

Esp32_Framework is a small development brick that establish the core of a futur development always with the Esp32.

This framework build the starting point to a configurable future development. It allows:

- Initialize and start **FS** file system wrapper (In **NVM** or **EPROM**).
- Store the skeleton of the configuration in **JSON** file (call *config.json*).
- Start the Wifi (with WifiManager library). The Access Point is stated at the first time and allows to record the **SSID** and password for the future network connection. The preferred **MAC** address and host name are defined in the *config.json* (see method *loadConfiguration*).
- Start the **OTA** (Over the Air) update is the process of loading the firmware to **ESP** module using Wi-Fi connection rather that a serial port.
- Start the Web socket server.
- Start the Web server. Allows file management in the local file system.
- Start the nDNS service. Allows the hostname publication on the network *boujour*.

Default config.json file:

```
{
« HostName": "esp32dudu",
« MacAddress": [ 48, 174, 164, 144, 253, 200 ],
« ResetWifi": false,
« OTAHostName": "esp32dudu",
« OTAPassword": "empty",
« UploadName": "admin",
« UploadPassword": "admin",
« UseToolsLocal": true
}
```

Basic tools embedded is ESP are visible here:

The image displays three browser windows showing the web interface of the Esp32 framework. The first window, titled "HTML Esp32 tools", provides instructions on how to use the page and lists configuration and system facilities. The second window, titled "HTML Uploader", provides instructions on how to upload new files to the ESP32. The third window, titled "HTML Update OTA", provides instructions on how to update the firmware over the air to ESP32.

HTML Esp32 tools

Use this page to access the ESP32 embedded tools.
You are here because there is no index.html uploaded.

Configuration facilities

- Show List of files in Embedded File System
- Show configuration file used at startup
- Show simple file uploader facility to E.F.S

System facilities

Several system commands are available:

- **Restart** launch an immediate reboot on the Esp32.
- **Save Config.** record the current configuration to E.F.S.*
- **Restore** remove files and set parameters as default values**.

- Select one command in the list :

* All parameters in config.json file will be affected.
**The login/password and all flag will be set to default. Embedded File System will be reformatted & cleared.

HTML Uploader

Use this page to upload new files to the ESP32.
You can use compressed (.gz) files.

aucun fichier sél.

HTML Update OTA

Use this page to update the firmware over the air to ESP32.
You can use the binary format (firmware.bin) files.

aucun fichier sél.

progress: 0%

Warning: After firmware update the ESP32 will be restarted.

This tools allows to record file into Esp32 file system to constitute the future Web site.

To be continued...