



Machine Vision Software Suite Modification History

VERSION 11.8.1

Software Suite Modification History

This document describes new tools, features, bugs fixed, and other modifications to the Machine Vision Software Suite.

Table of Contents

Version 8.0.0.144	1	Version 10.4.0.78	53
Version 8.1.0.41	4	Version 10.4.1.3	57
Version 8.1.1.10	6	Version 10.5.0.35	58
Version 8.1.2.14	7	Version 10.5.1.6	61
Version 8.1.3.18	8	Version 10.5.2.5	62
Version 8.1.4.3	9	Version 10.6.0.54	63
Version 8.1.5.3	10	Version 10.7.0.28	67
Version 8.1.6.5	11	Version 10.7.1.16	69
Version 8.1.7.2	12	Version 10.7.2.3	70
Version 8.2.0.69	13	Version 10.7.3.3	71
Version 8.3.0.159	14	Version 11.0.0.213	72
Version 8.4.0.34	19	Version 11.0.1.4	76
Version 8.5.0.38	21	Version 11.1.0.86	77
Version 8.5.1.7	23	Version 11.1.1.11	79
Version 9.0.0.179	24	Version 11.2.0.83	80
Version 9.0.1.5	29	Version 11.2.1.11	83
Version 9.1.0.33	30	Version 11.2.2.6	84
Version 9.1.2.4	32	Version 11.3.0	85
Version 10.0.0.139	33	Version 11.4.0.123	86
Version 10.0.1.7	37	Version 11.4.1.23	90
Version 10.0.2.3	38	Version 11.5.0.95	91
Version 10.0.3.3	39	Version 11.6.0.64	96
Version 10.1.0.52	40	Version 11.6.1.16	99
Version 10.2.0.54	43	Version 11.7.0	100
Version 10.2.1.4	47	Version 11.8.0	103
Version 10.3.0.75	48	Version 11.8.1	106
Version 10.3.1.4	52		

NOTE: For versions 4.0.1.41 to 7.5.1.5, refer to the document Machine Vision Software Suite Modification History Archive.

Version 8.0.0.144

Released June 17, 2008

VPM

- Modbus communication added – The IMPACT device now has a Modbus Server that can communicate with and provide data to other network devices using standard Modbus protocol. VPM can read and write the server registers directly.
- New Camera parameters added – It is now possible to modify more camera parameters in the Camera system object, such as Partial Scan and Trigger Edge type.
- OCR tool has been improved – The OCR tool has new train modes that make it easier to use and more flexible. Also, processing speed has been improved as much as 50% in some cases.
- Line Gauge tools have more Setup options and a new output – All the Line Gauge tools now have Step and Repeat measurement capabilities, making them easier to configure. An output indicating the number of edges on an ROI has been added.
- New Task output – The task filename has been added as an output so it can be linked to controls.
- New drag-and-drop feature – To add tools to the task tree, you can now drag them from the palette and drop them on the tree. The Add Tool button has been removed.
- Point Match tool has been improved – The Point Match tool can now be trained with a golden part. Tolerance regions have been added to enhance usability.
- Image mirroring added to Image Sampling tool – The Image Sampling tool will now provide a mirrored image as the output image.
- New task tab selection feature – You can now select the first task or a specific task more easily when there are many tasks defined.
- License no longer needed for Data Matrix tool – The original licensed Data Matrix tool has been removed. The Data Matrix II tool does not require a license.
- Modbus test utility added – A utility to test communications with Modbus devices has been added to the VPM Utilities Diagnostics tab under the Advanced button.
- Telnet test utility removed – The Telnet test utility was removed from the Utilities Diagnostics tab under the Advanced button.

CPM

- Interface redesigned for greater ease-of-use – CPM's ease-of-use has been greatly improved in this release. In most cases, you can create a control panel application in less than half the time and with much less work.
- Creating a new control panel is easier – Using predefined control panel templates makes it easier to start a new control panel. Plus, now you can drag and drop onto the Control Canvas or the Control Tree to add controls.
- New Snap to Grid – It is easier to align controls on a control panel using a grid.
- Improved Linking – You can now create a new control and link it to a VPM tool's properties with a single drag-and-drop motion. Or perform complex linking to existing controls from a right-click menu. Linking between control properties is also a single drag-and-drop motion.
- New Tolerance Control – A Tolerance Control has been added, which allows direct linking from a VPM tool's tolerance property.
- New panel tab selection feature – You can now select the first panel or a specific panel more easily when there are many panels defined.
- VPM Task tree now visible – The VPM Task tree is now visible in CPM so you can link between CPM Control properties and VPM tool properties more easily.
- Save Vision Program control has been enhanced – Many new options have been added to the Save Vision Program control to enhance its performance and ease-of-use.

- Connecting to a vision device during editing is easier – A Connector control is now added automatically when you create a link to a VPM tool property during editing. You can connect to different vision devices with the Connect to Device button.

General

- Changing a device's IP address is easier – It is now possible to change an IMPACT device's IP address from the connection dialog. You don't have to connect to the device first.
- Connecting to local emulator at address 127.0.0.1 – You can now connect to a local emulator that uses the loopback address 127.0.0.1.
- Overall performance in IMPACT – There has been an improvement of at least 10% in overall performance for IMPACT software, with some tools showing a 40-50% improvement.
- Support added for PPT's new T3x Intelligent camera line – VPM and CPM now support PPT's T3x line of cameras. These cameras provide a performance increase and generally support the same resolution ranges as the T2x line.

New Errata

- **IMPORTANT NOTE for IMPACT A10 installation:** If you attempt to upgrade directly from IMPACT Release 7.1.1 to this Release 8.0.0, the installation will fail with the following error message:
Failure Details: Software and firmware update FAILED:
camera.ip.address: telnetGetCameraIdString: Could not determine device Id
Some system files updated. Possible non-matching revisions.
To recover from this error, reinstall Release 7.1.1 on the IMPACT A10, then upgrade it to Release 7.2.3, 7.3.x, 7.4.x, or 7.5.x, then install this Release 8.0.0.
- The CPM Refresh Vision Program Tree button fails to properly refresh in one particular case. This failure occurs when tools are removed and added in a vision program file on the connected device using VPM, but the total number of tools in the vision program file remains the same. Typically, when the failure occurs, the display of one of the tool names is corrupted in the Vision Program Tree. The workaround is to disconnect from the device in CPM, then reconnect.
- Changing tabs or settings in VPM Utilities or Standalone Utilities, while the vision device is triggering, can corrupt images on T2x, T3x, and A20 devices. The workaround is to not use VPM Utilities or Standalone Utilities while the vision device is online and processing triggers.
- Software that operates as a server on the host PC may interfere with IMPACT communications. These may include, among others, Windows Internet Information Services (IIS) and CoDeSys™ ENI Server.
- A-Series Intelligent Cameras running this firmware will connect to 1 Gigabit / 100 Mbps Ethernet switches at the 100 Mbps rate.

Bugs Fixed

- When IMPACT Release 7.5.0.39 was installed on an A10 camera, then an earlier release was installed over that release, the camera would no longer function and would require return to PPT VISION to be repaired.
- When the Display tab was selected and the device was online, color images were not displayed correctly.
- In the Log Viewer tab in Utilities, the final log entry was not updated correctly. (4243)
- In Setup, the Display panel would show the pseudocolor if it was turned on in another panel
- After the measurement tolerance was entered in the pass/fail panel, you could not select any ROI. (63)
- In Setup, linked ROIs were being moved when an Origin link was added. (35)
- When the Adaptive Template tool inspected large images it would attempt light level adaptation in adaptive difference mode.
- On the Utilities Device Information tab, the Device Comment appeared to be editable. (4240)
- When you disconnected from one IMPACT device and connected to another one, the Online/Offline button may not show the correct state. (4213)
- The template colors shown on the Display tab were different from those on the Setup panel. (1)
- If there were no tasks in a vision program file, an error was displayed.

- When CPM closed it would not close the Emulator. CPM will no longer start an Emulator instance. The Emulator must be started from VPM or the Windows Start menu. (4195)
- One of the Primary Threshold Range properties was labeled wrong (8)
- These controls needed additional events so they could be used with touch screens. (4236)
- When a CPMRE applet was opened in VB, it would incorrectly prompt for a password.
- When a task execution time exceeded ~250 milliseconds, a PLC device could time out.
- When the A10 was restarted, some devices would not correctly retain the device settings when they were changed in VPM. It was found that a minimum 15 second wait is required between the settings change and when the device is powered off. (4289)
- When IMPACT Release 7.5.0.39 was installed on an A10 camera, then an earlier release was installed over that release, the camera would no longer function and would require return to PPT VISION to be repaired.
- Occasionally the bottom part of an image from an A10 would be shifted to the left of the top part of the image. You may have earlier received Email notices describing the approximate occurrence rate of this bug.
- Searching for a string in the Online help found the wrong results. The Online help is now a PDF format document. (29)
- When VPM, CPM, or CPMRE were closed, some file connections could remain open and some processes continue to run. (3600)

Version 8.1.0.41

Released August 6, 2008

VPM

- AB PCCC communication added – The AB PCCC Server allows Allen-Bradley®, Rockwell Automation®, and compatible PLC devices to exchange data with IMPACT vision devices using the Programmable Controller Communication Commands (PCCC) protocol encapsulated inside EtherNet/IP commands. VPM can read and write the server properties directly.
- Camera calibration can now use fewer points – Camera Calibration From Points is quicker, easier, and more reliable. You can now calibrate a camera using just three points to get real-world origin and pixel-size calibration.
- OCR tool has been improved – The OCR tool has been enhanced to better report results when the output string is a different length than the verification string, i.e. when there are extra or missing characters.
- Font and Verification libraries enhanced – The Font and Character Contour Match Verification libraries can now be displayed and edited on the Display tab, and a new toolbar has been added in the tool display.
- Data Matrix II tool has added capabilities – Support for GS1 encoding has been added to the Data Matrix II tool. The first character of the code is the ASCII value 232 (FNC1), indicating an alternative data type.
- New data types added – The data types Range1DList and FontLibraryList have been added to aid in recipe management in OCR applications.

CPM

- Chart and XBar-R Chart controls have new data types – The Chart and XBar-R Chart controls now take String, Integer Array, or Real Array data types in the Data property. This makes display of numbers in European format easier.
- New events in the Font and Verification libraries – A new event “Edited by User” has been added to the Font Library and Character Contour Library controls.
- Font and Verification libraries displays enhanced – A new toolbar has been added in the control library display.
- Cell highlighting added to Table control – Data in table cells can be highlighted based on the true or false state of a user-defined cell in the table.

New Errata

- Software that operates as a server on the host PC may interfere with IMPACT communications. These may include, among others, Windows Internet Information Services (IIS) and CoDeSys™ ENI Server.
- A-Series Intelligent Cameras running this firmware will connect to 1 Gigabit / 100 Mbps Ethernet switches at the 100 Mbps rate.
- In the VPM AB PCCC Server system object, when the Character file type (A9) data is sent as type “SINT” by the PLC, is not written in the Server register correctly. Only one-half the correct number of bytes are written to the registers.

Bugs Fixed

- The Display control would not display images from hard drives other than the default drive. (6)
- The IMPACT install created an unused folder in CPM/lib. (12)
- Changing tabs in Utilities could cause settings to be saved to the device when it was online, creating the possibility of corrupt images. (13)
- The “Connecting” message window was displayed behind the control panel. (28)
- When settings were changed in Utilities, they would be saved to the device when it was online, creating the possibility of corrupt images. (30)
- The IMPACT Advanced Integrators Toolkit applet did not run. (31)
- The hardware guides had not been updated to show the use of the Edit IP Address button on the IMPACT connect dialog. (32)
- The camera Calibration From Points method did not give a useable calibration when the real-world coordinate system was translated and/or rotated from the pixel coordinate system. (33)

- When Method Patch was invoked in the Scriptor control it would not function. (36)
- The train measurement length does not reset to its original value when the reset button is clicked. (38)
- When the device when online then offline, endpoints and ROIs were displayed in the Setup Pass/Fail panel. (40)
- In the Line Gauge tool setup, if you entered one for the number of ROIs, the number of ROIs did not change until you left the panel and returned. (42)
- When the repeat measurement checkbox was selected in the Setup tab, the ROI angle could not be changed from zero. (47)
- Image filename length cannot exceed 44 characters (excluding extension). (49)
- When a set data link was connected to the Train ROI, incorrect choices were shown. (51)
- When the Branch tool was displayed in the VPM tree, you could not expand all the tools within it at the same time. (56)
- When it started, sometimes the Emulator would not start on the IP loopback address (127.0.0.1). (80)
- When a negative number was linked to the Wide Circular Arc property, VPM would stop responding. (85)
- It was difficult to find the correct spot to drop an ROI tool property on Image controls. Now ROIs are highlighted when the property is close to the target. (86, 75)
- Some ROI origins were not updated correctly due to pre-existing links. (87)
- If VPM was disconnected while the device was online, it would stop responding. (90)
- When the delimiter character was changed in the XBar-R Chart control an exception error occurred. (93)
- When the Character Contour Match tool was running, deleting the Verification library would cause VPM to stop responding. (102)
- The description of how to use the OLT XLIFF filters program was incomplete. (103)
- The reminder to save the Mini-Translation memory file needed to be clarified. (104)
- Button colors were different shades when selected. (110)
- The Slider control would not save the current value when the file was saved. It was always set to the maximum value. (111)
- When the largest blob was selected in the Color Blob tool, the IMPACT device would stop responding. (113)
- When CPMRE was started automatically, it would not close when the Exit button was pressed. (114)
- Sometimes CPMRE would fail to unload a vision program file. (117)
- The tool requires a full directory path to save the file.(118)
- The Wide Edge Point Find tool displayed incorrectly displayed pseudocoloring in the Display Setup panel. (119)
- The Line Gauge Dual ROI tool displayed incorrectly displayed pseudocoloring in the Display Setup panel. (119)
- When a read data link was connected to the Font library property it was still editable. (124)
- All tool setups showed vertical scroll bars when font was set to default. (125)
- Using the Global statement in a Basic tool program would cause VPM to stop responding. (138)
- Users logged in with Operator level access or greater can now load inspection files. (4112)

Version 8.1.1.10

Released August 25, 2008

This release was a bug fix release only. No tools or enhancements were added.

Bugs Fixed

- VPM would take up to a minute to lock if it was connected to CPM and CPM was closed. (188)
- The tool's distance value would stop updating after nominal values were entered. (213)
- When tools were pasted into a task in Design mode, a scroll bar was not displayed. (141)
- In setup, the ROI create button was disabled. (211)
- If a label was defined in one tool, then a different tool was selected, the label would be copied to the second tool. (129)
- When you selected the training mode dropdown, invalid choices were displayed. (122)
- If a task contained a Data Instance tool, and a second task was added, the name of the first task would be changed. (184)
- When Direction Level was set to Y, and Training Option was set to Train Light Sensor on this image, the output image was the same as the input image. (187)
- The passing and failing ROI colors were different in the setup display tab and the Display tab. (158)
- In the Line Gauge tools, the Step ROI was visible. (148)
- The register names were changed from F8-Real to F8-Float. (154)
- Each time the OCR tool was trained, a memory leak occurred. (230)
- Output lists of peaks and valleys in the "Peak and Valley Find" tool are now at the centers of plateaus and basins rather than on the edges of them. (66)
- When text was selected in the control, the font size would not display. (197)
- The number of string values for the server was listed as 64, not 32. (145)
- The meaning of "left-handed" coordinates was clarified. (155)
- A note was added regarding reoccurring "Connection Closed" entries in the system log. (143)

Version 8.1.2.14

Released September 14, 2008

Device Firmware

This release supports the new T3x Rev B (T3x-R) camera that has a processor board that is RoHS (Restriction of Hazardous Substances directive) compliant.

Bugs Fixed

- If an Indicator's current color was linked to a tab's background color, an error was displayed. (132)
- When text was selected in the control, the font size would not display. (197)
- The true and false state visible properties for some List ROI controls worked differently in IMPACT releases 8.0 and 8.1 than they did in 8.1.1. (234)
- A VPM Runtime error would occur if you selected the Line Gauge Datum Line tool on the Design tab while the system was using software triggers. (246)
- The IMPACT device would randomly stop responding if the Basic tool contained more than 1024 characters of source code. The error "Tried to operate on buffer whose endmark was overwritten" may have been logged. (249)

Version 8.1.3.18

Released January 15, 2009

CPM

- Added Scrolling Table control – The Scrolling Table control displays other CPM controls in a grid layout.

Bugs Fixed

- The Character Contour Match training modes were incorrect in the documentation. (219)
- A warning was added to the documentation indicating that the device should be offline or not triggered while camera settings are changed. (250)
- The link destination popup in CPM was too high to see and would not scroll. (251)
- A Load Vision Program control's Display Loading Prompt property did not persist. (258)
- The Button control's Icon Width property was set incorrectly. (259)
- The Graphic Display control did not save the scaling value. (265)
- Line List controls displayed in the True state when they should have displayed in the False State. (272)
- Templates with a large number of controls apparently caused the device to stop responding. (284)
- The AIT index file had an incorrect version number. (288)
- CPM would not save the height of a graphic display. (297)
- A combination of tools in a VPM task caused the device to stop responding. (320)
- CPM Runtime Setup no longer installs desktop icons (481)
- The Datum Line Gauge tool now handles negative measurements and scale factors. (483)

Device Firmware

- T33 processor board failed the burn in test. (298)
- Repeated connections to a device would cause the device to stop responding. (342)
- The install for 8.1.3 would fail when installing to a T3x-R camera that had version 8.1.2 installed on it. (349)

This release should be installed on T3x Rev B (T3x-R) cameras that are running an earlier version. Due to an uninstall problem in IMPACT 8.1.2.14, a device uninstall on cameras with this earlier version leaves the device in a non-functioning state and it is difficult to get it functioning again.

Instructions: Install IMPACT 8.1.3 directly on T3x Rev B (T3x-R) cameras. Do not uninstall firmware on these cameras running IMPACT 8.1.2.14.

Version 8.1.4.3

Released January 29, 2009

This release was a bug fix release only. No tools or enhancements were added.

Bugs Fixed

- The Filtered Number of Blobs value was incorrect in the setup for the Blob and Color Blob tools in VPM. The Properties tab displayed the correct value. (321)
- The Scrolling Table control in CPM did not retain the heading height property value and could not be linked. (494)
- In CPM, when an entire control panel that contained a Scrolling table control was copied and pasted, the table header would not get pasted into the new control panel. (511)

Version 8.1.5.3

Released February 11, 2009

VPM

- OCR tool scoring is more consistent – The scores are now more consistent and somewhat higher.
SPECIAL NOTE: Because of this enhancement, you will probably need to adjust any fixed threshold values in existing OCR tools. The approximate new threshold values can be calculated as follows:
$$\text{new threshold} = 100 - 0.6 * (100 - \text{old threshold})$$

New Errata

- Because of an enhancement to the OCR tool in this 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:
$$\text{new threshold} = 100 - 0.6 * (100 - \text{old threshold})$$

For example, if the old threshold value was 50, the new value can be calculated:
$$\begin{aligned}\text{New threshold} &= 100 - 0.6 * (100 - 50) \\ \text{New threshold} &= 100 - 0.6 * 50 \\ \text{New threshold} &= 100 - 30 \\ \text{New threshold} &= 70\end{aligned}$$

Bugs Fixed

- In VPM, the OCR tool would cause the device to stop responding if the Min/Max Character Height property was modified from the default value and no characters were found. (285)
- When run on a C-Series IMPACT, the Clip ROI tool would not clip correctly, and it would abort. (515)
- The Modbus System Object would leak memory whenever there was a Modbus write operation. (556)

Version 8.1.6.5

Released April 7, 2009

This release was a bug fix release only. No tools or enhancements were added.

Bugs Fixed

- It was difficult to find which tool caused a “Value Out of Range” error. If a tool aborted due to an invalid linked value, the VPM Design tab tree view did not highlight the tool. (99)
- VPM was not passing data through a called task’s promoted inputs. If one or more ports in a tool were missing or unmatched, the tool would fail to resolve any of them. (192)
- The Multiple Point to Point Measurement tool would crash. The tool would crash if an empty list was linked to certain input properties. (239)
- There was a superfluous error in the Line Gauge tool setup. An error dialog displayed an error of “1” in the Line Gauge tool setup. (393)
- Some tasks could not be selected. In a program with many tasks, the task selection drop list exceeded the screen height. (549)
- Circle Gauge tool Off-image ROIs were not displayed in setup. In the Circle Gauge tool setup, if an ROI was off the image, no message was displayed and the ROI was not visible. (557)
- Modbus triggered the camera unexpectedly. The camera would trigger when a zero was written to the Modbus register Trigger value. (702)
- Basic control code errors covered the code. If a section of code with errors was pasted into the editor window, the generated errors would obscure the code. (527)
- Get and Set links choices worked incorrectly. When a data link had both Get and Set choices, clicking the link icon for the Get destination control displayed the incorrect choice. (671)
- Pasted ROIs were not visible. If several ROIs were pasted consecutively, some of them would not be visible. (502)
- An error was generated when a password was changed. If an application contained a Password control, and the password was edited, an error occurred when the password was saved. (700)
- Tools were not deleted from the Multiple Branch tool. If a branch of the tool was deleted, the tools within that branch remained but they were not visible. (732)

Version 8.1.7.2

Released June 11, 2009

Bugs Fixed

- The Table control would display Boolean value as numeric – In Table Setup, when the column type property was changed to Boolean, the value would display as a numeric value instead of a Boolean value. (207)
- The Blob tool's Shape Area output was incorrect – If the Fill Blob Holes property was True, the Output Blob List Shape Area subport value was incorrect. (541)
- Vision program files could become very large – When a Call Task tool was saved, it would save the contents of ImageList and ColorImageList ports. This could make the program file very large. (677)
- An Image control could not be resized smaller than 65 pixels wide – If an Image control was resized smaller than 65 pixels wide, it would not stay resized. The minimum width is now 28 pixels. (720)
- Some T37R and T30R cameras would fail the burn-in tests – A small percentage of these cameras would fail the initial burn-in tests. (855, 900)
- Blob tool setup reported wrong number of blobs – The Number of Blobs Found value was incorrect in the setup. The Properties tab displayed the correct value. (916)

Version 8.2.0.69

This version was not distributed as a production release. See Version 8.3.0.159.

Version 8.3.0.159

Released June 5, 2009

The major enhancement in this release was the addition of an ActiveX API so programmers can access and control IMPACT vision devices using other programming languages. A separate installer is provided for the IMPACT ActiveX API.

A major change was standardizing the software suite names to IMPACT and removing all references to Inspection Builder. (632) A new default root directory structure was created:
C:\PPT VISION\IMPACT\Applications

New System Requirement

- This release will NOT install on an A10 camera. The latest release to support the A10 is IMPACT 8.1.7.2.

New Errata

- **IMPORTANT NOTE** for IMPACT A10 installation:
Due to operating system changes in the A-Series camera, we can no longer support the A10 Intelligent camera with upgrades.
This release will not install on an A10 camera. The latest release to support the A10 is IMPACT 8.1.7.2.
We apologize for any inconvenience this may cause.
- The A20 Camera and T3x-R Series Cameras will not support 10 Mbps communication.

New Installation Note

- Once you have installed this IMPACT release, you should not install any IMPACT release earlier than 8.1.2.14 ***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.

VPM

- Origin tool has more flexible properties and a new Setup – Each of the ROIs in the Origin tool can now be configured individually and Subpixel edge-finding has been added. The new Setup aids with tool configuration (previous versions are now deprecated).
- Multiple Point to Point Measurement tool has a new Setup – A new Setup aids with tool configuration.
- The Chip Capacitor and Data Matrix I tools have been removed – The Data Matrix I tool has been replaced with an enhanced Data Matrix tool. The Chip Capacitor tool is no longer supported. (664)
NOTE: Any vision program files that contain these old tools will not load into VPM. You will need to remove these tools from all tasks to be able to use the program with this release.
- The Average Intensity tool has been improved – The Average Intensity tool now provides multiple ROI support with multiple tolerance settings, individual ROI Pass/Fail status, multiple ROI shapes support, and the ability to Train each ROI. (440)
- The Summary Table has been streamlined – Several irrelevant columns have been removed to provide more image viewing area.
- Character Contour Matching tool has a new Setup – A new Setup aids with tool configuration.
- The Basic tool has been made easier to use – A new Compile button prevents the Basic tool from checking code validity until you are ready. Line numbers have been added to help locate code errors.
- The VPM task no longer runs when you view the Display tab – Previously, when you switched between the Display tab and another tab, the task would run automatically. This could possibly lead to unexpected results. (618)
- OCR tool has a new Setup – A new Setup aids with tool configuration.
- IP Address editing error checking has been enhanced – The check is more rigorous when the IP Address is edited in the Utilities – Camera Setup tab.
- The New Image tool has been added – The New Image tool creates a new image based on its size and width properties each time it runs. The new image is filled with a user-defined greyscale value. (626)
- Images acquired in Utilities tabs now appear in tasks – Images that are acquired with the Snap or Live buttons in the Utilities - Camera Setup and Camera Calibration tabs are now “pushed” into all loaded tasks that have an Image In Event trigger defined.

