

# ubxlib: u-blox host library

## Simplified development with u-blox products and services

### Benefits

- Rapid application development through concise and easy-to-pick-up C APIs
- Portable open-source C libraries available on GitHub and PlatformIO
- Ready-to-use example code for u-blox products and services
- Wide support for most common processors and operating systems
- Minimized software migration effort for u-blox product upgrades

### Reducing complexity and code maintenance effort

ubxlib provides C libraries and examples to build embedded applications easily without the need of reading manuals and understanding dedicated AT commands or UBX messages.

High-level APIs handle network sockets over cellular or Wi-Fi connectivity while low-level APIs support dedicated AT commands or the UBX protocol. The location API enables positioning with GNSS modules. The BLE API offers functions for configuration and data exchange over Bluetooth LE. With the MQTT client API a developer can connect and communicate to an MQTT broker.

ubxlib C APIs are concise and uniform across multiple u-blox modules. Once set up, the code needs minimum maintenance, even when using a different or newer product.

This add-on to existing microcontroller and RTOS SDKs facilitates the integration of connectivity, localization and security into any embedded application.

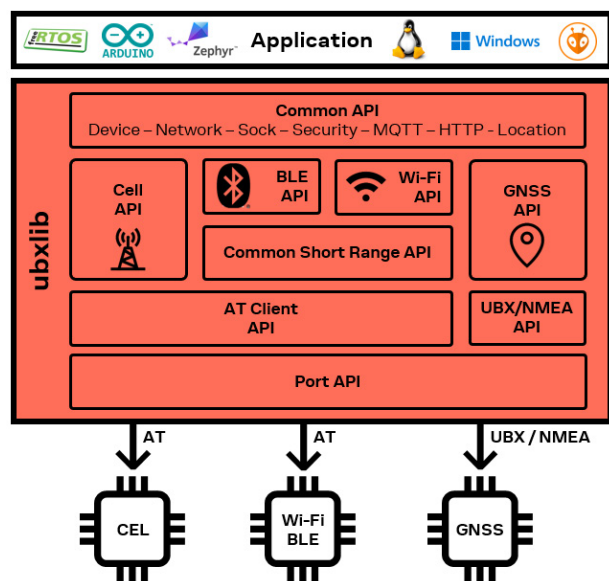
### Ready-to-use examples for various applications

Ready-to-use examples demonstrate how the APIs are used together with u-blox products and cloud services to build solutions for many real-world problems.

The library includes basic examples for product initialization and firmware updates as well as examples using specific u-blox product features.

More complex examples cover integration of sensors or demonstrate solutions that combine a selection of u-blox modules and services.

ubxlib integrates with PlatformIO ([www.platformio.org](http://www.platformio.org)) to enable easy board and build configuration in your favorite IDE.



### Wide product and development platform support

ubxlib works with u-blox cellular, Bluetooth, Wi-Fi, and GNSS products, and supports u-blox CellLocate, CloudLocate, MQTT Now, and MQTT Anywhere services.

To find out which u-blox products and services, MCUs, open CPUs and RTOSs are supported, please visit the ubxlib GitHub page at [github.com/u-blox/ubxlib](https://github.com/u-blox/ubxlib).

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