



shiratech



iCOMOX Flash Programmer  
User Manual SDK



## Document Revision History

Revision	Date	Author	Status and Description
1.0	30/07/2019		Initial version

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## 1. Introduction

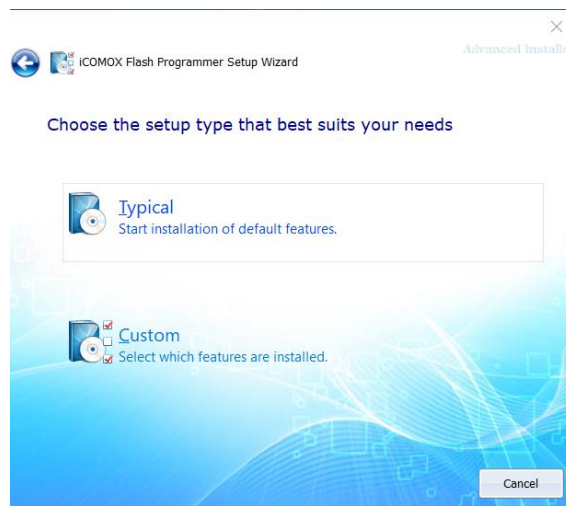
iCOMOX Flash Programmer is based on the CrossCore Serial Flash Programmer™ by Analog Devices. The iCOMOX Flash Programmer is a Windows utility for programming the flash memory of the iCOMOX via the USB-C port.

## 2. Installation

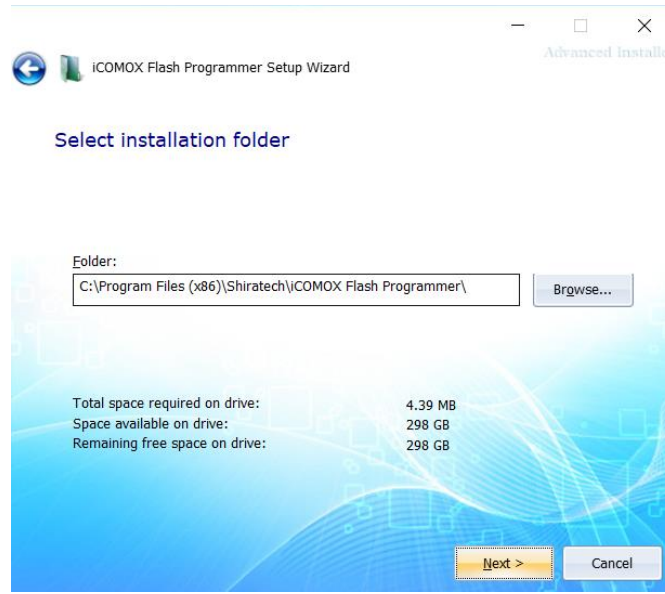
1. Download and run the latest version of the iCOMOX Flash Programmer from:  
<https://www.shiratech-solutions.com/products/icomox/>
2. Click “Next”.



3. Pick “Typical” installation.



4. Select the installation path on your machine.



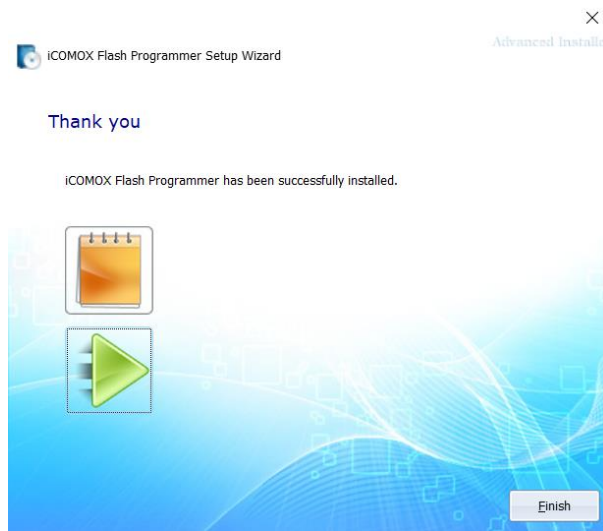
5. Click "Install" to begin installation.



6. In case the installer will require you additional installations, Confirm terms and conditions and click “Install”, then restart your machine and repeat the installation process from the beginning.