CPM

- The Basic Interpreter control has been made easier to use – A new Compile button prevents the Basic Interpreter control from checking code validity until you are ready. Line numbers have been added to help locate code errors.
- New Range control provides the ability to link to Range 1D properties directly – The new Range control lets you display and adjust the start and end values of a Range1D property in VPM tools.
- The Scriptor Control has a new property – A new property in the Scriptor control, called Run in Separate Thread, allows better control of whether the control runs in the same program thread as CPM or not.

Device Firmware

- Support for ActiveX added – Support for the new IMPACT ActiveX API has been added to the device firmware. The firmware is installed by the IMPACT installer. A separate installer is provided to install the IMPACT ActiveX API on the host computer.

Documentation

- Troubleshooting section added – A troubleshooting section was added to the IMPACT Reference Guide.

General

- ActiveX has been added to IMPACT – The IMPACT Active X Application Programming Interface (API) lets you write a program (for example in Visual Basic) to access vision device data by using the appropriate function calls. That data can then be sent directly from an IMPACT camera to other devices, such as a Quality Control monitoring system. A separate installer is provided for the IMPACT ActiveX API.
- IMPACT communications work better with antivirus software – Some antivirus software could prevent connection between the PC and the vision device. IMPACT communications have been improved to deal with this situation.

Utilities

- Images acquired in Utilities now appear in task – Images that re acquired with the Snap or Live buttons in the Camera Setup and Camera Calibration tabs are now “pushed” into all tasks loaded on the device that have an Image In Event trigger defined.
- IP Address editing error checking has been enhanced – The check is now more rigorous when the IP Address is edited in the Device Connection dialog.

Bugs Fixed

- Selecting the Display tab triggered the camera. When you selected the Display tab, the camera would be triggered and the task would run. This could possibly lead to unexpected results. (50)
- It was difficult to add a control to the Table control. When you tried to drop a control onto the Table control, the drop point was very small and difficult to locate. (78)
- Selecting the Threshold Type required two clicks. In tools with a threshold type selection, it required two clicks to access the selection. (92)
- The comma separator always appeared in the Numeric Entry and Display controls. A new property, Display Integer Grouping, lets you turn the comma separator display in these two controls on or off. (109)
- Load and Save Vision Program controls now link automatically. When you added a Load or Save Vision Program control, the Device Connection property required manual linking. It now links automatically. (131)
- The tool palette scroll did not work correctly. If the tool palette was made wider or narrower, the scroll bar would not adjust properly. (134)
- Double clicking on a tool in the task tree would not display the Design tab. When some tools in the task tree were double-clicked, the view would not switch to the Design tab of that tool. (136)
- Using a colon character in a custom label field did not work. If a colon character was used in a custom label field, all characters after the colon would not be saved. (137)
- Vision programs with long file names could not be saved. If a vision program file name was longer than 41 characters, it could not be saved to an IMPACT device and an error was displayed. (144)
- An invalid integer value could be entered in an AB PCCC server field. A integer value greater than 32767 could be entered in an integer field which could be misinterpreted by PLC devices. (153)

- It was difficult to read selected text in a field. In the properties tab, it was difficult to read the selected text because both the text and background were blue. (173)
- CPM minimized when the Run button was clicked. When CPM was run using multiple monitors, it would minimize when going from Edit to Run mode. (214)
- You could not add multiple tab templates to a Tab Group control. When you tried to add more than one tab template file to a Tab Group control, the operation would fail. (229)
- Point Match ROIs were not displayed on a stitched image. The first time a Point Match tool was run on a stitched image, the ROIs were not displayed. (232)
- Invalid IP addresses could be entered on the command line for the Emulator. Invalid IP addresses could be entered on the command line for the Emulator, but no error was displayed when the program started. (233)
- Measurement tool tolerances in setups were displayed in scientific notation. Tolerance values less than 0.01 for measurement tool setups were displayed in scientific notation. Now, values less than 0.001 are displayed in scientific notation. For example, the value 0.00123 is displayed as shown, but the value 0.000123 is displayed as 1.23e-4. (238)
- CPM would fail to reconnect. When a vision device was rebooted or the connection failed, CPM would not reconnect to the device when the connection was re-established. The reconnection scheme is now much more robust. (253)
- VPM would fail to reconnect. When a vision device was rebooted or the connection failed, VPM would not reconnect to the device when the reboot was complete. The reconnection scheme is now much more robust. (254)
- Selecting the ellipsis, then pressing another key, caused an error. In a control with multiple links, if you selected the ellipsis (...), then pressed another key, an error occurred. (255)
- In the Discrete Output tool, the delay and pulse settings interacted incorrectly. If you selected Delay and entered a value, then tried to change to Pulse, you could not enter a 255 msec pulse value. (270)
- A link destination could remain when the source was deleted. If a tool was deleted, and one of its properties was linked to another tool, the empty destination link could remain. (274)
- System Object links did not work if VPM was translated. If System Object names were not in English, links to them did not work correctly. (283)
- An image link could become broken when a file was reloaded. If a support vision program file was unloaded then reloaded, an internal image link could become broken. (304)
- Vision devices would fail to reconnect after losing the connection. After losing the connection, a vision device would fail to reconnect or the device would not be listed in the connection dialog. The reconnection scheme is now much more robust. (345)
- Invalid IP host addresses could be entered in IP address fields. Invalid IP addresses could be entered in the IP Address fields in several places in IMPACT. (348)
- In the Ethernet IP tool the list type was displayed incorrectly. The list type was surrounded by exclamation points. (350)
- The A20 Camera and T3x-R Series Cameras will not support 10 Mbps communication. (353)
- One of the IMPACT AIT sample applications would not work on some newer PCs. A new sample application written in VB.NET was added to AIT. (374)
- In the Circle Gauge tool small outlier values would not display. Outlier values smaller than 0.01 would not display when a point was selected. (388)
- In the Circle Gauge tool images with small units per pixel displayed incorrectly. If the display was zoomed to Fit All ROIs, the image would be displayed very small. (389)
- The Run on Data Change property worked differently in two controls. The Run on Data Change property worked differently in the Chart and Scrolling Table controls. In the Scrolling Table, the Scroll Method needed to be run to update the table. The Scrolling Table tool tip now describes the difference. (403)
- File Manager was slow. In the Utilities tab, sometimes the File Manager was very slow to expand folders. (415)
- Saving a template caused an error. If a template contained a Password control, an error would occur when the template was saved. (431)

- Once you have installed this IMPACT release, you should not install any IMPACT release earlier than 8.1.2.14 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. (450)
- The Reference Guide displayed the wrong icon for the Scrolling Table control. The Table control icon was displayed. (452)
- The Connect to Emulator function would fail. When the Connect to Emulator button was clicked, the connection would fail on some computers. The process of recovering after a failed connection has been totally revised and enhanced. (459)
- When VPM connected to a device with many loaded files that had many links, the connection took a long time. Connection time has been improved as much as 20% under the same conditions. (468)
- The Barcode128 composite tool failed to read correctly. The Barcode128 composite tool failed to read correctly when the line segment was oriented vertically with respect to the tool origin and it passed through a defective area of the code. It also failed to read correctly if the checksum character was a special character. (478)
- Dialog did not display the Advanced button. If the font size was set to 120 dpi, the Advanced button was not displayed in the Save Control Panel Application As dialog. (484)
- Developer could create an infinite loop in the device processor. During vision program development, a developer could cause the processor to get into an infinite loop. The task timeout value now defaults to 90 seconds. (486)
- Device would stop responding when a vision program was saved. When a vision program was saved with the same name as an existing program using the Save Vision Program control, the device would stop responding. (489)
- The uninstall did not completely remove files from the device. When IMPACT was uninstalled from the T-Series device, some files were left on the device. (495)
- The AIT EmbeddedCPM documentation was obsolete. The section of the documentation related to java security was obsolete. (498)
- An error occurred if you deleted a panel after pasting it. If you copied and pasted a control panel into an application, then tried to delete it, an error occurred. (512)
- Auto Save Image warning displayed incorrectly. If Auto Save Images was enabled, and a task without an Image In event was selected, the warning that the Pass/Fail status Boolean was not linked would be displayed incorrectly. (522)
- Some command line parameters were omitted. In the IMPACT Reference Guide and translation guides there was no mention of the –language and –country command line switches. (525)
- The Blob tool’s Shape Area output was incorrect. If the Fill Blob Holes property was True, the Output Blob List Shape Area subport value was incorrect. (541)
- Antivirus software could interfere with IMPACT connection. Some antivirus software could produce an “error registering online callback.” (573, 807, 827)
- Version incompatibility information was confusing. If the host PC and device software versions were different, the displayed warning message was confusing. The message now has more information. (577)
- In the Utilities – File Manager tab, no directory was selected by default. The VisionPrograms directory is now selected by default. (587)
- The Bad Image In event was not documented sufficiently. The explanation for the cause of the event was not clear. A Troubleshooting section has been added to the IMPACT Reference Guide to clarify several system errors. (593)
- A segmenting error occurred in the OCR tool. On certain images a segmenting error would occur in the OCR tool. (605)
- The Counter tool was not documented sufficiently. How to use negative increment values was unclear. (619)
- IMPACT software is installed to a new directory for new installations. On new installations IMPACT software is now installed to the directory:
PPT VISION/IMPACT/Applications
If an existing installation exists, IMPACT software is installed to the existing directory. (631)
- The Emulator dialog has changed. The Emulator dialog button is now labeled “Exit.” The Emulator is minimized when it is started with the “Connect to Local Emulator” button and not minimized by default when it is started from the shortcut. The command line switch “MIN” can be used with the Emulator shortcut to start it minimized. (637)

- When applications exceeded the device's memory, no error was displayed. If applications running on the device used all the device's memory, no error was displayed. Now an error message is displayed, but the application is terminated. (652)
- The Device Settings tool caused noise in the image. If the partial scan property was changed while the device was online, noise could be introduced into the image. (669)
- When a called task was copied and pasted, the links didn't update. When a called task was copied and pasted, the links were present but they didn't update when the task ran. (676)
- Vision program files could become very large – When a Call Task tool was saved, it would save the contents of ImageList and ColorImageList ports. This could make the program file very large. (677)
- The Display tab remained disabled when you reconnected to a device. If VPM quit abnormally, and you later reconnected to the same device, the Display remained disabled. (685)
- The port number was added to the IP address in Modbus Client. In the Utilities Advanced Application Modbus Client, the port number was incorrectly carried over to the IP address when the address was looked up. (704)
- An Image control could not be resized smaller than 65 pixels wide. If an Image control was resized smaller than 65 pixels wide, it would not stay resized. The minimum width is now 28 pixels. (720)
- Deleting controls displayed an unnecessary dialog. If a control with links to a Scriptor control was deleted, a dialog asking about deleting other, unrelated links was displayed. (721)
- The device could stop responding when it ran out of memory. When very large files were loaded on the device, it could stop responding when it ran out of memory. Now an error is displayed. (724)
- Deleting a column or row in the Table control caused an error. If a row or column with data highlighting was deleted in a Table control, a java error was displayed. (726)
- The refresh task tree was disabled. If you connected to a device with no program loaded, you could not use the refresh task tree button until you loaded a task, disconnected, then reconnected to the device. (729)
- A link error occurred in a Data Set tool. When a Data Set tool within a branch of a Branch tool was copied and pasted, the invalid destination link would remain, causing a link error when the tool ran. (734)
- Greyscale Template tool's output was incorrect when the tool aborted. When the Greyscale Template tool aborted, the In Tolerance output was not set to False. (735)
- The Tolerance control would not retain its height. If the height for a Tolerance control was changed, when the control panel file was saved, then reopened, the default height was still used. (768)
- A file load failure did not display an error message. When a file load failed using the file load button, no error message was displayed. (772)
- When you tried to create a control panel with certain templates, no error was displayed. Certain controls require "container" controls (e.g. the Tab and Radio Button controls). If you attempted to drop a template with one of these controls as the sole control onto a blank control panel, no error was displayed. (781)
- Boolean values in Display tab didn't change. In the Display tab, when you would click a Boolean value it wouldn't change. (808)
- The Retrain tool caused a null pointer error. Under certain conditions, using the Retrain tool caused an error. (853)
- Some T37-R and T30-R cameras would fail the burn-in tests. A small percentage of these cameras would fail the initial burn-in tests. (855, 900 – 8.3)
- A null pointer error was generated when the device went online. On the Camera Setup tab, when the Live button was clicked, a null pointer exception error was generated after a few images were acquired. (864)

Version 8.4.0.34

Released July 31, 2009

The major change in this release was that the IMPACT Software version numbering scheme was changed. In the interest of clarifying what is involved in an IMPACT software release, beginning with this release, the IMPACT software version numbers have been modified as follows.

The version number consists of four numbers separated by periods:

major.minor.maintenance.build number

Major Release: advances the major number and sets the minor and maintenance numbers to 0. For example, IMPACT 9.0.0.22 would be a major release. Major releases have new features and/or bugs fixed with fundamental changes or significant advances in functionality.

Minor Release: advances the minor number, keeps the major number the same, and sets the maintenance number to 0. For example, IMPACT 9.1.0.15 would be a minor release. Minor releases are generally done when there are narrower advances in functionality and there may be some bugs fixed. This release, 8.4.0.34, is a Minor Release.

Maintenance Release: advances the maintenance number and keeps the major number and the minor numbers unchanged. For example, IMPACT 9.0.1.18 and IMPACT 9.3.2.9 would be maintenance releases. Maintenance releases contain only fixed bugs and do not add any new functionality.

VPM

- Data Matrix tool has been enhanced
 - a. The Data Matrix tool is now fully compliant with the Data Matrix ECC 200 specification. It supports all six encodation schemes including Base 256 and all thirty matrix sizes including rectangles.
 - b. All special control characters, including fnc1, upper shift, macros, and structured append, are supported.
 - c. The tool automatically runs a second time at half resolution if it fails to read on the first try.
 - d. The tool's ability to handle symbols that are distorted due to curved or angled surfaces has been improved.
- A 3rd Output was added to the T-Series T3x-R and -RA cameras. Capabilities were added to Utilities and the Discrete Output tool to support the T-Series T3x-R and -RA cameras' new 3rd output. This output is available only on model numbers ending in -R or -RA.

Bugs Fixed

- When communication was temporarily lost and regained, VPM would disconnect from the device then reconnect unnecessarily. (879)
- Under certain conditions, when you put the device online from the Utilities – Device Setup tab, the user interface would freeze. (894)
- The copyright date and company name format was updated in the IMPACT properties file. (895)
- An ActiveX application could fail to respond to an incoming event. (918)
- When you started VPM, then connected to the Emulator, the window for the application currently open on the desktop would be displayed momentarily. (921)
- An explanation of the image display for stitched images with distortion was added to the documentation. When images with distortion are stitched together, the tool's inspection results can appear to be incorrect on the output image display. This is a result of the original image's distortion. The tool's output results are correct. (929)
- When you snapped an image, the system would log an error indicating that PixelCalibration failed to open a file. (930)
- The description of bug 677 was incorrect. (931)
- If no points were found, the Percent of Points Out of Tolerance value was not initialized to 100%. (933)
- In the documentation, the page reference for OCR Threshold was incorrect. (937)
- The description of the Verification String input in the Character Contour Match tool's documentation was incorrect. (941)
- When IMPACT attempted to connect to a device, and the device was not found on the network, the timeout period was too long. A dialog is now displayed that allows you to cancel the connection. (944)

- The description in the documentation of the way autothreshold values are calculated was incorrect. (949)
- Autothreshold calculations were incorrect. Thresholds calculated for narrow bimodal histograms were weighted too heavily and the Edge Point Find tool improperly handled correction for bright pixel ranges. (951)
- When VPM started, a directory creation error would sometimes occur. A configuration file on the IMPACT device could become corrupt and cause an “Unable to Create Directory” error. (952)
- An ActiveX program would fail to connect to an Emulator with certain port numbers. (953)
- The signing certificate for the CPMREapplet file had expired after one year. (954)
- The Save Vision Program tool would generate an error and not save the .vp file. If you loaded a file that was created in a previous IMPACT version, the directory path was not included in the Filename property as needed. The default path is now added automatically. (955)
- The Save Vision Program tool would fail if the program name was linked. If the Filename property was linked from another tool, the linked name field had to include the default directory path. The path is now added if it is not present. (957)
- The Origin tool would incorrectly display an error that some of the ROIs were off the image. (961)
- The Blob tool setup tab properties would not refresh correctly. When you switched from the properties tab to the setup tab, the radio buttons state would not refresh. (968)
- The Display and Data columns are no longer present in the Summary table so they were removed from the documentation. (969)
- The Data Matrix tool did not handle the distortion caused by viewing a symbol on a curved surface, especially when the symbol was rotated near the edge of the surface. (973)
- Some tool bar buttons were disabled when a file was opened. The New Task, Print, Print Preview, and Print to Text File buttons were disabled when a password protected file was opened. (978)
- The default behavior of the Origin tool was confusing. When the Centering method was selected on the Origin tool, and no points were chosen for centering, the tool results were confusing. The default behavior now finds a default center point. (982)
- CPM would stop responding when certain values were entered into the Slider control. When the maximum value was 10000 and the minimum value was larger than that, CPM would stop responding. (990)
- A 3rd output was added to the T-Series T3x-R and -RA cameras, but it was not displayed in Utilities or the Discrete Output tool setup. This output is available only on model numbers ending in -R or -RA. (993)
- The default Minimum Match Score for the Character Contour Match tool was changed from zero to sixty. (994)
- VPM would take a long time to load files with names that contained non-English characters. (1009)

Version 8.5.0.38

Released October 9, 2009

VPM

- Bar Code tool has been enhanced (previous versions are now deprecated)
 - a. Seventeen different barcode types are supported. Previously only the four UPC/EAN types were supported. (Note: For Postnet barcodes, you will need to use the Barcode Postnet Composite tool available on the website.)
 - b. The bar code type can be automatically detected in most cases and the type will be a tool output.
 - c. A tool setup is now available.
 - d. The tool is more robust
 - 1. Light variation – Edge detection includes both gradient and grayscale thresholds.
 - 2. Distortion – The decoding algorithms handle bar width distortions, so they are much more robust, for example when reading the barcode on a can.
 - 3. Clutter – The tool searches along the entire width of the ROI for the code so background clutter in the ROI is ignored.
 - 4. Reverse reading – The ROI can be drawn through the code in either direction.
 - 5. Reverse contrast – The code can be black on white or white on black
 - 6. Print variation – The tool handles variations in bar widths caused by the printing process.
 - e. Speed
 - 1. The tool typically operates in less than ten milliseconds on an A20 camera.
 - 2. The tool can operate reliably down to a two pixel resolution on the smallest bar.

Bugs Fixed

- Ethernet/IP tool and event names were changed. The Ethernet/IP tool and event names were changed to clarify their functions. (920)
- The translation documentation was out of date. The translation documentation still indicated the old installation directories. (1023)
- The name displayed on the Chart control time legend was incorrect. When the series name was changed in the Chart control, the new name was not displayed in the legend. (1024)
- Setup errors occurred when Auto-Update links was not enabled. When Auto-Update links was disabled, the Reset tool created Setup errors in the Blob tool. (1044)
- The Bar Code Reader tool ROI moved. When viewed in the Display tab, the tool's ROI would not remain where it was placed. (1056)
- A memory leak occurred when a compressed file was run. When a compressed file was opened using the Emulator, a memory leak occurred. (1057)
- ExcelActiveXSample.xls failed to display an image. On some systems, the sample application would produce an error and fail to display an image. (1060)
- The image number restarted when Auto Image Save was disabled and enabled. In the Image Display control, when Auto Image Save was disabled, then enabled, the image number would restart at one and overwrite existing images. (1065)
- Some ROIs were truncated when displayed in the Display tab. When viewed in the Display tab, ROIs with an angle less than zero could be displayed incorrectly where the ROI intersected the edges of the image. (1068)
- The Emulator stopped working when all network connections were disabled. If all network connections were disabled, the Emulator would stop working immediately when it was started. Now, when an ActiveX application is run under these conditions, an error is logged in the system log. (1075)
- The Origin tool failing could cause the Emulator to stop operating. In certain cases, when the Origin tool failed, it would cause the Emulator to exit abnormally. (1090)
- The explanation for setting up a pie type Chart control was unclear. The explanation for setting up a pie type Chart control did not clearly explain how the data and colors were to be defined. (1091)

- Some right-click links were not created correctly. When a link was created into a new container control (e.g. Image Display) using a right-click, the control would be created but not in the correct place. (1115)
- Image Stitching with Origins tool produced incorrect results. When the origin angle was non-zero, the Image Stitching with Origins tool would incorrectly align the output images. (1126)
- Some tools failed to display the Setup screen and an image. If you clicked on some tools while the device was online and triggering, no image was displayed in the image window and the Setup screen displayed incorrectly. (1136)

Version 8.5.1.7

Released November 16, 2009

Bugs Fixed

- CPM stopped responding when an ROI was deleted. When an ROI was deleted in the Image Display, under certain conditions CPM would stop responding (331)
- The Emulator used large amounts of memory. If the Emulator was started with an incorrectly formatted shortcut string, the task would use large amounts of memory. (873)
- Clearing the System Log could cause the device or Emulator to stop responding. If the System Log was cleared, and the System Log object was selected while the device or Emulator was triggered, the device or Emulator could stop responding. (980)
- Control panel was hidden under the Windows Start menu. When focus changed from Design to Run mode, the Control panel became partially hidden. (1002)
- The Origin tool Setup radio button selection was confusing. In the Setup ROI panel, clicking on an empty space to the right of a radio button would select the radio button. (1026)
- The Pass/Fail tool's counts were inconsistent. The run count shown in the task tree did not agree with the count shown in the tool's Setup. (1035)
- Saving a cp file caused a memory leak. Every time a cp file was saved, more memory was used. This could eventually cause CPM to stop responding. (1149)
- Additional information about the Image Display control was added. More information was added about the -1 and -2 settings for the Image Display control's Zoom property. (1151)
- Several minor text changes were made in the Readme files. Text changes were made to clarify which shortcuts are installed; the A-10 was removed from the installation instructions; explanation was added that multiple software versions can be installed and removed individually. (1152, 1153, 1154)
- Changing Chart control parameters caused an error. Changing parameters in the XY Trend and Time Trend sample charts caused an uncaught exception error. (1157)
- ROIs did not update in the Line Find and Contour Pattern Find tools. ROIs in the Design tab Image window would not update when the system was online and triggering (1158)
- Slider control Refresh Set Data did not work. When the Control panel was started, the data from the task did not refresh correctly. (1165)
- Enabled partial scanning for a camera. The C-Series device can now perform partial scanning on the SVS-Vistek SVS4021MFCP line scan camera. (1185)
- Bar Code tool setup clarified. Additional help was added to the ROI Setup panel. (1186)
- The image and values did not update in the Counter tool. When the system was online and triggering, the image and values in the tool did not update. (1194)
- The Grid Statistics tool caused the Emulator to stop responding. Under certain conditions, when the Grid Statistics tool ran the Emulator would fail. (1237)

Version 9.0.0.179

Released March 5, 2010

New System Requirements

- 64-bit processors are supported with Windows Vista and Windows 7
- Microsoft® Windows XP, Vista, or Windows 7
- 512MB or more of RAM, 1 GB required for Vista and Windows 7 (2 GB recommended)
- Adobe® Reader Version 8.0 or greater

New General Notes about this release

- Adobe Reader 8.0 or greater is required to open IMPACT software PDF manuals and online help: Adobe® Reader 8.0 or greater is required to open documentation PDF manuals and online help. Adobe Reader can be downloaded from Adobe's website at <http://www.adobe.com/products/acrobat/readstep2>.

New Installation Instructions

- Installation instructions were updated to include Windows 7.
- The installation step regarding anti-virus software was changed. Previously it was "Some anti-virus software can interfere with installation. Please turn off automatic anti-virus checking during the install." Now it is "You may need to turn off automatic virus checking during the install if it causes installation problems."

New Known Issues

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.

Enhancements

VPM

- All Utilities tabs have been integrated with VPM Settings setups. Camera and IMPACT Device settings, File Manager, File Camera, and other system objects now have setups which provide a more consistent way to configure systems.
- VPM toolboxes have been reorganized. Toolboxes are now organized into more functional groups: Image Filtering, Image Geometry, Locating, Feature Finding, Measurement, Flaw Detection, Readers, Communication, Logic, Device Control, Specialized, and Recently Used. Tools, which are sorted into alphabetical order, may be included in more than one toolbox. Some tools have been renamed for more logical access.
- Standalone Utilities has been replaced. Utilities has been replaced with the standalone program IMPACT Settings which looks like VPM and is easier to use.
- Floating Image Window. You can now float, move, and resize the Image Window in VPM. This greatly enhances tool setup even more when you can use two monitors.
- Drag and drop file copy. You can now drag and drop image and vision program files to and from your PC and the IMPACT device. File backup is much easier.
- Keyboard shortcuts. Many Windows keyboard shortcuts, like Ctrl-C, Ctrl-S, and Ctrl-O, now work in VPM and CPM.
- Windows 7 support. Both 32 and 64-bit Windows 7 operating systems are supported.

