



MX-U and MX-E Series Test Guide

Windows Embedded Standard 7

Overview

This test procedure is designed to verify that MX-U and MX-E Series industrial processors are fully functional. It can be used by Datalogic employees after the manufacturing process is complete and by customers to see if the MX-U or MX-E Series processor is functioning normally after it has been installed.

This procedure requires a basic working knowledge of computer hardware and operating system software as well as Datalogic's Impact Vision Program Manager (VPM). The required test equipment can be purchased from Datalogic or built by the tester. Some ability to use basic hand tools is needed to build the required test equipment.

Equipment Required

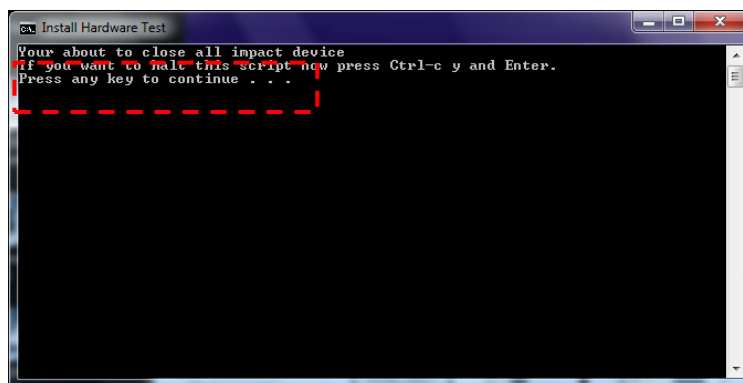
The following equipment is required to complete this test.

- USB Keyboard and Mouse
- Computer monitor with DVI connector or DVI to VGA adapter
- Hasp Key (provided with the MX-U and MX-E Series processor)
- USB 3.0 Data Cable
- 37 pin I/O cable (Datalogic Part 606-0675-xx)
- Serial loop back adapter (See Serial Loop Back Adapter on page 6.)
- Datalogic USB Camera (MX-U) or Datalogic GigE Camera (MX-E)
- 24V DC power supply capable of supplying a minimum of 5.5 Amps
- I/O loop back terminal block (See I/O Loop Back Terminal Block on page 6.)

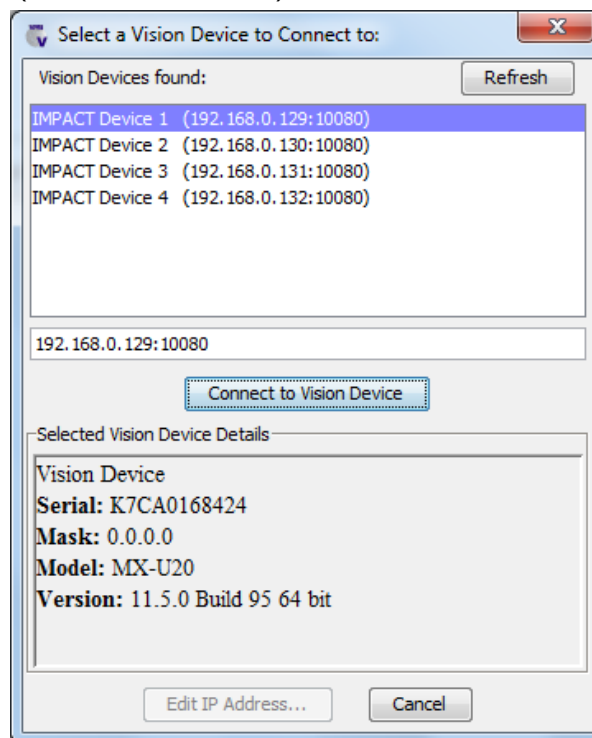
Conducting the test

Refer to the MX-U or MX-E Series Hardware Guides for more details about these connections.

1. Connect the USB keyboard, mouse, and monitor to the MX-U or MX-E Series processor.
2. Insert the USB Hasp key in the USB port labeled USB5 on the processor front.
3. Power on the MX-U or MX-E Series processor and wait until the system loads to Windows desktop. If this is the first time the processor has been turned on, the Vision Device license will be displayed. Click I Agree to continue.
4. Connect the 37-pin I/O cable to the MX-U or MX-E Series I/O port.
5. Connect the Serial loop back adapter to the COM1 port.
6. For MX-U: Connect the USB camera to one of the USB 3.0 ports using the USB 3.0 data cable.
For MX-E: Connect the GigE camera to the CAM1 port using the Ethernet cable.
7. Using Windows Explorer, navigate to the directory
For MX-U: C:\Datalogic\support\MX-U\HardwareTest\Install.
For MX-E: C:\Datalogic\support\MX-E\HardwareTest\Install.
8. Double-click on the file named Install.cmd.
9. The Install Hardware Test window will be displayed.



