

May 20, 2016

Impact 11.8.1 Readme file

Welcome to Impact, a complete range of software and hardware to solve your machine vision needs. Impact is the most complete product line with the same software used throughout. Impact reduces your cost of ownership and provides you with the flexibility that today's quickly changing manufacturing environment requires.

This Readme file describes the software, firmware, and documentation installed by IMPACTSetup*.exe.

Check our website at <http://www.datalogic.com/> for possible releases newer than this release and for information on other Impact software and hardware products.

This Readme file is divided into the following sections:

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Software, Firmware and Documentation

Shortcuts to the software and documentation listed below are located in your computer's Start folder. Select Start, All Programs, Impact.

Software

VPM (Vision Program Manager)

You can do all your software work with VPM.

- Configure your Smart Camera with the Settings tab – Camera setup.
- Program your machine vision inspections with the Design Mode.
- Create an Operator Interface with the Display Mode.

Or

You can use VPM to program your machine vision inspections and then use the following software to do the rest.

Control Panel Manager (CPM)

Create custom Operator Interfaces for controlling and monitoring all of your Datalogic vision devices.

Control Panel Manager Runtime Environment (CPMRE)

Deploy your custom Operator Interface to your production line with CPMRE. CPMRE runs the custom Operator Interfaces created in CPM but does not provide the ability to edit them.

Impact Settings

You can use Impact Settings to configure some parameters on your Impact hardware, but you cannot edit or create vision programs.

Emulator

Run one or more Emulators on your PC to create, test, and demonstrate your inspections without using hardware.

Translation

Impact Language Resource File

Datalogic provides a file (OEM.properties) that you can use to create a language resource file so that Impact user-interface text will display in a language other than English. For more information about Impact translation, check our website <http://www.datalogic.com> or contact your distributor.

Firmware

Impact Vision Device firmware

ImpactSmartCameraSetup*.exe installs firmware on the Datalogic A30, T4x-Series, and P-Series Smart Cameras.

Impact VisionDeviceSetup*.msi installs Impact M Device software on the M-Series Processor.

Documentation

Readme

This Readme file describes the software and documentation in the IMPACTSetup*.exe.

Reference Guide

This manual documents how to configure, program, control, and monitor Datalogic vision devices with VPM, CPM, Settings, and CPMRE. The Reference Guide also provides a Quick Setup to get a Datalogic vision device configured, connected to a network, and calibrated so you can start using it.

Sample Programs Guide

This manual contains an overview of the sample Impact vision programs, images, and Control Panels, as well as information about how to implement and learn from each of them.

A30 Hardware Guide

This manual describes the Datalogic A30 Smart Camera, including the inputs and outputs available to integrate your system into a production line.

T4x-Series Hardware Guide

This manual describes the Datalogic T4x-Series Smart Camera line, including the inputs and outputs available to integrate your system into a production line.

P-Series Hardware Guide

This manual describes the Datalogic P-Series Smart Camera line, including the inputs and outputs available to integrate your system into a production line.

M-Series Processor and Camera Guide

This manual describes the Datalogic M-Series Embedded vision system, including the inputs and outputs available to integrate your system into a production line. The M-Series processors use GigE vision cameras.

MX-U Series Processor and Camera Guide

This manual describes the various parts of Datalogic vision devices and the MX-U Series Embedded vision system, including the inputs and outputs available to integrate your system into a production line. The MX-U Series processors use USB 3.0 cameras.

MX-E Series Processor and Camera Guide

This manual describes the various parts of Datalogic vision devices and the MX-E Series Embedded vision system, including the inputs and outputs available to integrate your system into a production line. The MX-E Series processors use GigE vision cameras.

IMPORTANT NOTES

New MX-U Series Processor Camera Assign Tab

The first time you plug a camera into a MX-U Series processor, you must assign that camera to an Impact Vision Device. Impact software then connects to that Impact Vision Device to acquire images from the camera. Refer to the Impact Reference Guide for more details.

To assign a camera to an Impact Device

1. Plug a USB camera into any of the USB 3.0 ports labeled USB1 through USB4 on the MX-U Series processor.
2. In VPM, click the Connect button.
3. Select one of the IMPACT Devices from the dialog, then click Connect to Vision Device.
4. Select the Settings tab.
5. Select the Camera icon.
6. On the Setup tab, click the Assign tab.
7. From the Select Camera drop down, select the camera you want to use. The list includes camera serial and model numbers. If a camera selection is already assigned, that selection is disabled.

8. Click OK in the Camera Connected dialog.
9. The selected camera is now assigned to the Vision Device.

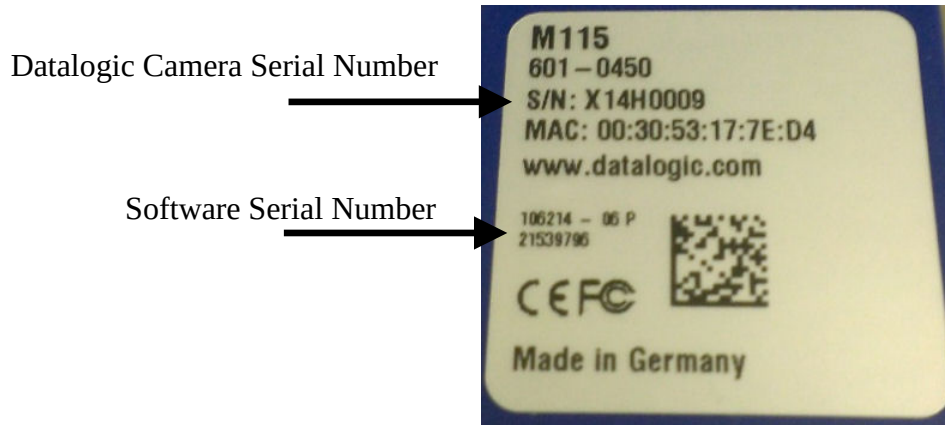
Some Impact Hardware Is Not Supported

The following hardware models are not supported by this Impact software release.

A10, A20, C-Series (all models), T10, T2x, T3x-Series

Some M-Series cameras are labeled with a smaller software serial number

The serial number labeling was changed on some M-Series cameras. The smaller software serial number shown on the label, not the larger number, is displayed in software applications.



Microsoft Windows XP SP3 is not fully supported

Microsoft no longer provides security updates or technical support for Windows XP. According to Microsoft, “Running Windows XP SP3 in your environment after April 8, 2014 may expose you to potential risks, such as Security, Compliance, Lack of Independent Software Vendor (ISV) Support, and Hardware Manufacturer support.”

Datalogic will continue to support existing systems containing Windows XP, but will not be responsible for problems caused by the operating system.

Systems running Windows XP should connect Ethernet and dataport connections to a network which has routing only within the plant or building and no routing outside the plant or building.

System Requirements for the A30, T4x-Series, and P-Series

System Requirements for the Client Computer

- Intel®, AMD®, or VIA® x86-class processor -minimum 1.2 GHz; 64-bit processors are supported with Windows Vista, Windows 7, Windows 8.1, and Windows 10
- Microsoft® Windows Vista, Windows 7, Windows 8.1, or Windows 10
- 1 GB or more of RAM, 2 GB recommended
- 800MB or more of available hard disk space
- 10/100Mbps Ethernet connection
- Monitor display resolution of 1024 x 768 or greater
- A PDF reader is required to read the software and hardware manuals

System Requirements for the Datalogic camera

- The Datalogic camera and client computer must have the same version of Datalogic Impact software installed.

System Requirements for the M-Series

System Requirements for the M-Series Processors

- Monitor display resolution of 1024 x 768 or greater (for local programming and during first boot)
- Keyboard and Mouse (for local programming and during first boot)
- The Datalogic or third-party camera must be compatible with the version of Impact software installed on the processor.

System Requirements for the MX-U and MX-E Series

System Requirements for the MX-U and MX-E Series Processors

- Monitor display resolution of 1024 x 768 or greater (for local programming and during first boot)
- Keyboard and Mouse (for local programming and during first boot)
- The Datalogic camera must be compatible with the version of Impact software installed on the processor.

Enhancement in this release (11.8.1)

There are three enhancements in this release.

Vision Device

1. Support was added for two new E-Series cameras.

Two new 2 Mpixel CMOS cameras are now supported (E182 and E182C). (7705)

VPM and CPM

1. The CPM Chart control now displays six data series.

The control previously displayed five series. (7698)

2. Image polarity management was improved in the Code Reader tool.

This improved the training and execution time for decoding white codes on a black background. (7790)

Bugs fixed in this release (11.8.1)

Here is a list of bugs fixed in this release.

VPM

1. The Image Archiving tool caused the Emulator to stop responding.

The memory buffer allocation was calculated incorrectly when certain images were saved in png format. (7199)

2. There was a memory leak in VPM.

The Impact VisionSDK didn't release memory correctly. (7443)

3. The web server stopped accepting connections.

The device's server would not recover from a processing exception. (7454)

4. **A line scan camera would not acquire a full image**
When the camera was triggered using Ethernet/IP, only two lines were acquired. (7564)
5. **The Ethernet/IP Explicit tool would not transfer string data type.**
The tool now transfers string data correctly. (7683)
6. **The Pinpoint Pattern Find tool would not train under certain conditions.**
The tool would not train when the Contour Match Algorithm property was selected. (7684)
7. **The Code Reader tool would not correctly train on a Pharmacode.**
The 1D Pharmacode Output Format is now maintained. (7694)
8. **The Camera Trigger tool could prevent a vision program file from loading.**
If the file was closed and saved, it would not load when connected to a camera with a different strobe range. (7717)
9. **The Code Reader tool would not detect a code under certain conditions.**
P-Series cameras would not always detect code 128 in File Camera mode. (7720)
10. **The Circular Pattern Find tool had a memory leak.**
The tool would eventually cause the camera to stop responding. (7758)
11. **A property in the Code Reader tool could cause the tool to malfunction.**
The 2D DPM Decoding method could create an infinite loop. (7762)
12. **There was a memory leak in the Code Reader tool.**
The tool would leak memory during training. (7781)
13. **The Code Reader tool would not detect images that were too large.**
Images that are too large now fail and generate a System Log error. (7806)
14. **The Undistort Image tool used the wrong calibration information.**
If two images were the same size, but had different calibration, the tool used the same calibration for both images. (29663)

CPM

1. **The Tooltip Text property was not editable.**
The Tooltip Text can now be edited. (7658)
2. **The CPM Chart control labels were too small.**
The label font can now be made bigger. (7780)

Documentation

1. **One of the Code Reader tool properties was described incorrectly.**
A minimum value description was misleading. (7756)

Vision Device

1. **Some Ethernet/IP messages were dropped.**
On some smart cameras, some Ethernet frame errors would occur. (6421)
2. **Ethernet/IP communication stops.**
Communication would stop for up to three seconds. (7182)
3. **Some cameras failed and logged a specific system message.**
Some M-Series and third-party cameras logged an error "VPM - aborting with error... Aborted Before Run" and failed to run tasks. (7565)
4. **The messages for USB Hardware key errors were confusing.**
If a key was damaged or missing, the messages were very generic and not helpful. (7673)
5. **A warning was added for an outdated USB Hardware key driver.**
If a an outdated driver is installed, the warning is displayed each time the vision device is started. (7715)

6. The license agreement was displayed every time the vision device started.

If the user did not have administrator level access, the license was displayed. (7759)

Enhancements in release 11.8.0

Key enhancements in this release include a new task trigger event, string handling and other functions added to Ethernet/IP and PROFINET tools, slower shutter speeds for the P-Series, the Code Reader can read white-on-black codes, additional camera types are supported, added functionality for the Image Sampling tool, camera calibration has been greatly enhanced, the new MX-E processor was added, passed and failed image data sets can be collected more easily, and the Pinpoint Pattern Find tool is more robust and accurate.

1. New camera connected and disconnected Task Trigger events.

A task can be queued when a camera is connected or disconnected. (5733)

2. Ethernet/IP and PROFINET tools can handle strings.

You can now pass strings from the tools to other devices. (5741)

3. Longer shutter open times can be set on the P-Series cameras.

Shutter open times as long as one second can be set. (6476)

4. The Code Reader tool can read reverse contrast codes.

White codes with black backgrounds can be read. (6566)

5. New M-Series Cameras are now available.

Two color, two monochrome, and two line scan cameras were added. (6828)

6. Ethernet/IP and PROFINET capabilities were expanded.

Status Bits were added for Abort Active, Trigger Overrun, Image Buffer Overrun, and Bad Image In. (6854)

7. New abilities were added to the Image Sampling tool.

The X and Y sampling resolution settings are independent. (6872)

8. Camera calibration has been enhanced.

New functions were added, and accuracy was improved. (6954)

9. The new MX-E processor was added.

This new processor is based on the MX-U processor, but supports up to four GigE cameras instead of USB cameras. (7016)

10. It is easier to collect image data sets containing both passed and failed images.

VPM and CPM can be configured to save both marked passed and failed images during the same inspection. (7049)

11. Support was added for the SVS-Vistek evo8051MFLGEC camera.

This is a monochrome 8 Mpixel GigE camera. (7076)

12. Support was added for the SVS-Vistek hr16000MTLGEC camera.

This is a monochrome 16 Mpixel GigE camera. (7080)

13. Support was added for the JAI SP-20000M-USB camera.

This is a monochrome 20 Mpixel USB camera. (7103)

14. The Pinpoint Pattern Find tool has been improved.

The tool is more accurate and robust. (7189)

Bugs fixed in release 11.8.0

Here is a list of bugs fixed in this release.

VPM

1. **The Pinpoint Pattern Find tool was inconsistent.**
The tool produced inconsistent pattern matching results on certain images. (2532)
2. **The Pinpoint Pattern Find tool would not find patterns after it was retrained.**
With certain images, the tool would fail on a good image. (4891)
3. **Closing the Modbus client test utility would cause the processor to stop responding.**
The processor would stop responding during communication with a PLC. (5022)
4. **A large message size would cause TCP/IP tool errors.**
If the message size was too large, a Socket error would be logged. (5378)
5. **The Switch Tool displayed sub-properties.**
The properties in a Case statement should not be expandable. (5504)
6. **The Break tool did not function properly under certain conditions.**
If Abort On Error was False, the tool would not stop task or loop execution. (5616)
7. **The Code Reader tool provided inconsistent results.**
The size and location of the ROI could cause different results. (5722)
8. **Tools were not displayed in the task tree.**
If the program name was changed, in Display mode, tools were not displayed in Design mode. (6111)
9. **Images were not updated in the Switch tool .**
If a tool inside a switch tool was selected, the image in the image window would not update . (6187)
10. **VPM indicated a device was online when it was offline.**
When a connection was made to the LAN1 VPM would show the wrong state. (6490)
11. **An invalid baud rate was displayed in VPM.**
The 300 baud rate was displayed for smart cameras. (6749)
12. **Logon was not possible on the P-Series after a reboot.**
If the password duration was changed, you could not logon as a Monitor after the camera was rebooted. (6843)
13. **Ethernet/IP and PROFINET tools displayed the wrong starting address.**
The tools displayed a Start address in 8 bit bytes instead of 32 bit word format. (6860)
14. **Some controls were hidden in the Average Intensity tool.**
In the Grid ROI view, some check boxes were cut off. (6932)
15. **Images were not updated in Display mode.**
If a password protected vision program file was loaded on startup, Display mode did not work correctly. (6964)
16. **The Send Message tool time stamp did not always work.**
The Send Message tool bug would cause the Wait For Message tool to fail if “Enable Maximum Timestamp Difference” was used in the Wait For Message tool. (7092)
17. **Send Message tool setup would show an incorrect name.**
The name of the destination camera would not correspond to its IP Address. (7097)
18. **When two vp files were loaded, the name of the first task could be duplicated.**
After working with the files for a period of time, one of the tasks would be renamed. (7098)
19. **The Code Reader tool would not read some codes.**
The tool would misread some QR codes. (7001)

20. The Ethernet/IP Read Implicit Assembly tool caused a disconnect.

The tool wrote data to the wrong register causing the camera to appear unresponsive. (7134)

21. Cameras can now be calibrated using Ethernet/IP and PROFINET.

Reserved areas have been added to provide this new ability. (7144)

22. VPM would stop responding while in Live mode.

It would stop responding if a camera was disconnected while Camera setup was being used. (7389)

CPM

1. The Onscreen Keyboard was not displayed.

Clicking in a text field did not display the OSK. (5390)

2. CPM could stop communicating.

Under certain conditions while saving a program, CPM could display a Null pointer exception and stop. (6915)

3. The Correlation Model control should not have been deprecated.

The control was incorrectly deprecated in release 11.0.0. (7085)

4. Files created in a previous version would not load.

If certain fonts were selected, saved files would not load. (7099)

5. Cameras can now be calibrated from a control panel.

Methods and properties have been added to provide this new ability. (7137)

6. The Basic control did not show correct values.

Values were not refreshed correctly after the control ran. (7147)

7. Links were not cleared correctly in the Basic control.

If the data type of one of the properties was changed, the link remained. (7154)

8. Certain control panel width settings would cause CPM to stop responding.

CPM would stop responding when run mode was selected. (7157)

9. The connector control took a long time to connect.

The connection took almost three times as long as previous releases. (7180)

10. The Connector control's connected status would not change.

If the status was linked to the control panel's On Top property, it remained False. (7181)

11. The Image Archiving tool would cause the Emulator to stop responding.

Archiving a large image would cause the problem. (7199)

Vision Device

1. The vision device would crash when a camera was connected.

It would crash on the MX-U processor when a USB camera was connected. (7290)

2. The vision device would crash during startup.

It would crash on startup on the MX-U processor when a high resolution camera was connected. (7384)

MX-U Series

1. Image throughput was reduced.

When two or three cameras were connected, processor bandwidth was reduced to 10% of the possible maximum for those cameras. (7322)

P-Series

1. The P-Series camera would stop responding.

The camera would stop responding when a tool train operation took a long time. (5884)

2. The P-Series camera would stop responding.

The camera would stop responding if a tool inspection took a long time. (5891)

3. The P-Series camera could stop responding during software installation.

The installation has been improved to optimize memory use. (7308)

Documentation

1. The Ethernet/IP and PROFINET reserved area chapter was missing from the VPM Lite Reference Guide.

There was no information about the new reserved area. (7229)

Pattern Sorting Tool Note

- The Pattern Sorting tool is supported only on MX40, MX80, MX-E40, MX-E80, MX-U40, and MX-U80 processors running Windows 7. It is not supported on the MX20, MX-E20, and MX-U20 processors, A30, T4x-Series, or P-Series cameras, or processors running Windows XP. The tool license is purchased and enforced per processor, not per camera. As shipped from the factory, the license enables all the cameras on the processor; there is no option to purchase a license for a single camera.

Known Issues

MX-U Processor System Restore

- When the System Restore or Interface Language change is finished, and the processor reboots, you may not be able to assign USB cameras in VPM. The cameras will be disabled on the Camera Assign tab in VPM. To restore a camera, disconnect the camera from the USB port, then reconnect it.

Deprecated Tools

- As of release 10.7.0, the Data Matrix and Barcode tools were deprecated and their functionality replaced by the Code Reader tool. In existing Vision Program files, deprecated tools are displayed in yellow in the task tree. They will continue to function, but they do not appear in the Toolbox and cannot be added to new Vision Program files.
NOTE: The Code Reader tool is not supported on A20 and T3x cameras.

Bug 4076 – Real List to Real Links

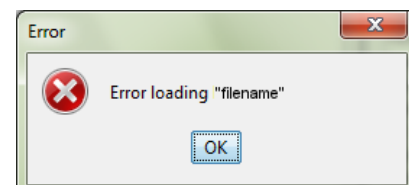
- The fix for bug 4076 changed the behavior of some tools. This could change the behavior of an existing program if it contains a link from one tool's real list element output property to another tool's real input property.
Previous to this release, when a tool aborted, its real list element output property became null, but that property was written to the destination tool as a zero. With this release, the output is now correctly written to the destination tool as a null value, which creates a Null Data Reference error in that tool's real property.
If the program was expecting a zero value output, its ultimate results will be incorrect.

Old Tool Versions

- Vision program files will not load in VPM version 11.0.0 or later if they were created in a version of VPM before 6.6.0, and contain any of the tools in the table below. (Version 6.6.0 was released in January, 2006.) If you try to load a file in version 11.0.0 or later that contains one of these tools, you will see this dialog and an error message in the System Log:

System Log Message:

Task::CreateTool: Unknown tool for toolType = 79



Task::StreamIn - failed to create tool: "toolname"

To update the file, follow these steps:

1. Load the file in version 10.6.0
2. Replace the older tool with an up-to-date tool or its replacement
3. Save the file
4. Load the modified file in version 11.0.0 or later

Average Filter	Average Gradient	Average Intensity
Blob	Bump Find	Circle Refinement
Contour Pattern Find	Contrast	Correlation Pattern Find
Datamatrix (created before 7.2.0)	Gaussian Filter	GreyScale Template
Image Subtraction	Median Filter	Morphology Close
Morphology Dilate	Morphology Erode	Morphology Open
OCR	Origin	Subpixel Edge Extractor
Wide Edge Point Find		

General

- You cannot directly downgrade to a version older than version 10.2.1 after you install this release due to a format change in one of the Datalogic device system files.

You must first uninstall this release before you downgrade to a version prior to 10.2.1.

If you install an older version onto a system that already has this version installed, the install will fail and the camera will become unresponsive. To recover, restart the camera, uninstall this version, then install the older version.

This requirement to uninstall before downgrading has always been part of Impact software.

- C:\I386 folder on the M-Series Processor contains additional Windows® install files
This folder aids installing additional features and Windows components without requiring an install disk. For example, to add additional East Asian language support, select Start – Control Panel and open the Regional and Language options icon. Click on the Languages tab and check the Install files for East Asian languages check box. Click OK and follow the prompts.

If you are asked for the location of a file, browse to the folder shown in the “Copy Files From” field, except locate the indicated folder on the C: drive.

For example, if the folder shown is

“D:\I386\lang

you should browse to the folder

”C:\I386\lang

After you have selected the correct folder, click OK.

Emulator

- If VPM is connected to an Emulator, and that Emulator is closed (accidentally or on purpose), you should NOT manually start another Emulator instance.
Instead, take the following steps.
 1. When VPM tries to communicate with the stopped Emulator, the "Connection Problem" message box is displayed.
 2. The "Connection Problem" dialog is then displayed with the message "Attempting to reconnect to the Impact device."
 3. Click the "Cancel" button on the dialog. This sets VPM to a disconnected state.
 4. Click the Connect button on the VPM main toolbar.
 5. Click the "Connect to Emulator" button. A new Emulator instance will be started and VPM will connect to it.

VPM and CPM

- It is suggested that you increase the amount of system memory allocated for VPM, and CPM in their shortcut command lines. The maximum recommended value is calculated as 40% of the memory size of your computer, in megabytes (MB). Refer to the Impact Reference Guide for more details.
- You must log on to the operating system with administrator privileges to run Impact software.

M-Series Bandwidth Restriction

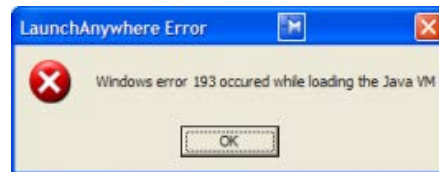
- Some MX40 processors shipped prior to November, 15, 2011, have exhibited a problem of restricted bandwidth performance. These processors contain an older version of the basic input/output system (BIOS) with a Build Date prior to 11/08/11 and an ID ending in a number less than 07. The problem occurs when the system is restarted by using the Reset button or the Windows Restart command rather than using Window Shutdown followed by cycling power. Contact Datalogic or your distributor for more details about updating the BIOS.

Installation Instructions

Operating System Type

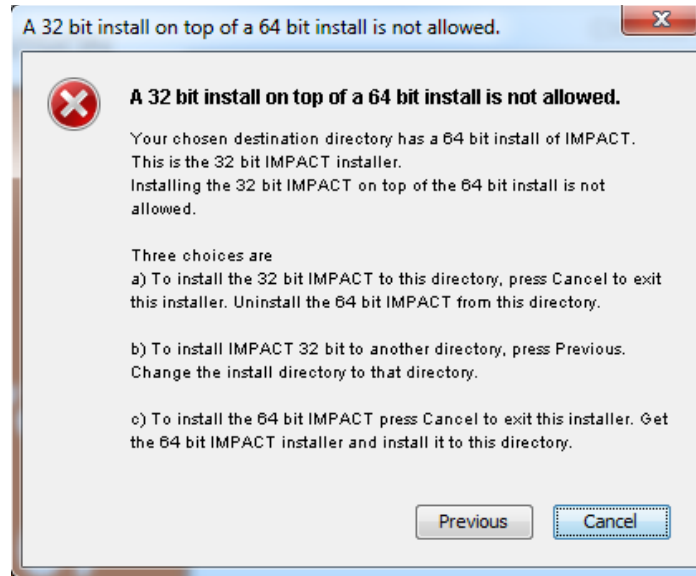
This release of Impact Software is available in two separate versions, one for a 32-bit operating system and one for a 64-bit operating system. Refer to your computer documentation if you are unsure which operating system your computer uses. If you are installing to a system other than an M-Series or MX-U Series processor, we recommend that you install the appropriate version for your operating system. If you are installing to an M-Series or MX-U Series processor, you **must** use the software version that matches your operating system.

If you attempt to install the 64-bit version on a 32-bit operating system, the following dialog is displayed:



Updating a previous release

If you are updating an existing installation, you cannot install a 32-bit version into the same directory as an existing 64-bit version or a 64-bit version into the same directory as an existing 32-bit version. If you attempt this type of installation, a dialog similar to the following is displayed:



IMPORTANT: Do NOT power off the camera or processor during installation. On the A30, P-Series, and T4X-Series cameras, all five status LEDs are turned ON during the installation process. When all LEDs turn off, the camera will automatically reboot.

Notes

- If security is enabled on the vision device, you will not be able to install new software on it. Before you start the installation program, you must disable security. Go to the VPM Settings tab, click on the General System Object, and select the Administration panel.
- Once you have installed this Impact release, you should not install any Impact release earlier than 8.3.0.159 into the same directory unless you uninstall this release first. The older release will not function if you install it into the same directory as this release.
- If you are using this software on an M-Series or MX-U Series Processor, you must install it directly on the processor you intend to use. You cannot install it on a Processor remotely like you can on an A30, T4x-Series, or P-Series device.

Installing Impact software (PC, Smart Camera, M-Series, or MX-U Series)

To install the Impact software:

1. You may need to turn off automatic virus checking during install if it causes installation problems.
2. You must have administrative privileges to install Impact software. Insert the Impact Software Installation CD in the drive and the installation program should start.
3. Click Next to display the End User License Agreement. You must click the radio button to accept the License Agreement to continue with the installation.
4. Click Next to display the Choose Install Set dialog. You can click Cancel to quit the installation at any time during the installation.
Select the desired type of installation from the menu, and then click Next.

Typical - This option installs all the Impact software modules on the client, M-Series, or MX-U Series. It also updates the firmware and vision programs on one or more

Datalogic A30, T4x-Series, or P-Series cameras. All programs (VPM, CPM, CPMRE, Impact Settings stand-alone, and Emulator) are installed on the client, M-Series, or MX-U Series, but only the VPM shortcut icon will appear on the desktop after the installation.

Custom - This option installs all the Impact software modules on the client, M-Series, or MX-U Series. It also, optionally, updates the firmware and software on one or more Datalogic A30, T4x-Series, or P-Series cameras. You can also uninstall client settings and vision device firmware with this option. You need to select EITHER the “WITHOUT CPM Desktop Icons” OR “WITH CPM Desktop Icons” option. If both are selected, the CPM shortcut will not be created.

Uninstall Client Settings and Device(s) - This option uninstalls the client settings from the computer and, if applicable, the vision device firmware from Datalogic A30 or T4x Series cameras. It does not install any software or remove a user's vision programs.

5. Select the default directory for the Impact software, click Choose to browse to the desired directory, or type in the directory name. Click next when you are done. See “Updating a previous release” on page 12 if you are updating an existing release.
6. Select the default directory for the Impact software data files (Root directory) or click Choose to browse to the desired directory. You can put the Root directory on the client computer or on a network device so multiple clients can share it. Click next when you are done.
7. (This step does not apply to M-Series or MX-U Series processors.) If you have selected Typical, or Custom with a vision device installation, you must select one or more Datalogic cameras from the list of devices. Click Refresh to update the device list. If the camera does not appear in the list, check its power and Ethernet connections. (The default IP address for each camera is 192.168.0.128 when it is shipped.) Click Next when you are done selecting devices.

The installation will fail if the client computer and vision device IP addresses are not correctly configured or the indicated vision device is not connected to the client computer.

Note: If security is enabled on the vision device, you will not be able to install new software on it. You must exit the install program, disable security on the device, and restart the installation program.

8. When the Pre-installation Summary is displayed, click Next and the installation will begin.
9. M-Series and MX-U Series Processors Only: When the installation has completed, you must also run the IMPACTVisionDeviceSetup installation program to install the Impact Device software. Refer to the Vision Device Readme.
10. When the installation has completed, you can start Impact software. Refer to the Impact Reference Guide for more details.

Uninstalling Impact software

To downgrade software on an A30, T4x-Series, or P-Series

1. Copy the following folder (under the “install folder”) to a safe location (this will back up some of your existing Impact files). The default “install folder” is “Datalogic.”
C:\install folder\IMPACT\Applications\Root

2. Run the Impact Setup executable for the currently installed version (e.g. IMPACTSetup_10_3_0_nn.exe).
3. Select the Custom option.
4. Check the option: "Uninstall Client Settings and Impact Device(s)."
5. Select the Uninstall Root Folder and click Next.
6. From the list of devices, select the device(s) that you want to downgrade.
7. Click Next. When the Pre-installation Summary is displayed, click Next and the uninstall will begin.
8. When the uninstall is complete, delete the files named "settings.xml" from the following default directories, if they are present there:
 - C:\install folder\IMPACT\Applications\Emulator\IMPACTEmulator\cf
 - C:\install folder\IMPACT\Application\Emulator\IMPACTEmulator 2\cf
 - C:\install folder\IMPACT\Applications\Emulator\IMPACTEmulator 3\cf
 - C:\install folder\IMPACT\Applications\Emulator\IMPACTEmulator 4\cf
9. Run the IMPACTSetup executable to install the desired earlier version (full or device install) of Impact software you want on the Datalogic device you are downgrading.

To downgrade software on an M-Series or MX-U Series processor

1. Copy the following folders to a safe location (this will back up some of your existing Impact files):
 - C:\install folder\IMPACT\Applications\Device
 - C:\install folder\IMPACT\Applications\Root
2. From the Windows Control Panel, select Uninstall a program.
3. From the list of Currently Installed Programs, select "Impact Vision Device" and click the Uninstall button.
4. When the uninstall is complete, delete the files named "settings.xml" from the following default directories, if they are present there:
 - C:\install folder\IMPACT\Applications\Device\IMPACTDevice\cf\
 - C:\install folder\IMPACT\Applications\Device\IMPACTDevice 2\cf\
 - C:\install folder\IMPACT\Applications\Device\IMPACTDevice 3\cf\
 - C:\install folder\IMPACT\Applications\Device\IMPACTDevice 4\cf\
5. Run the IMPACTVisionDeviceSetup and IMPACTSetup executable files to install the desired earlier version of Impact software that you want on the M-Series processor.

Configure PC firewall and antivirus software

PC Firewall

Impact software requires the PC's firewall software to be configured to allow network connections to IMPACTEmulator.exe and javaw.exe. The default install locations for these programs is one of these locations:

C:\install folder\IMPACT\Inspection Builder\ Emulator
C:\install folder\IMPACT\Inspection Builder\ jre\bin

OR

C:\install folder\IMPACT\Applications\ Emulator
C:\install folder\IMPACT\Applications\ jre\bin

Datalogic Vision Devices, including the Emulator, appear as network devices to Impact software. Often, configuring the firewall only requires pressing the Unblock button once or twice during the first run of Impact software. At other times, configuring the PC's firewall software to allow connections must be done explicitly.

The PC's firewall software can leave Impact software waiting forever to connect. You can fix waiting to connect issues by adding firewall exceptions for the Emulator (IMPACTEmulator.exe) and javaw.exe, or disabling the firewall. Microsoft warns that turning off the firewall is not recommended. Firewall exceptions are preferred.

To add exceptions when the PC uses Windows Firewall as part of Microsoft Windows XP Professional with Service Pack 2 Go to Start, Control Panel, Windows Firewall, "Add Program..."

"Add Program..." exceptions for IMPACTEmulator.exe and javaw.exe. The default install locations for these programs is one of these locations:

C:\install folder\IMPACT\Inspection Builder\ Emulator

C:\install folder\IMPACT\Inspection Builder\ jre\bin

OR

C:\install folder\IMPACT\Applications\ Emulator

C:\install folder\IMPACT\Applications\ jre\bin

Antivirus and anti-malware settings

Restrictive settings in antivirus or anti-malware software on the PC can block communication ports that Impact uses. There are several symptoms of this problem, including one or more of the following:

- The Impact software installation fails
- An error (Error registering online callback) is displayed when you try to connect to the device
- The device is not displayed in the Device Connection list

You may be able to resolve some of these problems by adjusting the antivirus or anti-malware settings to work well with the ports that Impact uses. Refer to the Troubleshooting section of the Impact Reference Guide for more details.

General Notes about this release

With Impact software, you can comply with FDA 21 CFR Part 11 requirements.

To meet these requirements, your inspection applications can interface with a Supervisory Control and Data Acquisition (SCADA) database.

A PDF reader is required to open Impact software PDF manuals and online help

For your convenience, an Open Source PDF reader is installed on the M-Series and MX-U Series processors so you can open the Reference Guide and other manuals.

Datalogic Automation, Inc. is not responsible for the performance or reliability of this PDF reader software. For support, refer to the reader documentation.

Vision device and strobe power supply grounding

Some customers have reported problems with inconsistent strobe pulse lengths on the Datalogic device. We have found that these problems resulted from insufficient power supply grounding. You must be sure that strobe and power supply grounds are connected securely to earth ground through the appropriate connector. Refer to the appropriate Hardware Guide or Quick Start Reference Guide for wiring diagrams.

To run Impact software, you must have file modification permission.

To run any Impact software module, you must have permission to modify files in the installation directory.

Errata

1. Software that operates as a server on the host PC may interfere with Datalogic Device communications. These may include, among others, Windows Internet Information Services (IIS) and CoDeSys™ ENI Server.
2. In the VPM AB PCCC Server system object, when the Character file type (A9) data is sent as type "SINT" by the PLC, it is not written in the Server register correctly. Only one-half the correct number of bytes are written to the registers.
3. Because of an enhancement to the OCR tool in a previous release, the OCR tool scoring has changed. The scores are now more consistent and somewhat higher.

When you upgrade to this release from any release prior to 8.1.5, you will probably need to adjust fixed threshold values in any existing OCR tools. The approximate new threshold values, based on the old threshold can be calculated as follows:

new threshold = $100 - 0.6 \times (100 - \text{old threshold})$

For example, if the old threshold value was 50, the new value can be calculated:

New threshold = $100 - 0.6 \times (100 - 50)$

New threshold = $100 - 0.6 \times 50$

New threshold = $100 - 30$

New threshold = 70