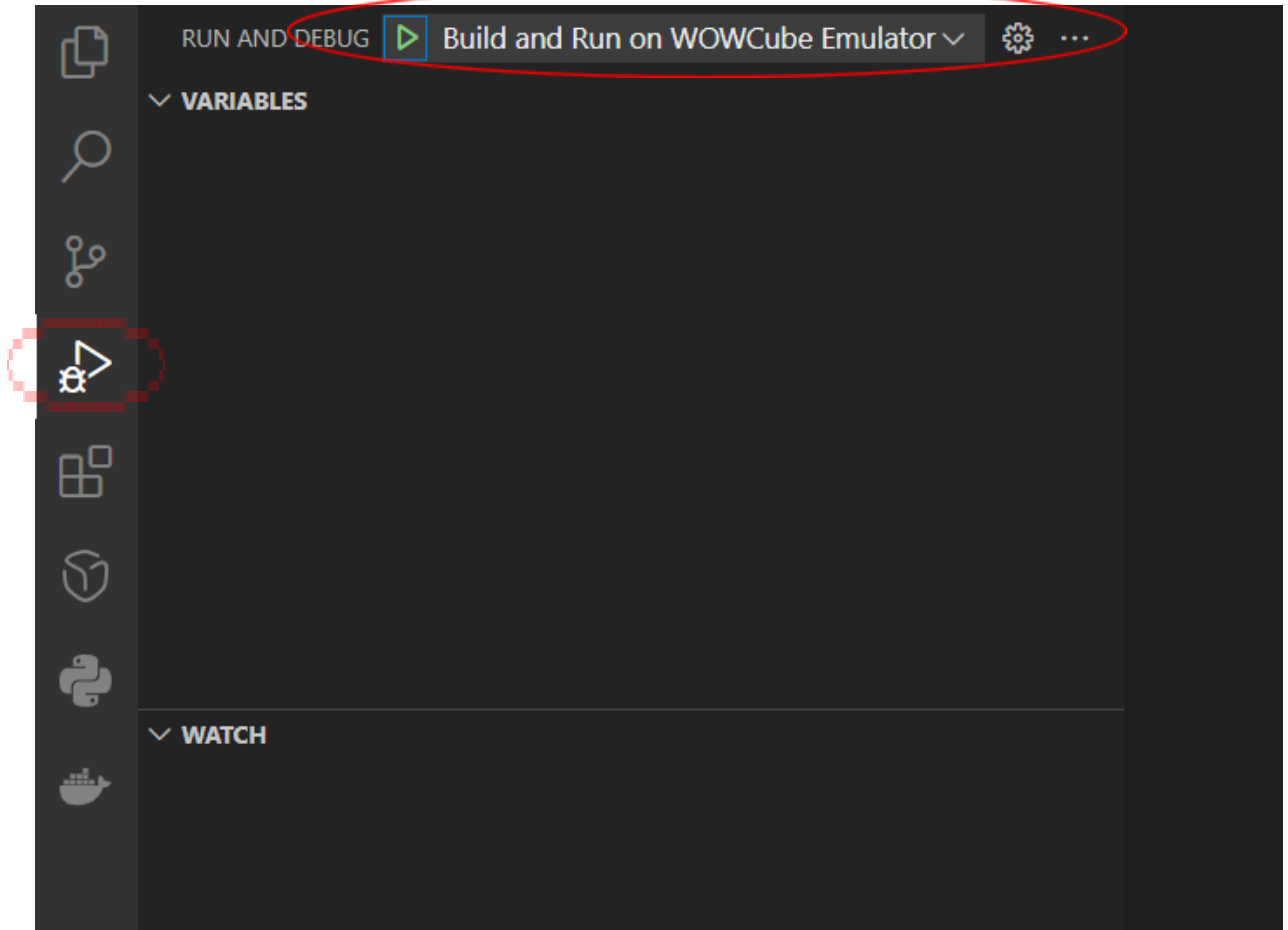
Run and debug project in Emulator

- Open your project in VS Code (File > Open Folder...)
- Go to the **WOWCube SDK** tab
- Expand the **Development Kit Settings** section
- Make sure that the **Path** to the installed 'WOWCube® Development Kit' is correct, and the right **SDK version** is chosen

