



interfaceIT™ Encrypted Firmware Loader

Rev 1.12



Proprietary Statement

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¹ a



General Information

This documentation describes the process of upgrading firmware on any of the interfaceIT Ethernet™ Enabled products. From time to time TEKWorx Limited will release updated Firmware for their devices, which could include bug fixes, enhancement, or new features. When these updates are released you can optionally upgrade your controller with the provided file. The following steps will guide you thru using the Firmware Upgrade utility to perform an upgrade to the firmware running on the device.



Process

1) *Load the application*

Launch the firmware loading application “interfacelT Encrypted Firmware Loader.exe”

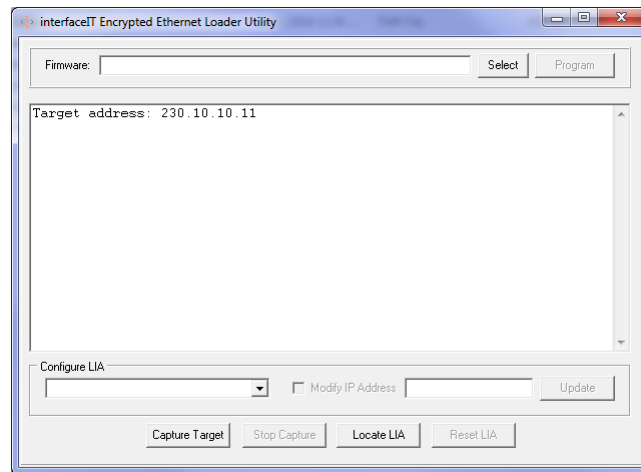


Figure 1 - Loader Launched

2) *Capture Target*

Click on the capture target button (lower left) to setup the application to be able to receive the message when the board boots and put it into the firmware upgrade mode.

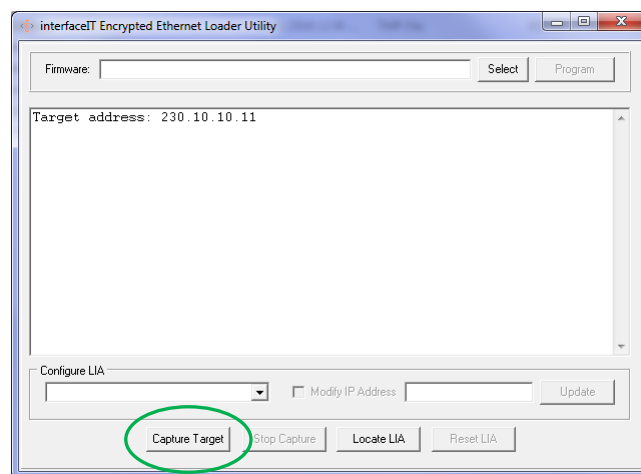


Figure 2 - Capture Target



3) Power Cycle Device

Now that the firmware loader is ready, you will need to cycle the power on the interfacelT Ethernet™ Enabled board. During boot the device will attempt to contact the Ethernet Loader utility, at which time if you have Anti-Virus or Firewall's enabled you may be prompted to allow access. If the device does not capture, you may need to disable your firewall or check your connections (see troubleshooting section).

4) Device Detected

Once the interfacelT Ethernet™ Enabled device has been detected and placed into Firmware Upgrade mode, you will see a series of messages with data from the device. If this is your first (or only) device you should see a LIA ID of 4200. Once in this stage you are ready to select the new firmware file by pressing the “Select” button

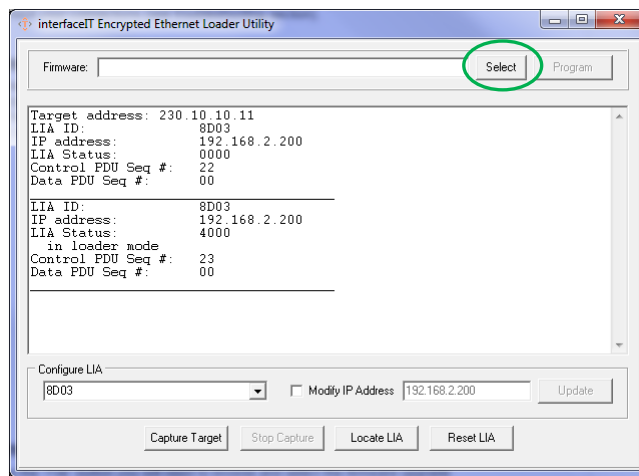


Figure 3 - Device Detected

5) Select Firmware Upgrade File

After clicking the “Select” button you will need to browse and select the firmware upgrade file downloaded from TEKWorx Limited for your specific device. Be sure to select the correct file for the board you are working with. If you pick the wrong firmware it will not load as there is a check during loading.

