Flash Programmer Guide

Last Updated August 24, 2016

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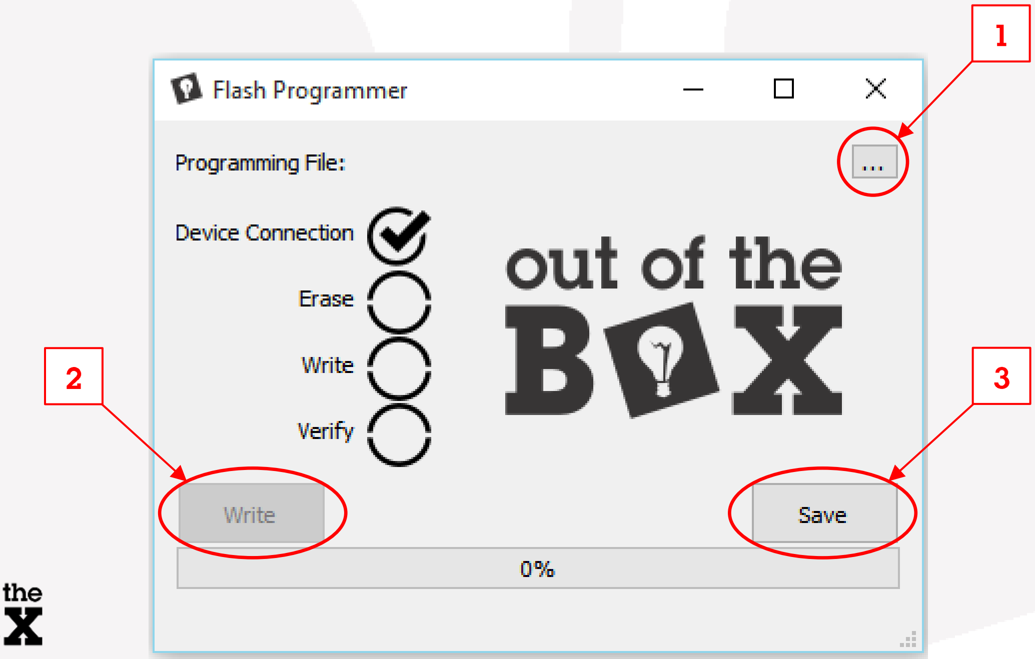
Overview

This document is intended as a guide on how to use the Out of the Box Flash Programmer application.

Inputs

There are three buttons used to interface with the flash module located on the Out of the Box MAX V Development Board. These buttons are the programming file browse button (1), the "Write" button (2), and the save button (3). These buttons are circled in the figure below. Their functions are as follows:

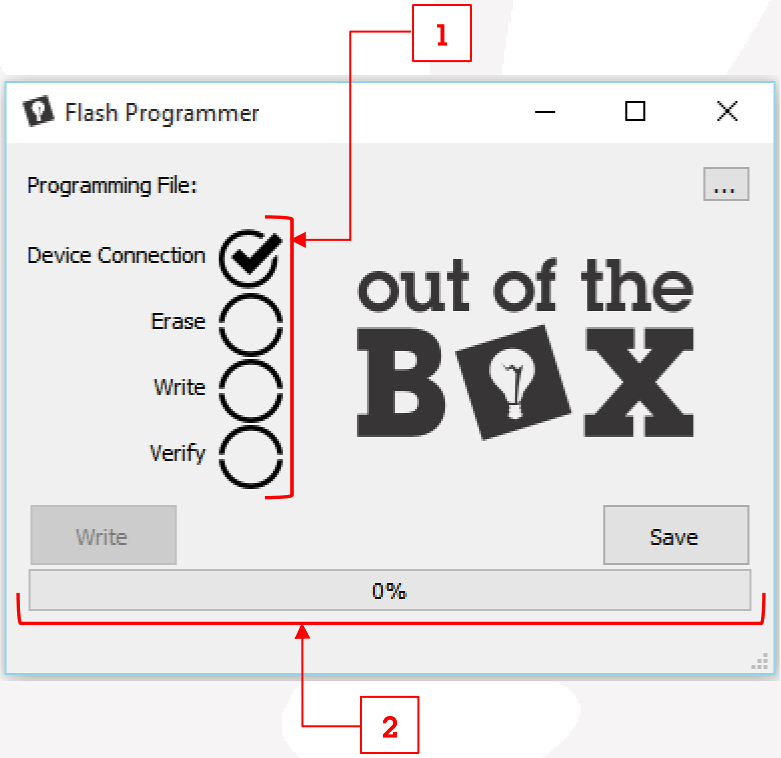
1. Program File Browse
   a. This button is used to select a ".mif" file to write to the onboard flash memory. Pressing this button will open the windows file explorer window. Navigate to the directory containing the desired file, highlight it, then select open. Once selected, the absolute path to the file will appear to the right of "Program File:".
2. Write
   a. The write button is used to write the selected program file to the onboard flash memory. When no program file selected, or the selected file is invalid, the write button will appear greyed out as shown in the figure below.
3. Save
   a. This Save button is used to read the data stored on the flash memory. Once a file name and directory is chosen this data will be saved as a .mif.



