

Lesson 4-0 WICED Libraries

Welcome back to chapter 4 of Cypress Academy WICED Wi-Fi 101.

In this chapter, we will talk about some of the library functions available inside of WICED Studio. These libraries are made available to help you accomplish the common tasks more easily in your firmware. That is, they allow you to do something without having to “reinvent the wheel” every time.

The libraries include:

The audio libraries – Apollo, FLAC, and some of the other audio standards. This is an area where WICED excels.

Including cryptography implementations of ECDH and ECDSA. This is something I’m going to talk about in a lot of detail in chapter 6.

It includes the various networking daemons such as DHCP, DNS, HTTP, etc.

It includes the drivers. These drivers include audio drivers, sensor drivers, SPI flash, USB, and others.

The filesystem folder has various filesystem implementations which you can use in your projects.

The graphics folder has U8G and UGUI graphics libraries.

The inputs directory has drivers for button management functions.

The protocols directory has a bunch of the internet protocols including AMQP, COAP, HTTP, and MQTT. These are protocols that I’m going to talk about in detail in chapter 7.

The test folder has test projects.

The utilities folder has various utilities to help you with your project including JSON parsing.

In the next few videos, I’ll show you how to use the U8G graphics library to drive a 128x64 pixel U8G OLED display, and how to use the cJSON parser to parse JSON, amazingly enough.

In the later videos I will show you how to build networking projects that use the application protocols HTTP, MQTT, COAP, AMQP, in addition to the networking fundamentals DNS, DHCP, etc.

As always, you can post your comments and questions in our Wi-Fi developer community or you are welcome to email me at alan_hawse@cypress.com or tweet me at @askioexpert. Thank you!