- Setups have been added. Setups and instructional steps have been added at the Program, Task, and System Object levels, making it easier for new users to get started.
- Right-click menus speed up editing. Context sensitive right-click menus for cut, copy, paste, and delete functions have been added. This includes tools and files.
- OPC Data Access. The new OPC Data Access system object and OPC Server provide other OPC clients the ability to access and control IMPACT devices.
- VPM code has been reworked. VPM's code base has been reworked and optimized for quicker editing, more reliable device communication, and better error recovery. Now, if VPM is in edit mode and a device stops communicating, a communication error is generated only when an editing change is attempted.
- Main menu button layout. The main menu button layout has been simplified and cleaned up. Functions are easier to find.
- New Sample Programs. A series of sample vision programs and images are now included with the IMPACT software installation. Use these to become more familiar with IMPACT or adapt them to real inspection applications. The programs are installed in the Emulator's Vision Programs folder and in the Root/Samples/Vision Programs folder. The images are installed in the Emulator's Images folder and in the Root/Samples/Images folder. A sample Control Panel is installed in the Root/Control Panels folder and in the Root/Samples/Control Panels folder.
- The Line Find, Linear Regression, and Circle Gauge tools have been improved. The Line Find, Linear Regression, and Circle Gauge tools find lines more accurately because they handle outlier points better. The tools also run slightly faster.
- The Adaptive Template tool has improved handling. The Adaptive Template tool has improved handling of differences near model edges. It now adaptively detects and suppresses normal expected differences in pixel values near edges.

CPM

- File Editing is faster. Control panel file editing speed has been improved.
- Right-click menus speed up editing. Context sensitive right-click menus for cut, copy, paste, and delete functions have been added. This includes controls and files.
- Linking no longer causes focus to change to the ending control. When a link is created in CPM using a right-click, the focus now remains on the starting control when the link is completed. Previously, focus remained on the ending control, which was a different behavior than VPM linking. To keep the focus on the ending control while linking in CPM:
 1. Left-click to select the beginning control property
 2. Right-click to select the ending control
 3. Hold the Ctrl key down while you left-click on the desired ending property.
- Keyboard shortcuts. Many Windows keyboard shortcuts, like Ctrl-C, Ctrl-S, and Ctrl-O, now work in VPM and CPM.
- New Sample Control Panel. A sample control panel that accompanies one of the sample vision programs is now included with the IMPACT software installation. Use this sample to become more familiar with IMPACT or adapt it to real inspection applications.

IMPACT Settings

- Standalone Utilities has been replaced. Utilities has been replaced with the standalone program IMPACT Settings which looks like VPM and is easier to use.

Bugs Fixed

- The Line Find, Linear Regression, and Circle Gauge tools had trouble finding complex lines. The Line Find, Linear Regression, and Circle Gauge tools find lines more accurately because they handle outlier points better. The tools also run slightly faster. (81)
- The Data Instance tool would not expand in the task tree. When you clicked the plus sign for the Data Instance tool, the properties would not expand. (172)
- The TCP-IP Logger control was showing IPv6 addresses. When IMPACT was running on Windows Vista, the TCP-IP Logger control would display IPv6 addresses in the local IP address field. (241)

- CPM would not remember previously displayed trees and palettes when it started. When CPM started, it would display the default VPM tree and the control palette instead of those previously displayed. (261)
- Gain and Shutter were enabled when using the Emulator. When the Emulator was being used, the Gain and Shutter setting were enabled on the Camera Setup tab. This was confusing. (316)
- The Delete icon was changed to an “X” for clarity and consistency. The Delete icon was changed from a trash can to an “X” to make its purpose clearer and differentiate it from the Paste icon. (706)
- A color image caused a “No Image” error in a greyscale tool. In a tool setup using the File Camera, if a color image was acquired in a greyscale tool, a “No Image” error was displayed. Now the image is automatically displayed. In the Properties tab, the tool now automatically switches to the Color image tab. (829)
- The license information for the Data Matrix I tool is no longer displayed. The Data Matrix I tool has been replaced, so the license display is no longer needed for newer IMPACT versions. (883)
- The IMPACT device would stop responding when many large images were added to the File Camera. If many large images were added to the File Camera the device would stop responding. An error is now displayed. (903)
- When VPM disconnected from the device while Camera Setup was in Live image mode, a “camera capture” error was produced. . The Camera Setup now handles disconnection and reconnection more reliably. (904)
- The “Save File” prompt was displayed even if the file had not been modified. When a file or VPM was closed, the “Do you want to save the file?” prompt was displayed even if the file had not been modified. (928)
- VPM would stop responding for long periods of time. VPM would occasionally stop responding for up to two minutes when large amounts of data were being sent because a data packet transmission was not complete. An adjustable timeout value has been added to the VPM Preferences settings to alleviate this problem. (975)
- The date and time stamp on a vision program file would get changed. When a vision program file was copied from the PC to the IMPACT device, the date and time stamp would be changed to the current date and time. (977)
- After a password protected file was closed, the Properties tab display was unstable. After a password protected vision program file was opened, then closed, the Design tab Properties tab would be continuously erased and redrawn. (999)
- There was no explanation of deprecated tools. Information was added explaining deprecated tools. (1003)
- In the Display tab, the image name was truncated. Long image names were truncated in the Display tab image display. (1015)
- The Vision Program Save tool documentation was unclear. Tool properties were clarified and a section was added on how to use the tool. (1018)
- The Origin tool setup displayed a confusing error message. The Origin tool would display an error message when ROIs were off screen and there was no error. (1036)
- The Blob tool setup was applying the single blob filter incorrectly. If the single blob filter was used, the setup would display the incorrect blobs (1038)
- A brief description of tools was needed. A tooltip was added to tools in the toolbox (1041)
- The description was incomplete in the Add User dialog. The Add User dialog was too small for the Administrator user privileges. (1064.)
- The name of the vision program was incorrect in the title bar. If name of the program being edited was different from the name in the program filter, the wrong name was displayed in the title bar. (1084)
- When the Unwrap tool aborted, it did not clear the output image. When the Unwrap tool aborted, it still held the previous output image. (1097)
- An AIT sample program caused an error on some computers. If a necessary Visual Basic OCX component file was not installed, an error would be generated. (1104)
- The TCP/IP tool would cause an error in the system log. The TCP/IP tool would cause an “errno 32” error because it did not correctly detect a TCP/IP connection failure. (1108)
- The Data Set tool did not restore the current task. After setting the Destination Port, the current task was not restored in the task tree. (1113)
- Modbus documentation was insufficient. Documentation on using the Modbus system object was insufficient. (1118)
- A field was incorrectly editable on the Display tab. After a field was set to read only on the setup Display panel, it was still editable on the Display tab. (1127)

- CPM took a long time to connect. When a CPM connection was made, the link “resynching” could take a long time. This is now faster. (1129)
- Copying and pasting a Control Panel took minutes. Copying and pasting controls from one Control Panel to another could take a long time. This has been greatly improved. (1130)
- Saving or loading a vision program file from a Control Panel was inefficient. Links were unnecessarily resynched when vision program files were saved or loaded from a control panel. (1133)
- The buttons on the Password control were incorrect. The Login and Cancel buttons on the Password control were different sizes. (1140)
- The meaning and use of VPM icons was unclear. A list of all the icons and their meaning was added to the documentation (1148)
- In the Data Matrix tool, a property name was changed. In the Data Matrix tool, the Enable Diagnostics property name was changed to Enable Boundary and Module Outputs, and it is now enabled by default. (1150)
- The IMPACT uninstaller would remove user created files. When IMPACT was uninstalled, it would remove vision program and control panel files that the user had created. (1155)
- In the Origin ROI control, the wrong ROI was linked. In the Origin ROI control, when the relative ROI origin was linked, the tool origin was also linked. (1163)
- The IMPACT uninstaller would remove Java Runtime Environment (JRE) files. When IMPACT was uninstalled, it would remove the JRE files but not uninstall it. This would make it difficult to get Java to work. (1167)
- Right click worked incorrectly in the Control palette. When a right click was executed in the Control palette, a control was selected by default even if no active selection was made. (1168)
- The Data Instance tool did not work correctly when linking. When linking from the input sub-port of the tool, the tree would collapse each time a link was completed. (1169)
- The TCP/IP and Serial Out tool integer list property needed explanation. Documentation was added describing how to send binary data using the integer list property. (1217)
- The Average Intensity tool’s output was incorrect. The tool’s Average Intensity Result property could exceed 100 due to rounding results. (1225)
- The Image Display control could not reset the Image File Number. A method to reset the Auto Save Image File Number was added to the control. (1229)
- The ROI Editor would display a null image as black. When a null image was received, the ROI editor would display a black image rather than displaying nothing. (1244)
- The File Manager would not enable Cut/Copy. If the Select All button was selected, the Cut and Copy buttons would be disabled. (1257)
- Switching camera models required IMPACT device reboot. If certain camera link models were switched with a DSL camera, the incorrect settings were used unless the device was rebooted. (1266)
- The Multiple Image Stitch tool correlation was unclear. Information was added explaining how the tool uses correlation matching. (1285)
- Deleting tools in older version files caused an error. If a vision program file had been created in a version prior to 6.0, an error occurred when a tool was deleted from the file. (1292)
- Output ROIs were placed incorrectly on the Display tab. In the Barcode, Average Intensity, Character Contour Match, and OCR tools, the output ROIs on the Display tab did not use a non-zero tool origin. (1300)
- The Color Blob tool setup displayed an error when the task tab was clicked. An error message was displayed even when the tool did not run. (1303)
- TCP/IP tool did not correctly detect socket shutdown. The TCP/IP tool now correctly detects a disconnect and recovers. (1311)
- A runtime error occurred after a buffer overrun. If a buffer overrun error occurred and you clicked on an tool that aborted, an error would occur. (1322)
- The Color Blob tool reported the wrong results. When the found blob contained a hole, the tool ignored the Fill Blob property. (1335)
- The List Loop tool did not keep the point list link. The List Loop tool did not keep the link to the point list property when it was saved. (1346)

- The Data Matrix tool failed on a passing image. The Data Matrix tool would fail on a passing image depending on ROI placement. (1371)
- The T3x-R series camera would not handle certain network configurations. If a network was configured in a certain way, the camera would not communicate across a subnet. (1386)
- Camera calibration would cause VPM and the camera to stop responding. When a task contained a Line Find or Circle Gauge tool and the camera was calibrated, VPM and the camera would stop responding. (1412)
- A method was needed to save buffered images when VPM or the camera stopped responding. If a corrupted image caused the camera to stop responding, a method was needed to save the buffered, corrupted image for troubleshooting. (1430)
- Images saved in .jpg format were saved as color images. When an image was saved in .jpg format, it was saved as color rather than a greyscale image. (1434)
- The Chart and XbarChart controls did not remove invalid links. If a data type was linked to one of control's selectable data types, then that data type was changed, the old link was not removed correctly. (1438)
- The Table control did not handle links correctly. When a column was removed from a table control, any links to that column were not deleted. (1439)
- Temperature readings on the A20 camera were incorrect. The temperature sensor on some A20 cameras was being read incorrectly in software. (1457)
- More documentation of the Basic control was needed. Documentation was added describing the Basic control file manipulation commands. (1481)
- The Emulator would stop responding when using Modbus. The Emulator would stop responding when an application wrote to Modbus register index 127. (1560)
- Explanation of the Diagnostics panel was unclear. The explanation of the Shift, Trigger, and Event rates was unclear. (1591)
- The Adaptive Template tool produced large differences. The Adaptive Template tool produced large difference images near edges in the model. (1631)
- Default ROIs were sometimes off the image. When a tool was added, and the automatically patched Origin was near the image edge, the default ROI could be created off the image which generated unnecessary errors. (1709)
- The Line Find tool's Setup did not update correctly. When some parameters were adjusted in the Setup, the Actual Outlier value did not update correctly. (1726 – 9.0)

Version 9.0.1.5

Released March 26, 2010

Bugs Fixed

- Results of last tool added were not displayed in the Summary table. If the program name was changed, the Summary table results for the last tool in the task tree were not displayed correctly. (1293)
- A vision program file could not be unloaded in the File Manager. After a file was loaded, it could not be unloaded using the File Manager. (1677)
- The Contrast - Multiple ROI tool's display panel did not work. An error was displayed when you tried to select the display panel in the tool setup. (1793)

Version 9.1.0.33

Released May 7, 2010

New Installation Instructions

- Added instructions for dealing with a Windows 7 message during install that the firewall blocked the Java binary.

Enhancements

VPM

- The new Pinpoint Pattern Find™ tool creates a model then provides a best-match score and one or more origins as outputs.

New Known Issues

Pinpoint Pattern Find tool

- Some settings during training and running can cause a communication error (1864, 1906)
- The tool finds patterns that are rotated 180 degrees (1898)
- The tool needs a Min/Max Number to Find setting (1496)
- The Angle Range input has no range checking (1526)
- The tool leaks a small amount of memory each time it trains (1407)
- Add the ability to see the original trained image and retrain on it (1897)
- The tool reports extra unexpected matches (1923)

VPM Settings

- When you try to change a device's IP address using the Settings General tab, or from the connection browser dialog, you may see the following message twice:
"The network address for the entered IP address does not match PC's network. Do you still want to change it?"
Click OK on the error dialog both times it appears and the device address change will work. (1908)

Data Instance tool

- If you promote a property from a Data Instance tool to an input at the task level, then change the tool's data type, the promoted property cannot be deleted at the task level. To remove the property, select the Task icon and click the Run button above the task properties. (1937)

Display tab

- In the Display tab you can click on a tool icon in the Tool column to display that tool in the task tree. If the tool's property tab is then displayed, you cannot edit any ROIs on the image. To enable editing, run the tool, or click on the Setup tab and back on the property tab. (1939)

Bugs Fixed

- The existing pattern find tools did not report the score. Existing pattern find tools did not report a score if it was less than the match score. The new Pinpoint Pattern Find tool does. (310)
- The Contour Pattern Find tool produced inconsistent results. The tool produced a different result if no search ROI was used (previous versions are now deprecated). The new Pinpoint Pattern Find tool works correctly. (401)
- The Optics Calculator did not show both X and Y dimensions. The Optics Calculator has been enhanced to show both X and Y dimensions for the Magnification function. (1014)
- The title bar did not change when the device name changed. When the device name was changed, its name did not change in the title bar. (1029)
- Selecting files in File Manager did not enable cut/copy. When files were selected in the File Manager window, the cut and copy icons were not enabled. (1257)
- The property pane scroll bars would disappear. A certain series of steps switching between the Settings and Setup tabs would cause the property pane scroll bars to disappear. (1696)
- Color image sub-properties needed better documentation. Details about color image sub-property resolution were missing. (1711)

- The Emulator would stop responding in Windows 7. If the Emulator was started using a shortcut in Windows 7, it would stop responding. (1725)
- The Optics Calculator did not show metric units. The Optics Calculator did not show metric units in the Field of View function and the calculations were incorrect. (1752)
- The radio button and toolbar icon status were inconsistent. In the Settings Setup tab, the radio button to create a new vision program was enabled but the new file icon on the toolbar was disabled. (1760)
- The Blob tool setup did not display the correct threshold range used value. When the Blob tool ran, the threshold range used value did not update correctly on the setup ROI panel. (1767)
- The Unload icon was not disabled appropriately. When a Monitor level user was logged in, the File Manager load option was disabled, but the main toolbar icon was not disabled. (1771)
- JRE updates should be installed carefully. AIT installs a special version of the JRE. Other version should not be installed over it and designated as the default. (1777)
- The wrong setup was shown when a new file was loaded. When the Display tab was shown, and a new file was selected, the IMPACT setup tab would be displayed inappropriately. (1780)
- The Blob tool displayed incorrect results. On certain images, the Blob tool would display incorrect results. (1804)
- A “Buffers Not Created” error was not documented. There was no explanation of this error that can occur when using two monitors and remote system control. (1808)
- The Settings tab was disabled inappropriately. If VPM was in table view, then switched out of Live Image mode the Settings tab was disabled. (1810)
- The Counter tool produced a null pointer exception error. Under certain conditions, the Counter tool would display the error. (1816)
- Canceling a copy operation did not work. If you clicked the cancel button during a copy and paste operation in File Manager, the operation continued. (1821)
- If a link operation was canceled, the properties display would change. If a link operation was started then canceled, the tool properties would be displayed incorrectly. (1825)
- The General tab was blank. If you connected to a device that was online, then displayed the Settings General tab, no information about the device was displayed. (1828)
- An invalid IP address of all ones could be entered. The internal check for an invalid IP address would allow all ones to be entered. (1830)
- The Line Gauge tool incorrectly copied property values. If a second Line Gauge was added to a task, the Tolerance values from the first tool could be copied incorrectly. (1835)
- The Abort On Error property was not documented. The use of this property was not explained adequately. (1868)
- The floating image window would not display ROIs. If the floating image window was closed while the Info tab was selected, VPM would stop displaying ROIs on the properties tab image. (1869)
- Deleting tools would leave broken patches. If a tool was deleted after a property was patched to another tool, the destination patches would be empty. (1876)
- A modified tool name was not reflected in a patch. If a tool property was patched to another tool, and then the source tool’s name was modified, the old tool name was still displayed in the patched property. (1883)
- The Auto Trigger composite tool did not display correctly. The properties in the tool did not display correctly in the Display panel. (1910)
- Calibration information was not saved. If a device was rebooted after the camera was calibrated, the calibration information was not saved. (1921)
- Tool description was copied in multiple places. When a Data Instance tool was added to a task and the data type was changed, the tool’s description could be copied to other tools in the task. (1940)

Version 9.1.2.4

Released June 16, 2010

Bugs Fixed

- Tool description was copied in multiple places. When a Data Instance tool was added to a task and the data type was changed, the tool's description could be copied to other tools in the task. Note: This bug fix was incomplete in 9.1. It was completed in 9.1.2. (1940)
- A sample program was updated to use the new Pinpoint Pattern Find tool. The sample program "Sample Template v01.vp" was updated with a sample program that uses the Pinpoint Pattern Find tool. (1952)
- Editing the ROI in an Origin tool sometimes failed When the Wide Line Segment properties of an Origin tool ROI were edited, the changes would sometimes not persist. (1956)

Version 10.0.0.139

Released November 29, 2010

This release supports the new M-Series processor and up to four M-Series cameras.

System Requirements for the A, T, and C-Series

- Intel®, AMD®, or VIA® x86-class processor -minimum 1.2 GHz; 64-bit processors are supported with Windows Vista and Windows 7
- Microsoft® Windows XP, Vista, or Windows 7
- 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
- Adobe® Reader Version 8.0 or greater

New: System Requirements for the M40 Processor

- Monitor display resolution of 1024 x 768 or greater (for local IMPACT programming)
- Keyboard and Mouse (for local IMPACT programming)
- The IMPACT vision device and M40 must have the same version of IMPACT software installed.

Enhancements

VPM

- The new M40 processor supports up to four PPT VISION M-Series cameras.
- VPM now supports connection with multiple IMPACT devices or Emulators. Use Ctrl-click to select multiple items in the Connect dialog list and VPM will connect to all of the selected devices or Emulators.
- When VPM starts, it can automatically reconnect to the devices it was connected to when it was closed.
- The IMPACT Send Message and IMPACT Wait for Message tools were added to allow for inter-camera communication with the new M-Series cameras and the existing A, T, and C-Series cameras.
- Several new system timing statistics have been added to the Task Setup

General

- The installer automatically creates four emulator shortcuts and four emulator folders. You can select any or all of these emulators from the Connect dialog.
- When you select an Emulator in the Connect dialog, it is automatically started if it is not running.

Change to Installation Instructions

- The Typical paragraph was changed as follows:
Typical - This option installs all the IMPACT software modules on the client computer and updates the firmware and vision programs on one or more IMPACT vision devices. All programs (VPM, CPM, CPMRE, IMPACT Settings stand-alone, and Emulator) are installed on the client computer, but only the VPM and Emulator shortcut icons will appear on the desktop after the installation.

New Known Issues

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.
- In VPM, the Discrete Output tool does not emulate the M-Series processor's 16 Inputs and Outputs.
- You must log on to the operating system with administrator privileges to run IMPACT software.

Bugs Fixed

- The IMPACT Emulator became unresponsive. The IMPACT Emulator would become responsive after a million triggers running KickStart (243)
- Running Emulators were not displayed. Running Emulators were not displayed in the Device to Connect To dialog. (987)
- The Line Find tool ROI failed to update in the Design tab. The ROI failed to update when the device was online. (1158)
- Output Origin RWC was missing in Line Find tool setup. A check box was added to display the Output Origin. (1223)
- Adding a folder to the Images Emulator folder caused an error. If a folder was added, an error was displayed when a connection was attempted. (1365)
- The Pass/Fail Chart was not displayed. When VPM was not maximized, the Pass/Fail chart was not displayed. (1475)
- In the System Log setup an non-editable field looked editable. In System Log - Setup, the archive log file name field looked editable but it was not. (1483)
- An hourglass was added. An hourglass was added while the device list was being filled in the Select a device to Connect to dialog. (1559)
- Image save overwrote images without warning. When you used the save image function on the Properties image window, there was no warning if the file already existed. (1613)
- The Camera properties Snap button was enabled incorrectly. The Camera Snap button should not have been enabled when VPM was in File Camera mode. (1656)
- The Display tab program name was inconsistent with the title bar file name. When a non-program filtered file was loaded in the Design tab, the non-filtered file name was shown in the title bar. (1685)
- The Line Gauge Dual ROI setup did not use a Points Per ROI list. The setup now uses the Points Per ROI output list to assign points to ROIs. (1733)
- VPM paused during opening. VPM would pause right after it was started. (1740)
- The Line find tool's line ROI size was different. The tool's line ROI size was different when there was no locate tool in the task. (1742)
- Selecting the “first task” arrow did not display the Settings tab. Selecting the arrow displayed the first task, but the Settings tab was still hidden, which was inconvenient. (1745)
- ROIs disappeared from the Properties tab. Under rare editing conditions ROIs would disappear from the Image window. (1795)
- Image Calibration settings are displayed again. A button was added to File Camera setup to display the calibration settings for the current image. This display was missing in a previous release. (1798)
- Missing string. Part of a string was missing from an error message in the Circle Edge Refinement tool. (1800)
- The Tool column would not maintain its width. The column would not maintain width if you expanded it by clicking the column header. (1801)
- Circle Gauge tool's value display was inconsistent. The tool's Actual Value was displayed inconsistently on the Setup panel. (1812)
- More documentation was added for Abort On Error. The Abort On Error setting was unclear so more documentation was added. (1868)
- Promoted ROIs were not visible in the image window. When ROIs were promoted to the task level, they were not visible in the image window. (1884)
- The Blob, Contour, Correlation, and Pinpoint Pattern Find tools were reporting an incorrect Origin. If Setup was being used in one of these tools, and another tool was added to the task directly under that tool, the incorrect origin could be reported by the Setup (1899)
- Some controls were placed incorrectly while CPM was connecting. Some controls were temporarily placed in the wrong location so they appeared to “jump” when CPM connected. (1912)
- Slider and Numeric Entry controls worked incorrectly with a Scriptor control. When one of these controls' values was linked then modified with a Scriptor control, the linked value would not get set correctly. (1926)

- Two “Connecting” dialogs were displayed. When VPM connects, the second dialog now displays “Reading from” plus the device IP Address. (1934)
- ROIs were not editable when focus switched. ROIs could not be edited in the Design tab if focus switched from the Display tab. (1939)
- Clicking the Select First Task Tab button didn’t show the Settings tab. When you clicked the button, the first task tab was displayed, but the Settings tab was still hidden. (1951)
- Edited Wide Line Segment property values didn’t always remain. In the Origin tool, when you edited the Wide Line Segment property, then clicked away from the field, the new value was inconsistently retained. (1956)
- VPM Reference Guide was rearranged. Sections in the VPM Reference Guide were combined and rearranged for a more logical flow. (1957)
- An error was reported while configuring the Call Task tool. When a Call Task tool was set to call a task containing a Data Instance tool with an Image data type, and that input was promoted, a ClassCastException error could be reported. (1959)
- Documentation about Auto Image Save was added. When images are saved with ROIs, the images are saved as 24-bit color images and cannot be used as a File Camera image in VPM. (1982)
- There was no documentation for the tab height setting -1. Documentation was added stating that the Control Panel tab in CPM is not displayed if the height is set to -1. (2011)
- An error was displayed when you selected the Properties tab. If VPM was in Live mode, and you selected the Properties tab in Camera Setup, an error was displayed. (2014)
- New sample inspection files were created especially for the Pinpoint Pattern Find tool. New vision program files were created and new images were used. (2017)
- The design grid remained on in Run mode. When the Control Panel was switched from Design to Run mode, the grid was still displayed. (2022)
- The image toolbar icons were disabled incorrectly. When Continuous triggers was started and stopped, the ROI edit icons should not have been disabled. (2028)
- Incorrect calibration information could be used in tasks. When an image was snapped in Camera Calibration, that image and its calibration information could be used incorrectly when a task or tool was run. (2045)
- Data Matrix tool documentation was updated. The acceptable minimum module size that can be inspected was added to the tool documentation. (2053)
- The Output Image tab would not remain displayed when a new image was acquired. The most recent image tab that was displayed will now remain displayed after a new image is acquired. (2057)
- Changing the Windows system font would cause buttons to disappear. If the system font size was set to Extra Large, some VPM buttons would not be displayed. (2067)
- HTTP Access documentation was incorrect. Due to some interface changes, the HTTP Access document was incorrect. (2069)
- The list order of Task Trigger Events was confusing. Because some events were added to the list of Task Trigger Events, the list was reordered to be more logical. (2075)
- The Save Vision Program control File Path property explanation was confusing. The explanation was clarified. (2146)
- IMPACT Modbus support was not described as Modbus TCP/IP. The description of IMPACT’s Modbus support as TCP/IP was clarified. (2169)
- Basic control added extra lines. The Copy and Paste function added extra lines to the Basic program. (2198)
- A Communications Failure occurred. Under certain conditions, a communication failure occurred while editing a Data Instance or Data Set tool. (2204)
- The phrase Auto Image Saving on PC did not match the documentation. The phrase was used in VPM but could not be found in the documentation. (2215)
- Auto Image Saving saves all images when set to save failed images only. Under certain conditions, Auto Image Saving would begin to save all images when it should only have saved failed images. (2217)
- Auto Image Saving caused multiple error messages to be displayed. When an incorrect directory path was entered, multiple “Directory does not exist” error messages were displayed. (2219)

- Pattern Find tool found different patterns when the search ROI size changed. When the search region ROI size was changed, the tool would find more or fewer pattern matches. (2223)
- The Suppress Connect Errors property was not documented. The property in the IMPACT Connector control had been added in a previous release but it was not documented. (2236)
- The Circle Gauge tool's Outlier points display was confusing. Points were being colored as Outlier points but they were actually radius check points. (2244)
- Auto Image Save did not save images. When a "non-image" tool was selected, only empty files were created. Now the Image In task's image is saved. (2249)
- The image window's zoom levels have been improved. Previously zoom ranged from 0.1 to 5.0 in increments of 0.25. Now the zoom ranges from 0.125 to 16.0 in multiples of 2.0. The mouse wheel can now be used to adjust the zoom. (2259)
- When a numeric field was edited, it didn't always update correctly. In some numeric data fields the value didn't always update when the Enter key was pressed. (2265)
- There was a delay when opening or creating a control panel. A wait cursor was added so there is an indication that the system is still working. (2282)
- There was a delay when using the file chooser dialog. A wait cursor was added so there is an indication that the system is still working. (2283)
- The Discrete Output tool setup did not update. When the Trigger button was clicked, the tool setup did not update the output indicators. (2331)
- Deleting the only task in a program did not disable the delete button. If you clicked the delete button with no task in the program, an error was displayed. (2349)
- The Settings-General tab incorrectly displayed the model number. The tab was changed to display the model name, as it should. (2351)
- The result of pressing the Enter key was inconsistent when a New File was being created. Pressing the Enter key after you entered a new file name did not have the same effect as clicking OK. (2368)
- The Origin ROI List control incorrectly displayed failing ROIs. The control only worked correctly if the state list was changed after the ROI list. (2437)
- The "Maximum number of clients connected" limit was changed. In Settings-General, the Maximum field value in Connections was increased. (2443)

Version 10.0.1.7

Released December 31, 2010

This release supports the new PPT VISION T2x-R camera series.