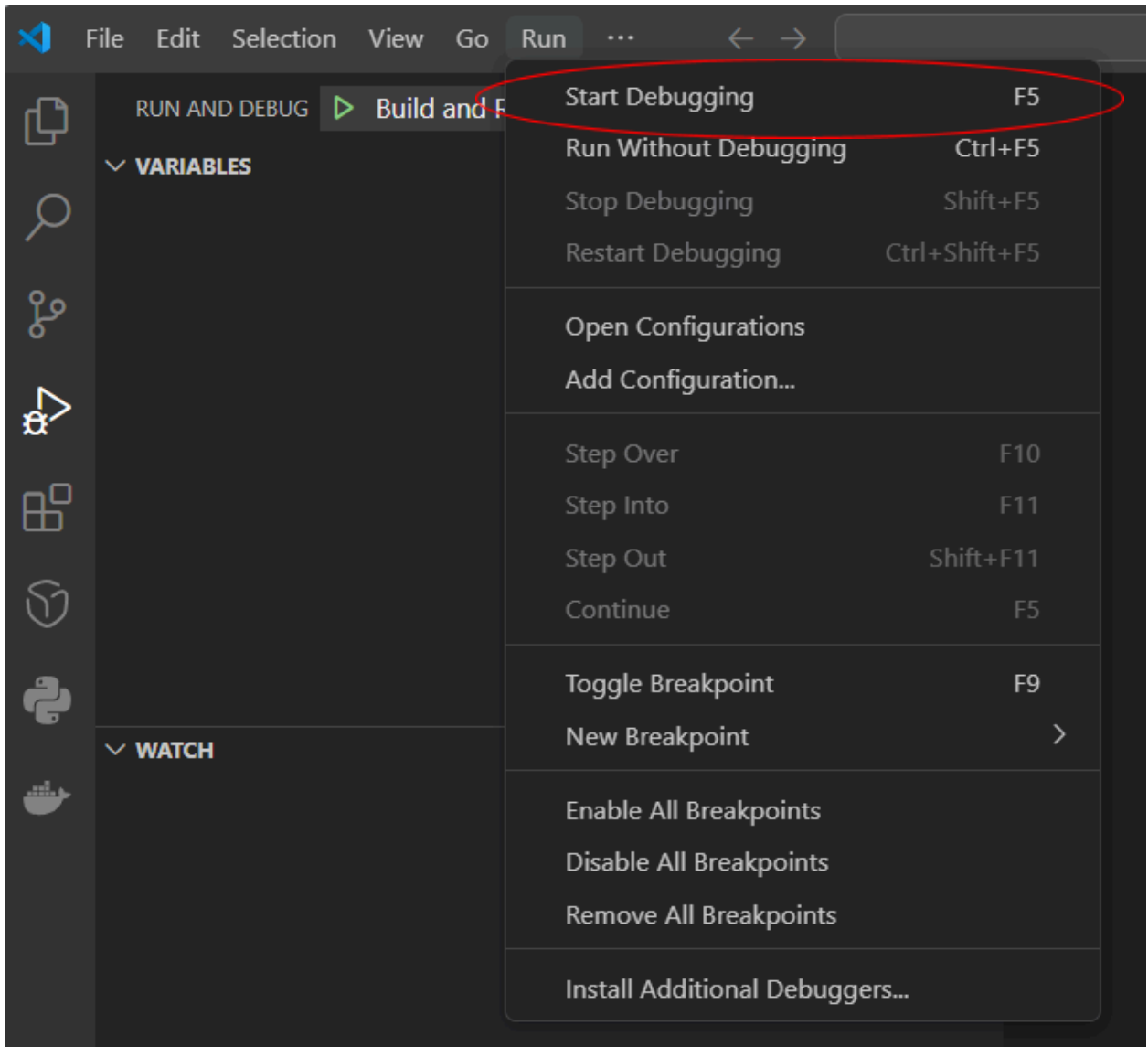


NOTE: path is different for Mac and Windows platforms!

- Go to **Run and Debug** in the Activity bar of VS Code and choose **Build and Run on WOWCube Emulator**



- Choose Run > Start Debugging (or F5)



- 'WOWCube® Emulator' application opens automatically and project starts in Emulator

NOTE: you can also download and run your project on a real WOWCube system (choose `Build and run on selected device` instead)

Working with the WOWCube® Emulator

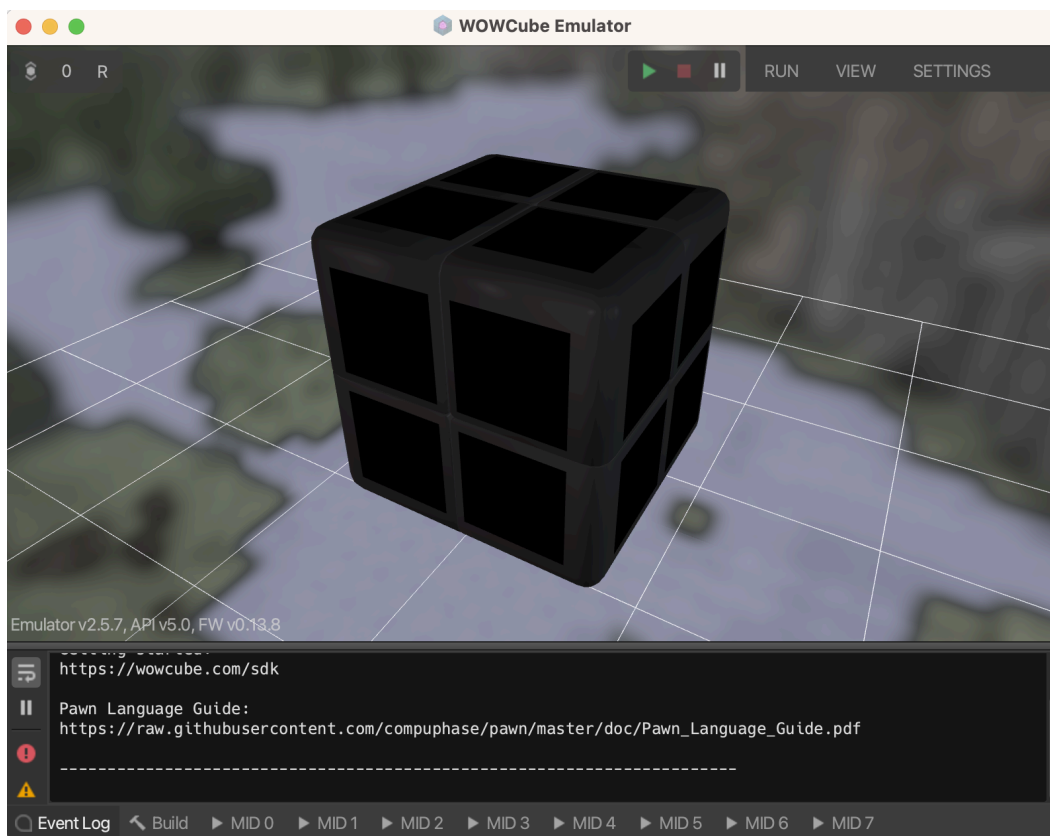
The Emulator is a program that mimics the WOWCube device, and is capable of running (in the Cube Emulation mode) its software, and is provided as a part of the WOWCube® SDK.

