

Motor Control Software

Update the Inverter or CIM (Tiva) Firmware



Terms

CIM	Communication Interface Module in Infinitum Aircore EC motors
Tiva	Texas Instruments processor used in the CIM
Motor Control Software (MCS)	Software used for configuration and lab testing of Infinitum Aircore EC motors
Inverter	Computer controlled board in Infinitum motors used for DC to AC conversion
Kernel	Processor used on Inverter board

Setup: Windows Only; Modbus TCP Only

1. Download the firmware binary files you want to update on your motor from the Infinitum support page: [here](#)
 - Save the downloaded file(s) onto the Desktop or some other easily accessible (local) location.
 - Note: An Inverter update requires a Kernel update as well. A CIM (Tiva) update can does not require a Kernel update.
2. Download and Install the Motor Control Software (MCS) from the Infinitum support page: [here](#)
 - The MCS is installed at C:\Program Files (x86)\Infinitum-MotorControlGUI automatically.
 - Note: [Install](#) x86 64-bit version of .net Core v.31.
3. The PC/Laptop to motor communication method must be Modbus TCP.
 - This requires a static IP Ethernet address on the PC/laptop.
 - See the [Motor Control Software manual](#) for details.
4. PC/Laptop Wi-Fi and Ethernet connections need to be **disabled** for the firmware update process to connect to the correct TFTP server on the Motor.
 - Go to “Device Manager”.
 - Expand “Network adapters”.
 - “Right click” and ‘Disable’ the Wireless Network Adapter and all Ethernet adapters except the Static IP Ethernet connection.
 - After completing the firmware updates, be sure to “re-Enable” these adapters to restore internet connectivity.

Note: The Inverter Firmware Update and CIM Firmware Update can be performed simultaneously.

Motor Control Software Update the Inverter or CIM (Tiva) Firmware

Inverter Firmware Update: Inverter Update Requires a Kernel Update

1. Start the Motor Control Software by running the application “MotorControl.Engineer.exe”.
2. “Connect” to the motor using TCP via the blue “Connect” button.
 - See the Motor Control Manual for help if needed.
3. “Disconnect” from the motor using the “Red” button in the upper left of the MCS.
4. Select the “Firmware Update” tab on the MCS. (Figure 1)
5. For the “Kernel file”, use the f28069_sci_flash_kernel.bin file downloaded previously.
6. For the “Application file” use the Inverter Binary File downloaded previously.
7. Click the “Connect” button to the right of the “Upload” button.
 - The connection status should be “Connected” in green font.
8. Select the “Upload” button.
 - Select “Allow Access” if a firewall Window request pops up.
9. The final dialog in the “Status” box should say “Complete”. (Figure 2)
10. Note: If you do not see “Complete” as the final word in the Status box, then the firmware failed to update and you will need to repeat steps 1-9.
 - If this step fails on multiple attempts, [contact Infinitem](#).
11. To confirm that the firmware has been updated, select the “Connect” button in the upper left corner of the Motor Control Software and select “Motor Information” where it will list the current firmware version for the Inverter on the motor. (Figure 3)