7. Click “Finish” to complete the installation process.



### 3. Programming the Flash

1. Open iCOMOX Flash Programmer
2. Click the “Browse” button to select the .hex file to be programmed. Do not click “Start” yet.

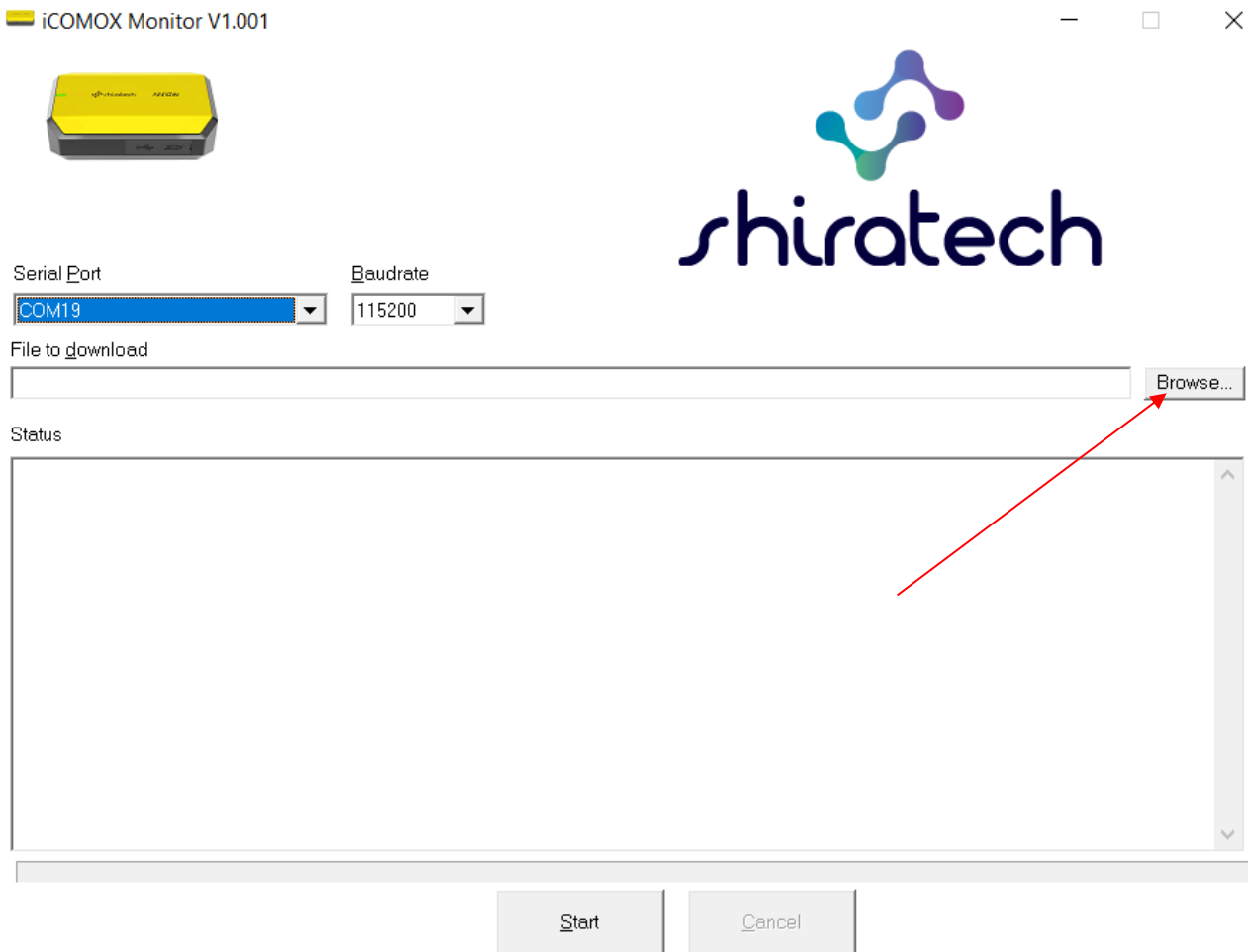


Figure 1: iCOMOX Flash Programmer

3. Remove the iCOMOX cover by removing the 4 screws on the back side.



Figure 2: Removing the iCOMOX cover

4. Connect the iCOMOX to the PC using the USB-C cable and turn the iCOMOX on by sliding the slide switch on the iCOMOX in the direction of the LED (the direction opposing the USB-C cable). You may launch the Device Manager prior to performing this step, to verify which COM port to choose in later steps.