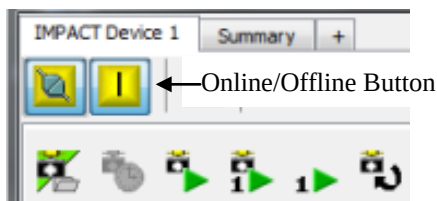
10. Press any key on the keyboard to continue. When the program is complete, VPM will open. If this is the first time VPM has been started, the VPM license will be displayed. Click I Agree to continue.
11. From the Device selection window, select
Impact Device 1 (192.168.0.129:10080)



12. Verify that Display mode is selected in VPM and that the camera is ONLINE.



Display Mode Button



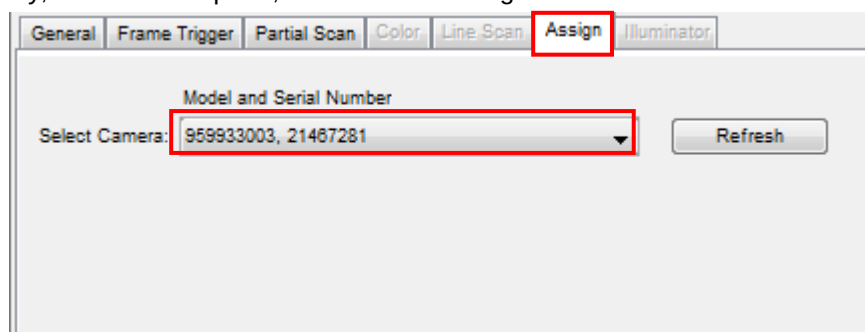
NOTE: If you are testing an MX-E processor, skip to step 19.

13. Click the Online/Offline button to put the camera Offline.

14. If necessary, click the Design/Display mode button, then click the Settings tab, then click the Camera icon.



15. If necessary, click the Setup tab, then click the Assign tab.



Model and Serial Number shown here is an example only

16. Click the Select Camera drop down, then select the USB camera listed.

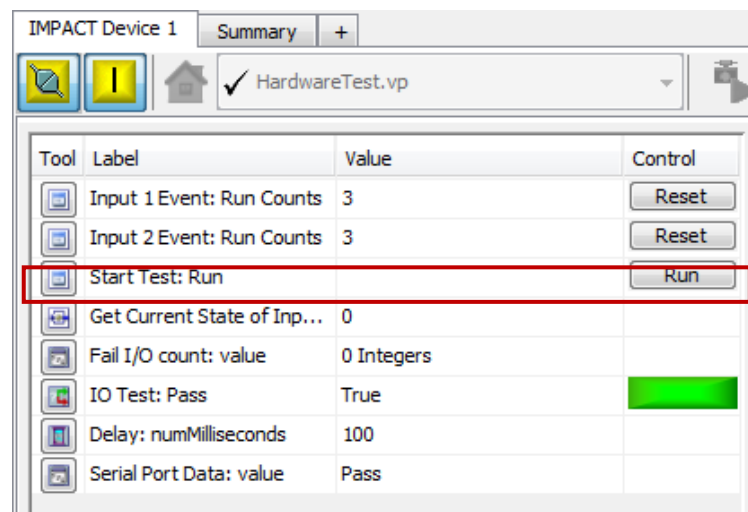
17. Click the OK button when the camera is connected.

18. Click the Online/Offline button to put the camera online.

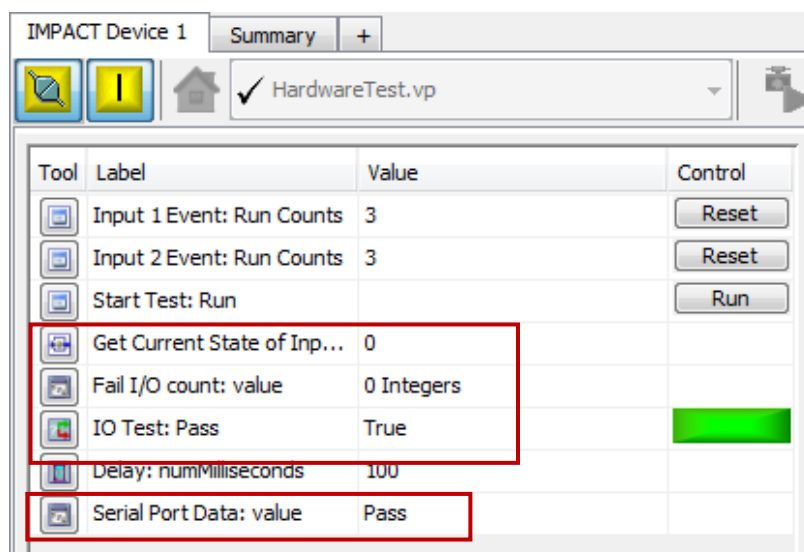
19. Click the Display mode button.