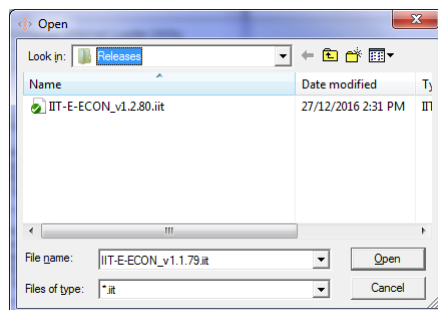


Figure 4 - Select Firmware File



6) Program Update

Once you have selected Firmware Update file, press the “Program” button to start the programming.

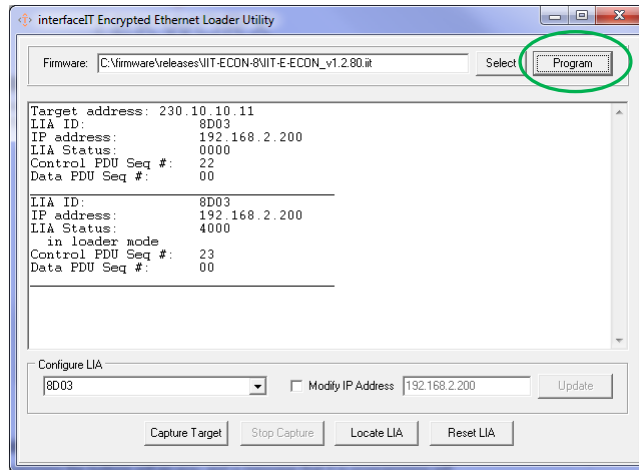


Figure 5 – Program

7) Programming

During programming the buttons will go gray and a message that it is programming will show up on the screen. The screen will not be show anything else during the programming, however if you look at the activity light on the interfaceIT Ethernet™ Enabled board (top right LED on the Ethernet connector) it will be blinking rapidly during the programming.

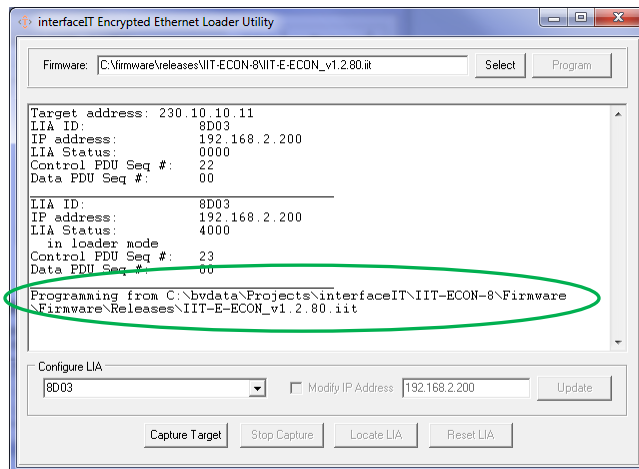


Figure 6 – Programming

8) Programming Complete

Once the programming is complete the buttons will be enabled again and you will see a “Programming Complete” message on the screen. At this point you have completed the update successfully.

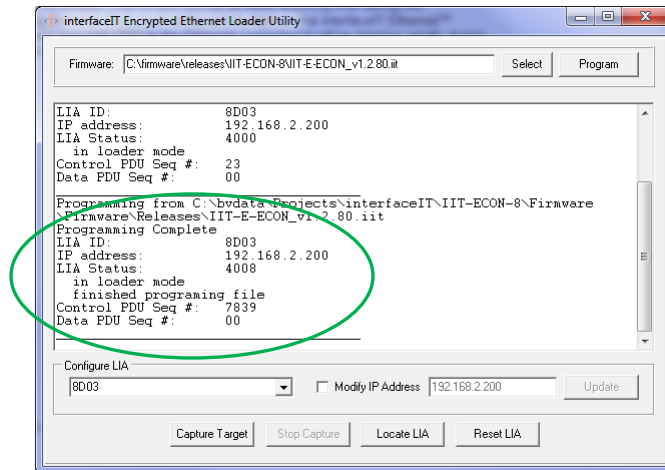


Figure 7 - Programming Complete

9) Reset the board

Since you have upgraded the firmware in the controller board and that it is still in a Firmware Upgrade mode, you will need to power cycle the board. You can do this one of two ways:

1. Press the “Reset LIA” button and the software will send the command to reboot the device
2. You can physically remove power from the board for a few seconds (recommend 5 seconds to allow for power to drain from all circuits); and then power the board back up.

10) Close App

Now that the programming is complete you can simply close the Firmware Loader.



Verify Firmware Version

You can verify the firmware version by connecting to the board with a web browser. If you have not changed the default hostname on the board it will be the name of the board. For example, IIT-E-SPEK1 or IIT-ECON-8. Simply enter that into your browser and it should take you to the web interface of the board. Once there you can click on the “Device Info” tab and view the firmware version

Device Information	
Board Name:	IIT-E-SPEK1
Serial Number:	D8803927038F
Board Type:	IIT-E-SPEK1
IP Address:	xxx.xxx.xxx.xxx
Board Firmware:	v1.2.80
Build Date:	Dec 27 2016
Stack Version:	v5.42
interfacelT Port:	xxxxx
Current Connections:	0

Figure 8 - Device Info