With the help of the WOWCube® Emulator you can run the developed application and see how your code works and troubleshoot the majority of things easily, without the need to have a real WOWCube system on hands

Launching Emulator manually

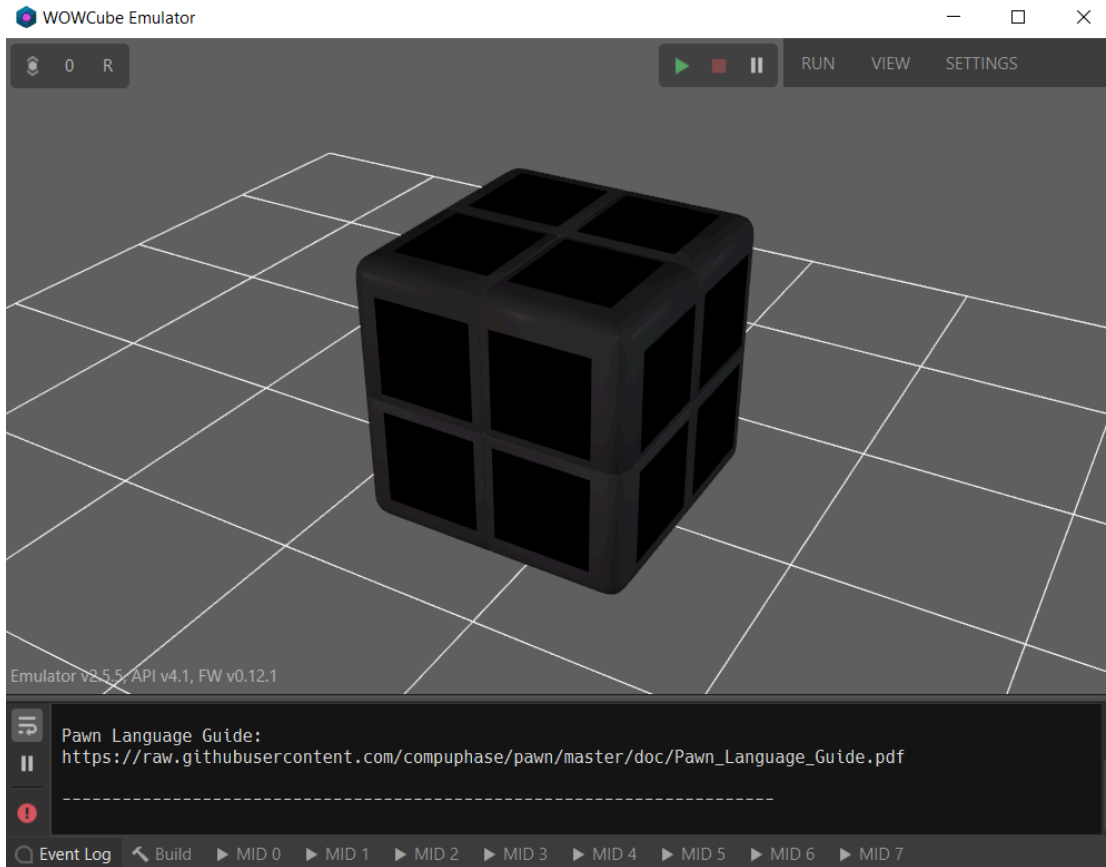
Mac OS

- Open the Applications folder and double tap on the "WOWCube® Development Kit" icon. The 'WOWCube® Emulator' application starts



Windows

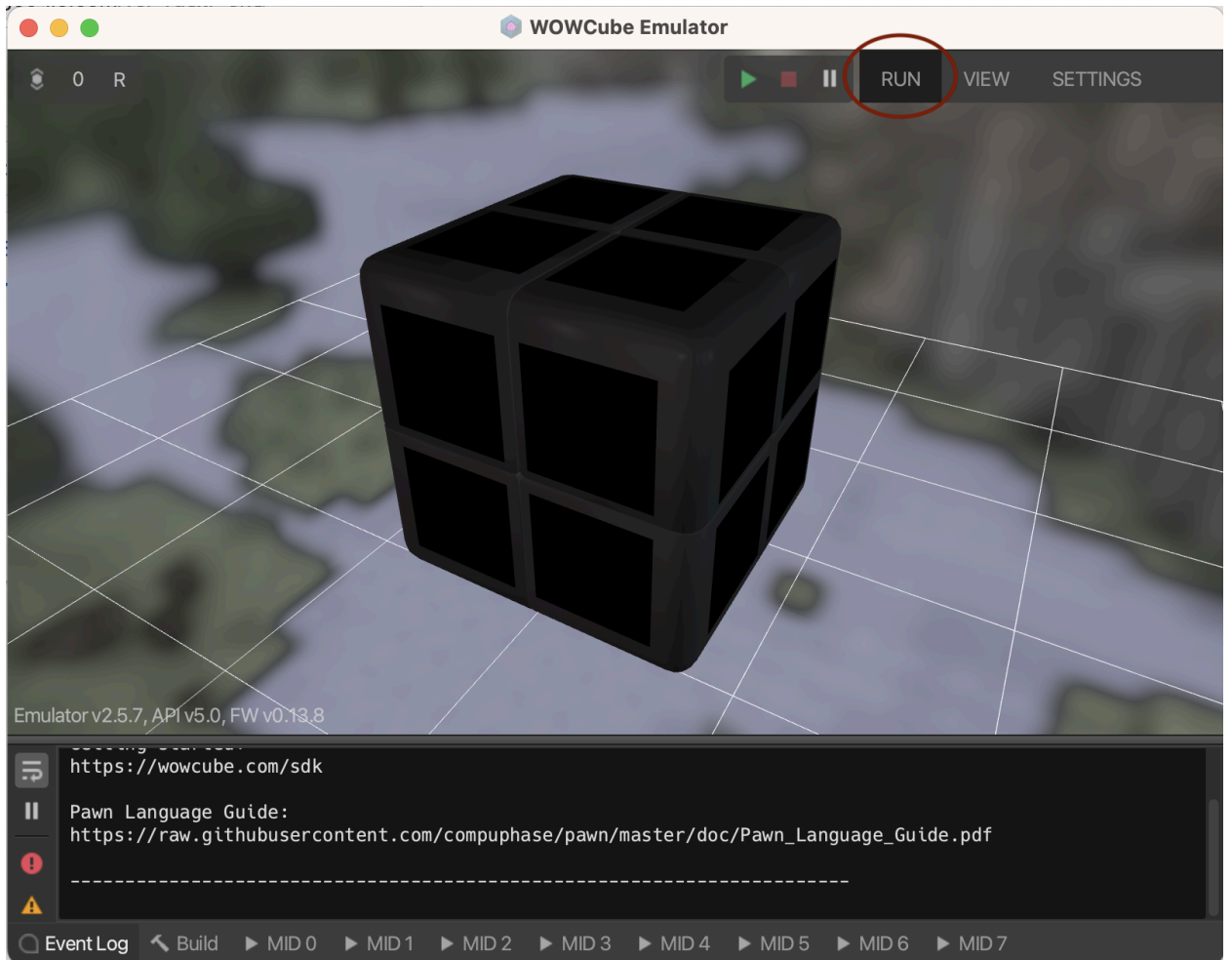
- Launch the 'WOWCube® Emulator' application from the list of installed apps/programs. 'WOWCube® Emulator' application starts