Enhancements

VPM

- The Task Timeout value in Settings – IMPACT – General is now a property accessible for linking to other tools and CPM controls. Previously this value could only be changed in the General – Setup tab.
- PPT VISION's new T2x-R camera is now supported. The T2x-R is mechanically and electronically identical to the T3x-R camera line except that the T2x-R's processor is 667 MHZ (1330 MIPS) versus 800 MHZ (1600 MIPS) for the T3x-R.

Bugs Fixed

- Closing multiple IMPACTDevice.exe drivers too quickly caused the M-Series processor to stop responding. If multiple drivers were running, when the driver windows were closed in quick succession the processor stopped responding. (2479)
- The IMPACTDevice.exe driver stopped responding. If no camera was connected to a port where the driver was running, it would eventually consume too much virtual memory and stop responding. (2487)
- The Send Message and Wait for Message tools could confuse messages. When the tools were used with more than two cameras triggered simultaneously, multiple messages could get lost. (2489)
- If a camera port was switched rapidly, the change was not reported. If a camera was switched from one port to another too quickly, it was not displayed as connected on the destination port. (2490)
- In the VPM Settings Application, several buttons in the main toolbar should have been disabled. An error was generated when one of the incorrectly enabled buttons was selected. (2492)
- The Send Message tool incorrectly handled the IP Address. When an Emulator with a loopback address was used with the tool, the tool incorrectly used the port number. (2494)
- The Wait for Message tool's Setup was changed. Two changes were made to the tool's Setup.
 1. The Enable Timeout check box was replaced with a numeric entry.
 2. A check box was added to enable/disable the Maximum Timestamp Difference. (2495)
- A null pointer error occurred when VPM started. When release 10.0 was installed over previous releases, a settings file was not configured correctly. (2500)

Version 10.0.2.3

Released January 25, 2011

This release supports the new PPT VISION T3x-S and T3x-SA camera series. The T3x-S and T3x-SA cameras will only work with IMPACT Release 10.0.2 or later. Earlier releases will not install onto a T3x-S or T3x-SA. An attempt to install will fail and display the message: "Unknown device (Type=T30-S)", unable to install."

Customers must specify if they want to use a software release previous to 10.0.2. A T3x-R or T3x-RA camera will be built and tested with the desired software release to insure compatibility. The T3x-R requires IMPACT software Release 8.1.7 or later. (Software releases 10.0.2 and later can be installed on T3x-R and T3x-RA cameras.) Programming Output 3 on the T3x-R and -S requires Release 8.4.0 or later.

Enhancements

General

- The new T3x-S and T3x-SA camera model series is supported. They require IMPACT Software version 10.0.2 or greater. These new camera models supplement, not replace, the existing T3x-R and T3x-RA models. (10.0.2)

Bugs Fixed

- IMPACTDevice resend 'PacketTimeout' was decreased. Lowering the detection time in the IMPACTDevice to the order of 5 ms resulted in a large reduction of standard deviation events as the cameras resend quickly. (2560 10.0.2)

Version 10.0.3.3

Released March 17, 2011

This was primarily a maintenance release to provide a bug fix.

Enhancements

VPM

- The Data Matrix tool was enhanced
 - Three properties were added for the fixed threshold setting:
 - Threshold Method – values of “Adaptive Threshold” or “Fixed Threshold”
 - Fixed Threshold – grey level threshold when Fixed Threshold method is selected
 - Threshold Used – Output property with threshold value used when tool ran
 - There were also several enhancements to improve robustness in the presence of noise around the symbol.
 - The module sampling algorithm was improved for better read success.

Bugs Fixed

- Blob tool could cause IMPACT M Device and the Emulator to stop functioning. An Index Out of Bounds Error could occur randomly when the Blob tool used slightly rotated rectangle ROIs. (2694)

Version 10.1.0.52

Released March 28, 2011

This release supports M-Series color and line scan cameras for the M-Series Processor.

Enhancements

VPM

- Added a new floating Threshold Viewer window. The new Threshold Viewer graphically displays histograms and line profiles to make tool setup easier. (680)
- Added ability to select ROIs with keyboard. You can now select ROIs in the image window using keyboard key shortcuts. (2538)
- Added new buttons to the image window toolbar. Several buttons were combined and others added to the toolbar in the image window. (2539)
- Images can now be saved with ROIs and pseudocoloring. A new button in the image window toolbar provides saving images with their ROIs and pseudocoloring (if it is turned on). (2589)

CPM

- On-screen keyboard control added. A new on-screen keyboard control was added to enter text and numeric fields using a touch screen (576)

General

- Basic control and Basic tool variables are now sorted. Variables in the Basic control and Basic tool property tabs are now sorted by name as they are added (559)
- IMPACT Color cameras are now supported. Support was added for using IMPACT color cameras with the M-Series Processor. (2254)
- An ActiveX C++ programming example is now available. A C++ programming language example has been added to IMPACT ActiveX. (2509)
- Line Scan cameras are now supported. Support was added for using IMPACT Line Scan cameras with the M-Series Processor. (2512)
- An Electronic Data Sheet file is now provided. An EDS is now provided to more fully comply with the Ethernet/IP specification. (2586)

New Known Issue

General

- Due to a change in format of one of the IMPACT system files in version 10.1.0, you cannot downgrade directly from release 10.1.0 to a previous version. If you want to install a version earlier than 10.1.0, **you must first uninstall 10.1.0** before you install the earlier version. If you directly install an earlier version onto a system that already has 10.1.0 installed, the install will fail and the camera will become unresponsive. To recover, you must restart the camera, uninstall version 10.1.0, and then install the older version. This requirement to uninstall before downgrading has always been part of IMPACT software, however it has usually been unnecessary because the system files did not change format frequently. With the 10.1.0 software release software, an uninstall is necessary.

Bugs Fixed

- VPM would stay on top of all other windows. Randomly, VPM would cover all the other windows on the desktop. (906)
- A trigger event property name was inconsistent. The trigger event property named “apppname” was changed to “Program Name.” (1305)
- Save Image button added to image toolbar. The Save Image button was added to the image toolbar in tool setups (1707)
- ORB memory limitations were addressed. Adjustments were made to ORB memory allocation to help address issues with large images (2120)
- ActiveX sample application did not show the M-Series Processor. The C# ActiveX sample program did not show the M-Series Processor in the device list (2167)

- The Adaptive Template tool did not work correctly. The Adaptive Template tool did not work on rotating patterns (2203)
- IMPACT devices would leave unused resources on lost connections. When IMPACT devices would lose a connection, they would not clean up resources (2444)
- There was no warning about conflicting task settings. Abort tasks would not run if Abort On Error was not set, but there was no warning message. (2245)
- Values on the Display tab would not take effect. While VPM was in Continuous Trigger mode and you entered a value in a field, the value would not take effect. (2265)
- An incorrect error message was displayed for duplicate names. When duplicate names were entered for added input or output properties in a task, the error message was incorrect. (2270)
- ROIs were not displayed correctly in called tasks. In called tasks, ROIs were not displayed on the image. (2315)
- A communication error occurred during Reset Run counts. When the Reset Run counts button was pressed, a communication error occurred. (2389)
- The File Manager tree would not stay expanded. When you left the File Manager, the tree would not stay expanded (2438)
- Trigger buttons were enabled with no file loaded. The Continuous trigger button was enabled when no file was loaded (2447)
- The Wait For Message tool produced an unrecoverable error. The Wait For Message tool produced an error dialog that would not close (2456)
- The About dialog displayed the wrong name. The About dialog displayed the name Vision Program Manager (2469)
- VPM would stop updating. VPM would stop updating if one of the M-Series cameras was unplugged (2473)
- Unlicensed camera message was not displayed. When an unlicensed M-Series camera was connected, the message was not displayed (2475)
- VPM produced an Illegal State Exception error. After running for three days, VPM displayed the error (2484)
- IMPACTDevice shortcuts would stop working. When you double-clicked on an IMPACTDevice shortcut, a message would be displayed indicating that an “installation package” could not be found. (2486)
- CPM produced an error. After running for a week, CPM displayed a Null Pointer Error. (2491)
- M-Series camera timing was added. The time from hardware trigger to start of exposure was documented for the M-Series cameras. (2503)
- Items chosen to be displayed on the Display tab were not displayed. Items chosen were not displayed if VPM was put online before switching tabs (2504)
- File name not shown in title bar. After a file was loaded, the name was not displayed (2515)
- M-Series cameras displayed the model number incorrectly. M-Series cameras displayed a model number that included a dash (2525)
- An error occurred when a control panel file was opened twice. If the same file was opened twice, an exception error was displayed (2536)
- An error occurred if a device name was changed. If a device name was changed, an exception error was displayed (2537)
- The Tab control did not match. The Tab control displayed in the properties pane did not match the control selected in the tree (2541)
- Settings and image displayed incorrectly. If an M300 and M390 were connected, the settings and image were swapped (2559)
- The IMPACT license agreement would be displayed randomly. When VPM was started, the IMPACT license would sometimes be displayed (2564)
- Pinpoint Pattern Find tool trained incorrectly. The tool would find and train points that were outside a rotated ROI (2571)
- The Wait For Message tool didn't update. The tool didn't update the output value on the Display tab (2575)
- Text did not display correctly in the About dialog. The camera model information was cut off (2584)

- Confusing error message displayed when saving file. If the original directory was not available, the displayed error message was unclear (2585)
- Variables were not disabled during linking. Variables that could not be linked were not disabled (2612)
- The Data Matrix tool performance was improved. The tool was enhanced with better noise handling and added fixed threshold properties (2613)
- A hash mark was added to the Line ROI. The hash mark relates to the current line profile setting in the Line Profile viewer (2614)
- Tolerance control displayed incorrectly. When the label display was turned off, the control's height and width were wrong (2616)
- Origin tool ROIs displayed incorrectly. On the Display tab, the ROIs were displayed out of position (2624)
- CPM would stop when compiling the Basic control. When code was deleted and the compile button pressed, CPM would stop responding (2632)
- Pinpoint Pattern Find tool did not work on stitched images. The tool did not report the match origin (2633)
- M-Series strobe timing documentation was added. The strobe trigger output delay was documented for the M-Series cameras (2639)
- Better error messages added for TCP/IP Out tool. When both string and integer list properties were used, a confusing error message was displayed (2647)
- Added more details about TCP/IP Out tool. Added information about using string and integer list properties (2649)
- A memory leak would cause VPM to stop responding. When camera tabs were closed memory was not cleared correctly (2666)
- File Manager setup did not recover. After a communication failure and restoration, the setup would be in an incorrect state (2667)
- When a tool property was edited, the value would not remain. If the tool was run after a property value was changed, the value would not remain (2668)
- The Contrast Multiple ROI tool did not clear properties. The tool calculated the In and Out of Range values even when they were disabled, but it did not clear them in the properties tab (2679)
- The Data Matrix tool now accepts non-standard characters. The tool now accepts non-standard end-of-data character 254 in ASCII mode (2684)
- A tool input property would not update correctly. When a property was selected, the value would not update when the tool ran (2687)
- Blob tool could cause IMPACTDevice and the Emulator to stop functioning. An Index Out of Bounds Error could occur randomly when the Blob tool used slightly rotated rectangle ROIs (2694)
- Camera properties were incorrect. If a different camera was connected, the settings for image scan remained from the previous camera (2720)
- The Data Matrix tool would fail on some images. The tool tests to weight edge points that are at the far edge of the ROI as if they were at far edge of the symbol (2724)
- Discrete Input tool property names were displayed incorrectly. In the M-Series, some of the names were surrounded by exclamation marks (2730)
- Loading a vision program file would cause an error. The first time a file was loaded error messages would be displayed but the file would load (2744)

Version 10.2.0.54

Released July 6, 2011

This release supports some third-party cameras, including JAI, for the M-Series Processor. Multiple language operating system support was added.

Enhancements

VPM

- Global Select for Display Tab Properties displayed. On the Setup tab's Display panel, you can now select or clear all properties to be shown on the Display Tab. (191)
- ROI Off Image. The error message that required operator response when an ROI was off the image has been removed. It has been replaced by a watermark that is displayed briefly on the image. (1954)
- Image History. All images are now saved in a temporary circular image history so you can step forward and backward through images and run inspections under controlled circumstances. (2854)
- Data Matrix tool Setup added. This tool now has a Setup. (2855).
- Serial Output tool Setup added. This tool now has a Setup. (2856)
- TCP/IP Output tool Setup added. This tool now has a Setup. (2857)

VPM

- Several changes were made to IMPACT's underlying communications structure to enhance stability and provide more robustness in Modbus network protocol servers when unexpected network traffic occurred. (2853)

M-Series

- Line Scan Cameras have a new acquisition mode. Line scan cameras can operate in single image or continuous acquisition modes. The continuous modes allow the camera to acquire multiple images without requiring multiple frame triggers. This eliminates any concern about "missing lines" between images when long parts are scanned. (2891)
- Support for a third-party remote head camera has been added. The JAI camera model (CM-030GE-RH) is supported by IMPACT software when connected to the M-Series processor. Refer to the IMPACT M-Series Processor and Camera Guide (843-0138) for details. The purchase of an additional license is required to use this camera. (2849)
- Support for a third-party ultraviolet-sensitive camera has been added. The JAI camera model (CM-140GE-UV) is supported by IMPACT software when connected to the M-Series processor. Refer to the IMPACT M-Series Processor and Camera Guide (843-0138) for details. The purchase of an additional license is required to use this camera. (2851)
- Multiple Language support has been added. Operating system support is now provided for the following languages: English, Chinese Simplified, Chinese Traditional, French, German, Italian, Japanese, Korean, and Spanish. Refer to the document Multilingual User Interface Implementation for more details. (2710)

Added Known Issue

- C:\I386 folder on the M-Series Processor contains additional Windows® install files
This folder aids installs of 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.

Bugs Fixed

- It took a long time to populate the Device Connect dialog. The amount of time it takes to fill the Device Connect dialog was reduced up to 80%. (2672)
- Changing an M-Series processor device name took a long time. Checking for a duplicate device name is now much faster. (2380)
- IMPACT T-Series and A-Series cameras now have memory backup. Memory can now be recovered from backup automatically in cases of corruption. (2790)
- Image update was slow. Image update for the M390C camera in Live Mode was very slow. (2917)
- The PCCC Server returned all zeroes. Even when there was data in the IMPACT data table, no data was returned to the PLC device. (3036)
- Property links removal was not handled cleanly. When the Task Trigger Event type was changed, the link source was not removed cleanly, leaving null link properties. (1530)
- Clicking the Delete Link button while linking was possible. If you clicked the Delete Link button while linking, you could not exit link mode. (1576)
- Clicking the Live button would cause an error. When you clicked the Live button and VPM was not connected, an error would occur. (1969)
- Sub-properties are now updated on trigger once. When you click the Trigger Once button, a tool's sub-properties are now updated. (2143)
- The Call Task tool used incorrect range limits when a property was promoted. When a tool property was promoted, incorrect range limits were used and the tool would abort due to a value out of range. (2144)
- Incorrect device name was displayed in the Summary Tab title bar. When the device name was changed, the new name was not displayed (2160)
- The Wait for Message tool displayed an "out of range" error. When the tool displayed the error dialog, it could not be cleared. (2456)
- Images saved while calibrating did not contain calibration information. Saving images during calibration in Camera Setup has been disabled (2546)
- When VPM restarted, multiple cameras were not reconnected correctly. When multiple cameras were connected, some of the cameras would not reconnect when VPM was restarted (2553)
- Links from the Data Instance and Basic tools were not removed correctly. When the data type was changed for a linked property, the link contained nothing. (2714)
- The Threshold viewer icon was not displayed. When a program was first loaded, the threshold viewer icon was not displayed. (2729)
- The Point Match tool in previous version tasks failed. When the tool was in a program created with a previous version, it would always fail. (2746)
- A display tab parameter state was retained when a tool was deleted. If a parameter was defined on a tool's display tab, it was retained even if the tool was deleted and replaced. (2759)
- The Origin tool's Train button was displayed incorrectly. Under certain conditions, the button would display as Snap. (2774)
- Threshold viewer values were not updated correctly. When Line Profile threshold values were entered manually, the tool properties were not updated. (2780)
- The Line Find Setup adjusted the wrong property. When in greyscale and pseudocolor mode, the setup adjusted the maximum threshold value instead of the minimum. (2786)
- File camera with no explicit image did not display Threshold Viewer. When the default horizontal gradient was displayed in file camera mode, the Viewer was not displayed. (2787)
- When the Threshold Viewer range was zero, an error occurred. When the range was zero, and the control bars were moved, an error was displayed. (2788)
- Output properties did not update consistently from the Threshold Viewer. When the Viewer was adjusted, some output values were not updated in the tool's properties. (2794)
- Properties and Link Summary tabs were unnecessarily enabled. When in Live Mode using the File Camera, the tabs did not need to be enabled. (2796)

- Switching between the Setup and Properties tabs caused an error. When the Threshold Viewer was open, switching between the tabs caused an error. (2797)
- Toolbar buttons were unnecessarily enabled. When the Summary Tab was selected, and no program was loaded, the buttons did not need to be displayed. (2818)
- An error occurred when a camera is unplugged. When VPM was disconnected from a camera using the disconnect button, and the camera was then physically disconnected, an error occurred. (2820)
- In camera Setup, the ROI for a color camera would become zero pixels in size. If the camera Setup tab was selected when a color camera was disconnected, then reconnected, the ROI would disappear. (2822)
- The image display size and position were not saved. When a new file was opened, the display size and position would return to a default position. (2828)
- In the Line Find tool the default ROI size was one pixel wide. The default ROI is now is drawn with the width equal to the height. (2830)
- In the image display, the title was hard to read. The font was changed for the word Intensity to make it easier to read. (2836)
- In the Save Image dialog, some directories were not displayed. When the dialog was opened in the Setup tab, some directories were not shown. (2838)
- When creating a new program, the program name was selected by default. Now when you create a new program and select the Design tab, the Image In task is selected. (2839)
- Loading large images into the File Camera took a long time. The time to load large images has been reduced by as much as 90%. (2844)
- Adjusting thresholds for ROIs was improved. The Threshold Viewer now has Arc and Radial options for Wide Circular Arc and Wide Line Segment ROIs to allow better threshold adjustment. (2845)
- Shortcut key now works in ROI edit mode. The ESC key now exits Zoom and Create ROI modes. (2848)
- In the ROI edit Zoom mode, the mouse wheel was backward. Rolling the mouse wheel zoomed the wrong way. (2860)
- The 8 MB image size limit was removed. VPM can now process stitched images larger than 8 MB. (2877)
- The Pinpoint Pattern Find tool stopped responding. If there was no ROI defined on a stitched image, the tool would stop responding. (2886)
- Linked values were not updating correctly. When a linked value was changed in a source tool, it would not update correctly in the destination. (2888)
- The Save Image dialog would disappear. If you clicked on VPM while the Save Image dialog was displayed, the dialog would go behind VPM. (2889)
- In the Image Display control, the histogram button should not have been displayed. If the Toolbar Visible property was true, the histogram button was displayed but it did not work. (2898)
- An empty error dialog was displayed. While in the OCR tool Setup, an empty error dialog was displayed when trying to save the file. (2899)
- An incorrect icon was displayed in the pop up menu. In the right-click pop up menu, the incorrect icon was shown for Show/Hide camera tabs. (2905)
- VPM response was slow when editing. When using the Blob tool on a large image, VPM took a long time to respond when a property was changed. (2949)
- An error was displayed if a program was not loaded. If a tool had links to a program that was not loaded, an “Unresolved Symbol” error was incorrectly displayed. (2959)
- A warning dialog was clarified. The IP Address was added to the warning that the task pass/fail status was not linked when VPM is connected to multiple cameras. (2962)
- An exception error occurred when properties were expanded. If a tool ran with one of the properties expanded, and exception error was displayed. (2966)
- Summary table would not update correctly. If multiple tools were deleted at one time, the summary table would not update correctly. (2968)
- Status message was displayed inappropriately. The Inspection Pass/Fail status not linked message was displayed even when the status was linked. (2972)

- The Blob tool would not abort. When an ROI was off image, the Blob tool would not abort when it should. (2973)
- An exception error occurred while editing. While adding a shapelist ROI to the Blob tool, the error occurred. (2974)
- The image name would not change when it was saved automatically. Changing the image name did not work when images were automatically being saved. (2980)
- A new task did not show an image. When a new Image In task was created, it did not automatically show an image. (2982)
- Default display properties were not selected. In the Serial Port Out tool, the default properties were not selected in the Setup Display panel. (2984)
- Add Input and Add Output buttons were displayed incorrectly. The buttons were displayed in the tool properties tab instead of the task properties tab. (3005)
- The Refresh button in the Camera properties tab worked incorrectly. When the button was clicked, the Setup tab was incorrectly displayed. (3006)
- In the Range control, an event was not generated. When the Step button were pressed, a Range Action by User was not generated. (2901)
- Tolerance control values were not saved. When a control panel was edited, saved, and reloaded, the control's height value was not saved. (2951)
- An ROI control property was not saved. The Visible property was not being saved for the Line List, Origin List, and Rectangle List ROI controls. (2971)
- The noexit Command line parameter did not work consistently. The parameter did not work the way it was documented for different applications. (2394)
- The Wait For Message tool documentation was incorrect. The Enable Timeout and Enable Maximum Timestamp screen shot was outdated. (2574)
- The TCP/IP Out tool explanation was clarified. More detail was added for the Disconnect After Each Write property. (2648)
- The Total Time definition was clarified. More detail was added about the Total Time displayed in the Summary Table. (2752)
- The Command line parameter explanation was difficult to use. The explanation for using command line parameters was rearranged and clarified. (2783)
- Auto-thresholding explanation was inadequate. More detail about when and how to use it was added. (2809)
- The Blob tool's output origin property was unclear. More detail about how the output origin is calculated was added. (2810)
- Camera calibration detail was added. The minimum size dot required for calibration was added. (2907)
- The Command line parameter section was hard to access. Clickable links were added to all the command line parameters. (2923)
- Documentation about installation was corrected. Documentation incorrectly stated that it was necessary to run IMPACTMDevice install before the IMPACTSetup install. (2932)
- Documentation about Modbus Server communication was confusing. The term "Big Endian" was clarified. (2943)
- Blob tool description was incorrect. The Enable Filter property descriptions said "excluded" instead of "included." (3003)

Version 10.2.1.4

Released July 26, 2011

This maintenance release provided a fix for a critical bug and clarified the procedure to downgrade IMPACT.