Statuses

There are two separate ways to monitor status. There are the general process status circles (1) and the current action status bar (2). These status units are marked in the figure below. Their functions are as follows:

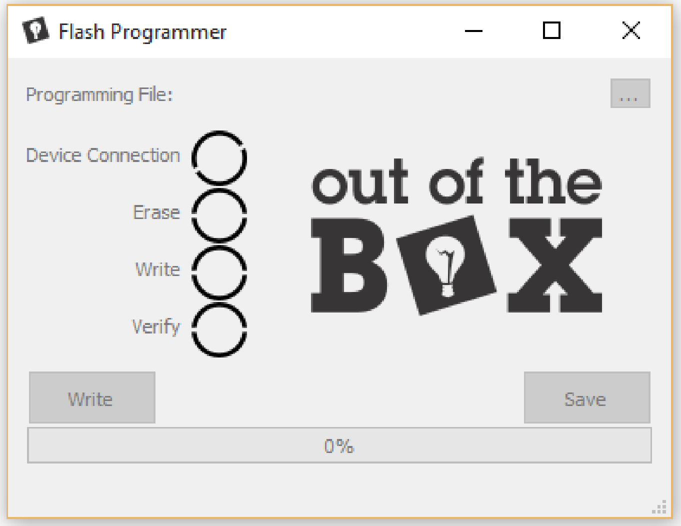
1. General Process Status Circles
   a. These circles give a pass-or-fail status of the individual functions of the programmer. When a function is performed successfully, the circle is populated with a check mark as seen in the "Device Connection" circle in the figure below. When a function fails, the circle is populated with an exclamation mark (not shown). These status circles are updated live, allowing the user to see the current step the programmer is on and which step, if any, failed during a program cycle.
2. Current Action Status Bar
   a. This bar displays the percentage complete of the current function. This allows the user to both track progress and identify an issue with the programmer. The bar will both update the percent value located in the center of the bar, and progress a green bar as the process runs.



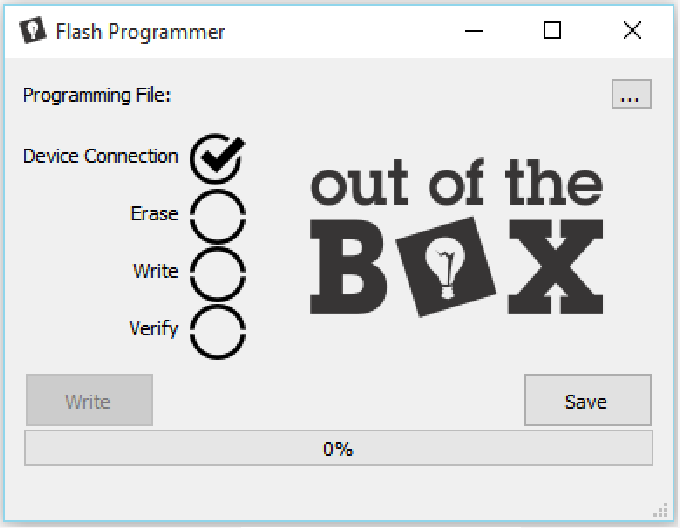
Guide

Connecting a Device

For the Flash Programmer application to function, the programmer .pof file must be programmed onto the Out of the Box MAX V Development Board. Once this has been performed the device can communicate to the host PC.

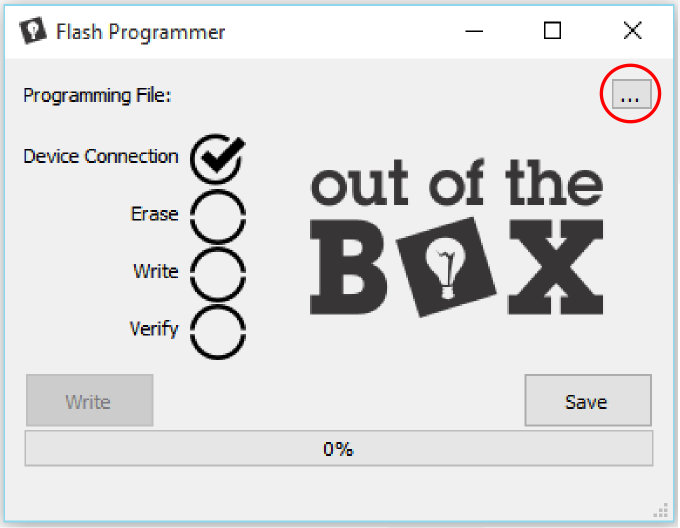


While the Flash Programmer searches for an Out of the Box MAX V Development Board the Device Connection indicator will be an empty spinning circle as shown above. Once a development board is found the indicator will be filled by a check mark as seen below.