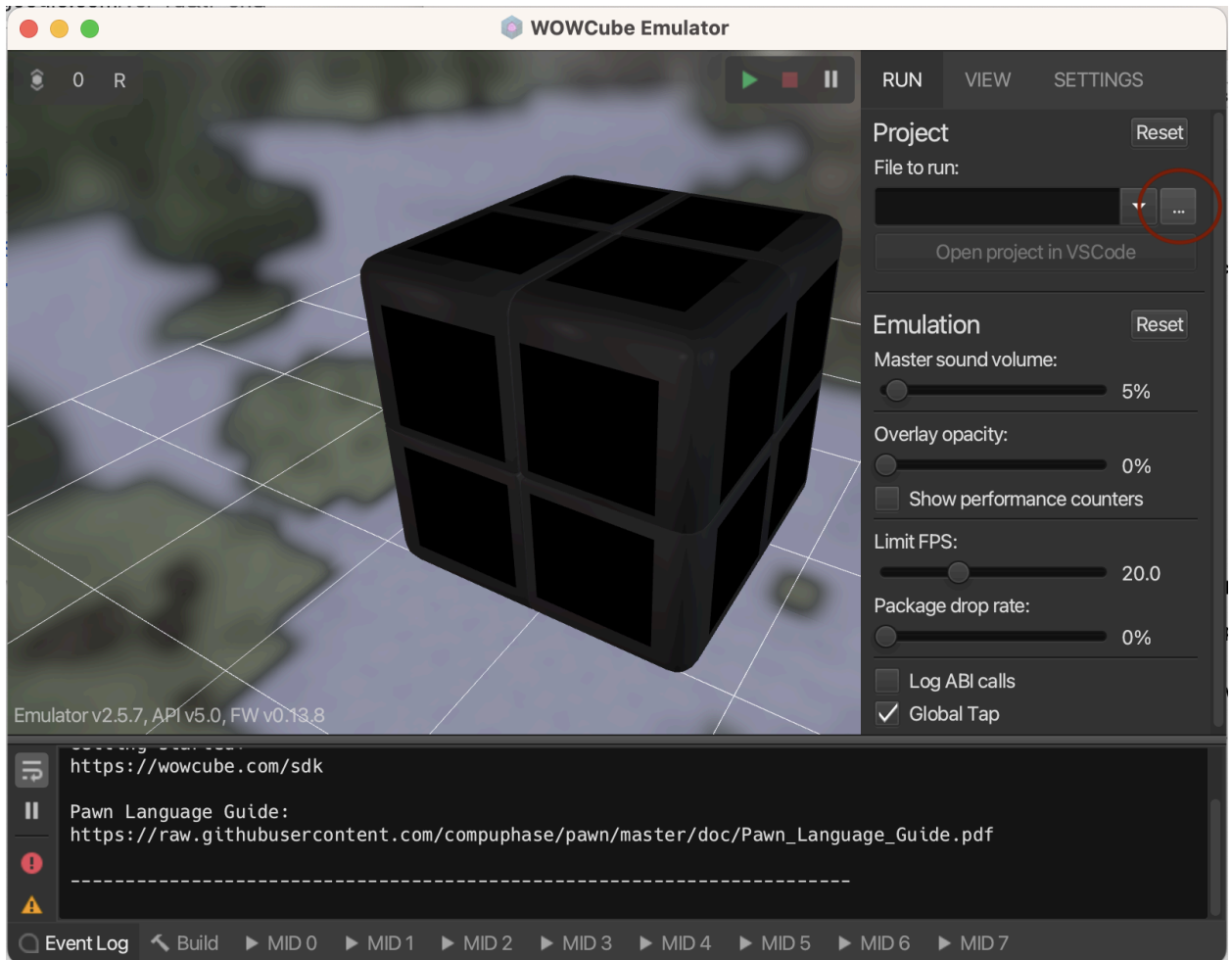
Launching any .cub file on Emulator manually