The following section verifies that the hardware is working properly.

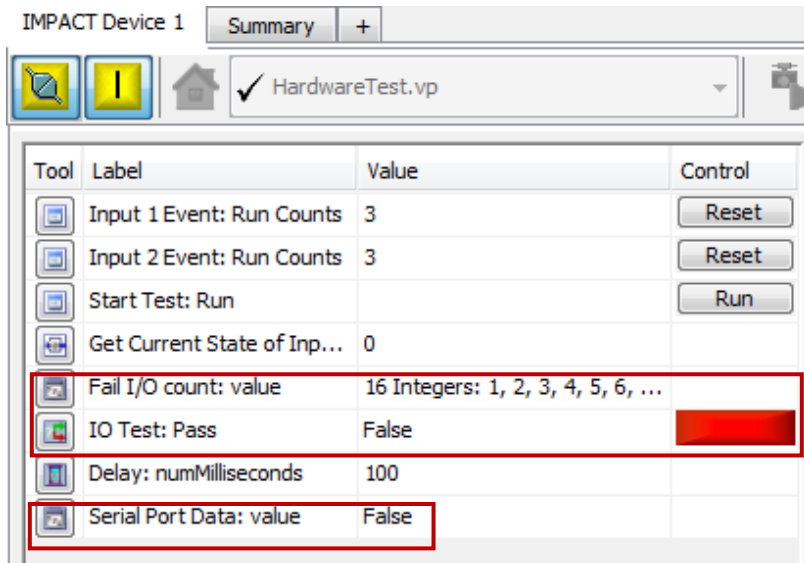
20. In Display mode, click the button labeled "Start Test: Run."



21. If the values for the following properties are displayed, the hardware passed this portion of the test:
- Get Current State of Input = 0
 - Fail I/O count: value = 0 Integers
 - I/O Test: Pass=True
 - Serial Port Data: value=Pass



22. Disconnect the 37-pin I/O cable from the MX-U or MX-E Series I/O port.
23. Disconnect the Serial loop back adapter from the COM1 port.
24. In Display mode, click the button labeled "Start Test: Run."
25. If the values for the following properties are displayed, the hardware passed this portion of the test:
- Fail I/O count: value = 16 Integers:1, 2, 3... 16
 - I/O Test: Pass=False (with red button)
 - Serial Port Data: value=False



26. Connect the 37-pin I/O cable to the MX-U or MX-E Series I/O port.
27. Connect the Serial loop back adapter to the COM1 port.
28. Block the camera view with an object. In Display mode, click the button labeled "Start Test: Run."
29. Verify that the blocked image is displayed and that the image number in the upper left corner of the image window has incremented.



30. Click the Close button in the upper right hand corner of VPM.
31. When the prompt "Do you want to reconnect to this Vision Device.." is displayed, click No.
32. Using Windows Explorer, navigate to the directory
 For MX-U: C:\Datalogic\support\MX-U\HardwareTest\Install.
 For MX-E: C:\Datalogic\support\MX-E\HardwareTest\Install.
33. Double-click on the file named Remove.cmd. Press Enter to continue at the prompt.
34. The MX-U or MX-E Series test is now complete.

Making the Test Equipment

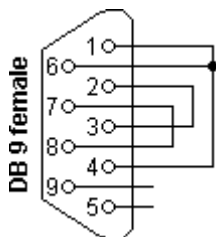
I/O Loop Back Terminal Block

To make the I/O Loop Back Terminal block, use a Datalogic I/O terminal block (Part Number 248-0110) and connect jumpers between the following terminals on the I/O terminal block.

Terminal Jumpers
1 to 20 to Common Minus (GND)
2 to 21
3 to 22
4 to 23
5 to 24
6 to 25
7 to 26
8 to 27
9 to 28
10 to 29
11 to 30
12 to 31
13 to 32
14 to 33
15 to 34
16 to 35
17 to 36
18 to 37 to Common Plus (24 VDC)
19 (No Connection)

Serial Loop Back Adapter

To make the Serial Loop Back adapter, use a standard female DB 9 connector and connect jumpers between the following terminals.



Terminal Jumpers
1 to 4 to 6
2 to 3
5 (No Connection)
7 to 8
9 (No Connection)