Bug Fix

- Some controls were not saved correctly. In some controls, the property's current state was not saved when the file was saved. (3055)
- ABPCCC server on M-series did not read values greater than 255. The code that moves data between registers and message buffers was changed to be processor endianness independent. (3066)
- The M120 and M120C cameras are no longer supported. They were removed from the documentation. (3072)
- When a tool's input origin property changed, ROIs relative to that origin were not updated. (3076)

Documentation Change

The following Uninstall instructions were changed in the readme files.

Uninstalling IMPACT software

To downgrade software on an IMPACT A-Series, T-Series, or C-Series

1. Copy the following folder to a safe location (this will back up some of your existing IMPACT files):
C:\PPT VISION\IMPACT\Applications\Root
2. Run the IMPACT Setup executable for the currently installed version (e.g. IMPACTSetup_10_2_1_nn.exe).
3. Select the Custom option.
4. Check the option: "Uninstall IMPACT Settings and IMPACT Device(s)."
5. From the list of devices, select the device(s) that you want to downgrade.
6. Delete the files named "settings.xml" from the following default directories, if they are present there:
C:\PPT VISION\IMPACT\Applications\Emulator\IMPACTEmulator\cf
C:\PPT VISION\IMPACT\Application\Emulator\IMPACTEmulator 2\cf
C:\PPT VISION\IMPACT\Applications\Emulator\IMPACTEmulator 3\cf
C:\PPT VISION\IMPACT\Applications\Emulator\IMPACTEmulator 4\cf
7. Run the IMPACTSetup executable to install the desired earlier version (full or device install) of IMPACT software you want on the IMPACT device you are downgrading.

To downgrade software on an IMPACT M-Series processor

1. Copy the following folders to a safe location (this will back up some of your existing IMPACT files):
C:\PPT VISION\IMPACT\Applications\Device
C:\PPT VISION\IMPACT\Applications\Root
2. From the Windows Control Panel, select Add or Remove Programs.
3. From the list of Currently Installed Programs, select IMPACT M Device and click the Change/Remove button.
4. Delete the files named "settings.xml" from the following default directories, if they are present there:
C:\PPT VISION\IMPACT\Applications\Device\IMPACTDevice\cf\
C:\PPT VISION\IMPACT\Applications\Device\IMPACTDevice 2\cf\
C:\PPT VISION\IMPACT\Applications\Device\IMPACTDevice 3\cf\
C:\PPT VISION\IMPACT\Applications\Device\IMPACTDevice 4\cf\
C:\PPT VISION\IMPACT\Applications\Device\IMPACTDevice 4\cf\
5. Run the IMPACTMDeviceSetup and IMPACTSetup executables to install the desired earlier version of IMPACT software that you want on the M40.

Version 10.3.0.75

Released November 4, 2011

This release included rebranding all software and hardware with new logos and icons. Support for additional M-Series and third-party cameras, including JAI and Basler, was added.

Enhancements

VPM

- Auto-Trigger mode. The ability to automatically trigger a camera based on a user-defined time period was added. (1231)
- Drag and drop VPM tools. You can now drag and drop VPM tools in the task tree to move them. (2272)
- TCP/IP Out tool Client and Server Mode. The TCP/IP tool can now be configured to act as a TCP/IP server or remote client. (2921)
- Angle tool. This tool measures the angle between two lines. It has a Setup. (3089)

CPM

- Drag and drop CPM controls. You can now drag and drop CPM controls in the control panel tree to move them. (3078)

M-Series

- JAI model AM-800GE camera. Support was added for the JAI AM-800GE eight megapixel camera. (2850)
- M110 and M110C cameras. Support was added for PPT M110 (659 x 494 image size) and M110C (color) cameras. (3128)
- JAI model AT-200GE camera. Support was added for the JAI AT-200GE three CCD, two megapixel color camera. (3195)
- Basler cameras. Support was added for Basler aviator camera models avA1000-100gm, avA1000-100gc, avA1600-50gm, avA1600-50gc, avA1900-50, avA1900-50gc, avA2300-25gm, and avA2300-25gc. (3217)

General

- All PPT products were rebranded. Logos, colors, and icons were changed in all hardware products, and software and install programs, in support of PPT's new brand. (3202)

Added Known Issues

M-Series

- The M-Series processor should always be restarted by using Window Shutdown, then cycling power, rather than by simply using the Reset button (reset) or the Windows Restart command (restart). **When the M-Series processor is reset or restarted without cycling power, restricted bandwidth performance of the GigE vision camera ports will result.** The total combined bandwidth of all four camera ports is normally 500 Mbytes/sec, which allows the processor to operate with any combination of cameras. After reset or restart however, the total combined bandwidth of all four camera ports is limited to approximately 210 Mbytes/sec. If the total bandwidth of all cameras exceeds 210 Mbyte/sec, then the system will report image acquisition errors and some cameras may stop triggering. Using Windows Shutdown, then cycling power, will correct this problem.

The bandwidth of currently supported cameras is listed in the following table. Note that in no case will a single camera exceed the restricted bandwidth.

Model (including color and right angle versions)	Bandwidth (Mbytes/sec)
M100, JAI CM-140-GE-UV, JAI AT-200GE	30
M110	27
M150, M550	38
M180	40
M200, M205	23
M202	26
M210, M230	25

Model (including color and right angle versions)	Bandwidth (Mbytes/sec)
M250	39
M270	43
M290	28
M295	56
M300	66
M330	60
M350	68
M390	85
M510, M540	20
M520	36
M530	56
M560	58
Basler aviator (all models)	125
JAI AM-800GE	80
JAI CM-030GE-RH	37

In general the camera bandwidth can be calculated as:

Camera bandwidth = image width * image height * maximum frames per second

Where:

maximum frames per second is taken from VPM's Camera System Object Setup (not the actual application trigger rate)

- In the 10.3.0 release, the way that camera processes are assigned to the processor cores on an M40 processor has changed. This can affect the performance of existing three and four camera applications when they are upgraded from previous Impact releases. As of the 10.3.0 release, all vision program task processing for cameras number one and three is assigned to the first core (core0), while processing for cameras number two and four is assigned to the second core (core1). In one and two camera applications there will be little difference in performance, since each of the two cameras has a single core to use exclusively. On three and four camera applications this change may have a noticeable effect on performance, since camera one and camera three must share core0, and camera two and camera four must share core1. For more details, refer to the M-Series CPU Assignment Application Note.

Bugs Fixed

- An Exception error was displayed in Continuous Trigger mode. An Exception error was randomly displayed. (2096)
- Send Message and Wait for Message tools. These tools allowed invalid message numbers to be entered. (2313)
- ROIs not displayed. When the view was changed from the camera tab in Continuous Trigger mode, sometimes ROIs weren't displayed. (2319)
- Discrete Output tool setup does not update. After the Trigger Once button was pushed, the tool's LED lights did not update. (2331)
- The floating image window didn't display. When the view was switched from one camera to another, the floating image window would disappear. (2342)
- The Device Connection dialog takes a long time. If a connection attempt was canceled, the dialog could then take a long time to populate the list. (2550)
- Memory leak caused VPM to stop responding. A memory leak would eventually cause an "Out of Memory" error and VPM would stop responding. (2666)
- Threshold viewer icon was not displayed. When a program was first loaded, the threshold viewer icon was not displayed in the image window toolbar. (2729)
- The histogram window closed in Live Image mode. When the view was switched to Live Image mode, the histogram window closed unexpectedly. (2784)
- Load on startup error message was vague. If two files with the same program name were selected to load on startup, a confusing error message was displayed. (2981)

- Color white balance produced an error message. While performing white balance on a camera, an Invalid ROI Size error message was displayed. (2996)
- Circle Gauge tool setup button disabled. The Pass/Fail panel radio button could become disabled when a task was loaded on startup. (3017)
- Image save message was not cleared. When an image was saved using the Image Save button, the “Saving” message was not erased when the save had completed. (3021)
- Discrete Output tool. The tool’s setup panel border was missing. (3025)
- Circle Gauge tool setup. The pass/fail status did not update when a setup change caused the tool to pass or fail. (3027)
- Discrete Input tool. The tool displayed the number of inputs from a previous connection. (3030)
- Grayscale Template Tool. The tool did not update after the threshold was changed in the histogram window. (3044)
- Display tab properties table display. While in continuous trigger mode, the properties table would flicker. (3064)
- An Out of Memory would occur. After a series of cut/paste actions in the task tree, an Out of Memory error would occur. (3065)
- The image was displayed incorrectly. When Trigger Continuously mode was stopped, the image would float in both the image display and in the tool Setup. (3077)
- The Break tool would not break out of a loop. If a tool inside the loop was aborting, the break would not occur. (3086)
- The Save Image dialog did not show subfolders. When the system was in Continuous Trigger mode or online, the Save Image dialog did not display subfolders. (3092)
- Changing the image zoom setting would leave the view off the image. When the zoom setting was changed to 1:1 after “zoom to fit ROIs,” the view would not show the image correctly. (3099)
- The camera would stop capturing images. In Live mode, the camera would stop capturing images after a varying length of time. (3100)
- Task Timeout time value label was confusing. Time value units label was expanded to milliseconds instead of ms. (3104)
- The Break tool was not responding correctly. The tool would not work if the Abort On Error property was set to false. It now works properly regardless of that property. (3106)
- Line Find tool. The wide line ROI was visible and movable on the Setup Pass/Fail panel. (3154)
- Zoom to Fit ROIs. The zoom setting could cause the image to no longer be visible. The displayed image is now never smaller than fifty pixels. (3164)
- Line Gauge Dual ROI. The Setup didn’t update the internal Secondary Threshold to Primary Threshold link (3177)
- Save As dialog. The cursor is now in the text entry field. (3186)
- Contrast tool values did not update. After the tool aborted, the Setup actual values stopped updating. (3192)
- Camera setup would fail. Camera setup would fail when Live mode was started and stopped. (3260)
- The Image control's zoom default setting was changed. The control’s default setting was changed from 1 to -1 so that the image will now automatically resize to fit the image display. (1124)
- Method patches were not displayed. The debugging display did not display method patches during debugging. (2229)
- The Range control did not have a background color property. The Range control did not have the color property like other controls. (2900)
- Image Display control. The auto zoom setting was not saved with the CP file. (3045)
- There was no CP file version check. A CP file saved in a newer version of CPM would fail when loaded into an older version. A version check has been added. (3060)
- Unnecessary data was being saved in the CP file. Data that had not changed was being saved, making the file larger than necessary. (3061)
- A Null Pointer error occurred. When small icons were selected, an error could occur. (3062)

- Control panel "on top" property was incorrect. When link icons were used to navigate between panels, the property's value was set incorrectly. (3075)
- Impact Connector control required multiple logins. When a control panel connection was made to a PPT device with security enabled, CPM could require multiple login entries. (3121)
- The Control panel icon could turn red. When a control panel was loaded, the icons could turn red due to a memory/resource leak. (3123)
- Impact Connector control tab would not stay selected. When a link was created from the Get Data Links tab, the Property tab would be displayed. (3126)
- Timer control. When the control was disabled then enabled, it would incorrectly initiate a "run" event. (3181)
- Tolerance control values were not saved. The control's width property values were not saved. (3215)
- On Screen Keyboard would not display. When device security was enabled, the security login dialog box didn't display the OSK. (3122)
- The PPT device's IP Address can now be changed. The address can be changed from the Connect to Device dialog. (3206)
- M-Series Trigger Events. Added documentation that some types of trigger events do not exist on the M-Series processor. (3031)
- Error in step numbering. There was an error in numbering in the Errata section. (3033)
- DIN Rail mount. Documentation about attaching a DIN rail mount to the M-Series processor was added. (3047)
- Auto-image history clarified. Clarification was added that capturing images is affected by the update rate set in VPM. (3133)
- M-Series compact flash use. An explanation was added about using the compact flash. (3150)
- Wait for Message tool. There was an incorrect reference to a check box. (3167)
- No splash screen displayed for Settings program. When the Settings program started, no splash screen was displayed. (1612)
- Some PPT devices were missing in the device list. Some PPT devices were not displayed in the device list during installation. (3057)
- A mismatched version number message was seen at system start. Occasionally an error message was displayed that the client and software versions did not match. (3242)

Version 10.3.1.4

Released December 9, 2011

This maintenance release fixed critical bugs.

Bugs Fixed

- The first tool in the Image In task had a long processing time. When processing a color image, the first image processing tool in the Image in task could take a long time to process every new image. (3376)
- The Color Image Sampling tool did not appear to abort correctly. When the Color Image Sampling tool was used within multiple Branch tools, the abort highlight incorrectly appeared on the tool below it. (3390)

Version 10.4.0.78

Released February 29, 2012

This release added support for the MX80 processor, the SVS-Vistek IP67-rated eco camera series, and the JAI model AM-1600GE (16 megapixel) camera. The “Lock/Unlock for editing” function in VPM was made automatic and the button was removed.

System Requirements for the Client Computer

- Replaced “Adobe Reader 8.0 or greater is required” with “A PDF reader is required to read the software and hardware manuals” since other PDF readers can be used to read the manuals.

System Requirements for the M-Series processors

- Updated to include the MX80 processor and third-party cameras.

Enhancements

VPM

- Lock/Unlock for Editing changed. The process for “locking” a device for editing was made automatic. This included removing the Lock/Unlock for Editing button on the main menu. (2833)
- Summary Table button row is collapsible. The Summary Table button row collapses automatically when you resize the Image window splitter bar. This allows easier viewing of multiple columns in the File Manager System Object. (3270)
- Camera trigger setup was moved. The Camera trigger setup was moved from the General System Object to the Camera System Object for easier access. (3409)
- Added the ability to calibrate the camera from a list of points. An option to enter a list of points, then calibrate them to a list of real world points, was added. (3440)

CPM

- Image Control - Auto Image Save has been enhanced. When Auto Image Save has been enabled, the image window update rate does not slow down. The image is saved in a background operation. Image save speed has also been improved. (1924)

CPMRE

- Added support for a new -banner command line option. When the new option is added to the command line, the indicated graphic is displayed to the right of the main toolbar. (3335)

M-Series

- JAI model AM-1600GE camera. Support was added for the JAI AM-1600GE sixteen megapixel camera. (3417)
- Added support for the digital I/O on the MX80 processor. The front panel I/O connector on the MX80 processor is now supported. (3452)
- Added support for the additional serial ports on the MX80 processor. The MX80 processor has four serial ports. Support for the serial ports was added. CAM 1 controls COM5. CAM2 through CAM4 control COM2 through COM4. (3453)
- SVS-Vistek cameras. Support was added for SVS-Vistek camera models eco618, eco424, eco414, eco415, eco204, eco445, eco267, eco285, eco274, and eco655. All these cameras are rated IP67. (3461)

General

- A new command line was added to CPM, VPM, Settings, and CPMRE. A new “-banner” command line argument was added. When the argument is present, the indicated graphic is displayed on the right side of the program window aligned with the end of the toolbar. (3335)
- Added the ability to enable/disable the OPC/ActiveX server. In VPM, a check box was added to the General System Object Setup – Communication panel (Enable OPC/ActiveX Server). When enabled, the DPWS server on the PPT device starts automatically when the device boots. When you upgrade from a previous version, this setting is enabled by default. (3525)

Known Issues

The following known issue was changed so that the core assignment explanation was more generic:

- In the 10.3.0 release, the way that camera processes are assigned to the processor cores on an M40 processor was changed. This can affect the performance of existing three and four camera applications when they are upgraded from previous Impact releases.

As of the 10.3.0 release, all vision program task processing for camera numbers one and three is assigned to one core, while processing for camera numbers two and four is assigned to a different core. In one and two camera applications there will be little difference in performance, since each of the two cameras has a single core to use exclusively. On three and four camera applications with high resolution cameras, this change may have a noticeable effect on performance, since camera one and camera three must share one core, and camera two and camera four must share the other.

The MX80 processor is supported as of release 10.4.0. This note does not apply to the MX80 processor as it uses a separate core for each camera.

For more details, refer to the M-Series CPU Assignment Application Note.

Bugs Fixed

- Task tabs in VPM and Control panel tabs in CPM can be reordered using drag and drop. To reorder tasks or control panels, click the desired tab, then drag and drop it in the space between the two desired tabs. (981)
- Locking and Unlocking for editing was confusing. The need to lock and unlock using the lock button was confusing. The button was removed and the function is now automatic (1762)
- The Lock/Unlock button indication was incorrect. The button's indication did not reflect the true locked state. The button was removed and the function is now automatic. (1841)
- Auto Image Save didn't save images correctly. When a tool without an image (e.g. Basic tool) was selected, no image was saved or an empty file was created. (2249)
- The definition of Total Time in the Summary table was clarified. The definition was confusing and inconsistent. (2752)
- The M40 would not process hardware triggers while in File Camera mode. In File Camera mode, the processor now processes File Camera images when it receives triggers. (2846)
- The Range and Numeric Entry controls' behaved differently. The Range control's background color property behavior was changed to match the Numeric Entry control. (2900)
- A Camera Preferences dialog behaved erratically. An out-of-range error dialog would appear briefly, then disappear without intervention. (3001)
- An exception error could occur while saving an image in live mode. If the Save Image icon was selected while the camera was in live mode in the Camera Setup, an error could occur. (3084)
- In the Basic tool, command descriptions were confusing. The command example results were made easier to find. (3124)
- An error occurred if a tool was deleted by a second VPM program. Deleting a tool when more than one VPM program was connected to the device caused an error. (3137)
- The task tree was displayed incorrectly while viewing a Branch tool. Part of the task tree was missing if you switched from Program view. (3139)
- Emulators were not displayed in the Device to Connect To dialog. On some client computers Emulators were not displayed because of an unresolved dependency on a runtime library. (3241)
- Zoom to fit ROIs mode calculated incorrectly when orientation changed. If the ROI Editor orientation was changed to 90, 180, or 270, the zoom to fit ROIs calculations were wrong. (3256)
- The calibrate button was disabled. The calibrate button in Camera Setup was disabled until the camera was triggered, even though an image was loaded. (3265)
- An unreasonable amount of time was required save a large image. It now takes much less time to save a large image from the image window. (3289)
- A Communication Failure error occurred when a vision program was unloaded. Some tools in a vision program would cause a Setup error when they were unloaded. (3295)
- The Origin tool would cause an error. The Origin tool Setup would inconsistently display a "No Image" error instead of displaying a blank image. (3297)

- Empty rows were displayed in the Summary Table. If the Display Refresh Timeout value was too small, empty rows were created in the table. (3298)
- The incorrect logo was displayed. The old logo was displayed in the Threshold Viewer. (3318)
- The Lock/unlock button description was incorrect. The description incorrectly stated that you could not unlock the device if the Display tab was selected. (3329)
- The program list was not highlighted . In the Display tab, the program list was not highlighted in orange. (3331)
- The Graphic Display control contained the company logo . This control now shows a generic icon. (3334)
- The Save Image button was not displayed. In Camera Setup, if you exited Live mode by using the Snap button, the Save Image button was not displayed. (3337)
- The incorrect camera number was displayed when it disconnected. If a camera was disconnected, the disconnect dialog was displayed even if that camera's tab was not currently selected. (3338)
- One camera could cause a second camera to disconnect . If camera one became disconnected, VPM would show that camera two was also disconnected. (3339)
- The Chart control's "Run On Data Change" property was false by default. The control's property is now set to true when it is added to a control panel. (3349)
- The Impact Connector control's "Use Internal Timer" property was false by default. The control's property is now set to true when it is added to a control panel. (3350)
- In the Angle tool, buttons remained disabled . If an ROI was off image, after the Origin Link completed, the Image Link and X buttons were disabled. (3356)
- The Blob and Color Blob tool Setup have been improved. When there is only one blob on the image, the Setup will automatically select it. (3360)
- The Boolean property value was lower case. This property is now upper case to conform to other tool properties. (3361)
- In the Counter tool, the Display tab's Success property was checked by default. The property is now unchecked when the tool is added to a task. (3368)
- Under certain conditions, the cursor would remain an hourglass forever. The cursor now changes from an hourglass back to a normal cursor. (3369)
- The Execute Command control would not execute a Pause statement. If the control was used to run a batch file, a Pause statement in the file would cause an error. (3371)
- Tools were not displayed and the vertical scroll bar remained. When linking was completed, tools were not displayed and the vertical scroll bar remained. (3382)
- The system registry could not be read. When VPM was run on Windows XP Embedded, the system registry could not be read which produced an incorrect error message. (3385)
- Extreme Difference tool clarification. The defect must be contained in the inner radius in order to be detected. (3388)
- A File Manager column was named incorrectly. In the File Manager System Object, the last column in the CompositeTools folder was named Load On Startup rather than Enable. (3394)
- The Line Gauge tool would train incorrectly. When Float Image Display was selected, the tool would train. (3395)
- A serial input event could cause VPM to stop responding. If an input string started with 0x00 (null character), and a CRLF delimiter was used, VPM would stop responding after a serial input event. (3400)
- Calibrating a camera using From Points caused an error. If you clicked the Reset Polygon button while editing Real World points, an exception error occurred. (3403)
- A link to the Start Autotrigger method in a Camera System Object did not work. The link would not cause the device to start or stop Autotrigger mode. (3416)
- The old PPT logo was still displayed. The old logo was displayed in the floating image window. (3426)
- Password protection description was incorrect. The documentation incorrectly stated that the Save As button was disabled if a control panel was password protected. (3429)
- The Pinpoint Pattern Find tool matched pattern at the edge of the image. The tool would find an incorrect pattern match at the edge of an image or ROI. (3433)

- Tool runtime display updated erratically. During Continuous Trigger mode, tool runtime would not update with every image. (3445)
- Auto-image saving would repeatedly save useless images. When Auto Image History, Save to File was enabled, and the device was put online then offline, VPM would save multiple empty images. (3450)
- Stopping Windows when any Impact program was running caused an error. On the M40, this caused an error message and the processor wouldn't shut down. (3478)
- The Trigger On Both Edges setting did not work. On the C-Series device, when this setting was selected in Camera Setup, the device would not respond to both triggers. (3486)
- Auto-image saving would save two images. When Auto Image History, Save to File was enabled, and the device was put online then offline, VPM would save two images instead of one. (3490)
- The On Screen Keyboard would not start. On the Windows 7, 64-bit operating system, the OSK would not start. (3495)
- The M-Series processor would stop triggering. Under certain conditions, even though all image buffers were filled, an "Out of Buffers" error would not be logged and the processor would stop processing images. (3502)
- The Origin tool displayed the perpendicular ROI positioned incorrectly. The ROI position was not updated correctly in the image window when in Continuous Trigger mode or online. It worked correctly in the Display tab. (3508)
- The Connector control would display an invalid format error. When the IP Address was set to blank, an error would be displayed. Now the address can be a null string so the "Connect to Device" dialog will be displayed. (3510)
- The Blob tool would not consistently abort the task if its run time exceeded the Task Timeout. The Blob tool now checks the Task Timeout clock correctly, and the timeout value is calculated with more consistent accuracy. (3524)
- The Greyscale Template tool Setup displayed the wrong image. If two tools were used in the same task, the second tool's Setup would display the Difference Image from the first tool, rather than the input image. (3526)
- IMPACTDevice would stop responding when Task Timeout was set. If the Task Timeout value was set to approximately the same value as the task execution time, impactdevice.exe would eventually stop responding. (3527)
- Some characters cannot be displayed directly in CPM text fields and labels. Added documentation explaining how to use HTML to display those characters. (3528)
- The location of Serial Port 1 on the M-Series was unclear. Added documentation explaining that Serial Port 1 is on the front panel. (3535)

Version 10.4.1.3

Released March 23, 2012

Bugs Fixed

- A Barcode Type was Unknown. The Barcode reader would not read a type Code 39 barcode. (3644)
- TCP/IP Raw Server inserted 0-50ms delay in processing client output or input. Depending on when TCP/IP input events/data occurred or was received, or when TCP/IP output data was sent, the observed delay could be between 0 and 50ms. (3650)

Version 10.5.0.35

Released April 30, 2012

Key enhancements in this release include support for the MX20 processor, support for an additional eight M1xx camera models, support for an additional JAI 3 CCD camera, support for color versions of currently supported SVS-Vistek monochrome cameras, Setup tabs for the Point to Point and Point To Line tools, several Blob tool improvements, saving the system log on M-Series processors during shutdown, and improvements in recovering when a device disconnects.