- A. Open the 'WOWCube® Emulator' application

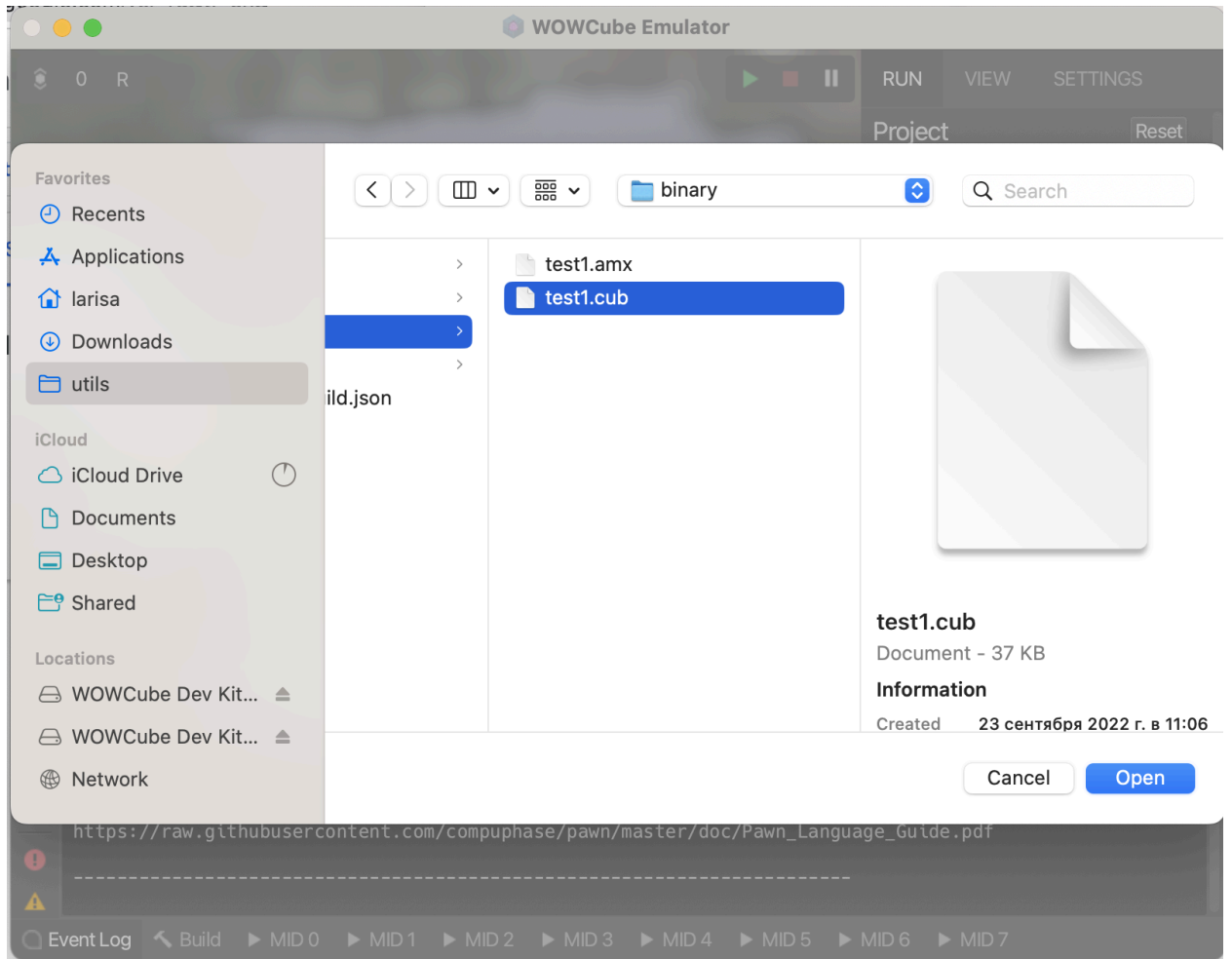
B. In the upper right corner choose the tab `RUN`



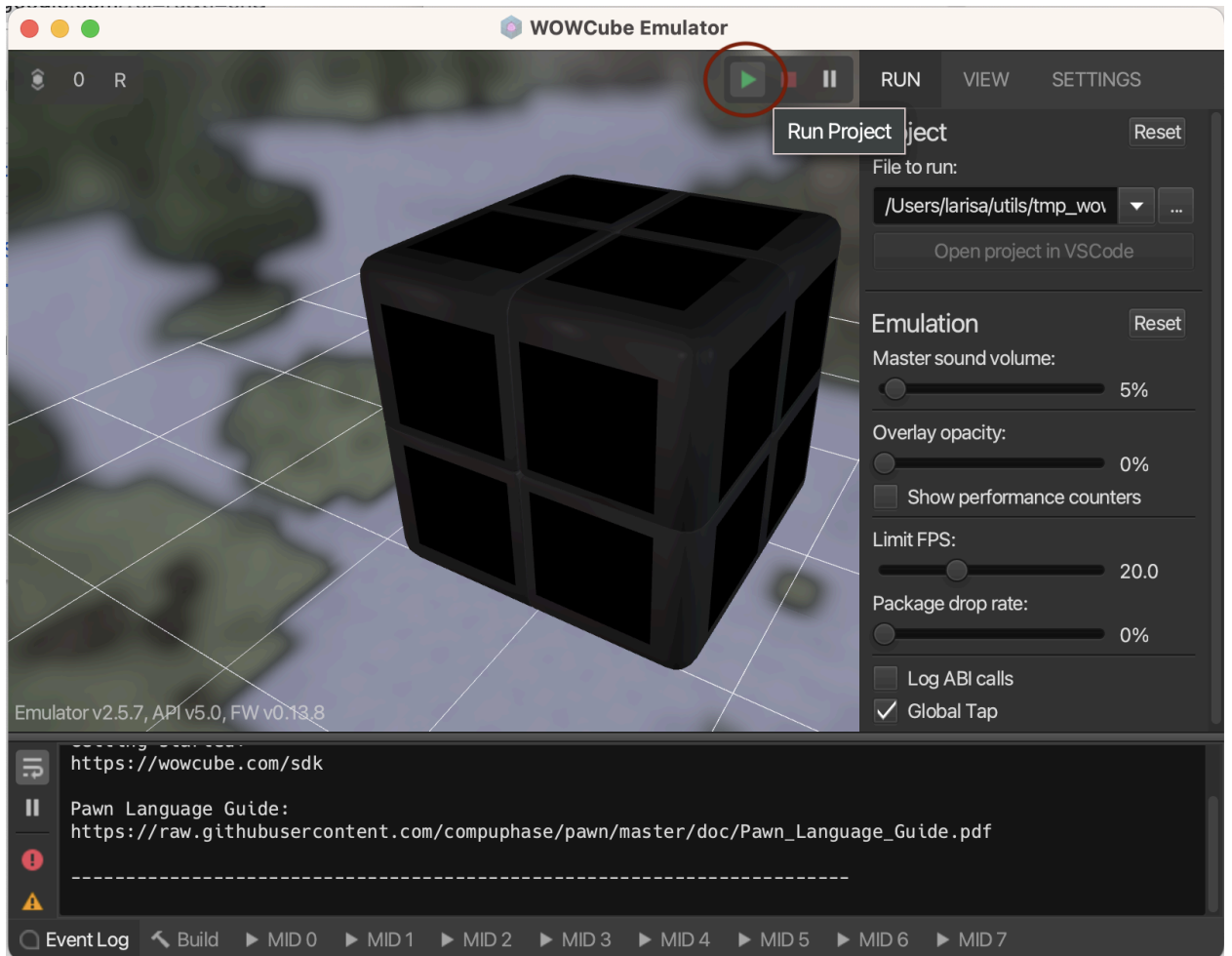
C. Press the `...` button in the `File to run` section



