Marlon - User Guide

April 01, 2020

Overview

Marlon is a firmware configuration wizard that was made in order to make the set up and updating process of a 3D printer controller much easier and bug free.

Marlon's Goals

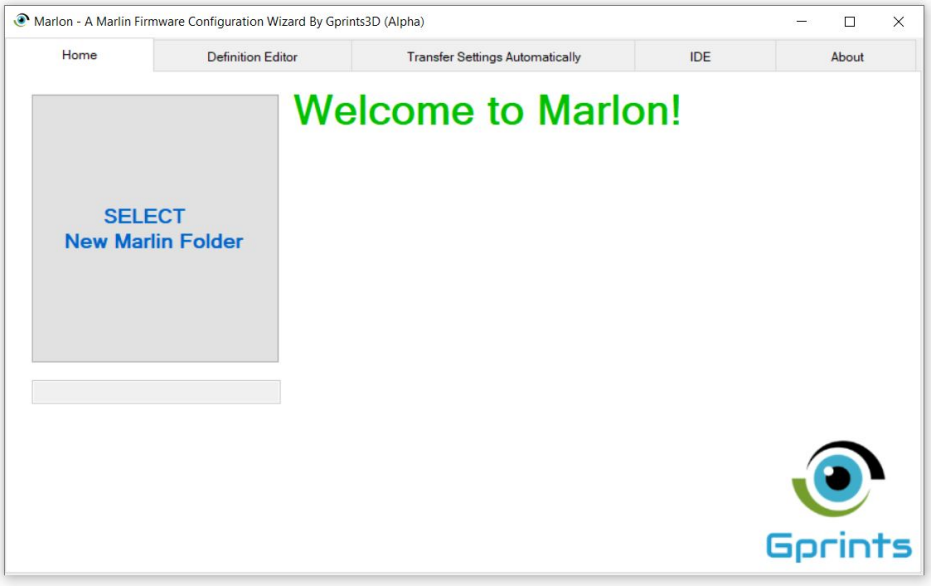
- To enable the user to configure the firmware without tinkering with the header files.
- To make the process of updating the Marlin firmware as easy as a click of a button.
- Compile and save the new firmware file (.bin) unto an SD card.

Notes

- Marlon is tested only for versions of Marlin 2.0.x.
- Compilation tested on the following boards (Alpha version):
    - BTT SKR 1.3
    - BTT SKR 1.4

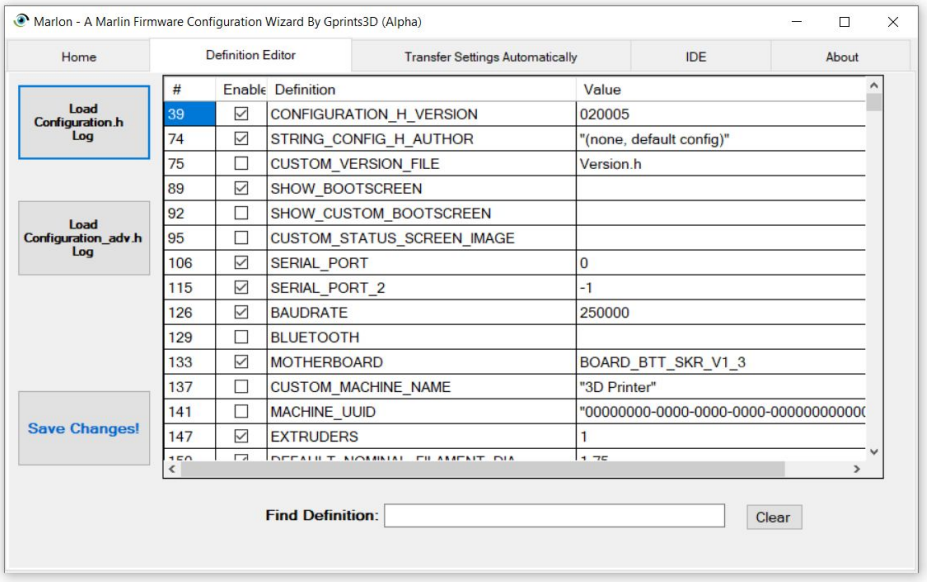
Let's Get Started!

When starting up the application, you'll enter the 'Home' tab. In this tab you will need to choose the new marlin folder you want to configure via the "**SELECT New Marlin Folder**" Button.



After the selection of the folder, Marlon will analyze the configuration files in that folder - this process will take a few seconds. After the process is complete - you may continue to the next tab.