Enhancements

VPM

- New output properties were added to the Blob tool. Blob width and blob height are now available as output properties. (1799)
- The System log archive was reformatted. The text file created by archiving the System log is now more readable. (2979)
- A Setup was added to the Point to Point Measurement tool. This tool now has a Setup to make configuration easier. (3542)
- A Setup was added to the Point to Line Measurement tool. This tool now has a Setup to make configuration easier. (3543)
- New properties were added to the Blob tool output origin. The tool can now output an origin with the following options: No Angle, Major Axis +/- 90 Range, and Major Axis 360 Range. (3549)
- Additional properties were added to the Camera system object. Access to the Line Scan camera settings Pre-Divider, Multiplier, and Post-Divider was added. (3619)

CPM

- Control properties that are lists can now be displayed. Previously, if a property value contained a list (e.g. Integer List, Real List or ROI list) the values could not be displayed. (3575)

M-Series

- System log now persists. The System log is now saved to disk whenever impactdevice.exe exits, the current user logs off, or the M-Series Processor stops. (2051)
- There was a 25 Megapixel limit on total image size. There was limit on the total size of image memory buffers supported by the M-Series camera drivers. That limit has been removed. PPT still recommends that camera combinations be limited to 32 Megapixels total. (3623)

Bugs Fixed

- The Select a Device to Connect To dialog would stay in front. The dialog would stay in front of all open applications. (1739)
- The Blob tool ran very slowly. When there were many blobs in the image, the tool would take a long time to finish. (1782)
- The Go Online Event task would not run. If multiple vision program files were set to Load On Startup, the task would not run when the device went online. (3098)
- The Blob tool overlay took too long. It could take several seconds to switch tabs in the tool setup. The shading mask calculations are now faster. (3143)
- The Run On Load tasks would not run. Depending on the load order of vision program files, the tasks would not run when the files were loaded. (3187)
- Graphic Display control had no Visible property. This property was added to the control. (3287)
- The Character Contour Match tool overlays were positioned incorrectly. This occurred due to image re-sampling of images with real-world origins. (3373)
- Lost device connections were not resolved. When the connection to a device was lost, the connection would not be resolved cleanly, and the device could remain locked for read-only. (3434)
- Documentation had inconsistent use of terms. The terms Grey Scale, Greyscale, Gray Scale and Grayscale were used interchangeably. (3476)

- Linked IP Address could not be deleted in the Impact Connector control. If a value was linked into the control's IP Address, then deleted in the source property, it would remain in the control. (3592)
- The toolbox displayed an unnecessary scrollbar. A horizontal scrollbar was always displayed with the vertical scrollbar. (3604)
- Histogram showed incorrect threshold values. Under certain conditions, the viewer would show an incorrect range. (3605)
- An error occurred when adding inputs to OPC Data Access. In Settings – OPC Data Access, an “unparseable number” error occurred when a string type input was added. (3609)
- System log button was disabled incorrectly. If device security was enabled, the Clear button was disabled while the device was online. (3613)
- The Blob tool would not exclude border blobs. If the tool's Output Blob List property was false, the tool would not correctly exclude border blobs. (3614)
- The descriptions of the Vision Program Load/Unload tools were confusing. The meaning of the terms "Program Name" and "Program File Name" were unclear. (3627)
- Contrast - Multiple ROI and Contrast tool difference. The difference between the Contrast – Multiple ROI tool and the Contrast tool was made clearer. (3632)
- Inspecting large stitched images caused VPM to disconnect and reconnect frequently. The timeouts occurred when the Summary panel tried to update a large amount of data. (3640)
- Connector control event definition was confusing. The definition of the Data Transfer Occurred Event was incorrect. (3651)
- Refresh Set Data property in the Connector control. The definition of the property was not extensive enough. (3652)
- A Hardware Changed dialog was displayed unnecessarily. When a camera was connected and disconnected multiple times, the dialog was displayed each time rather than just once for all events. (3659)
- Connecting to Device at: dialog did not stay on top. When you started CPM with a control panel that was connected to an IP address that wasn't available, and you clicked on the control panel, the dialog went behind the control panel. (3662)
- Under certain conditions, a communications failure could occur after creating a new program. If a currently connected control panel was accessed while creating the new program, the failure could occur. (3672)
- When a new vision program was created, an existing program was unloaded without warning. If the new program name was a duplicate of an already loaded program, there was no warning that the existing program was being unloaded. (3674)
- There was an incorrect cross reference to Automatically Link Tool Image. The cross reference referred to Origin linking and the wrong page. (3679)
- When a tool was moved, sometimes tool order changed. When a Branch or Group tool was moved, the tool order within the tool would change. (3683)
- There were confusing cross references in the device security section. There were circular cross references and the security level definitions were unclear. (3690)
- The Branch tool Basic expression worked incorrectly. When a variable was created, and then the data type was switched to Boolean, it did not operate like a Boolean. (3692)
- The Light Leveling tool could cause the vision device to stop responding. In the tool, if the Region to Copy ROI size was changed, then the tool was run without retraining, the device could stop responding. (3697)
- The Multiple Branch tool did not create branches. When a branch was added to the tool, it was not displayed in the properties tab. (3698)
- An exception error occurred if one of the system xml files was corrupt. File corruption errors are now handled more cleanly. (3699)
- The Image In trigger event was not getting set when a new program was created. When a program was created after starting VPM, the Image In task setup didn't show any values. (3707)
- A stack overflow error could occur under certain conditions. The error would occur intermittently when switching from the Design to the Display tab. (3711)

- Deleting a task's promoted input also deleted its links. If a promoted input was linked to a property in another tool, and that promoted input was deleted, the link in the other tool was also deleted. (3720)

Version 10.5.1.6

Released May 11, 2012

Enhancements

- Implement DPWS connections through a router with or without multicast routing enabled. The connect procedure between the client and the camera was changed. A DPWS directed (non-multicast) probe/discovery is now used first. If that HTTP retrieval fails, the previous procedure, which checks the DPWS discovery cache and finally issues a DPWS multicast probe/discovery, is used. The multicast discovery diameter (TTL) was also increased to 8 hops. (3737)

Bugs Fixed

- The Color Blob tool would not consistently abort the task if its run time exceeded the Task Timeout. The Color Blob tool now checks the Task Timeout clock correctly and the timeout value is calculated with more consistent accuracy. (3745)
- System Requirements were updated. The system requirements section of the readme document was updated and corrected. More information was added for the MX40 and MX80. (3740)
- System Requirements were updated. The MX20 was added. (3741)
- A paragraph was added to the readme document. A more detailed explanation was added to the Enhancements section. (3742)

Version 10.5.2.5

Released June 17, 2012

Bugs Fixed

- ROIs are not placed properly on a Calibrated image. In some tools, the ROI was shown in an incorrect position, even though the tool functioned correctly. (3798)
- Pinpoint Pattern Find failed when run on same image as trained. A 100% score was not reported when the model was retrained and the tool was run on the same image. (3771)

Version 10.6.0.54

Released August 19, 2012

This release includes support for a Windows 7 user-interface look in VPM, CPM, and Settings, image averaging capabilities in the Image Math tool, legacy and Windows 7 look for buttons and toggle buttons in control panels, the ability to overlap camera images, availability of a 64-bit operating system on the M-Series processors (including a 64-bit installer for the MX-80), and support for Dalsa line scan cameras.

M-Series New System Requirements

The MX20 processor has the following specifications:

- Intel® Celeron® Dual-Core CPU T3100 @ 1.90GHz, 2 core CPU
- 4 GB RAM
- 80 GB Solid State Storage
- Microsoft Windows Embedded Standard 7 Service Pack 1
- 2 Gigabit LAN Ports
- 2-CH Gigabit PoE
- 3 USB 2.0 compliant ports
- Intel GM45 / ICH9 video chipset (up to 1600 x 1200 display)
- 2 Integrated Serial Ports

The MX40 processor has the following specifications:

- Intel® Core™ 2 Duo CPU P8400 @ 2.26GHz, 2 core CPU
- 4 GB RAM
- 80 GB Solid State Storage
- Microsoft Windows Embedded Standard 7 Service Pack 1
- 2 Gigabit LAN Ports
- 4-CH Gigabit PoE
- 3 USB 2.0 compliant ports
- Intel GM45 / ICH9 video chipset (up to 1600 x 1200 display)
- 2 Integrated Serial Ports

The MX80 processor has the following specifications:

- Intel® Core™ i7-2710QE CPU @ 2.10GHz, 4 core CPU
- 8 GB RAM
- 80 GB Solid State Storage
- Microsoft Windows Embedded Standard 7 Service Pack 1
- 2 Gigabit LAN Ports
- 4-CH Gigabit PoE
- 4 USB 2.0 compliant ports
- 2 USB 3.0 compliant ports
- Intel QM6 Express (up to 2048 x 1536 display)
- 5 Integrated Serial Ports

Added/Modified Known Issues

- **M-Series Bandwidth Restriction**

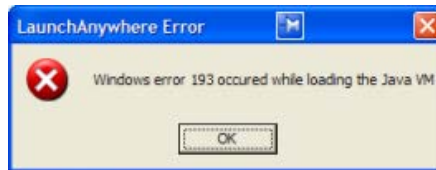
Some MX40 processors shipped prior to November, 15, 2011, have exhibited a problem of restricted bandwidth performance. These processors contain an older version of the basic input/output system (BIOS) with a Build Date prior to 11/08/11 and an ID ending in a number less than 07. The problem occurs when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

Updated Installation Instructions

Operating System Type

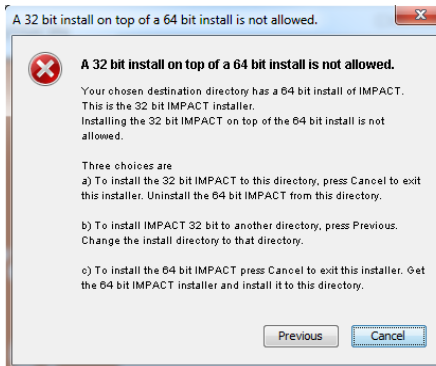
This release of Impact Software is available in two separate versions, one for a 32-bit operating system and one for a 64-bit operating system. Refer to your computer documentation if you are unsure which operating system your computer uses. If you are installing to a system other than an M-Series processor,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

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.

You must install this software on the M-Series Processor you intend to use. You cannot install on an M-Series Processor remotely like you can on an A-Series, C-Series, or T-Series device.

Enhancements

VPM

- VPM was updated to reflect the Windows 7 look. All PPT software has been updated to reflect the look of the Microsoft Windows 7 operating system. (3730)
- The Image Math tool can now perform image averaging. Multiple images of the same stationary object can now be combined and averaged to reduce image noise. (3821)

CPM

- CPM was updated to reflect the Windows 7 look. All PPT software has been updated to reflect the look of the Microsoft Windows 7 operating system. (3730)
- Controls can now display with two types of coloring. Buttons and Toggle Button controls can now have either a solid background color or the new Windows 7 look. (3753)

General

- Camera images can now be overlapped. Lines from the bottom of the previous image can now be copied and added to the top of the current image. This feature is available only on M-Series cameras and is primarily used with line scan cameras. (3795)

M-Series

- A 64-bit software installer is now available. This installer will better utilize the larger amount of memory available on the MX80 processor. (3828)
- Dalsa Spyder 3 (SG-14) line scan camera. Support was added for the Dalsa Spyder 3 line of cameras. (3857)

Bugs Fixed

- Changing desktop settings caused VPM display problems. When the Windows desktop settings were changed, either through remote access or locally, the VPM display was garbled. (1390)
- Unable to copy and paste files to and from multiple vision devices. Copying and pasting files between the host PC and multiple vision devices failed. (1961)
- Some hyperlinks in the Reference Guide did not work. Some of the hyperlinks did not make the jump to the intended section. (3026)
- Installer downloads from the website sometimes failed. Software files downloaded from the website were sometimes corrupted during the operation. A checksum file was added to verify the file's integrity. (3083)
- Setup error and Communication Failure error occurred. Under certain conditions, when the setup tab was selected and a file was unloaded, an error would occur when setup was closed. (3482)
- The device incorrectly handled a communications failure error from the TCP/IP Out tool. When an error occurred, it was treated as a catastrophic error instead of a recoverable error. A regular communications error code is now returned. (3505)
- The Line Scan camera documentation was incomplete. The explanation for the several of the camera parameters needed more details. (3629)
- The Button control was not displayed correctly under certain conditions. When a range control was adjusted, and the action caused a Button control press, the Button was not painted properly. (3713)
- An Invalid Connection error occurred when a link was broken. When a Load Vision Program or Save Vision Program control was copied and pasted, if the Impact Connector control was not copied also, the link was not handled correctly. (3723)
- Summary Display column adjustment was difficult. The Task Summary header would scroll with the summary display making column adjustment difficult. (3724)
- A monitor, keyboard, and mouse are required. The documentation did not state that a monitor, keyboard, and mouse were required to approve the license agreement when an M-Series processor is first powered on. (3727)
- An incorrect prompt screen was displayed. Selecting the Display tab incorrectly displayed the orange tutorial screen. (3749)
- Images were not saved after being enabled. After changing preferences to save failed images, the images were not saved in the target folder. (3752)
- The Communication panel did not display correctly. When a Custom font was selected, the Communication panel displayed incorrectly. (3760)
- Two tools were deprecated. The Contour and Correlation Pattern Find tools were deprecated. The Pinpoint Pattern Find tool replaces them. (3770)
- The Display tab "control" column did not display correctly. Under certain conditions, the controls did not fit in the column. (3772)
- The outlines around the tools in the tool box were not drawn completely. The outlines around the tools in the tool box were not drawn completely. (3774)
- The Data Transfer tool now has a "Passed" output. The output will fail if the control panel is not connected to receive the transferred data or the transfer fails for any other reason. (3783)
- Offline tool now automatically locks for editing. VPM automatically locks for editing when the Offline tool puts the vision device offline. (3787)
- There was a memory leak caused by CPM. When a control panel file was closed, references to objects were not released. (3789)

- The Chart control in an older control panel caused an error. The error “XML Decoder Setting Chart Framework error” would be displayed when the file was saved. (3790)
- Tool setting was incorrectly restored. The Barcode tool incorrectly restored the "Verify Optional Check Character" setting when a vision program file was loaded. (3813)
- An error occurred after tasks were reordered. If tasks were reordered by dragging, then the file was unloaded and loaded using File Manager, an error occurred. (3814)
- Calibration failed on certain images. Calibration failed on images with noisy edges because the oblongness test failed. (3818)
- Connecting to an online vision device would cause an error. The error occurred with the first connection made while the display tab was selected and the device was online. (3820)
- Disable closing the device drivers. It is now possible to block the ability to manually close or exit the IMPACTDevice driver program by adding "noExit" (without the quotes) to the command line. (3824)
- Under certain conditions, selecting a tool in a task could take a long time. The time to select the tool in that task has been reduced over 90%. (3829)
- The incorrect origin was displayed for the Blob tool. Tool origins were not being updated on the tool runtime panel. (3831)
- A Scriptor control command line was incorrect. The Scriptor control's Scriptor.setProperty command was incorrect in the documentation. (3851)
- The Barcode tool reported incorrect results. Under certain conditions, the tool would report the incorrect results for a code 128. (3852)
- The auto-lock for editing feature caused an error. Under certain conditions, the auto-locking feature would cause a Java exception error. (3858)
- The Color Blob tool timeout was not accurate. The time it takes the tool to time out now more accurately correlates to the maximum task timeout value. (3860)

Version 10.7.0.28

Released December 3, 2012

Key enhancements in this release include a new Code Reader tool, an inscribed circle output on the Circle Gauge tool, and optimized client-to-device data polling.

Added Known Issues

- **Bug 4076 – Real to Real List 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 10.7.0 or later if they were created in a version of VPM earlier than 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 10.7.0 or later that contains one of these tools, you will see this dialog and an error message in the System Log:

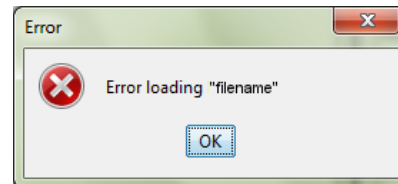
System Log Message:

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 10.7.0 or later



Average Filter	Average Gradient	Average Intensity
Blob	Bump Find	Circle Refinement
Contour Pattern Find	Contrast	Correlation Pattern Find
Datamatrix (created in 7.1.0 or earlier)	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		

- **Code Reader**

The following outstanding issues affect the Code Reader tool.

Intelligent Mail Barcode – Code may not be found when searching entire image and the reported Origin may not indicate the major axis (3986; VL252)

Swedish Postal Code – the decoded string may be inconsistent (3993; VL245)

- **Deprecated Tools**

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.

Enhancements

VPM

- The new Code Reader tool reads 1D, 2D, Postal, Pharmacode, and MSI/2of5 symbols and provides thirty-six different outputs from the decoded symbols. (3847)
- The Circle Gauge tool now displays an inscribed circle. The tool has an added inscribed circle output. (3899)
- Device data polling was optimized. When the client polls a device, data is returned only if the data has changed. This results in faster data transfer. (3911)

Bugs Fixed

- Line Gauge tool ROIs were not clipped. Line ROIs that are created automatically for repeat measurements tool are now automatically clipped if they go partly off the image. (2731)
- Optics Calculator needed to be updated. The Optics Calculator program did not include new camera models. It has been updated with new cameras and calculations. (2861)
- The Display tab and tool run times were optimized. When a new image is displayed during Continuous Trigger and Online mode, ROIs do not get automatically updated. (3523)
- Editing and creating links took a very long time. When the task tree was rebuilt during linking, it would take a long time to finish the link. (3738)
- A phantom Summary table was displayed. When you opened a password protected file after unloading an unprotected vision program file, a residual summary table was displayed. (3841)
- ROIs in the Blob tool did not repaint in Setup. If new blobs were found when the tool ran, Setup did not repaint them. (3882)
- The VPM About box and Emulator dialog did not display the operating system size. The About box and dialog now display whether the operating system is 16 or 32-bit. (3891)
- The Datum Line Gauge tool Setup did not display the correct ROIs. When the Endpoint panel in the Setup was selected, the ROIs were not updated correctly. (3902)
- Circle Gauge ROI did not display properly. When the tool was used on an image that was rotated 90 degrees, part of the resultant ROI was missing. (3908)
- The File Manager would not copy large vision program files. Copying large files into the VisionPrograms folder resulted in the error: "Error writing to Device. Insufficient disk space." The wrong amount of free space was being reported. (3913)
- New sample files, images, and guide are provided. The new Code Reader tool can now be used with a sample file for learning. (3925)
- VPM used large amounts of CPU resources while doing nothing. Resources were being used to unnecessarily paint the user interface while no editing or communication was taking place. (3926)
- The M-Series Event Inputs were not available. When the Emulator was used, the event inputs were not displayed. (3935)
- Saving vision program files is faster. Vision program files can take up to 50% less time to save, depending on their content. (3941)
- The PinPoint Pattern Find tool unexpectedly reported ROI Off Image. The tool would report an error even when the ROI wasn't displayed. (3950)
- A prompt was not removed when it was no longer needed. The prompt to add a tool was displayed after it should have been removed. (3951)
- An error was displayed after a tool was copied. If a tool was copied to the system clipboard, a null exception error could occur when something else was copied to the clipboard. (3955)
- Install would fail due to insufficient device memory. The install failed because older versions of tools still existed in VPM for backward compatibility. The older tool versions were removed. See Known Issues - Old Tool Versions earlier in this section of the document. (3961)
- Tools did not display the correct Grey Level profile. The Grey Level profile for Line and Arc ROIs was not displayed correctly on images with a non-zero origin angle. (3996)
- Scriptor control did not update image. The control failed to push a null image from an Impact Connector to an image display. (4014)
- Enumeration data types were being saved incorrectly. Enumeration data types in Set Data links were being changed to integer when a connected vision program file was closed. (4021)
- Some links were not displayed. On the Link Summary tab, some Data Set links were not displayed. (4051)
- The Line Gauge tool was not aborting correctly. If the source list for a link did not exist, an error was not returned. Now, all tools with known size output lists always create lists with default values when they abort. This avoids index out of range and null data reference errors. (4074)
- A real property patched to a real list property element did not behave correctly. When a tool aborts, a Null Data Reference error is now reported instead of a zero value being written to the destination property. (4076)
- Saving a file took a long time. The Vision Program Save tool could take 40 seconds to save a file. (4079)

Version 10.7.1.16

Released January 16, 2013

Enhancements

- Color Pixel Fill tool. The new Color Pixel Fill tool fills portions of a color image with a specified RGB value. (4132)

Bugs Fixed

- Data Transfer Tool timeout did not work correctly. The timeout value was not stored so it reverted to the default value when the device was rebooted. (3435)
- Color Blob Tool timeout was enhanced. When the tool took longer to run than the task timeout, it would delay the task abort. (3947)
- The Code Reader tool failed to train on the Aztec code. The tool would not train when Replace Code was selected. (3965)
- The Code Reader tool produced inconsistent results. When inspecting an IMB code, the ROI size and location inconsistently affected the results. (3986)
- The Code Reader tool decoded the Swedish postal code incorrectly. The Output String and Length were inconsistent when using the 64-bit Emulator. (3993)
- The EAN code Add On was not recognized in the Code Reader tool. When Verification was enabled, the tool would not recognize the Add On 2 and Add On 5 characters. (4034)
- The Code Reader tool decoded the MicroPDF code incorrectly. The Output String and Length were inconsistent when using the 64-bit Emulator. (4050)
- The Code Reader tool did not reset correctly. When the tool was reset, it did not clear the Output string. (4083)
- The Summary Table columns were misaligned. After linking, the table column headers were moved to the right. (4090)
- The CPM toolbar disappeared. The toolbar would occasionally disappear when switching from Design mode to Run mode. (4094)
- An error occurred when pasting a Tab Group control. When a Tab Group control was pasted, a null pointer exception error was generated. (4102)
- Emulators failed to close when VPM and CPM were closed. When all instances of VPM and CPM were closed, some Emulators continued to run. (4106)
- The Code Reader tool caused the Emulator to crash. The 64-bit Emulator would crash when the tool was trained. (4107)
- The Code Reader tool output origin displayed incorrectly. The output origin did not display a code's rotation angle. (4112)
- An null pointer exception error occurred. Creating a new device tab, connecting, and closing the tab caused the error. (4134)

Version 10.7.2.3

Released February 15, 2013

Bug Fix

- Camera disconnected during vision program unload. If a vision program took too long to unload, the camera would disconnect and go offline. (4188)

Version 10.7.3.3

Released April 19, 2013

Bugs Fixed

- Tool results were displayed incorrectly. In older vision program files, tool results could be displayed incorrectly. (3282)
- Impact discovery occurred over camera network adapters. On M-Series processors running the Windows 7 OS, the device selector dialog would attempt to discover Impact devices on the adapters assigned to the cameras. (4084)
- Device logon would not work with the Onscreen Keyboard. When using the Onscreen Keyboard with Windows 7 64-bit OS, the keyboard would lose focus and you couldn't enter data. (4085)
- The Online/Offline button did not display the correct device state. If VPM and CPM were connected to the same device, the button could become unsynchronized with the true device state. (4108)
- ROI display would not stay disabled. ROI display would become enabled on the Display tab when in Continuous Trigger mode. (4129)
- A long delay could occur while populating the list of discovered Impact Devices. The multicast would take a long time under certain network conditions. (4137)
- Pressing the Enter key caused loss of focus. If you pressed the Enter key while the Onscreen Keyboard was displayed, you would not be able to access the entry field. (4161)
- A numeric entry field would lose focus when using a touch screen. When the Onscreen Keyboard was used with a touch screen, occasionally the keypad would prevent access to the entry field. (4165)
- A text entry field would lose focus with the Onscreen Keyboard. When the Onscreen Keyboard was displayed on a touch screen, you needed to select the text entry field again to access it. (4172)
- Several Onscreen Keyboard issues with a touch screen were resolved. These issues included loss of focus when the Onscreen Keyboard was displayed with several controls and tools. (4173)
- The current requirement for the MX80 was not correct. The amount of current required for the processor was too low. (4257)
- Ethernet IP communications would not work. When the M-Series processor was running Windows 7, Ethernet IP communications could not be established. (4274)

Version 11.0.0.213

Released June 30, 2013

Key enhancements in this release include a new Change Log control, an enhanced link information display, the ability to pass images between Impact cameras on the M-Series processor, support for the new A30 and T4x-Series cameras, and the ability to hide tabs on the Control panel and the Tab Group control.

Added/Modified Known Issues

- **Send Message and Wait For Message tools**

The “message” length for the Send Message and Wait For Message tools was changed to provide image transfer between these tools. This means that these tools running on a system using this release will not interoperate with these tools running on a system using earlier Impact releases. No backward compatibility mode is supported.