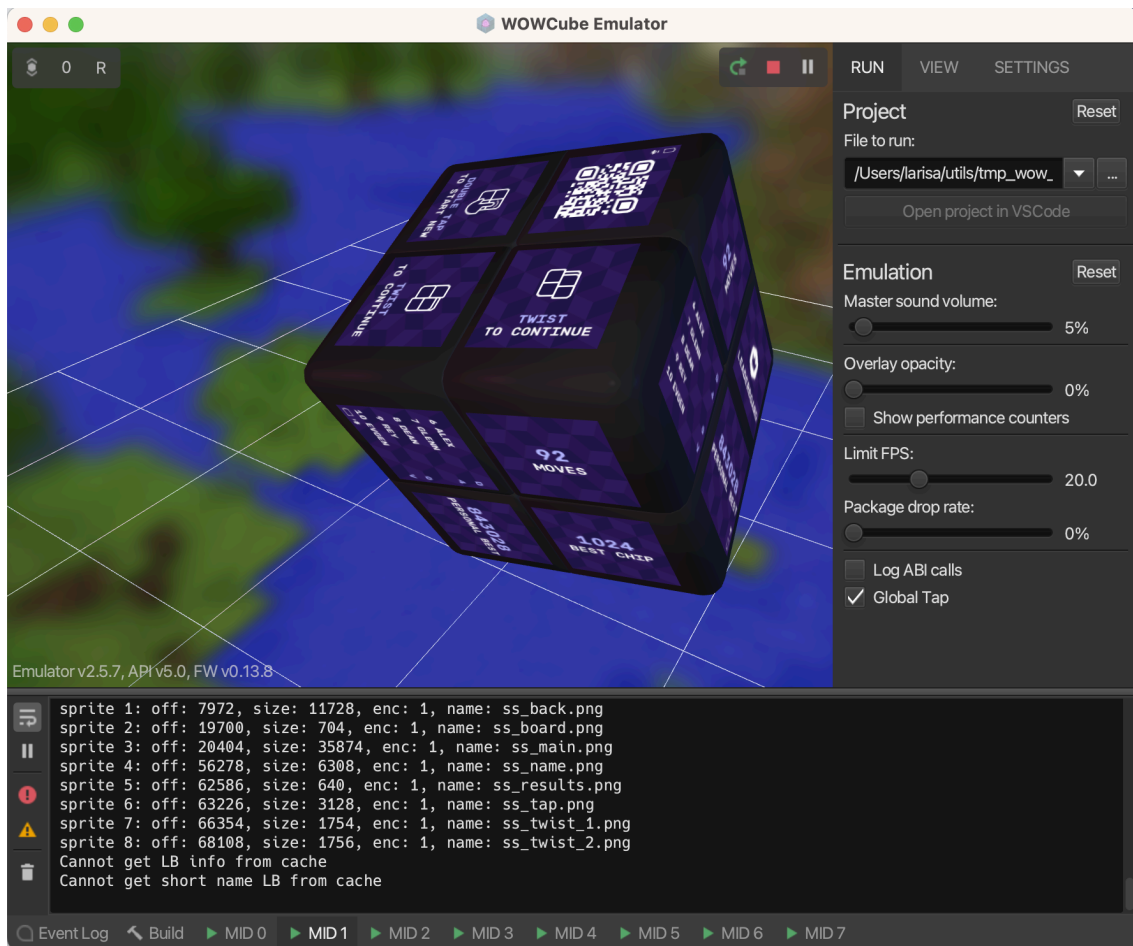
D. Choose the desired project .cub file and press `Open`



E. Press the `Run project` button.

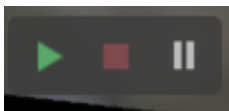


F. Project successfully starts on Emulator

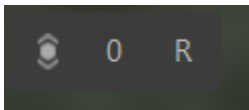


Emulator controls

- Run, Stop, Pause emulation

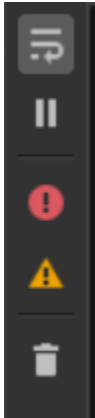


- Shake, Reset modules position, Random move (twist)