Definition Editor

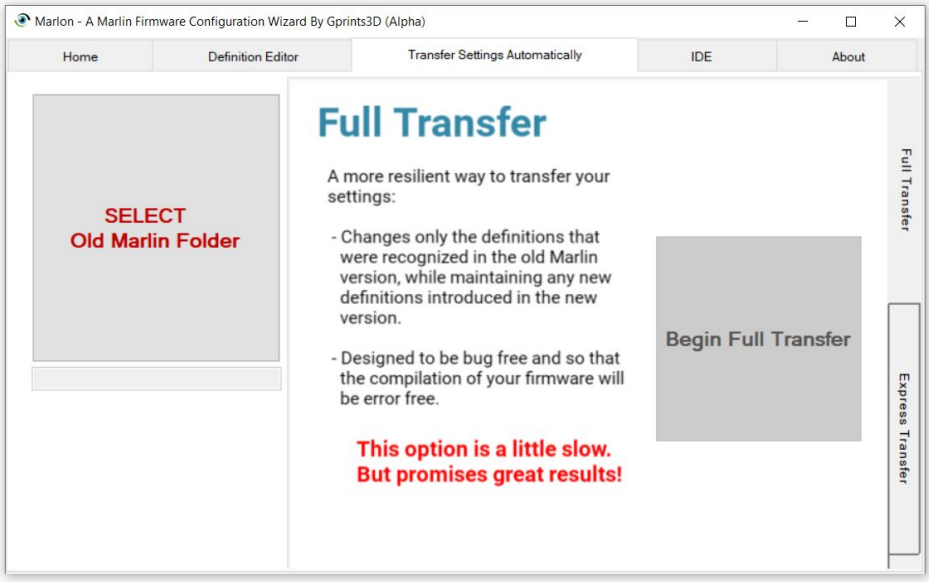


If you don't have a previously configured Marlin folder, the definition editor will allow you to manually edit each definition and definition value in the configuration files ("configuration.h" or "configuration_adv.h").

- You can toggle between the display of the two files by their respective buttons.
- The first column ("#") represents the line number of a definition.
- The "Enable" column represents if a definition is enabled via a checkbox in the following way:
    - Enabled - ☑ - uncommented definition in the configuration file ("#define…")
    - Disabled - ☐ - commented definition in the configuration file ("//#define…")
- In order to edit a value in the "Value" Column:
    1. One click to mark the value.
    2. Double click to edit.
- Use the "Find Definition" to reduce the table and find a specific definition (value in the "Definition" column). Use the "Clear" button to return to the full table.
- Use the "**Save Changes**" button to save your changes back to the configuration files in the Marlin folder.

Transfer Settings Automatically

In this tab, you'll be able to transfer the settings from a previous Marlin set-up to the new Marlin folder.



- Start by selecting your old Marlin folder via the "**SELECT Old Marlin Folder**" button.
- After the selection of the folder, you'll notice a list of boards (Source: "boards.h") - choose the board definition from the list that is suited to the board the firmware is flashed to and then click the "This is my board" button.

  ***Please note that board definitions may change between Marlin versions.**

- Pressing the "**Update 'Platformio.ini' File**" will update the new platformio.ini file microprocessor name value from the previous version of the file.
- After that, you will be able to choose from 2 different Transfer options:
  - **Full Transfer** (Recommended) : This option will find the definitions that appeared in both the new and old Marlin versions and will update the new with the old accordingly.

    Pros: Designed not to cause any compilation errors.

    Cons: Works a little slow (patience is a virtue!).

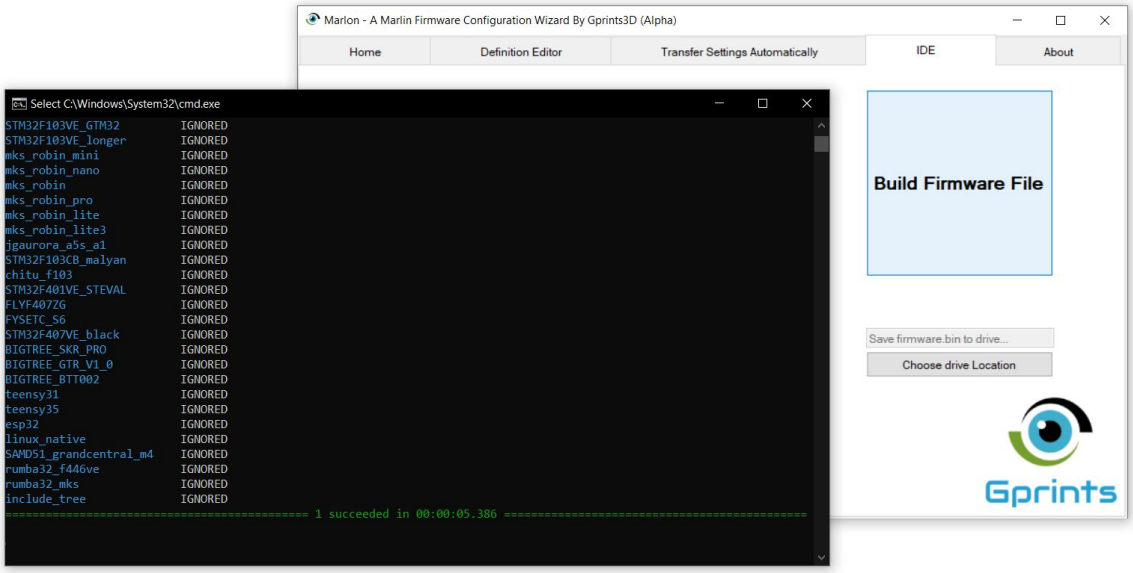
- **Express Transfer** (Not Recommended) : This option will only copy the “configuration.h” and “configuration_adv.h” from the old folder to the new folder.

  Pros: Works very fast.

  Cons: Since some definitions are sometimes deleted or changed between Marlin versions - this option may cause compilation errors.

IDE

Before using the IDE to compile your firmware, please make sure you follow the PlatformIO installation tutorial.



- You can start the compilation process by clicking on the “**Build Firmware File**” button. A black cmd.exe window will open and start the compilation (will take a few **minutes**).
- After the compilation is complete, you’ll be able to click on the “**Choose drive location**” and save the generated ‘firmware.bin’ file to an onboard SD (when connected to a 3D printer via USB) or an SD card inserted to your PC.

That’s it! You’re done!

Thank you for using Marlon!

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