

README

Web Server

1. Compile using makefile - "make all" will compile the server executable, along with the shared modules. Server is linked to the other source files (main.c, module.c, common.c)
2. To set up server, run the executable server file, specify an address and a port number, along with other option arguments that you can view using the -h (help) option.
(./server -a localhost -p 8080 -v)
 1. If you specify - v (verbose), the server provides information and displays IP address of each connected client.
 2. If you do not specify an address or a port number, the server will use default values.
3. Connect to the server with a web browser by providing a URL: 'http://address:port-number/module'.
 1. If the module (aka the requested page) does not exist, the HTTP response will be of type 404: Not found. Otherwise, the response is OK and the HTML page is displayed.
 2. Each module is a c file with HTML templates related to the specific function of the module.
4. Display Modules:
 1. HTML Pages: Specify http://servername:port/page.html, with page being the name of the html file you wish to access.
 2. Image Files: Specify http://servername:port/image.jpg, with image.jpg being the name and extension of the file you wish to access.
 3. Directory Listing: Specify http://servername:port/directory
 4. My Histogram: Specify http://servername:port/histogram
5. To view different landscapes, specify the desired module as the requested page. For example, if you want to see a star-filled sky, specify: http://localhost:8080/star_night and the web server will provide the requested HTML page. This can also be accomplished by using the app below.

App

1. Build using Xcode 7. Runs on generic iOS devices. Does not support iPad Pro. Unofficially signed app, so you will need a developer account to build and deploy.
2. To set up app to communicate with server, enter the server name and port number entered when running the server, preceding with http.
3. To access a preset module, touch one of the buttons below. This app prepends Arduino functions only. The app does not support the directory listing function, the histogram function, or the image display functions. These can only be accessed through an html 1.0/1.1 compliant browser.

Current Limitations:

1. Histogram and directory listing functions do not display output in HTML.
2. App does not error check server URL inputs for accuracy.