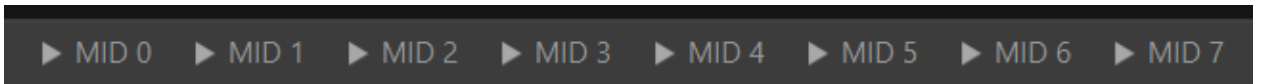


- **Double click** on any module to trigger the 'double-tap' event
- Press and hold the **left** mouse button to start twisting the Cube
- Press and hold the **right** mouse button to start rotating the Cube around its axis

- Use the mouse wheel to change the camera distance
- Console Log options (wrap, pause, filter, clear)



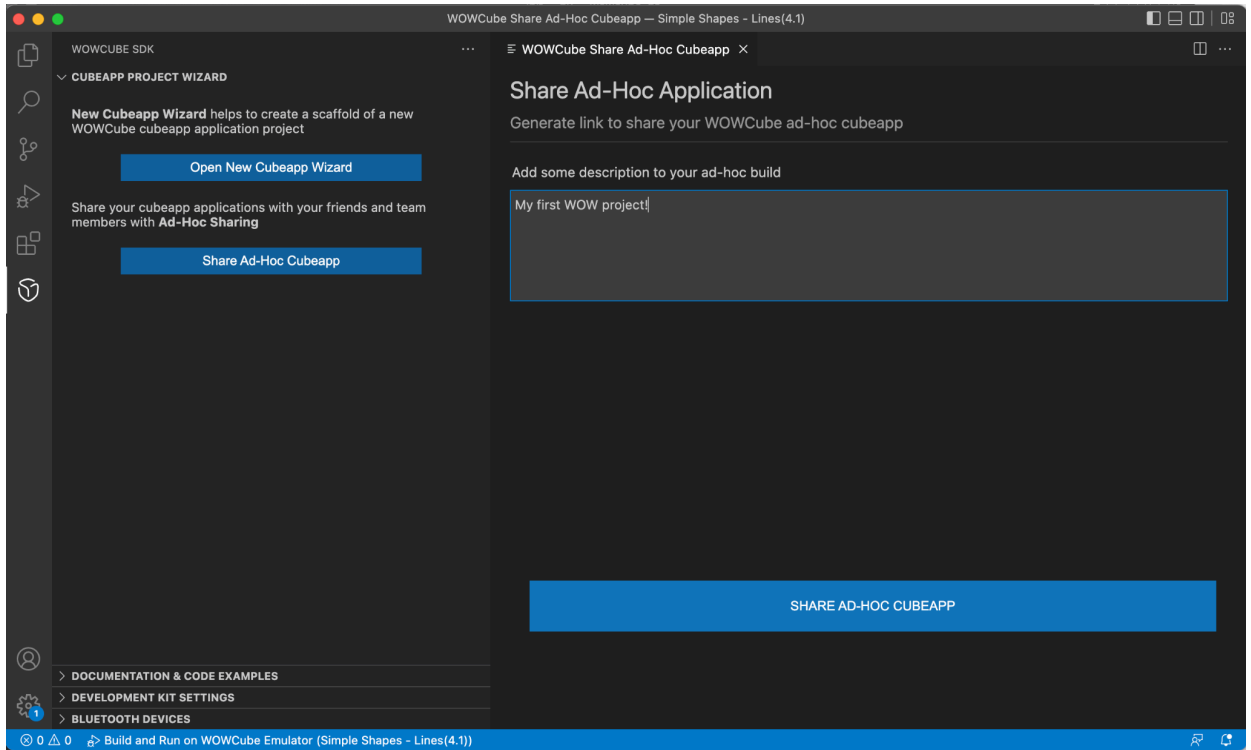
- Seeing Console log for a chosen Cube module. Click on the MID number to see the console log for the corresponding module



