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PlatformIO is great

Writing portable microcontroller libraries is hard. The first issue that I run into is that it is hard to set up a toolchain and debugger for a specific microcontroller to run builds from the command line. Possible, but takes a lot of reading, knowledge, and effort. When it is necessary to build the code to multiple microcontrollers, this becomes a major burden. Some device manufacturers, like STMicroelectronics (TrueStudio/STM32CubeIDE), offer good free or low-cost tools for their own processors. Then Keil is generally ok for ARM development but expensive. An additional downside is that both Keil and TrueStudio bundle application and platform code together, which leads to unportable application. One must take a special effort to avoid this.

I have been lately using PlatformIO and been very impressed. It is not perfect and doesn't solve all my problems. But it is good and makes my work much easier. When I want to build code to a new microcontroller, all I need to do is add a section for it into my platformio.ini according to instructions from platform documentation. And like magic, it loads build tools and sets up the whole toolchain, and documentation tells me how to connect debugger. Task what would have taken me perhaps days, is now minutes.

And I have GUI for debugging from the start.

Still do not expect even this to be easy and polished like PC development under Visual Studio 2019, QT creator, etc. It is still microcontroller development and takes some effort. Polished development tools simply do not exist for microcontrollers, the

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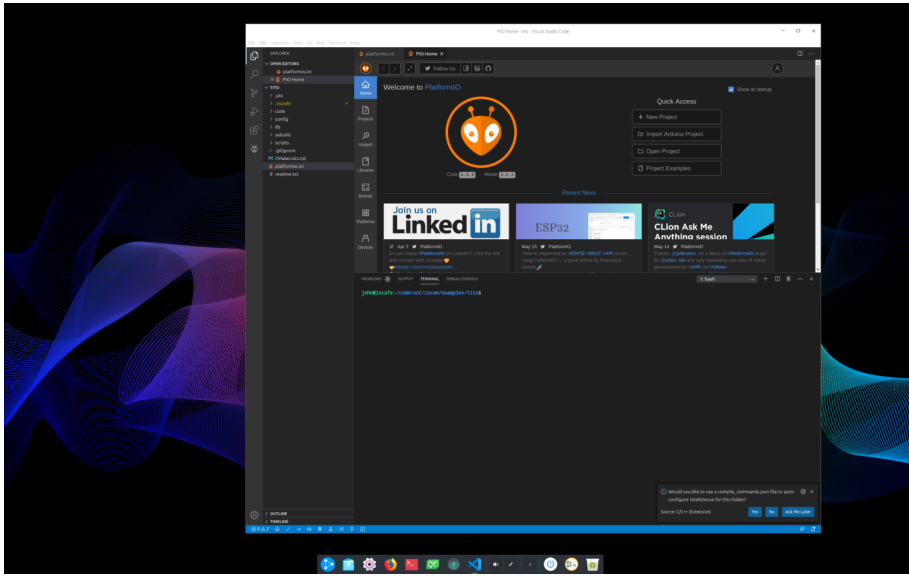
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whole field is so diverse that this may not even be possible in the near future. You need to deal with many issues, and you need still rewrite hardware-dependent parts of code.



PlatformIO on Ubuntu 20.04 deepin remix

But if you want the build the house, use a good hammer. And this is the best I have tried.

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