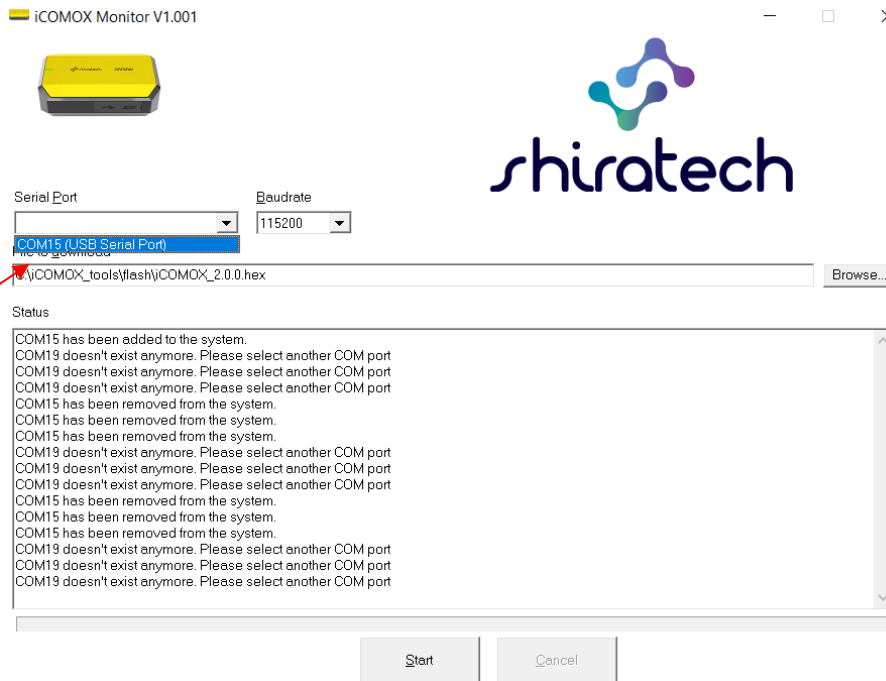
Figure 3: Switching the iCOMOX on.

5. Locate the BOOT and RESET buttons on the iCOMOX, and perform the following sequence:
  - a. Hold down both the BOOT and the RESET buttons.
  - b. Release the RESET button
  - c. Release the BOOT button.

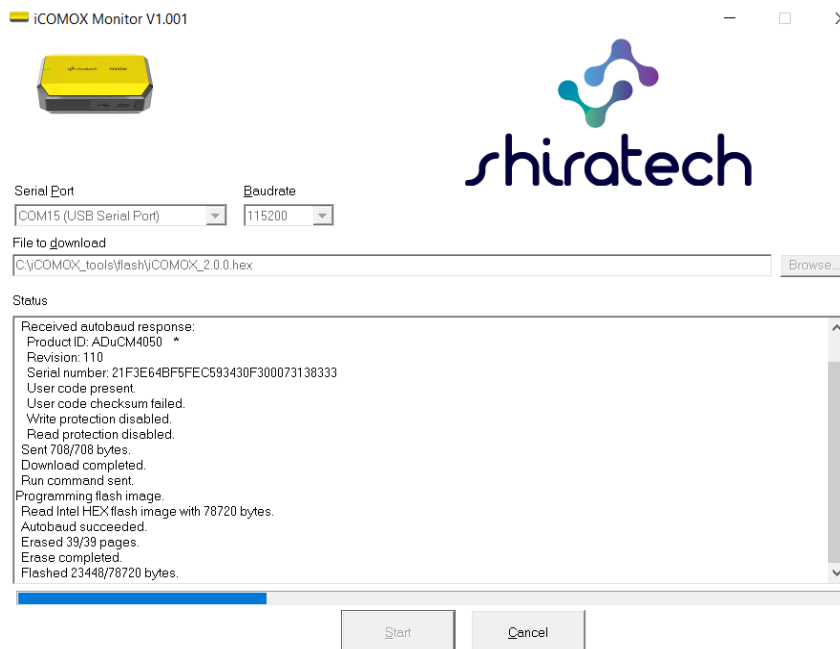


Figure 4: The BOOT and the RESET buttons.

6. Select the suitable COM port (USB Serial Port) from the drop-down menu.

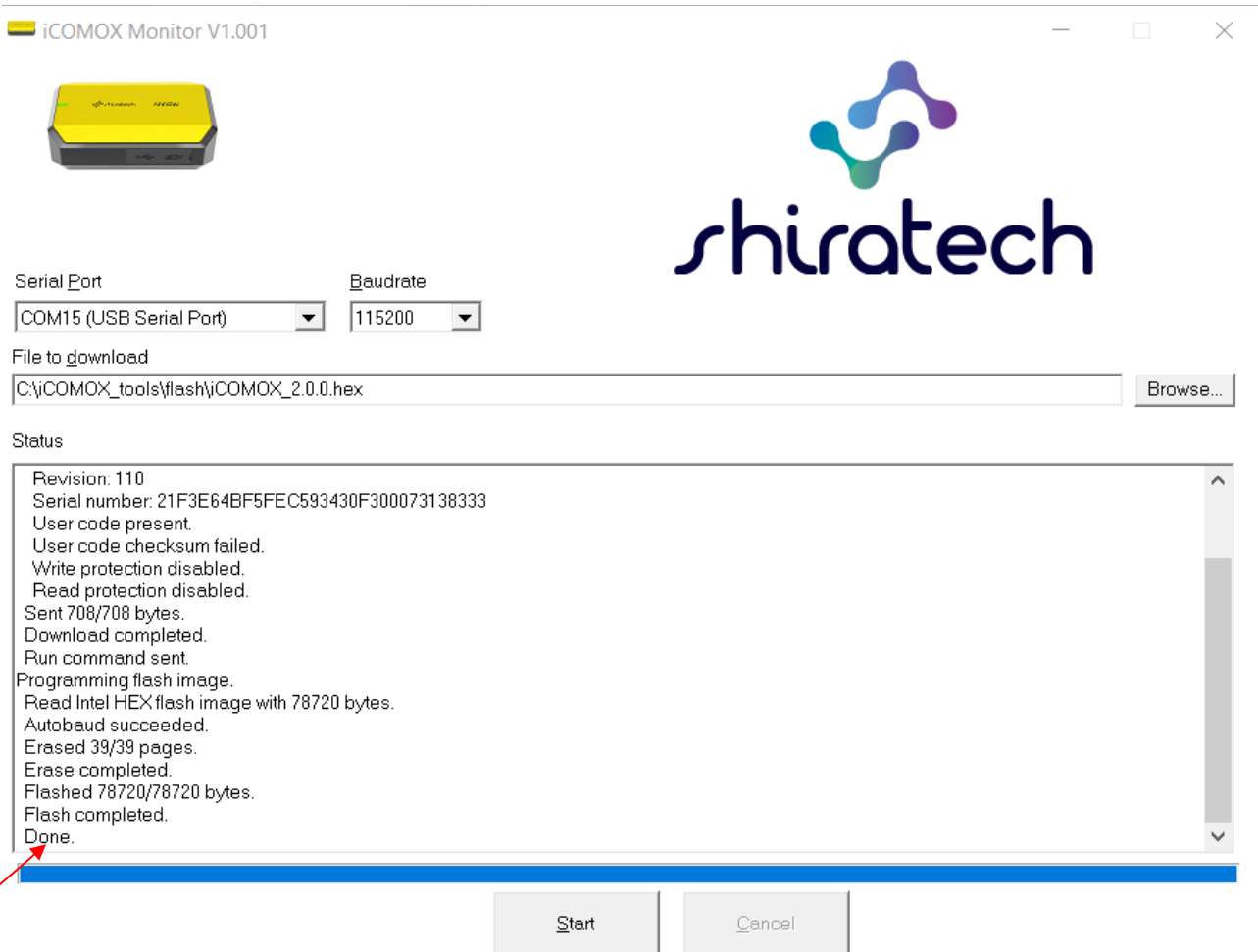


7. Click "Start". Flashing should start.





8. "Done" indicates that flashing was successful.