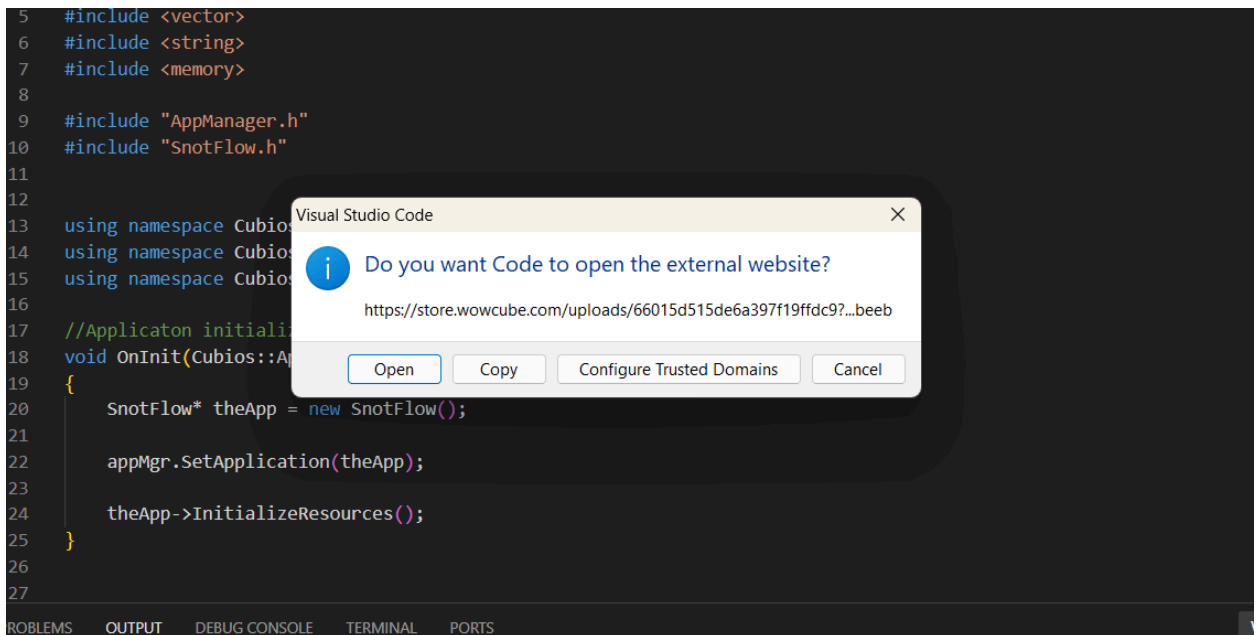
Share your application/game with others

You can quickly share your .cub applications with other persons using the built-in `Ad-Hoc Sharing` utility, so that they can be run in Emulator or on a real Cube:

- Go to `Cubeapp Project Wizard` section in WOWCube® SDK extension and press `Share Ad-Hoc Cubeapp` button
NOTE: Important!!! You need to build your project before sharing it via the 'Ad-Hoc'
- Add a description of your project and press the `Share Ad-Hoc Cubeapp` button



- A pop-up dialog with the link to the project shows up. Copy the link and send it to someone you want to share it with

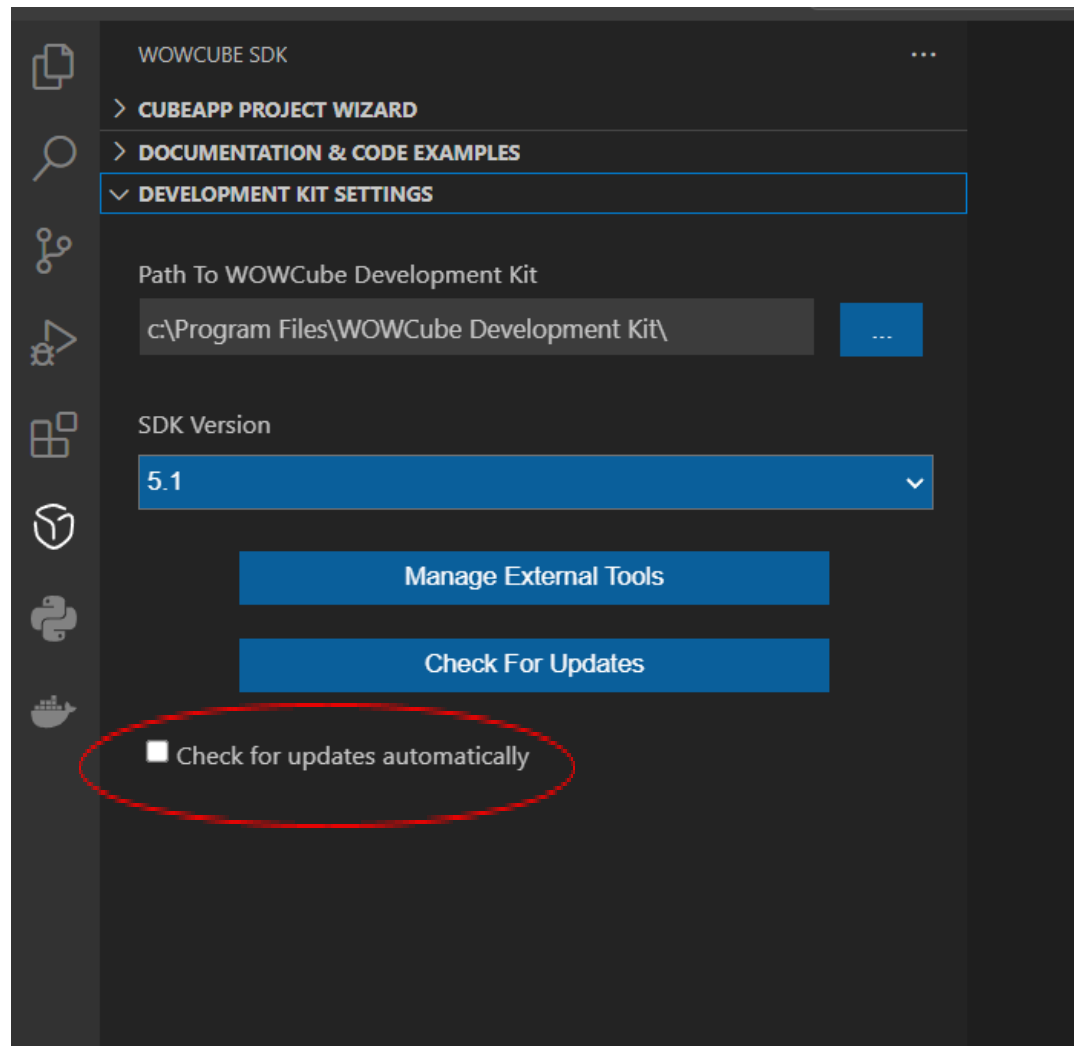


- A person who received the shared link and opened it in a web-browser, will have the possibility to install the app on a real WOWCube by

pressing the '*Install*' button or by scanning a QR-code using a mobile phone (the 'WOWCube® Connect' mobile app needs to be installed on the mobile phone)

Getting updates

- You will be notified about the new versions of the WOWCube® DevKit via the WOWCube® SDK extension. Every time you open the Visual Studio Code the extension automatically checks for the available updates
 - The automatic check for updates is enabled by default, and can be disabled/enabled by unchecking/checking a corresponding option under the Development Kit Settings section



- Same applies to the updates for the 'WOWCube SDK extension' - the Visual Studio Code keeps track of the new releases automatically