Enhancements

- New Change Log control. This new control provides the option to track and log changes generated by Impact device changes and by user interaction with a control panel application. (1028)
- Enhanced link information display. Control and property links now include more information about the link and its origin. (1540)
- Images can be passed between cameras on an M-Series processor. It is now possible to pass images from one M-Series camera to another on an M-Series processor. (2356)
- Support for new cameras was added. Support for the new A30, T40, T47, and T49 cameras was added. (3937)
- Tabs on Control panels can be hidden. It is now possible to hide the tabs on Control panels. (4295)
- Tabs in a Tab Group control can be hidden. It is now possible to hide the tabs in a Tab Group control. (4296)

Bugs Fixed

- Link full path name was not displayed. In the Link Summary tab, the full path name is now displayed instead of the tool tip. (170)
- HTTP commands were added to the Reference Guide. Several HTTP commands for accessing a vision device are now documented. (1004)
- The Save Vision Program tool incorrectly handled file extensions. When an invalid file extension is added to a program file name, the tool now correctly changes it to “vp.” (1831)
- Light Leveling tool error message was confusing. The error message now indicates when an incorrect Train Option is selected. (2124)
- The Abort definitions were inconsistent. There were inconsistent meanings for Abort on Error and Abort Task settings. (2765)
- The Optics Calculator was updated. M-Series cameras were added to the Optics Calculator. (2861)
- The selected program was not remembered. The currently selected program is now remembered when you switched tasks while editing. (2862)
- Link mode would not exit in setup. If you link in setup, the tool no longer stays in Link mode when you change to a different setup panel. (2970)
- The On Screen Keyboard (OSK) would not display. If there was only one numeric input field, the OSK would not display after the initial value was entered. (3014)
- Calibration and Load Image documentation was insufficient. The procedure for calibrating a loaded images was enhanced. (3176)
- The Datum Line could not be linked from setup. You can now link the Datum Line directly from setup when you select it as one endpoint. (3227)
- The Line Gauge Dual ROI setup was changed. The ROIs are no longer displayed on the Endpoints panel. This makes the tool consistent with other Line Gauge tools. (3229)
- A tooltip was changed on the Greyscale Template tool. The Standoff tooltip was made more descriptive. (3252)
- The Pass Fail tool did not show a fail status. The tool now turns red in the task tree when it fails. (3285)
- The Origin tool setup was changed. The first and second panels were changed to make their purpose more clear. (3303)

- The histogram default color was changed to purple. The green default color made ROIs difficult to see. (3317)
- The Display tab would not update. Now when you log in as a Controller, and load a new program file, the display will update. (3330)
- The levels changed incorrectly in the histogram. The minimum and maximum values no longer change when you adjust the ROI using a fixed threshold range with a single grey level. (3354)
- The explanation that file names are case sensitive was added . More clarity was added regarding the fact that file names are case sensitive. (3441)
- Decimal precision in error messages was inconsistent. Value Out Of Range error messages now display the appropriate decimal place precision. (3504)
- The Display tab is blank. When you log in as a Controller on a device with the Display tab last selected, the tab is no longer blank. (3694)
- The Pass Fail tool setup was changed. The Add Tool button on the Pass Fail panel was changed to reflect its true purpose. (3701)
- The Rich Text control was fixed. Only one click is now required to position the cursor within the text. (3716)
- The Summary tab would not resize with changed video resolution. When the video resolution is changed, the Summary tab can now be made to “Auto-fit to Window” which will automatically adjust image window size. (3739)
- Some images were not displayed correctly after being edited . After images were edited with some third-party software, they would not display correctly. (3750)
- The Image Calibration tool explanation was not clear. It was not clear that the tool must be trained before it is run. (3756)
- Two controls were deprecated. The Correlation Model and Contour Model controls have been deprecated because the corresponding tools were deprecated in VPM. (3869)
- The Print options were confusing. When you selected the Print Settings Files under certain conditions, nothing happened. (3870)
- The Control Panel App properties were displayed when not selected. If a Control Panel App was selected, then a Control Panel was selected, the App properties were still displayed. (3872)
- The TCP-IP Logger control incorrectly deleted files. The control no longer deletes files that contain no data. (3874)
- The procedure for changing the LAN address was missing. Windows 7 instructions were added. (3889)
- VPM would time out. When large vision program files were being saved, VPM would report a time out error. (3914)
- The Color Blob and Color Checker tools could not be trained. If you removed all the ROIs from the tool, you could not train it. (3930)
- The Color Blob tool train color explanation was not clear. The definition of the train color was clarified. (3931)
- Tool tip text could not be linked. The ToolTip Text property could not be linked between controls. (3982)
- The Color Checker tool did not display a red fail ROI. When the tool failed, the ROI was displayed in blue. (4047)
- Wiring pinout diagram was missing in hardware documentation. The diagram for the serial port connection was missing. (4063)
- Read-only property values could not be seen. Properties with a read-only value are now displayed but disabled. (4072)
- Translation file information was missing. A reference to instructions for translating the VPM interface was added. (4078)
- The Line Gauge setup ROI display was incorrect. The setup incorrectly displayed an ROI on the General tab. (4082)
- A tool’s pass/fail status was displayed incorrectly. If a tool’s pass/fail status was linked to the task’s Inspection Pass/Fail Status property, the tool was not displayed in red in the task tree when it failed. (4091)
- Line Scan camera documentation was incorrect. The explanation for the camera’s “Continuous while Frame Trigger High” mode was incorrect. (4097)

- The M-Series Readme was incorrect. The Readme now correctly states the amount of memory in the M-Series processor. (4100)
- The Emulator would crash when exiting. Under certain conditions, one of multiple Emulators would crash when VPM was closed. (4105)
- The Emulator would crash while training the Code Reader tool. While training certain 1D/2D postal codes, the Emulator would crash. (4107)
- The TCP-IP Logger control incorrectly deleted files. If you created a file, then entered that file name in the Log File field, the file would be deleted. (4150)
- The Display Refresh Rate did not work. The setting in Camera Preferences now affect the display rate. (4153)
- The Code Reader tool failed to find codes. When a vision program was unloaded, then reloaded, the tool would not find the code until a second tool was added. (4157)
- A long delay could occur when linking. When a link was added or removed in a large vision program file, a long delay could occur. (4163)
- Image Save to File option did not work correctly. The parameters were not saved correctly when VPM was closed. (4182)
- A Frame control property was removed. The Extend Visible to Contents property no longer provided any purpose. (4183)
- The Code Reader tool would miss some codes. The tool would miss certain codes when grading was enabled. (4186)
- The OCR tool passed incorrectly. The tool would pass when no character blobs were found. It now fails. (4189)
- Supported serial speeds were not listed. The serial port speeds supported by Impact devices were added. (4197)
- The explanation for link colors was insufficient. The color code for links in the Connector control were explained more clearly. (4201)
- The M-Series Readme was incorrect. The Readme now correctly states the type of operating system on the M-Series processor. (4202)
- The Code Reader tool did not correctly decode certain types. Codes containing ISO-8859-1 codes were not decoded correctly. (4218)
- The Vision Program Save tool's behavior was inconsistent. The tool would behave differently whether the filename property was blank or deleted. (4225)
- Send and Wait tools did not save changes. The Impact Send Message and Impact Wait For Message tools did not save changes to the port data type. (4235)
- Tool ROIs were created incorrectly in setup. If you deleted an Origin link in a tool before selecting a setup panel, the tool's ROI was zero size. (4238)
- OCR tool incorrectly colored failing ROIs. In the setup Summary panel, failing ROIs are now correctly colored when the Online button is clicked. (4262)
- Some cameras would fail to respond. Some M-Series cameras would stop responding after many days due to the way the time stamp was reported. (4270)
- Multiple Onscreen Keyboards were sometimes displayed on a touch screen . When you selected a numeric or text cell in a Table control, multiple keyboards could be displayed. (4281)
- VPM would stop responding when inspecting large images. If an ROI on an image found a large number of blobs, VPM would stop responding. (4285)
- A circular link would cause a crash. If a circular link was created from and to a property, CPM would crash. (4200)
- Pop up error dialogs could not be disabled. The Numeric Entry control now has a property to disable error dialog popups. (4286)
- The Scriptor control would not handle spaces in property names. Some control property names contained spaces and the Scriptor control would fail when they were accessed. (4302)
- The diagram for debounce operation was incorrect. The diagram now displays more correctly how debounce works. (4315)
- Copying and pasting would scramble a control's event order . When you copied and pasted a control, the order of its events are now maintained. (4327)

- When a control panel was copied and pasted it would not be displayed. The control would be displayed only in the control tree, not in the control panel, after it was pasted. (4328)
- The Drop List Selector control displayed with the wrong font. The Drop List Selector control, when using the System mode, now reflects the proper font property size in the drop down list. (4334)
- Input event triggers were reversed. On the MX80 processor, input events were occurring on the falling edge of the trigger signal, not the rising edge. (4341)
- A Sentinel HASP error occurred during MDevice startup on an M-Series Processor running with a 64 bit operating system. A program was placed in the wrong directory during installation, so it failed to run when IMPACTMDevice started. (4346)
- ActiveX interface would not discover some devices. ActiveX running on a 64-bit OS will now discover all devices. (4369)

Version 11.0.1.4

Released August 2, 2013

This was a maintenance release to fix several bugs.

Bugs Fixed

- Camera would stop functioning with partial scan. An A30 or T4x-Series camera would stop functioning if partial scan values were changed. (4398)
- The Composite tool folder was missing on the A30 and T4x-Series cameras. The Composite tool folder on the camera is now created during initialization on these cameras. (4403)
- Camera failed to power up correctly and communicate. A30 and T4x-Series cameras would randomly not communicate after power was turned on. (4407)
- The Pinpoint Pattern Find tool failed. The tool would report an “ROI Off Image” error when it was trained on a stitched image. (4409)
- Linking a program’s file name causes an error. When you tried to link a file name to a Data Instance tool, an error would occur and further linking was not allowed. (4411)
- The Camera calibration search region was incorrect. The search region ROI and display ROI did not match even when the image was uncalibrated. (4423)
- ActiveX for the 32-bit OS would not install on the 64-bit OS. 32-bit ActiveX could not be tested on a 64-bit OS. (4452)

Version 11.1.0.86

NOTE: This version was not distributed as a production release. Changes listed here were released in Version 11.1.1.

Key enhancements in this release include an enhanced Password control, the ability to display graphics on Tab controls and Password controls, greater edge finding capabilities on the Origin tool, and the ability to find more codes in the Code Reading tool.

Enhancements

- The Password control title bar close option can be disabled. You can now disable the title bar “X” close option. (4352)
- Tab controls can now use icons. Icons can now be used with or without text on tabs. (4378)
- The Origin tool has enhanced edge finding capabilities. Seven Edge Pattern selections have been added to the Regions of Interest. (4430)
- The Code Reader tool can find more codes. The maximum number of codes the tool can find has been increased to 100. (4443)
- The Graphic Display control can display bitmap files. You can now select and display bitmap format files in the control. (4446)
- Icons can be displayed on a Password control dialog. You can now display selected icons instead of text on Edit Users dialog buttons. (4449)
- New XML Table control displays XML files. Files in a specific XML format can be displayed in a table. (4486)

Bugs Fixed

- The TCP/IP Out tool was sending an incorrect value. The integer list was being sent with all zeroes on PowerPC systems. (2646)
- The Connector control Get Data explanation was not clear. Clarified that the Get Data time interval does not restart until the previous operation is complete. (3208)
- The Password control user names and passwords are outside the cp file. You can now edit user names and passwords without changing the control panel file. (3533)
- The Vision Program Save tool would abort if the filename was deleted. If you entered a filename, then deleted it, the tool would abort with an error. (4225)
- The ImpactSendMessage tool would crash. If an input contained a large integer, the tool would crash when editing on the Setup tab. (4310)
- The Connector control would not continue to try to reconnect. The control now keeps trying to connect if the connection fails when the application starts. (4316)
- Pasted Control panels incorrectly used the System control color. When a control was copied, then pasted, it always used the System control color. (4329)
- Tolerance control did not display correctly for non-editable setting. If the editable property was set to false, the field was still displayed as editable. (4337)
- The average execution times for the Average Gradient and Circle Gauge tools was improved. These tools now execute more quickly. (4340)
- Tool tips in the tool box were not displayed. After tools were rearranged in the tool box, incorrect tool tips were displayed. (4359)
- A blank setup error dialog was displayed. A blank dialog was displayed when the Task Trigger Event was set to anything except Image In Event and the Trigger Once button was clicked. (4376)
- The Password control user ID prompt can be text. You can now select whether the user ID prompt is a drop down or a text entry. (4380)
- An error was displayed during a Cut operation. When a frame and its contents were cut, a null pointer error occurred. (4381)
- You could not select a single Tab control within a Tab Group. If you selected a Tab control, only the Tab Group properties were displayed. (4383)

- Deleting a Tab control deleted all Tab controls and the Tab Group control. If you selected a single Tab control, all the controls within the Tab were deleted. (4384)
- The software installation failed. The install would fail with a CRC error on some processors. (4389)
- The I/O block's output current capacity was not clear. Added the maximum current output for sourcing applications. (4391)
- The Change Log control has an XML output file option. You can now choose to create a PDF or XML output file. (4396)
- A Password control property did not get reset properly. The property "Force password change at first login" did not get reset after the password was changed. (4397)
- The numeric keypad would fail to work. The numeric keypad would not work if the local preferences file became corrupted. (4408)
- The Password control would display multiple login dialog screens. When the On Screen Keyboard was closed during login, another login dialog would be displayed. (4416)
- The Save Vision Program control displayed the incorrect icon. The wrong icon was displayed in the dialog's drop down list. (4460)
- The Password control set several properties incorrectly. When a user record was edited, several of the control's properties were set to incorrect values. (4466)
- A camera calibration mode was not stored. The calibration mode "Pixel Size Only" was not stored when you left the camera calibration tab. (4474)
- The Greyscale Template tool did not handle a rotated ROI correctly. When a rotated ROI was used, the trained model was not scaled correctly. (4479)
- The default update interval for the Connector control was too long. When the control is created automatically, the delay is now 100 milliseconds. (4499)
- Line Gauge tools did not display correct data. The Line Gauge Datum and Line Gauge Dual ROI tools displayed the wrong step distance value when the vision program file was opened. (4519)
- VPM and CPM connected to the Emulator could run extremely slowly. On systems running Windows 7 OS, with no external network connection made, VPM and CPM would respond slowly. (4521)
- The number of points found in the Origin tool changed. The tool would report a different number of points found on the same image during setup and after the tool was run. (4522)
- The Code Reader tool failed to train or run. The failure happened when the input image came from an Image Stitching With Origin tool. (4538)
- The T4x Series and A30 cameras would fail when out of memory. If the camera ran out of memory, it would stop working rather than report an error. (4540)

Version 11.1.1.11

Released October 25, 2013

This was a maintenance release to fix several bugs. All the changes listed for Version 11.1.0 were included in this release.

Bugs Fixed

- An error occurred when the AIT sample was opened. When the sample file was opened, an InvocationTargetException error was displayed. (4571)
- The Load Vision Program control displayed an error. When you added the control, an “Invalid Filename Filter” error was displayed. (4575)
- The incorrect logo was displayed in the applet. An old logo was displayed in the applet. (4579)
- Unloading a large vision program file caused a disconnect. On a four camera system, the amount of time required to unload a large program could cause the other camera on the shared processor to disconnect. (4585)

Version 11.2.0.83

Released March 7, 2014

Key enhancements in this release include a new Pattern Sorting tool and Pattern Database control, support for new Basler and SVS-Vistek cameras, binning for M-series cameras, a new checksum for the OCR tool, a new Color Image Stitching tool, a new Image Archiving tool, and enhancements to the Code Reader and Line Profile tools.

New Note

NOTE: Some Impact Hardware Is No Longer Supported

- The following hardware models are no longer supported by this or future software releases. The last version that will support these models is 11.1.1.11.
 - A10
 - A20
 - C-Series (all models)
 - T10
 - T2x
 - T3x

Enhancements

- New Pattern Sorting tool. This licensed tool can search for and detect trained patterns in the search region. Patterns may appear translated, rotated, and scaled. A Pattern Database Manager is also new. See Pattern Sorting Tool notes on page 82. (4339)
- New Basler camera support. Support was added for the Basler Racer line scan camera. This camera replaces the Datalogic M5xx line scan camera. (4587)
- OCR tool has a new checksum setting. The tool can now check for SEMI M13-0998E checksum characters. (4588)
- Binning added to camera settings. M-Series cameras now have a binning setting. (4600)
- Code Reader tool has two new properties. The tool now has a Train Timeout and the ability to train 2D codes only. (4614)
- Line Profile tool provides new statistics and runs faster. The tool provides min, max, mean, stddev and runs from four to ten times faster. (4627)
- New SVS-Vistek camera support. Support was added for model eco1050MTLGEC67. (4704)
- New Image Archiving tool. This tool can transfer images to an FTP server for historical use. (4705)
- New Color Image Stitching tool. This tool stitches color images together. (4706)
- Support was added for the T49 camera. The T49 camera is now supported. It provides a 2456 x 2058 pixel image at 15 frames per second. (4711)

Bugs Fixed

- The Connector control “auto-connect” feature was not documented. Added information that the Connector control will auto-connect when a control application is loaded if it was saved while connected. (3111)
- Settings were not getting saved. Under certain conditions, changes on the VPM – Settings tab were not being saved. (4190)
- The default system log file was too small. The system log file would only hold approximately 300 lines. (4342)
- The icon selection did not work correctly. If you canceled the icon selection dialog, the previous icon would be cleared. (4451)
- When a new tool was added, the wrong image could be displayed. If a new tool was added right after calibration, the tool would use the wrong image. (4468)
- The Basic control property columns could not be resized. If linked variable names were changed, the old names were still displayed and property columns could not be adjusted. (4481)
- A property on the Change Log control was not documented. Described the logging level property. (4489)
- The Data Instance tool would cause the Emulator to stop working. Using the add list function to add a points list would cause the error. (4506)

- The A30 and T4x-Series cameras were not reporting the image buffer count. No count was reported in the vision device and memory meter windows. (4523)
- The explanation of line scan height was not clear. Added clarification that the partial scan bottom edge can be used to calculate line scan height. (4537)
- Actual values were missing in the Circle Gauge tool. In the Setup tab, some of the measurement values were not displayed. (4541)
- Pasting a template into an application produced an error. If an application template contained a Change Log control, an error could occur when it was pasted into an existing application. (4544)
- The wrong image was saved. When Save to File was enabled, the image from the currently selected tool was saved instead of the task image. (4550)
- A property on the Camera Trigger tool was not documented. Added a description of the strobe update method. (4569)
- The Code Reader tool did not save train settings. If code filters were enabled, the tool would fail on a trained image. (4586)
- On-Screen Keyboard (OSK) settings were saved in the system registry. OSK settings could not be easily copied from system to system, so they were moved to the settings.xml file. (4608)
- The ArcROI control did not draw the arc correctly. When the radius of the arc was very large, the endpoints were not drawn correctly. (4616)
- The Code Reader tool would stop working when inspecting a PDF417 code. If the code appeared off the top left part of the ROI, the tool would crash. (4617)
- Images saved with a Blob ROI, were not correct. Under certain conditions, the ROI shading was drawn wrong. (4619)
- In the Angle tool, the tool intersection can be hidden. A check box has been added to the setup to hide the intersection ROI. (4620)
- VisionDevice.exe would crash while using ActiveX. Random crashes would occur while using ActiveX controls. (4626)
- The title bar did not display the correct vision program name. When File Save As was chosen, the file would get saved correctly but the incorrect name was displayed. (4630)
- Information about how to translate Impact software was outdated. Some file names had changed and the documentation had not been updated. (4632)
- The JAI camera description was incorrect. Fixed the description for two models of JAI cameras. (4634)
- Some third-party cameras were not documented. Added listings for two more Basler cameras. (4638)
- The Text Display control would add pixel offsets on pasted controls. If a control was copied, then pasted, it was offset. All new Text Display controls now have an automatic three pixel offset added. (4639)
- A stream error could occur on MX80 systems. A “GigE stream error” could occur on systems using Windows 7 OS. (4640)
- Button icons were resized when pasted. When a button with an icon was copied and pasted, the icon was resized. (4650)
- Calibration information was not being saved with the image. The method of saving the information did not work. (4651)
- Multiple Discrete Output tools would not work properly on the A30 camera. If more than one tool was used in a task, the second tool would cancel the first tool’s output. (4654)
- Self-paced auto-trigger would stop if an error occurred. When a GigE stream error occurred, auto-triggering would stop even though the system was still online. (4662)
- A30 and T4x-Series camera strobes failed. The strobe would fail randomly after a reboot. (4664)
- The Inspection Pass/Fail Status link would not display. In the Task setup, the link name would not display after it was linked. (4665)
- The found pattern in the Pinpoint Pattern Find tool was misaligned. The pattern was not aligned correctly in the result. (4668)

- CPM Execute Command control properties descriptions were incorrect. The Command and Starting Path descriptions were incomplete. (4673)
- Camera calibration tables could not be edited. If Custom Text Size was selected in Program Preferences, the table cells were inaccessible. (4674)
- An error occurred when the Change Log control was used. When an item was entered into the change log file, a null pointer error was displayed. (4685)
- The Change Log Control error message was incomplete. The entry in the log file did not indicate the type of error. (4687)
- The serial port on the MX20 was not described. Added a description for the serial port. (4688)
- The strobe maximum length property description was incorrect. Clarified that the property's limits are determined by the camera model. (4690)
- The SVS-Vistek camera strobe setting did not work. The maximum Strobe Pulse Length setting was zero and could not be changed. (4691)
- The maximum values were incorrect in the Discrete Output tool. The sum of the maximum dwell and delay values was limited to 255. This limit does not apply to the M-Series. (4695)
- A template with a Password control resulted in an error. If you loaded a template containing a Password control, a null pointer exception was displayed. (4724)
- The Password control would not update the logged on level. If the control was saved as "logged on," when it was logged off, the change was not updated in the links. (4725)
- Holdoff filtering was added to events. Holdoff debounce values can now be set for I/O event inputs. (4990)
- **Pattern Sorting Tool Notes:** The Pattern Sorting tool is supported only on MX40 and MX80 processors running Windows 7. It is not supported on the MX20 processor, A30 and T4x-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.

Version 11.2.1.11

Released May 8, 2014

This release included one enhancement and several bug fixes.

Bugs Fixed

- Partial image mode was enabled for line scan cameras. In Continuous While Frame Trigger High/Low modes, a partial image can be acquired when frame the trigger turns off. (3853)
- VPM would time out when loading a Pattern Sorting tool database. The time out could occur if the database contained more than approximately 500 images. (4825)
- Some M-Series cameras were not enabled in software. The M565 and M570 were incorrectly supported as third-party cameras. (4834)
- A polygon ROI could not be edited in certain situations. You could not edit a polygon hole on a higher resolution image. (4844)
- The strobe was configured incorrectly on M-Series cameras. The strobe did not work on the new M197/197C cameras. (4901)
- TCP/IP Out tool would fail. If another host PC connected to the processor, the tool would intermittently fail. (4913)

Enhancement

- Third-party cameras were added to the M-Series. These cameras were added: SVS-Vistek eco694MT and eco814MT; Smartek GC1021M, GC1601M, and GC1921M. (4872)

Version 11.2.2.6

Released August 1, 2014

This release included several bug fixes.

Bugs Fixed

- The On-Screen keyboard would not work with non-English languages. If the language or country code was changed, the OSK would not work. (4863)
- The Code Reader tool caused the system to stop responding. Under certain ROI configurations, the tool would cause the Vision Device or Emulator to crash. (4930)
- The On-Screen keyboard was not displayed. When the password control prompted for a password change, the OSK was not displayed. (5006)
- The system would stop responding when a Modbus connection was terminated incorrectly. Under certain conditions, when a Modbus software test program was terminated, the Modbus server would cause the system to stop responding. (5022)
- The Color Blob tool would cause the Vision Device to stop responding. The tool used different methods for calculating the blob bounding box which caused the failure. (5046)
- White pixels would appear in the T49 camera. White pixels would randomly appear in the acquired image when the camera became hot. (5058)

Version 11.3.0

NOTE: This version was not distributed as a production release. See Version 11.4.0.123.

Version 11.4.0.123

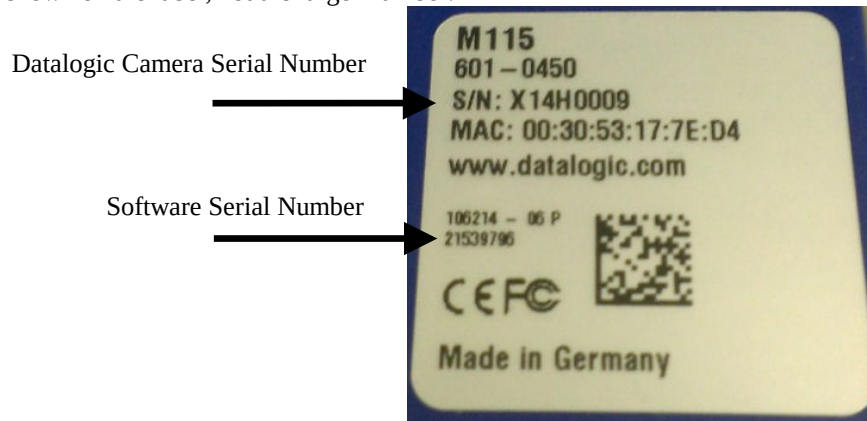
Released November 3, 2014

Key enhancements in this release include the following: improvements to the Pattern Sort tool and the OCR tool, context sensitive help is available by pressing the F1 key, pressing the ESC key exits linking mode, and VPM linking has been enhanced and made more automatic. The Edge Enhancement tool now has a setup, new tools were added including the Switch tool, String Builder tool, and Mitsubishi PLC Read and Write tools. A new series of smart cameras, the P-Series, was added. Impact is now available on the P-Series cameras in a Lite version with a customizable tool set. Device connection has been enhanced when VPM and CPM start automatically.

New Notes

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

The serial number labeling was changed on some M-Series cameras. Software reports the smaller software serial number shown on the label, not the larger number.