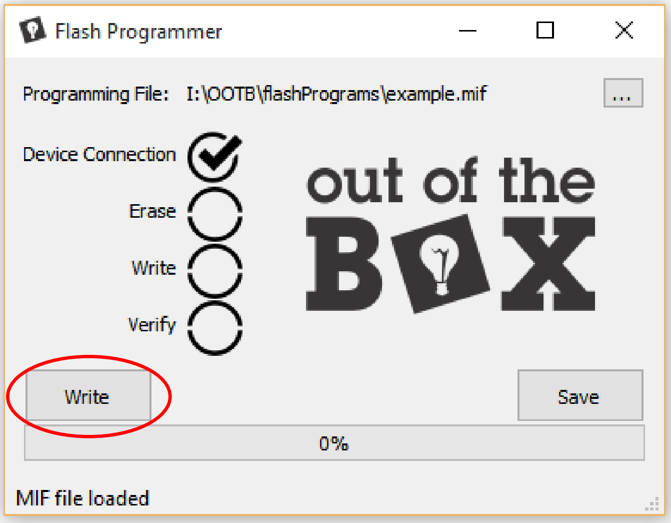
Writing to Flash

Once a device has been successfully connected the next step is to select a file to be programmed. Use the circled button below to browse for a file to program. Once this is done, the file path will be displayed next to the button.



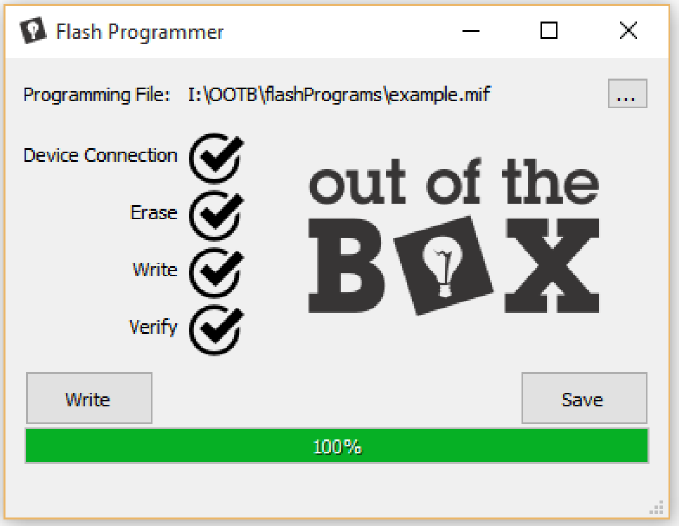
In the example below, the '.mif' file to be programmed is located at "I:\OOTB\flashPrograms" and is called "example.mif". The write button, no longer greyed out, indicates that a Write operation can now be performed.

Once the Write button is pressed (circled below) the erase write and verify processes will follow one after another. The current status of the process will be indicated by the current action status bar, and once complete the process' indicator will be filled with a check mark.


Programming File: I:\OOTB\flashPrograms\example.mif

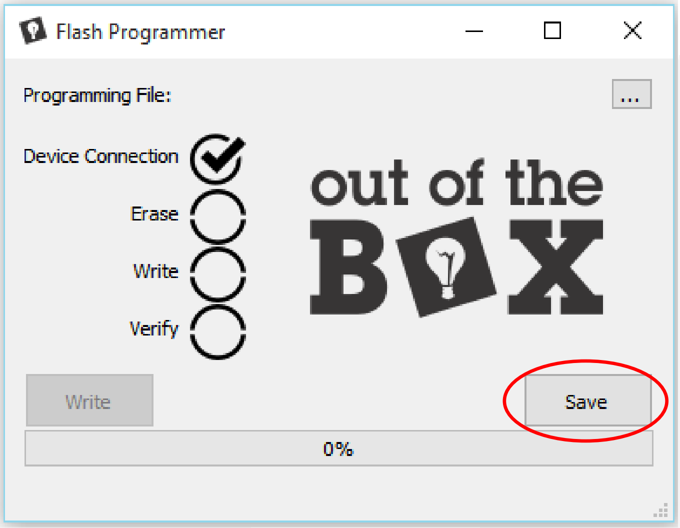
MIF file loaded

Upon successful completion of all of the processes the window will appear as below.


Programming File: I:\OOTB\flashPrograms\example.mif

Read from Flash

Press the Save button (circled below) To read the contents from the onboard flash memory. This button will open up a dialog where a path and file name can be specified. The file will be saved in .mif format.


Programming File: