

Impact Readme

Welcome to the Datalogic **Impact**, a complete range of software and hardware to solve your machine vision needs. This 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 Impact setups.

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

This Readme file is divided into the following sections:

[Software, Firmware, and Documentation](#)

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Software, Firmware, and Documentation

SOFTWARE

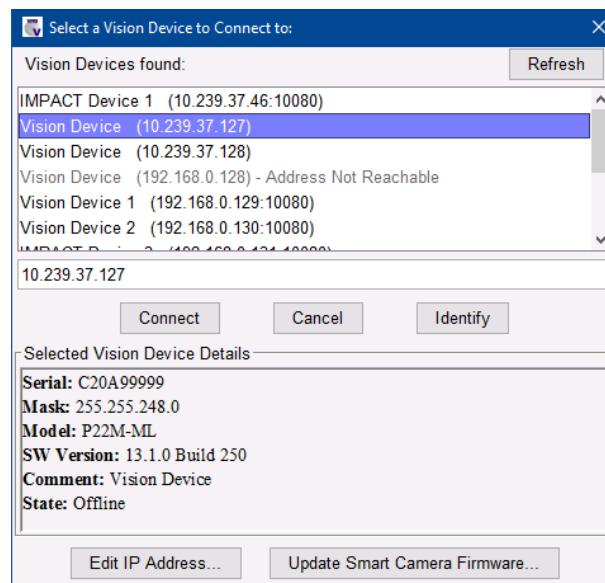
- **VPM (Vision Program Manager):** You can do all your software work with VPM.
 - Configure your Smart Camera with the Settings tab – Camera setup.
 - Program your machine vision inspections with the Design Mode.
 - Create an Operator Interface with the Display Mode.

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.
- **VisionSDK:** A powerful library you can use to integrate the Inspection Results into your HMI Application. It is available through the `IMPACT_SDK_*_Setup.exe` and works with 32 bit or 64 bit Windows 10 operating systems.
- **Emulator:** Run one or more Emulators on your PC to create, test, and demonstrate your inspections without using hardware.

FIRMWARE

- **IMPACT on MX Vision Processor:** `IMPACT_MX_Vision_Device_*_x64_Setup.exe` installs Impact Vision Device software on Vision Processors.
- **IMPACT on Smart Camera:** Smart Camera firmware can be installed by `IMPACT_*_x64_Setup.exe` or by VPM using the Update Smart Camera Firmware command:



IMPORTANT: Do NOT power off the camera or processor during installation. Wait until the procedure is complete.

DOCUMENTATION

- **Software IMPACT Info and Release Notes:** Current file
- **Software IMPACT Reference Guide:** The manual `Software_IMPACT_Reference_Guide.pdf` documents how to configure, program, control, and monitor Datalogic vision devices with VPM, CPM, and Settings. 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:** The document `Sample_Programs_Guide.pdf` 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.
- **Hardware Guides:** These manuals describe Vision Processors and Smart Cameras, including the inputs and outputs available to integrate your system into a production line:
 - `Product_Manual_Vision_Processor_MX-E25_MX-E45.pdf`
 - `Product_Manual_Vision_Processor_MX-E90.pdf`
 - `Product_Manual_Vision_Processor_MX-G2000.pdf`
 - `Product_Manual_Smart_Camera_P2x_P3x.pdf`

System Requirements

- Intel®, AMD®, or VIA® x86-class processor (minimum enhanced instruction set SSSE3); minimum 1.2 GHz; 64-bit processors
- Microsoft® Windows 10, or Windows 11
- 4 GB or more of RAM, 8 GB recommended
- 2GB or more of available hard disk space
- 1Gbps/1000Mbps Ethernet connection
- Monitor display resolution of 1024 x 768 or greater

Installation Instructions

INSTALLING IMPACT SOFTWARE (PC, SMART CAMERA, VISION PROCESSOR)

To install the Impact software:

1. You may need to turn off automatic virus checking during installation if it causes installation problems.
2. You must have administrative privileges to install Impact software. Double-click on the install program to start the installation.
3. From the drop-down list, select a language, then click OK.
4. On the welcome dialog, click Next.
5. Click the “I Agree” button when the End User License Agreement is displayed.
6. The Choose Install Location dialog is displayed.
 - To install to the Default Folder, click Next.
 - To choose a different Destination Folder
 - a) Click Browse, then browse to the desired directory
 - OR
 - b) Type in the directory name

Note: If you choose a directory that already contains installed Impact Software, a warning is displayed that the installed software will be removed.
7. To save the folder currently displayed in the Destination Folder field, check the box labeled “Remember the Destination Folder for future installations.”
8. Click Next when you are done.
9. The Choose Components dialog is displayed.
 - To create Desktop shortcuts, check one or more boxes.
 - To install the firmware to Smart Cameras, check the box labeled “Install Smart Camera(s) Firmware.”

10. Click Next when you are done.
11. If you selected “Install Smart Camera(s) Firmware” in a previous step, the “Choose Vision Device(s)” dialog is displayed.
 - To install specific Smart Cameras, check one or more boxes for Datalogic cameras in the list.
 - To update the device list, click Refresh. 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.)
12. Click OK when you are done selecting devices.

WARNING: Do NOT remove power or the Ethernet connection from the Smart Camera during the installation. This can damage the camera.

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.

13. When the Pre-installation Summary is displayed, click Install and the installation will begin.
14. Vision Processors Only: When the installation has been completed, you must also run the `IMPACT_MX_Vision_Device_*_x64_Setup.exe` installation program to install the Impact Device software. Refer to the Vision Device Readme.
15. When the installation has been completed, you can start Impact software. Refer to the Impact Reference Guide for more details.

UNINSTALLING IMPACT SOFTWARE

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\Application\Emulator
 - C:\<install folder>\IMPACT\Application\Root
2. From System Settings, select Apps & Features.
3. From the list of Installed Programs, select “IMPACT” and click the Uninstall button.

Configure PC firewall and antivirus software

PC FIREWALL

Impact software requires the PC's firewall software to be configured to allow network connections to Vision Emulator and javaw.exe. The default install location for these programs is one of these locations. The default "install folder" is "Datalogic."

- 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 (Vision Emulator) and javaw.exe or disabling the firewall. Microsoft warns that turning off the firewall is not recommended. Firewall exceptions are preferred.

To add exceptions, go to Start - Settings – search for Firewall & Network Protection - Allow a program or feature through Windows Firewall. Allow exceptions for Vision Emulator and javaw.exe.

ANTIVIRUS AND ANTI-MALWARE SETTINGS

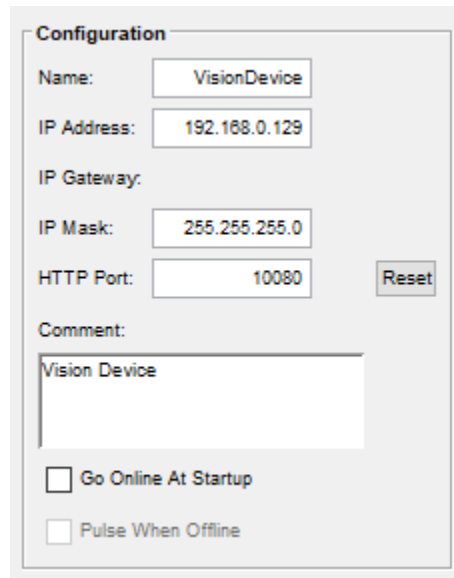
Restrictive settings in antivirus or anti-malware software on the PC can block communication ports that Impact uses. There are several symptoms of this problem, including one or more of the following:

- 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.

Release Notes

Release 13.1.1 changed default IP port to 10010 for all vision devices and emulators in response to browsers blocking port 10080 to stop NAT Slipstreaming attacks. We suggest to reset the HTTP port on each device or emulator from VPM, General settings.



The screenshot shows a 'Configuration' dialog box with the following fields and options:

- Name:** VisionDevice
- IP Address:** 192.168.0.129
- IP Gateway:**
- IP Mask:** 255.255.255.0
- HTTP Port:** 10080
- Reset** button
- Comment:** Vision Device
- ☐ Go Online At Startup
- ☐ Pulse When Offline

ENHANCEMENTS IN 13.7.0 RELEASE

- VPM and CPM have new ribbon style toolbars
- VPM and CPM have a new Settings tab per connected device
- VPM and CPM now have multiple inspections and tasks in same tree on new Inspection tab
- VPM Display mode is no longer available. Use Smart Camera Monitor instead.
- Added ability to copy and paste tasks.
- Added enforcement of user security level to HTTP and TCPIP command set. Added Logon and Logoff commands.
- The Camera Setting for Input Image Queue Size has been replaced with a simple selection of Discard versus Queue when images arrive faster than they are processed. The queue size can still be set on the Camera Properties page.
- Added HTTP command and SDK API to change vision device IP address.
- Added Run Next and Run Till buttons in Counted Loop and List Loop tools
- Data tool – changing index value changes the displayed list item
- Smart Camera Monitor autologin by adding user credentials to URL.

BUGS FIXED IN 13.7.0 RELEASE

- [Fixed] Code Reader Tool fails to read two identical adjacent codes
- [Fixed] Profinet on MX startup issues.

- [Fixed] PoE status checkbox on MX-G2000 should be always on.
- [Fixed] Chart control cannot change data series data type.
- [Fixed] Error copying Data Set tool after linking destination.
- [Fixed] Double-click to add tool to a Group tool doesn't work.
- [Fixed] Optics calculator missing some recent cameras.
- [Fixed] Color P-series camera produces incorrect gray scale image in HDR mode.
- [Fixed] Python tool – two instances of tool end up with same code displayed.
- [Fixed] Sample BluEye v02.vp has incorrect pattern names.
- [Fixed] Gauge Profile tool added "Minimum Gradient Threshold".
- [Fixed] P-series trigger debounce setting of 10 reverts to 0.
- [Fixed] Some tool setups and properties are not translated into Chinese.

BUGBUGS FIXED IN 13.6.2 RELEASE

- [Fixed] P3x firmware upgrade from 13.6.0 to other versions not working.

ENHANCEMENTS IN 13.6.0 RELEASE

- Add support for E2-123 and E2-244 cameras.
- Add an HTTP command to download files from the vision device.
- Add an HTTP command to upload a vision program to the vision device.
- Add sample vision program for Pekat tool and G2000 vision processor.

BUGS FIXED IN 13.6.0 RELEASE

- [Fixed] Advanced OCR tool leaks image buffer when ROI is off image.
- [Fixed] VPM memory leak.
- [Fixed] Image Input Queue Size maximum increased to 100.
- [Fixed] Vision device crash when using multiple Image Archive tools.
- [Fixed] CPM cannot save program when ROI origin is linked.
- [Fixed] Dalsa Linea Lite camera crash vision device after many snaps.
- [Fixed] Hikvision camera serial number not visible in VPM.
- [Fixed] Advanced OCR unable to re-edit character box label.
- [Fixed] Play button on VPM top menu does not work when a vision program is open.
- [Fixed] Link from CalibrationInfo port is not updating.

ENHANCEMENTS IN 13.5.0 RELEASE

- Add support for Dalsa Linea Lite cameras
- Add Gauge Profile tool
- Add Python tool
- Add ""Added/Improved"" toolbox drawer
- Add Image Archive tool feature to store images in smart camera flash storage
- Add Data Archive tool feature to store files in smart camera flash storage
- Add Backup/Restore buttons to VPM toolbar

- Add Division function to Image Math tool
- Improve camera partial scan setup
- Improve VPM memory utilization for large images
- Improve BluEye tool speed when training multiple large models
- Add Calibration tool port to set the max number of checkerboard corners

BUGS FIXED IN 13.5.0 RELEASE

- [Fixed] System protection tool error when installing Impact software.
- [Fixed] P35 horizontal partial scan is unreliable. Removed the feature.
- [Fixed] Add busy cursor during VPM backup/restore.
- [Fixed] AdvancedOCR character annotation on large images is clipped.
- [Fixed] P3x- Communication Error when attempting to Calibrate with more than 50,000 target points.
- [Fixed] VP files with negative tolerance from 12.x will not load in 13.x
- [Fixed] Ghost painting effects from RangeScroll control when moving a control panel from 13.1.2 to newer release.
- [Fixed] VisionSDK Method CopyFileFromVisionDevice fails to download large files with error Out of Memory
- [Fixed] Link source sometimes not being displayed in properties tab.
- [Fixed] } Memory leak in List Edit tool with Point List and Image List
- [Fixed] Setting CPM application tab height to -1 not hiding the panel tabs
- [Fixed] MX Product reference guides have wrong association pin/color to function in the Camera Connections with Pigtail Table
- [Fixed] Update Impact Reference documentation for HDR Mode to include the P3x series cameras.
- [Fixed] Vision Processor Control Panel temp folders are filling up the MX disk.

ENHANCEMENTS IN 13.4.0 RELEASE

- Add support for MX-G2000 Vision Processor
- Allow customized number of image buffers
- Add new Pekat tool to communicate with Pekat Vision software
- Image Archive and Data Archive: keep FTP connection open to speed up transfer
- Image Archive and Data Archive: try to re-establish the connection if the FTP server resets it
- Add scale factor for Sobel filter in Filter Tool Edge Enhancement

BUGS FIXED IN 13.4.0 RELEASE

- [Fixed] P2x/P3x: date and time are not synchronized again when VPM automatically re-connects after an unexpected device reboot.
- [Fixed] BluEye Tool: crash when attempting to train 10 images with P35C.
- [Fixed] BluEye Tool: model name missing on Vision Program reload.
- [Fixed] Data Archive Tool: crash when running tool with the destination type set to FTP without an FTP service running.
- [Fixed] Data Instance Tool: value not saved when losing focus to another tool.
- [Fixed] Discrete Output Tool: output 1 cut off and unable to select.
- [Fixed] Image Archive Tool: Reset method not available when linking Execute Method tool.
- [Fixed] Image Filter Tool: filter name or activation checkbox randomly disappearing.
- [Fixed] Image Filter Tool: distance filter modifies Input Image when executed on full image.
- [Fixed] String Parse Tool: JSON integer values mapped to real port are incorrectly set to 0.
- [Fixed] VPM: unable to increase Gain if the camera lowest value is 0.
- [Fixed] VPM: settings panel always shows NPN output type on MX-E25 and MX-E45.
- [Fixed] VPM: hangs up when attempting to set TCP/IP server port in General settings to a port value already in use by a TCP/IP Out tool.
- [Fixed] SCM: display issues when Vision Program contains Chinese characters.

ENHANCEMENTS IN 13.3.0 RELEASE

- Add support for P3x Smart Camera
- Image Filter Tool: add new CLAHE and distance transform filters.
- Image Filter Tool: improve performance of Stretch filter.
- BluEye Tool: add shape score with match status for each model point.
- BluEye Tool and Pattern Find Tool: include calibration in model thumbnails so that points align correctly over the thumbnail in CPM Image Display.
- BluEye Tool and Pattern Find Tool: add option to filter all overlapping matches.
- Code Reader Tool: add option to decode Datamatrix Rectangular Extension (DMRE) format.
- Execute Method Tool: add possibility to call Camera methods.
- HTTP Request Tool: improve transfer speed when sending large data.
- Pattern Find Tool: improve vision program load times.

- Improve device backup and restore.
- Add ability to perform backup and restore from CPM and VisionSDK.
- Add possibility to upgrade multiple Smart Cameras from VPM.
- Simplify saving of system log and preserve system log after reboot.
- VPM: new Data Instance Tool and Data Set Tool setup with automatic Data Type configuration based on the first link set by the user.
- VPM: improve UI display of Data Instances that are promoted to task input and output.
- VPM: double click to add tool to task.
- VPM: add search box for quickly find a tool within the toolbox.
- VPM: add button to update firmware or download the latest version in case of mismatch between device and software version.
- VPM: add procedure to help in performing the manual focusing in Camera setup.
- CPM: add new Overlay ROI that can be used to overlay a binary image mask over an Image Display control with customized colors.
- SCM: add ability to display and edit Shape data.
- SCM: add ability to display Color data.

BUGS FIXED IN 13.3.0 RELEASE

- [Fixed] Crash unloading vision program while auto-triggering.
- [Fixed] Random system freeze when using TCP/IP Out Tool in server mode and sending TCP commands.
- [Fixed] Changed Vision Program automatic backup filename suffix to avoid interferences with Profinet Vision Program switch using program number.
- [Fixed] Blob Tool: problems on area calculation with "Fill Hole" active / deactive.
- [Fixed] BluEye Tool: "Can Touch Image Borders" not working correctly.
- [Fixed] BluEye Tool: model points are displayed incorrectly if roi is partially off image.
- [Fixed] BluEye Tool: fail when tool is trained on full image and run without search ROI.
- [Fixed] BluEye Tool and Pattern Find Tool: Rotation (+ - A Few Degrees) not always respected.
- [Fixed] BluEye Tool: shape score does not work if model has been edited.
- [Fixed] BluEye Tool: cannot reload Vision Program after editing the model on a calibrated image.
- [Fixed] Code Reader Tool: change warning incorrectly stating that the Max Number of Codes to Process on Smart Cameras is 30 instead of 150.
- [Fixed] Color Binary Filter Tool: unhandled exception when renaming a color.
- [Fixed] Contrast Tool: blobs not displayed if threshold is set to "Autothreshold Contrasting Dark Pixels".
- [Fixed] Data Archive Tool: fix file being saved with incorrect date on Smart Cameras.
- [Fixed] List Edit Tool: crash when setting a negative value in Index Input 2.
- [Fixed] Pattern Find Tool: filter overlapping matches does not work if model is edited.
- [Fixed] P2x: storage issue due to memory dumps never being cleared.
- [Fixed] Vision Device auto-trigger does not work with acA1300-60gc and acA1300-60gm cameras.
- [Fixed] Vision Device random startup failure, could not connect with VPM or VisionSDK.
- [Fixed] Vision Device: improved handling of camera disconnection while online.
- [Fixed] SCM: file switching causes unhandled exception in VPM.

- [Fixed] VPM: various issues and glitches when using chinese language.
- [Fixed] VPM: hangs up when using Send Message Tool to send data to Smart Camera.
- [Fixed] VPM: communication error with large Nominal value in Pass / Fail panel of Angle tool.
- [Fixed] VPM: errors when selecting a tool inside a Switch after deleting another tool
- [Fixed] VPM: linked output image is not being preserved when copy-pasting tools.
- [Fixed] VPM: using "Offset" as name variable on ProfinetIO Read causes unhandled exception.
- [Fixed] CPM: issue preventing Scriptor to access some methods and properties, e.g., Visible property of a Frame control.
- [Fixed] CPM: issue preventing display of Text ROI on a calibrated image.

BUGS FIXED IN 13.2.3 RELEASE

- [Fixed] Vision Device random crash when multicore processing is enabled.
- [Fixed] Vision Device auto-trigger does not work with acA1600-60gc and acA1600-60gm cameras.
- [Fixed] Crash sending unload TCP or HTTP command while online with Self-paced Auto-trigger.
- [Fixed] VPM / CPM / VisionSDK randomly fails to connect to a Vision Device on system startup.
- [Fixed] VPM: changing language to Chinese causes VPM to stop refreshing image and runtime information if task Pass Fail Status port is linked.
- [Fixed] P2x: Input Debounce gets reset when going to the Camera Setup.

ENHANCEMENTS IN 13.2.2 RELEASE

- Add the Shading Correction property to the Camera settings for use in M5xx line scan cameras. The shading correction must be calibrated using the pylonviewer software and can then be controlled in the Impact software.

BUGS FIXED IN 13.2.2 RELEASE

- [Fixed] Advanced OCR Tool: fixed issue with isTrained state of a linked Font Library. Also fixed possible memory leaks.

BUGS FIXED IN 13.2.1 RELEASE

- [Fixed] P2x: PNP output state is inverted.

ENHANCEMENTS IN 13.2.0 RELEASE

- BluEye Tool official release: this is a new pattern matching tool previously released as a beta feature. This version further enhances performances and improves edge extraction and overlap management.

- HTTP Request Tool: new tool to send and receive text or image data through HTTP GET/POST requests.
- Advanced OCR Tool: add support for UTF-8 characters and allow partial ROI off image.
- Performance improvements for some tools (Image Sampling Tool, Binary and Stretch filters in Filter Tool, Undistort Tool, Image Math Tool, Light Leveling Tool, Visual Feedback Tool)
- SCM SCADA: monitor multiple devices from one single web page.
- Master Device: special Vision Device that serves as a collector of the results from the other devices and manages the fieldbus communication and I/O.
- Shared Memory: a new mechanism to share data between devices through data instances.
- P2x: add ability to set independently shutter and strobe pulse.
- Improved icons in VPM and CPM.
- VPM: add button to start SCM from VPM.
- VPM: add button to start CPM from VPM. It is also possible to store in a vp file the correspondent cp file to be automatically loaded.
- VPM: add possibility to store a Reference Image in a vp file. It can be used to trigger the inspection and verify if something has changed in the system setup.
- VPM: add autoexposure procedure in camera settings that automatically computes shutter and gain.
- VPM: restore small icon option in VPM.
- VPM: add button to start / stop image recording.
- VPM: add asNot sub-port to Boolean and Boolean List that represents the negated value.
- CPM: add ability to display log data on a control panel.
- CPM: add ability to set an icon in a panel tab.
- Impact Reference Guide: add appendix that explains how to setup "Kiosk Mode" for CPMRE or SCM/SCADA.

BUGS FIXED IN 13.2.0 RELEASE

- [Fixed] Advanced OCR Tool: ROI Finder not working when training with a small search ROI.
- [Fixed] Blob Tool: sometimes area displayed in area filter is wrong.
- [Fixed] Contrast Tool: "Autothreshold Contrasting Bright Pixels" doesn't work on a binary image.
- [Fixed] Discrete Output Tool: "delay" option inverts logic.
- [Fixed] BluEye Tool: very slow runtime on low contrast images.
- [Fixed] BluEye Tool: training points placed incorrectly when tool origin is linked.
- [Fixed] BluEye Tool: training angle range is not respected when "Possible Rotations" is set to "A Few Degrees".
- [Fixed] Filter Tool: sometimes ROI is not applied if tool origin is rotated and output is ROI only.
- [Fixed] Origin Tool: Last Bright Line not working on first run.
- [Fixed] Pattern Find Tool: found model contours are placed incorrectly when trained with scaling and with "Model Origin" set to "Where Placed On Image".
- [Fixed] Pattern Find Tool: training angle range is not respected when "Possible Rotations" is set to "A Few Degrees".
- [Fixed] Data Archive Tool / Image Archive Tool / Data Read Tool: tool does not respect FTP timeout when the host does not exist or when username or password are wrong.

- [Fixed] Image Archive Tool: tool passes even if SFTP password is incorrect.
- [Fixed] Image Archive Tool: slow saving speed when using PNG format.
- [Fixed] Vision Device: memory leak when using File Camera and physical triggers.
- [Fixed] CPM: hanging when deleting characters after changing character resolution in OCR Font Library.
- [Fixed] Profinet: connection is not restored after rebooting service.
- [Fixed] SCM: image disappear when zooming in or out in pop-up window.
- [Fixed] SCM: tiny filmstrip images when changing the orientation from vertical to horizontal.
- [Fixed] SCM: next and previous buttons on the image filmstrip do not work.
- [Fixed] VPM: unable to drag-drop files to File Camera or File Manager when starting VPM from setup.
- [Fixed] VPM: Java Error after renaming a task.
- [Fixed] VisionSDK: VisionDevice class missing in documentation.

ENHANCEMENTS IN 13.1.2 RELEASE

- Add 8 more SVS Vistek cameras to 3rd party camera support:
 - SVS exo273MGE, SVS exo273CGE
 - SVS exo174MGE, SVS exo174CGE
 - SVS exo249MGE, SVS exo249CGE
 - SVS exo264MGE, SVS exo264CGE
- Update Optical Calculator with the description of the additional SVS cameras.

BUGS FIXED IN 13.1.2 RELEASE

- [Fixed] Java Lang ClassCastException error while renaming a program in VPM.
- [Fixed] Image Archive Tool: The image file name can be changed from another Image Archive Tool.
- [Fixed] Image Archive Tool: Transfer mode showed "send immediately" when going online if "queue images" is the selected option.
- [Fixed] Advanced OCR Crash while retraining with similar characters.
- [Fixed] Blob sometimes the tool finds blobs that totally out of the ROI.
- [Fixed] P2x Product Reference Guide, error in the imager size.
- [Fixed] P2X Product Reference Guide: Improve the description of the Harsh Cover in the accessory list.
- [Fixed] Impact Reference: Update Periodic Auto Trigger description.
- [Fixed] MX-E 24/45 and MX-E-90: Add the description of the default remote access procedure.

ENHANCEMENTS IN 13.1.1 RELEASE

- Update license management for MX-E systems to align with P2x-Series.
- Unlock VisionDevice setup on MX-E20, MX-E40 and MX-E80.
- Vision Device installer updated with .NET Framework v4.8.
- VPM: enable the Connect button if there is a valid IP in the text entry field even if it is not in the discovered list.

BUGS FIXED IN 13.1.1 RELEASE

- [Fixed] P2x: Color Identify fixed device crash when training with default ROI.
- [Fixed] P2x: ModBus not working.
- [Fixed] Vision Device: HTTP commands not working, changed default IP port to 10010 for all devices and emulators.
- [Fixed] Vision Device: memory leak while working with a color camera.
- [Fixed] Vision Device: fixed an error in license management for Advanced OCR and Pattern Sort.
- [Fixed] Vision Device Installer: Sentinel Driver updated to v8.31 for Log4J vulnerability.
- [Fixed] Vision Emulator: crash running multiple SCM.
- [Fixed] String Parse Tool: compatibility issue moving from 13.0 to 13.1.
- [Fixed] Blob Tool: slow down in 13.1.0
- [Fixed] Blob Tool: Output Area List port is not calibrated if blob list disabled.
- [Fixed] Blob Tool: Filtered Number of Blobs Actual port is incorrect if Output Blob List disabled.
- [Fixed] Origin Tool: adjustable threshold grey level reset.
- [Fixed] Switch Tool: misalignment while changing the Data Type in a Data Set or Data Instance tool, when tools are positioned below a switch branch.
- [Fixed] ModBus: crashing when trying to read / write an address higher than 127.
- [Fixed] VPM: error deleting tools using CTRL+A and DEL after renaming the tool from Properties.
- [Fixed] VPM: out of bound exception renaming Data Instances.
- [Fixed] SCM: Angle Range cannot be edited - error parsing the degree symbol.
- [Fixed] SCM: while the device online and from image strip panel the previous and next images arrows are toggling.
- [Fixed] SCM: image strip not showing image when next button is pressed.

ENHANCEMENTS IN 13.1.0 RELEASE

- Smart Camera Monitor (SCM): a web app is now available as an interface for a vision device.
- SVG Support: the Image Archive Tool can save SVG files, where images and graphics are merged to create a kind of report with ROIs, texts, blobs, points, lines for the customer.
- Secure FTP (SFTP): Image Archive, Data Archive, Data Read can access a server using a secure protocol, to protect data against cyber attacks.
- Histogram Tool: this new tool can be used to inspect the image using a statistical approach.
- Histogram Editor for Color Models: Color Tools can now be trained interactively changing tolerances directly in the histogram.
- P2x Blue 360 Feedback for system events (Crash, Identify, Offline, Software Update)
- P2x Product Reference Guide: the doc has been updated to support P2x-CMount and completed with Illuminance Map for each illuminator and Filter details.

BUGS FIXED IN 13.1.0 RELEASE

We have more than 100 bugs fixed compared to the previous release. Below is a summary of the most relevant.

- [Fixed] P2x: first execution time is extremely higher than average on some tools, Pattern Find included
- [Fixed] P2x: accelerometer roll angle is wrong
- [Fixed] P2x: last trained time for PST is not correct
- [Fixed] P2x: crash using serial port
- [Fixed] P2x: 36 Led Illuminator light chains are not correctly represented in VPM
- [Fixed] P2x: serial number of the camera displayed incorrectly in system log and Camera properties tab
- [Fixed] VPM: File Manager takes a huge time to open if network drives are mapped in Windows.
- [Fixed] VPM: Contrast Tool Setup - Display Mode Error
- [Fixed] VPM: Modbus Server page has the link summary disabled
- [Fixed] VPM: MX-E-90 Cannot set PNP/NPN IO card correctly because of a configuration conflict
- [Fixed] VPM: Tool tooltip are sometimes not correct
- [Fixed] Self-Paced Autotrigger option on MX Processor could lock the system if multiple vision devices run on the same core.
- [Fixed] Errors detecting SVS cameras on MX
- [Fixed] Black and White image conversion to gray image spend too much time
- [Fixed] HTTP Image Command is very slow
- [Fixed] Profinet Station Name can accept invalid names
- [Fixed] Profinet Station Name value can be changed when Device Security is enabled
- [Fixed] Profinet connection problem at startup on MX-E-90
- [Fixed] Impact OPC Server Version mismatch
- [Fixed] Circle ROI: strange behavior when tool origin angle is non zero
- [Fixed] Calibration Tool: the "Set Calibration to Input Image" button not working correctly for the File Camera
- [Fixed] Blob Tool: setup panel Pass/Fail results not always updated after changes
- [Fixed] Blob Tool: fail to manage width and height filters
- [Fixed] Blob Tool: fail to use a blob generated ROI
- [Fixed] Advanced OCR Tool: duplication fail if trained
- [Fixed] Color Tools: training speed improvement for P2x
- [Fixed] Color Tools: error in the color conversion of the RGB Black Color (0,0,0)
- [Fixed] Color Pixel Fill Tool: fail to manage stitched images
- [Fixed] Circle Fit Tool: not updating the Passed port status
- [Fixed] Code Reading Tool: it doesn't allow pharma code minimum number of bars to 3 - 13.1
- [Fixed] Image Filter Tool: doesn't set Output Image origin
- [Fixed] Image Filter Tool: memory leak processing images
- [Fixed] Image Sampling Tool: fails on 140 MPixel image
- [Fixed] ImageArchive/DataArchive Tool: communication error (during vp file switching)
- [Fixed] List Edit Tool: not processing the Image Origin correctly
- [Fixed] PST: a single rectangle ROI with a hole doesn't work.

- [Fixed] PST: "Invalid Parameter" appears and the user cannot modify the database name if there is as input a wrong database name
- [Fixed] Pattern Find Tool: cannot be used with a filter on the number of objects
- [Fixed] Pattern Find Tool: can't open VP file when the pattern list length is different from the enable list
- [Fixed] Image Sampling Tool: sampling and anti-alias speed are not optimized against some trivial cases
- [Fixed] BluEye: contours are trained even out of the training region
- [Fixed] BluEye: time out control is not working
- [Fixed] BluEye: vision device crash after dropping the tool on the task tree
- [Fixed] BluEye: emulator crash running without an input image
- [Fixed] BluEye: relative position doesn't use the origin angle
- [Fixed] CPM: don't dare to use -1 in a slider!
- [Fixed] CPM: password and users level issue on User Editor allows users to bypass protection
- [Fixed] Vision Device crash with Advanced OCR while training using an Off Image ROI
- [Fixed] Vision Device crash Inspecting stitched images (Blob, BluEye, Circle Fit)
- [Fixed] Vision Device crash unloading a vision program file
- [Fixed] Vision Device crash while processing a TCP/IP event
- [Fixed] Vision Device crash on HTTP "Image" command
- [Fixed] Vision Device crash while searching for camera type
- [Fixed] Vision Device crash connecting Aca3800 camera
- [Fixed] Vision Device crash using PST with contour mode
- [Fixed] Memory Leak loading and unloading Vision Program files
- [Fixed] VisionSDK: error on SetOCRTraining methods
- [Fixed] VisionSDK: discovery method has an excessive CPU usage
- [Fixed] VisionSDK: useless warning message in the system log running a task from SDK Methods
- [Fixed] VisionSDK: memory leak while connected

KNOWN ISSUES

- P35C: A programmatic change in partial scan via Vision Program may temporarily generate image artifacts. After a few acquisitions the camera will return to work properly.
- Some customers have issues running VPM and Windows 10 while using character scaling different from 100%.
- Installing version 12.2.x (or earlier) software onto MX-E25 vision processors with 13.x (or later) software may result in an incorrect configuration that fails to start the vision devices. The workaround is to manually uninstall the 13.x (or later) software before installing the 12.2.x (or earlier) software.

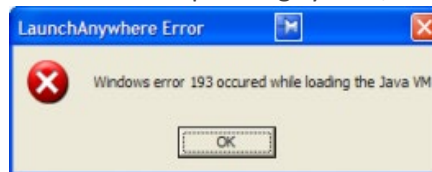
General Notes

- **Emulator exits after 4 hours**

Beginning with Impact release 12.0.0, the Emulator is designed to exit after running for 4 hours. This timeout period starts when the Emulator starts and is reset when a Vision Program file is saved (click the Save or Save As buttons in VPM). A backup copy of all open Vision Programs in VPM is automatically saved (with a timestamp) when the Emulator exits.

The Emulator time remaining is displayed in the VPM toolbar for 1 minute when the Emulator starts, and then continued when the time remaining is less than 30 minutes.

- 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 Vision Processors, you must install it directly on the processor you intend to use. You cannot install it on a Processor remotely like you can on Smart Cameras.
- Datalogic Smart Cameras (or Vision Processor) and client computer must have the same version of Datalogic Impact software installed.
- This release of Impact Software is available in one version for a 64-bit operating system (OS). Refer to your computer documentation if you are unsure which operating system your computer uses. If you attempt to install the 64-bit version on a 32-bit operating system, the following dialog is displayed:



- **Release 12.0.0 and later will not install on MX-Series processors**

The MX20, MX40, and MX80 processors are no longer supported by Impact software upgrades. Releases 12.0.0 and later will not install on these processors. Release 11.12.x is the latest release that supports them.

- **Release 13.0.0 and later will not install on MX-E20/40/80 Series processors**

The MX-E20/40/80 processors running Windows Embedded Standard 7 are no longer supported by Impact software upgrades. Releases 13.0.0 and 13.1.0 will not install on these processors. Release 13.1.1 can be installed on MX-E20/40/80 Series processors but the compatibility is not guaranteed.

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 so you can open the Reference Guide and other manuals.

Datasensing 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.

BLOB TOOL AND ADVANCED OCR TOOL UPGRADE

The Blob tool and the Advanced OCR tool have been overhauled. The old version will appear in yellow in the task tree and must be manually replaced with the new version from the Toolbox.

DEPRECATED TOOLS

In existing Vision Program files, deprecated tools are displayed in yellow in the task tree and they will continue to function.

The following tool has been deprecated and its functionality replaced by the BluEye tool:

- Pinpoint Pattern Find

The following tools are deprecated and their functionality replaced by the new Image Filter tool:

- Average Filter
- Binary Image Filter
- Edge Enhancement
- Gaussian Filter
- Median Filter
- Morphology Close
- Morphology Dilate
- Morphology Erode
- Morphology Open

The following tools are deprecated and their functionality replaced by the new Color tools:

- Color Blob
- Color Checker

The following tools are deprecated and their functionality replaced by the new Execute Method tool:

- Reset
- Train

The tool Contrast Multiple ROI has been integrated within the Contrast tool.

The following tools are deprecated:

- Circle Edge Refinement
- Circular Pattern Find
- Extreme Difference
- Subpixel Edge Extractor

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.