

Chapter 1: Tour of WICED Wi-Fi

Objective

Objective is to understand the parts that make up the WICED ecosystem

Tour of WICED Studio SDK

First Look

Software is based on Eclipse and is called WICED Studio

Talk about the 5 boxes on the IDE window. Note that we will show a demo in the next chapter.

1. File Editor
2. Project Explorer -> demo apps, your apps, docs
3. Make Target
4. Console
5. Help

Use *Window > Reset Perspective* or *Window > Show View* if you lose a window

Project Explorer

README.txt and version.txt

Apps

Apps - where all projects go (examples, demos, and yours)

Doc

API.html is most useful in the directory

Platforms

A platform is a specific piece of hardware (e.g. a kit, your own custom board)

1. Contains necessary information to program kit
2. Contains macros for resources such as button, LEDs

We will use a kit plus shield and will have a platform defined for that combination

Libraries

Useful functions such as:

1. U8G graphics LCD (which is on our shield)
2. Parsing JSON
3. Working with filesystems

Resources

Files required by application other than .c and .h

1. HTML files for a web server
2. Security certificates and keys

Tour of Documentation

In the SDK Workspace

API.html

On the Web

Community

Reporting Issues

Use JIRA – add to CC list under the assignment tab

Tour of WICED SDK Structure

SDK Structure

1. RTOS
2. Hardware layer, intermediate layers, API layer, your application

Tour of Wi-Fi

WICED chips support all flavors of Wi-Fi

For the most part, you just say connect and the SDK takes care of the rest:

1. Finding the frequency and channel
2. Using the fastest connection possible

Tour of Chips

- Older chips start with BCM, newer Cypress branded chips start with CYW
- Wi-Fi chip numbers all start with 4
- Kit numbers all start with 9, such as the CYW943907AEVAL1F

Tour of Partners

- Module makers
- Technology partners such as Amazon web services
- Value Added Resellers
- ODMs

Tour of Development Kits

Exercise(s)

Exercises – 30 minutes

- Create a forum account and explore the online forum
- Look at the documentation in WICED Studio