

EasyConfig Demo Overview

WLAN networks provide a unique challenge for configuring embedded wireless without a natural user interface. Unlike wired networks, wireless networks require unique items such as the SSID and network type and keys, which have to be sent to the device in some form or another.

Traditionally, this means a user would enter this information using a keyboard and display. EasyConfig is a mechanism to allow for configuration of an embedded device on a wireless network. It utilizes the web server of the TCP/IP stack, as well as a wireless adhoc (IBSS) network to allow the user to input the desired network information from a client browser, and then reset the device to connect to the desired network.

The EasyConfig demo works in roughly the following manner:

- 1) Make sure the WiFi Easy Config MPLAX Demo Project is open.
- 2) Set "WiFi Easy Config EDF" as main MPLABX project
- 3) Build/Program EDF Board
- 4) If the red LED near D14 is slowly blinking red, then the board is functioning as a WiFi device.
- 5) Upon power up the device, it broadcasts an adhoc network with SSID "EasyConfig".
- 6) A client device (laptop, iPod Touch/iPhone/iPad) can then connect to the EasyConfig network.
- 7) Before trying to connect have all browsers closed, if you are having trouble connecting try repairing your wireless connection first.
- 8) The user can then use a standard web browser to go to the IP address of the demo (<http://169.254.1.1>).
- 9) The user will then be presented with some web pages from the web server. The index.htm web page has some additional information on EasyConfig, and also shows the continually updating status of the LEDs on the development board. The LEDs on page can be changed by clicking them with the mouse. This in turn will get updated on the EDF board. The potentiometer also works. The buttons are not functional in this demo The configure.htm page will allow the user to scan for networks, and connect to a network of their choosing.

The UART capabilities are disabled for this demo.