Figure 1

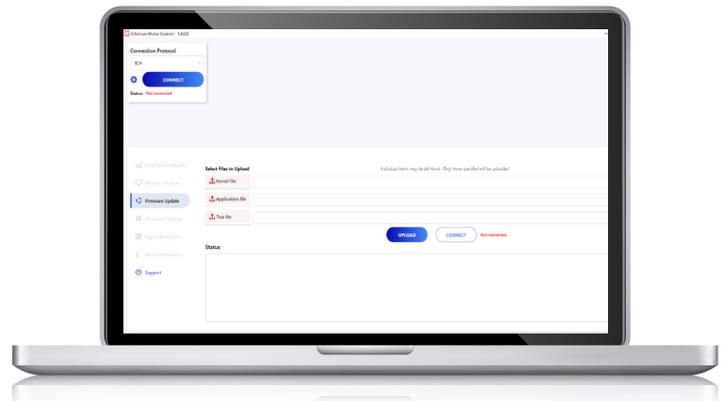


Figure 2

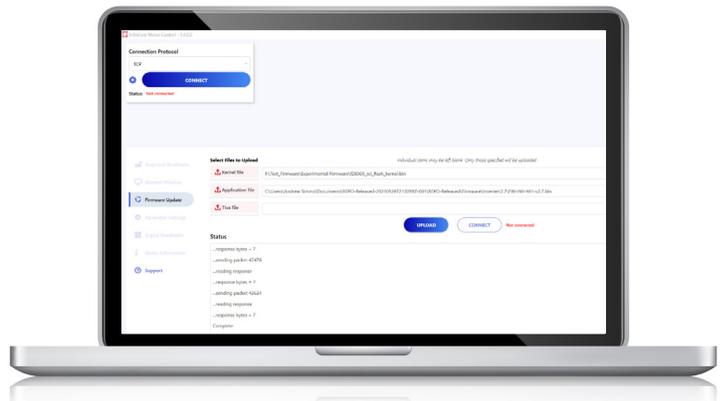
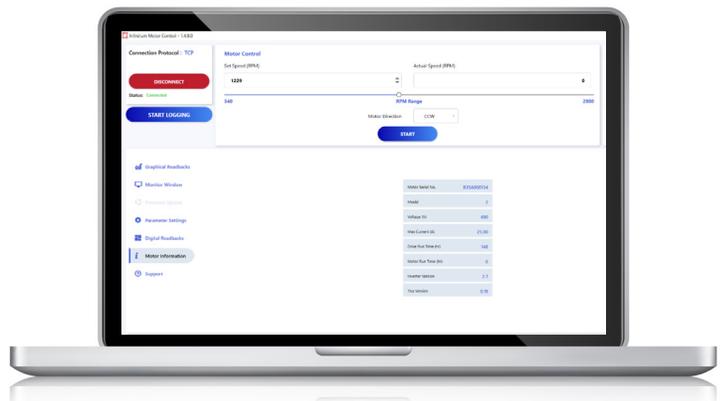


Figure 3



Motor Control Software Update the Inverter or CIM (Tiva) Firmware

CIM (Tiva) Firmware Update

1. Start the Motor Control Software by running the application “MotorControl.Engineer.exe”
2. “Connect” to the motor using TCP via the blue “Connect” button.
 - See the Motor Control Manual for help if needed.
3. “Disconnect” from the motor using the “Red” button in the upper left of the MCS.
4. Select the “Firmware Update” tab. (Figure 4)
5. For the Tiva File select the Binary File that you want to use to update the CIM firmware.
6. Click the “Connect” to the right of the “Upload” button.
 - The connection status should be “Connected” in green font.
7. Select the “Upload” button.
 - Select “Allow Access” if a firewall Window pops up.
8. The final dialog in the “Status” box should say “Complete” as seen in Figure 5.
9. Note: If you do not see “Complete” as the final word in the Status box, then the firmware failed to update, and you will need to repeat steps 1-8.
 - If this step fails on multiple attempts, [contact Infinitem](#).
10. To confirm that the firmware has been updated, select the “Connect” button in the upper left corner of the MCS and select “Motor Information” where it will list the current firmware version for the Tiva processor on the motor. (Figure 6)

Figure 4

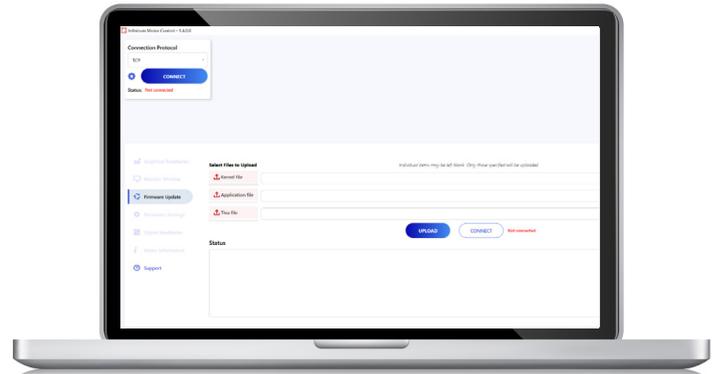


Figure 5

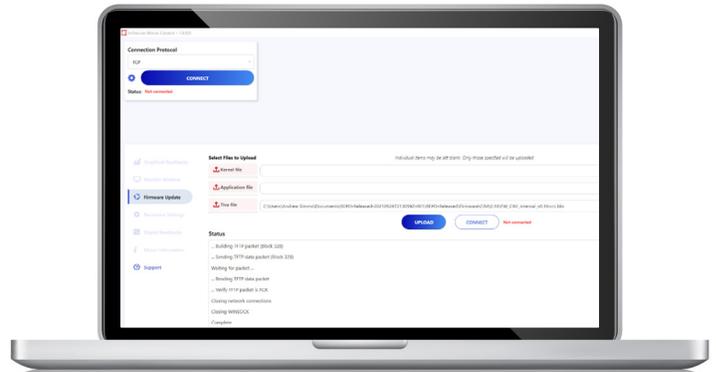
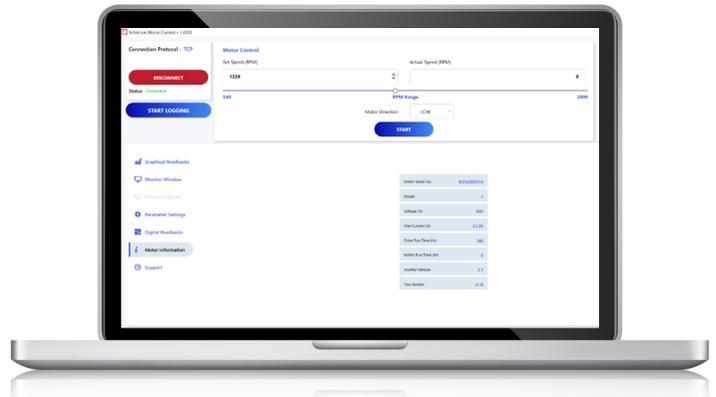


Figure 6



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