9. You may reset the iCOMOX by pressing the RESET button to verify the installation.

## 4. Troubleshooting

Item	Observation	Remedy
Installation problem.	<p>the installer exists with the following error which appears in a separate popup window:</p> <p><b>Source file not found</b>  <b>C:\Users\...\AppData\Roaming\..\iCOMOX Flash Programmer1.cab</b>  <b>Verify that the file exists and that you can access it.</b></p>	<p>Change the name of the installer file (e.g., to my_installer.exe). The name of the installer file should be different than the name of the flash programmer. This is a known issue of the <i>Advanced Installer</i> application.</p>
Autobaud fails when trying to send the second stage kernel	<p>Status window:</p> <p><b>Sending second stage kernel.</b>  <b>Read Intel HEX application image with 708 bytes.</b>  <b>No autobaud response.</b></p>	<ol style="list-style-type: none"> <li>1. Verify that the iCOMOX is turned on (step 4)</li> <li>2. Retry steps 5-8.</li> <li>3. If you are using a laptop which is connected to a docking station, please disconnect the docking station.</li> </ol>
Flash error	<p>the installer exists with the following error which appears in a separate popup window:</p> <p><b>Read Intel HEX flash image with 60440 bytes.</b>  <b>Autobaud succeeded.</b>  <b>Erased 0/30 pages.</b>  <b>Erase failed in address range</b>  <b>0x00000000..0x00003FFF</b></p>	<p>Erase the flash using ADI tool.</p>

## 5. Creating Hex File

1. Ensure that your program is built with semi-hosting disabled by visiting Tools Settings | Linker | Libraries and change Semihosting support to nosys.specs or None, depending on your application set-up.
2. Rebuild your application.

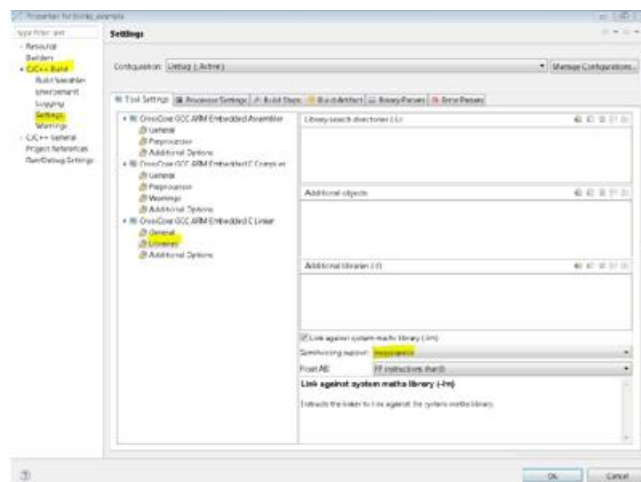


Figure 5: CCES Semihosting support.

3. Hg Convert your application into Intel Hex (.hex) format by visiting Tools Settings once more.
4. Select the Build Steps tab.
5. Add the following command to the Post-build steps | Command entry box:
6. **arm-none-eabi-objcopy -O ihex \${ProjName} \${ProjName}.hex**

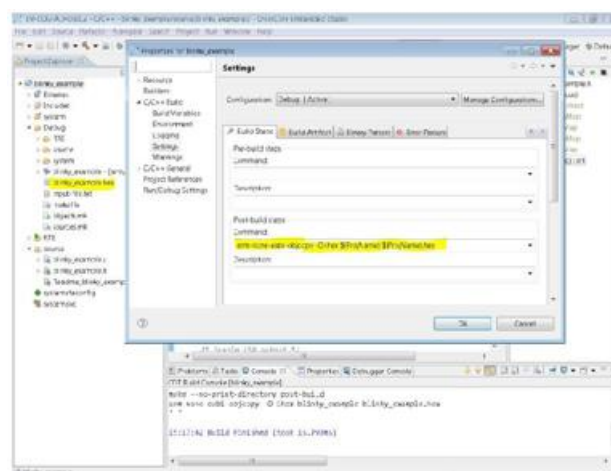


Figure 6: CCES Creating Hex file.

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