Microsoft Windows XP SP3 is no longer 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 Client Computer

- Intel®, AMD®, or VIA® x86-class processor -minimum 1.2 GHz; 64-bit processors are supported with Windows Vista, Windows 7, and **Windows 8.1**
- Microsoft® Windows Vista, Windows 7, or **Windows 8.1**
- 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

Enhancements

- Context sensitive help is now available. While using Impact, press the F1 key to display the relevant section of the Impact Reference Guide. (418)
- Pressing the ESC key now exits linking mode. While CPM or VPM is in linking mode, press the ESC key to close the linking dialog. (1701)

- Linking is now simpler and more automatic. During linking, only tools with property data types that match the source are enabled for linking. If only one property is available, it is automatically linked. (2603)
- The Edge Enhancement tool now has a Setup. A Setup was added to the Edge Enhancement tool. (4823)
- The Switch tool was added. This logic tool provides functionality similar to the programming language “switch” statement. (4856)
- Added counters to the Pattern Sort tool. The tool now can count images based on the name. (4907)
- Added the ability to centralize the Pattern Sorting tool database. There is now a tool property called "Database Directory Path" which specifies the root path of database files. (4908)
- Installers were added for the P-Series cameras. Impact can now be installed on the new P-Series cameras. (4932)
- A Lite version of VPM is now available. Impact Lite, with a customizable tool set, is now available for the P-Series cameras. (4935)
- The String Builder tool was added. This logic tool provides the ability to create strings from multiple data types. (4992)
- Connecting to a device could fail when VPM and CPM were started automatically. VPM and CPM now continue to try to connect to the assigned device when they start automatically. (5013)
- Tools were added for Mitsubishi PLC communication. These communication tools implement the MC Protocol Batch Read and Batch Write commands. (5102)
- Several enhancement were added to the OCR tool. The tool now has more accurate segmentation and character training. (5430)

Bugs Fixed

- The Password control’s unselect method did not work correctly. The control did not log off when the method was invoked. (3180)
- Connector controls would sometimes fail to connect on startup. When a control panel is loaded during startup, the ImpactConnector control will now keep trying to connect until it is successful or the Cancel button is clicked. (4316)
- ActiveX sample applications were updated. Several parts of the applications were outdated. (4392)
- Available memory would display as a negative number. When VPM was connected to an emulator, the number was shown as negative. (4596)
- On-Screen keyboard settings were saved in the registry. Settings are now saved in a settings file. (4608)
- The Code Reader tool would stop responding. Reading a PDF417 code could cause the tool to crash under certain conditions. (4617)
- Certain cameras would cause a “Aborted before run” system log entry. A time stamp error in a third-party camera would cause this entry in the system log: Image In Task: aborted before run.” (4653)
- The Tab Group control was drawn incorrectly. When the Tab Placement was on the Left or Right, the control’s bounding box was split. (4656)
- Some cameras would not trigger. Some third-party cameras would not trigger with the Camera Trigger tool. (4683)
- A Modbus server property was incorrect. A function was incorrectly listed for the New Input Data Event. (4677)
- Unnecessary strobe settings were removed. Settings for strobes two and three were no longer applicable. (4730)
- Occasionally the wrong type of image was saved. When the Save To File setting was enabled and the Refresh rate was set to Faster, the wrong type of image was saved. (4741)
- Drag and Drop field selection in the Display tab didn’t work. If the cursor left the field during selection, the selection was not made. (4749)
- Camera settings produced a confusing error message. When you entered a debounce value, a confusing error message was displayed. (4750)
- Very large values would cause the tool to stop working. If large numbers were entered for the Origins and Size property, the tool would stop working. (4768)
- The Character Contour Match tool ROI searched incorrectly. If the tool’s origin angle was not zero, the found characters were swapped. (4769)

- The maximum strobe length value that could be entered was incorrect. An incorrect value could be entered for the T4x-Series and A30. (4773)
- Some existing vp files would not load on the A30 camera. If a vp file contained a TCP/IP tool with certain property values, the camera would stop working. (4775)
- Checkboxes on the Display tab would not stay in the selected state. Sometimes the checkboxes would go from checked to unchecked when the cursor was placed on them. (4799)
- The Password control did not save the user's list. The edited user's list was not saved in Design mode. (4803)
- The Pattern Database Manager empty database message was confusing. The message was still displayed while the database was loading. (4807)
- The Pattern Sorting tool sort order was not complete. Matches are now sorted first by number of matched points, then by score, then by match fraction and finally by match confidence. (4828)
- The Pattern Sorting tool would set invalid values. Some tool ports were set to invalid values after the search speed was changed. (4836)
- Input one in the Discrete Input tool was incorrectly displayed. In A30 and T4x-Series cameras, the input was shown as a polled input. (4837)
- A Line trigger value could not be set in some cameras. Some third-party cameras would not allow the multiplier to be set. (4838)
- Some cameras would not stay connected. Due to a fault in the firmware, some third-party cameras would not stay connected. (4846)
- The Tolerance and Range controls events didn't fire correctly. The Action by User events did not fire. (4850)
- The Pattern Sorting tool would set incorrect values. When a database was loaded, the tool would set some properties to the wrong value. (4860)
- A large value would cause the Pattern Sort tool to stop working. If the Number of Scale Levels was larger than six, the error would occur. (4862)
- The Pattern Database Manager would not train added images. When images with long filenames were added, they would not train properly. (4866)
- The Discrete Output tool would incorrectly report "value out of range." When the camera was put online, the message was displayed. (4875)
- Cameras would not reboot after the IP address was changed. After the address was changed in the Connect dialog, the device would not reboot automatically. (4876)
- Multiple user installation failed. The "Install Users on Multiple Devices" function would fail. (4880)
- Cameras were not displayed in the connection dialog. After using the "Install Users on Multiple Devices" function, cameras were disabled. (4881)
- The loaded file name was not displayed in the title bar. The file name was displayed only if the file was loaded on startup. (4882)
- The list size property could not be edited in the Ethernet I/P tools. If the name was changed, the property could be edited. (4884)
- Password protected vp files were not accessible. Some tasks in the file could not be accessed when the file was loaded. (4887)
- Image History did not work on color images. The image did not change when Select History Image From List was used. (4912)
- The VisionDevice driver would crash. A corrupt initialization file would cause the driver to crash. (4915)
- The Change Log control would fail to delete an existing file. Deleting a previous log file would sometimes fail after an append. (4924)
- Some cameras would not work on the MX-Series processor. Due to a fault in the firmware, some third-party cameras would not work. (4929)
- A new setting was added to the Blob tool setup. The Fill Blob Holes property can now be enabled. (4945)
- Data Set and Data Instance tools caused an error. When used on a 64-bit OS, the tools would cause an OpenCV error. (4947)

- The check boxes in the Pass Fail tool setup were incorrect. The check boxes did not display the true state of the tool property. (4948)
- The Pattern Sorting tool did not display all keypoints. The tool would display a different number of keypoints when an ROI was defined. (4966)
- The Pattern Sorting tool was not saving all images. Under certain conditions, the tool would overwrite previously saved images. (4968)
- The Circle Gauge tool setup reported different numbers of points. Depending on the panel, a outlier and edge points were reported differently. (4980)
- The Image Archive tool default image type was confusing. The default image file type was jpg instead of png. (4988)
- Tool sub-property values did not match the main property value. During linking, the values did not match. (5005)
- A Code Reader tool capability was clarified. The fact that the tool will only read black on white codes was unclear. (5009)
- The Morphology Open tool created an incorrect ROI. When a new tool was added, an ROI was created in an existing tool instance. (5029)
- The Pattern Sort tool properties order was inconsistent. The order of properties on the setup tab and properties tab was different. (5054)
- Camera calibration could create an uncaught exception error. When calibrating using Pixel Size Only mode, the error would occur. (5068)
- The Code Reader tool would abort on large images. The maximum image size the tool supports is 32768 wide by 8192 high. (5073)
- The image was not updated in Display mode. If a password protected vp file was loaded, the image would not update properly. (5075)
- The Pinpoint Pattern Find tool code was optimized. The code was optimized for faster performance. (5085)
- The Circle Gauge tool reported incorrect results. The ring thickness list property was calculated incorrectly. (5088)
- Vision Devices were not listed in the connect dialog on M-Series processors. If a cable was connected to LAN 1, the devices were not displayed. (5092)
- The Basic control would not report errors. The control would not display coding errors when the code was compiled. (5093)
- Support for the P-Series camera was added. The software supports the P-10 and P-15 cameras. (5100)
- The delimiter dialog would append an incorrect value. In General – Communication setup the TCP/IP and Serial Port delimiter dialogs were not always correct. (5127)
- The IP Address displayed on the vision device dialog was confusing. The Windows IP Address served no purpose and was confusing. (5203)

Version 11.4.1.23

Released December 16, 2014

Several bugs were fixed in this release and one enhancement was included.

Enhancement

- Added the ability to connect additional cameras. All Basler Ace and Scout camera models can now be used with M-Series processors. The processor must be licensed for third-party cameras. (5500)

Bugs Fixed

- The reference guide could not be displayed in VPM Settings. When Settings was started, an error message was displayed that the file could not be found. (5187)
- The Sample Color and Pattern Sort programs and images were missing from the installation. The Sample Color and Pattern Sort programs and their images were incorrectly removed. (5427)
- The incorrect version of the Sample Bulb program was installed. The VPM Lite Sample Bulb program version was installed in the Root folder. (5433)
- On the XP operating system, the VisionDevice and Emulator programs would not close automatically. When the operating system was shut down, the VisionDevice and Emulator programs would not close automatically. (5442)
- A sample program and its images were missing from the installation. The Sample Temple program and its images was inadvertently replaced. (5460)
- Control Panel files created in earlier Impact releases may fail to connect on the M-Series. If a control panel was created to automatically connect when it is loaded, it may fail to connect when it is loaded on an M-Series processor running release 11.4.0. (5471)
- Values from the Switch tool were not linkable. Values from tools within a Switch tool Case statement were not available for linking in a CPM control. (5473)
- An unnecessary camera driver folder was left on the M-Series system during install. The unnecessary folder was removed from M-Series systems as shipped from the factory, but not during install. (5489)
- Incorrect information was displayed in the About panel. Incorrect memory and storage values were displayed in Settings – General – About. (5490)
- The camera driver installer would not continue if a vision device was running. The installer would halt and wait for the user to exit the vision devices manually. (5492)
- The camera driver installer would not install correctly. If an old camera driver was uninstalled or deleted, the new driver was not initialized correctly. (5493)
- The Impact Connector control unnecessarily disconnected. If the control was connected when the Connect method was invoked, the control would disconnect unnecessarily, then reconnect. (5564)

Version 11.5.0.95

April 17, 2015

Key enhancements in this release include the following: the new MX-U Series processors that support USB 3.0 cameras, a “disallowed” character filter on the Text Entry control, the On Screen Keyboard displays upper-case letters, tool Setups were added to several tools, new options were added to the OCR and Code Reader tools, P-Series cameras can now use VPM and VPM Lite, and a line of Baumer cameras is supported.

New Notes

New U-Series Processor Camera Assign

The first time you plug a camera into a MX-U Series processor, you must assign that camera to an IMPACT Device. Impact software then connects to that IMPACT 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. VPM is now connected to the assigned camera.

New System Requirements

System Requirements for the MX-U 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.

Enhancements

- Added MX-U Series processors with support for USB 3.0 cameras. Three USB capable processors and a series of USB 3.0 cameras were added to the Impact product line. (4978)
- Added a “disallowed” character filter to the Text Entry control. A set of characters can now be defined that are not allowed in the Text Entry control. (5440)
- The On Screen Keyboard now displays capital letters. If the Shift or Caps Lock key is pressed, the letters on the OSK are displayed in upper case. (5446)
- VPM Lite needed a separate reference guide. A new reference guide was created for VPM Lite. (5503)
- A new tool Setup was added. The EtherNet/IP Read Assembly tool now has a Setup. (5510)
- A new tool Setup was added. The EtherNet/IP Write Assembly tool now has a Setup. (5511)
- A new tool Setup was added. The EtherNet/IP Explicit Data tool now has a Setup. (5512)
- A new tool Setup was added. The EtherNet/IP Explicit Message tool now has a Setup. (5513)
- The Code Reader tool has a new option. Verification was added for the ISO/IEC 15415 verification of Datamatrix and QR codes. (5642)
- The Code Reader tool has a new setting. A new property was added for setting the maximum number of codes to process in the image. (5659)
- The P-Series camera has more capabilities. An optional license can now be purchased to run full VPM on the P-Series camera. (5671)
- Support for Baumer® cameras was added. The TXG model line of cameras is now supported. (5692)

- New tools were added to VPM Lite. The Point to Line Measurement, Point to Point Measurement, EtherNet/IP Read Assembly, and EtherNet/IP Write Assembly tools were added. (5696)
- The OCR tool has new options. The ability to find spaces and exclude characters that touch the ROI has been added to the tool. (5731)
- The Code Reader has a new output property. The location of the corner points on the Code ROI has been added. (5754)

Bugs Fixed

- The vision program file name could not be linked. The file name can now be linked from the inspection. (107)
- The file name displayed in the program header was incorrect. When the Vision Program Save tool ran, the wrong file name was displayed. (1284)
- Camera white balance settings can be adjusted from other tools. Values can be linked to the Blue and Red Gain properties in the Camera object. (4470)
- A negative number was displayed for Available RAM. This General System object output property is now displayed in kbytes. (4596)
- Multiple events could be incorrectly scheduled. If an event was scheduled with the Event Scheduler tool, it was not canceled when the device went offline. (4868)
- The Basic tool did not show an abort cause. If a Basic tool contained no code, it aborted but did not display the cause in the Summary table. (4919)
- Some options were incorrectly enabled or disabled in the Startup user interface. The options were incorrectly set based on the user level. (4962)
- A Connector control property explanation was unclear. The Internal Get Data Timer Interval property documentation was updated. (5070)
- The vision device would stop responding during start. If HTTP commands were sent to the vision device while it was starting, it would stop responding. (5080)
- A property in the EtherNet/IP Explicit Message tool was not documented. The Tag String property is now explained. (5121)
- The Password control documentation was incomplete. More detail was added to the control description. (5138)
- The OCR tool tips were incomplete. The tool tips have been completed. (5141)
- Pressing the ESC key did not exit linking mode. If the image window was clicked during linking, the ESC key would not exit linking mode. (5173)
- Some icons were displayed incorrectly. During link mode, some icons were not refreshed correctly. (5247)
- The OCR tool height and width filters did not work properly. The tool did not discard characters that were outside the filter limits. (5251)
- The On Screen Keyboard (OSK) did not work with CPMREApplet. The applet did not read the OSK setting file. Parameters were added to the html page which loads the applet. (5285)
- The Camera Setup displayed values were incorrect in VPM Lite. When the illuminator mode type was changed, the frames per second values did not update. (5300)
- Program files were sorted in different orders. The Load Program and Display Mode Load Program folders are now sorted in the same order. (5315)
- The information displayed on the General – About panel was changed. The information displayed now reflects the camera model connected. (5342)
- In Read Only mode, property tabs were displayed in VPM Lite. VPM Lite does not display property tabs. (5364)
- The Password control has a new property. The control now has a property that controls the maximum number of user levels that can be defined. (5371)
- Tool setups could show incorrect data. Under certain conditions, switching from one tool to another could cause the setup to display incorrect property values. (5384)
- The Morphology tools were out of order in the toolbox. The tools should have been in alphabetical order. (5391)
- Some measurement tools were out of order in the toolbox. The tools should have been in alphabetical order. (5395)

- Multiple vision programs could be selected to Load on Startup in the File Manager. Only one vision program can be opened at a time in VPM Lite. (5397)
- The Pattern Sorting tool would stop responding. If invalid values were entered in the Number of Scale Levels property, the tool could stop responding. (5403)
- The Blob tool displayed blobs in the wrong location. When used with the P-Series camera, found blobs could be misplaced. (5407)
- The Discrete Output tool test did not function correctly. The output LEDs pulse time was doubled when outputs were tested. (5410)
- The Edge Enhancement tool did not display an image. If the tool was copied and pasted, the setup panel displayed no image. (5413)
- A link did not work in the AIT index page. In the AIT documentation index page, the Transferring Files link did not work. (5423)
- Some functions in the OCR tool would not work. The Load Font Library, Save Font Library, Delete, and Delete All functions in the Font Library would not work. (5434)
- The deprecated OCR tool was displayed incorrectly. The tool was displayed in red. (5436)
- The numeric keypad math operation keys were removed. The math operations were not used in the keypad. (5437)
- The Graphics Display control produced jagged images. If an image was scaled down, the image edges were not smooth when it was displayed. (5438)
- The Password control ID validity check was inconsistent. The control now uses the same valid User ID name rules as the Windows operating system. (5441)
- The incorrect frames per second value was displayed for some cameras. The M610 and M650 cameras displayed a frames per second value of 2.222. (5452)
- The Discrete Output tool's test outputs pulsed when the tool did not run. The tool would run even if it was in an unexecuted task branch. (5456)
- The Edge Point Find tool could stop responding. When the Adjustable Threshold property was changed, the tool could cause VPM to exit. (5468)
- The Code Reader tool grading worked incorrectly. The tool would evaluate an A grade when the Overall Grade list contained an F grade. (5469)
- There was a delay when the Settings – General system object was selected. Up to nine seconds could elapse before the object was displayed. (5479)
- VPM was slow to go offline. If Camera or General setup was selected, VPM could take up to ten seconds to go offline. (5482)
- Control panels with multiple Connector controls now connect more quickly. The device discovery process was made faster for control panels containing multiple ImpactConnector controls set to the same IP address. (5516)
- The Grid Statistics tool caused the vision device to stop working. The problem would occur if the image was tilted. (5523)
- A fast trigger rate would cause the processor to stop responding. The problem occurred on MX-Series processors running Windows 7. (5543)
- The floating image window would close unexpectedly. If different tools were selected while VPM was continuously triggering, the image window would close. (5551)
- VPM Lite needed a readme file. A new readme file was created just for VPM Lite. (5565)
- Values could be changed when the device was in Read Only mode. When multiple users were connected to one device, Pass/Fail and Counter tool values could be reset. (5581)
- The first attempt to connect to an Emulator would fail. A connection attempt made too soon after an Emulator was first started would always fail. (5605)
- The explanation of the term "Trigger Timestamp" was unclear. The term definition was expanded. (5607)
- The paste selection was disabled on the Switch tool's menu. The selection was disabled on the right-click menu. (5611)
- Dialogs and menus were placed incorrectly. The About dialog and right-click menus were displayed off-screen when VPM was minimized. (5612)

- References to unsupported cameras was removed. Some line scan camera models that are no longer supported were removed. (5622)
- Under certain conditions, multiple Emulators would not start. If the Connect button was clicked on the connect dialog before the device list was populated, the final Emulator would not start. (5624)
- The –logo command line switch caused an error. If the switch was included on the command line, an error was displayed and VPM Lite would not start. (5631)
- The P-Series illuminator model display was expanded. In the Camera setup, Illuminator tab, the model name was expanded. (5634)
- Images could not be added to the Pattern Sorting tool database. If the Add Image button was clicked before the Database Manager button, an error message was displayed. (5645)
- Changing the device name caused an error. If the device name was changed in Settings – General, an error was displayed. (5648)
- The String Builder tool would stop updating linked values. If the tool was run between adding inputs, the added inputs could stop updating. (5655)
- Display mode did not display string lists correctly. String lists are now displayed as comma-delimited lists like real and integer lists. (5661)
- Output points were displayed incorrectly. In the Pattern Sorting tool, the Match and Output point displays conflicted. (5686)
- The EtherNet/IP Read Implicit Assembly tool offset values could cause an error. Entering certain offset values could cause the tool to operate incorrectly. (5698)
- A property title in the OCR tool was named incorrectly. The title for the Use Golden Character property was wrong. (5700)
- The Code Reader tool would not detect a Postal code. Verification Grading is now disabled for Postal codes. (5720)
- Camera information was not being written to the system log. In some cases, when a camera was connected, no information was logged. (5723)
- It was not possible to link to the task image. A link could not be made to the Image In task's Image property. (5730)
- The Code Reader tool output string did not contain substitution characters. Unrecognized characters were not replaced by substitution characters in the output string. (5751)
- When an out-of-memory error occurred, a confusing message was displayed. A “Java heap space” message was displayed instead of the standard message. (5766)
- A smart camera could run out of memory when loading a file. If a vision program file contained an OCR tool, an out of memory error could occur. (5781)
- Under certain conditions, the link buttons would stop working. If a camera was disconnected, the link buttons in the tool Setup of a second, connected camera, would not work. (5783)
- The Blob tool caused an out-of-memory error. When using one shape inside another, the tool could cause the error. (5794)
- A tool property was removed. A property that had been removed from the OCR tool was still documented. (5809)
- An Exception error occurred when the Home icon was selected. When the Home icon was selected on the Summary tab, the error occurred. (5835)
- The OCR tool could cause the vision device to stop responding. If the font library became too big, training the OCR tool would cause the issue. (5853)
- The properties tab values would not update when editing the Switch tool. If a tool was cut from a Switch case node, the values would not update when a different tool was selected. (5876)
- The buttons in the Font Library control stopped working. If the control was saved, then opened, the buttons failed to work. (5909)
- The Text Entry control did not propagate the value. The control would not work correctly if it lost focus The Enter key worked. (5931)

- The destination port can now be set in the Image Archiving tool. You could not specify a port so the tool always used the default FTP port of 21. (5940)

Version 11.6.0.64

Released June 30, 2015

Key enhancements in this release include: new capabilities in the TCP/IP Logger control, Profinet support for P-Series cameras, a new P-Series tool, device security in VPM Lite, several new P-Series cameras (including color), new Impact Connector properties, the ability to dynamically change device settings, inspecting file images using TCP/IP, and new Pinpoint Pattern Find tool properties.

Enhancements

- The IP Address in the TCP-IP Logger control can be modified. The Address can now be entered or linked as a string. (568)
- Profinet support has been added to the P-Series cameras. Profinet I/O Read and Write tools are now available for the P-Series cameras. (5463)
- The P-Series camera has a new tool. The tool can turn the camera's red and green inspection status LEDs on and off. (5665)
- Device security was added to VPM Lite. You can now define user security levels in VPM Lite. (5685)
- New P-Series greyscale camera models are available. Several new models have been introduced. (5745)
- The new P-Series cameras were added to the documentation. Descriptions of the new cameras are now available. (5790)
- New P-Series color camera models are available. Two new color models have been introduced. (5830)
- The Impact Connector control has new capabilities. The camera's IP Address and Mask can now be changed dynamically in the control. (5920)
- The TCP/IP settings can be changed dynamically. The camera's TCP/IP port number can now be linked. (5921)
- The Serial port settings can be changed dynamically. The camera's Serial port settings can now be linked. (5922)
- The ability to inspect file images using a TCP/IP command was added. A file image can be inspected by adding an argument to the TCP/IP Trigger command. (5974)
- The Pinpoint Pattern Find tool now has a tool timeout. The tool will stop execution after the timeout has expired. (5986)
- A new "angle filter range" property has been added to the Pinpoint Pattern Find tool. The tool will now fail if the found angle is not within the range. (5996)

Bugs Fixed

- Several tools had no way to add or delete an ROI. There were no icons to add or delete ROIs in the Image Sampling and OCR tools. (1262)
- The Enabled property was set to false by default. The property is now set true by default. (2000)
- You could not enter an IP Address or port number. The address and port can now be entered as text. (3580)
- If a local area connection was changed, the TCP/IP Logger would disconnect. When a device was disconnected, the Logger control would no longer communicate. (4284)
- The Sample Programs guide instructions were incorrect. The instructions for connecting to the MX-U Processor were incomplete. (4873)
- Additional settings have been added for line scan cameras. When a line scan camera is connected, additional settings are displayed on the Camera Setup tab. (5074)
- A warning is now displayed during smart camera installation. Power should not be removed while a smart camera installation is in progress. (5189)
- Online help searching is faster and more inclusive. Online help search is now better. (5192)
- Online help has been improved. A new PDF reader has been implemented to enhance online help. (5196)
- The online help window blocked the editing window. When the color selector was displayed, the control panel editor was blocked by the online help. (5257)
- The online help did not display page one. Page one is now displayed when the Home key is clicked. (5291)
- Online help did not remain open. Online help would close when an application was closed. (5296)

- In a tool's properties tab, an invalid value could be entered. The maximum integer value could be entered and no "out of range" error was displayed. (5348)
- The final image was not shown in the image window. If VPM was running in live mode, when you switched to Display mode, the image was not shown. (5401)
- One of the sample program images passed when it should fail. Sample Bulb 05 passed. (5424)
- An error message was incorrectly displayed while changing security. If the security level was changed, and the same password used, an error should not have been displayed. (5429)
- Renaming a tool did not work under certain conditions. If a tool was renamed, then the same type of tool was added, the renaming would not take effect. (5455)
- The table control always used the external Onscreen Keyboard (OSK). Even if program preferences was set to use the internal OSK, the other one would be used. (5465)
- The online help search function was slow. There was a long delay when multiple searches were attempted. (5484)
- The device selection dialog would not list a camera. If VPM Lite was running when a P-Series camera power was turned on, the camera would not be listed. (5485)
- The Exit button on the CPMRE title bar was very big. When the "-d" command line option was used, the button displayed was too large. (5509)
- The caps lock key did not work correctly on the internal OSK. The symbols on the number keys were displayed, not the numbers. (5518)
- Under certain conditions, device security was not enabled completely. Device security was not completely enabled under certain conditions. (5525)
- The Settings program displayed an error during task selection. When "Monitor Vision Program" was selected, a program error occurred. (5526)
- The arrow key worked incorrectly in the external OSK. The cursor would move two character positions when the key was pressed. (5534)
- The external OSK would close unexpectedly. The OSK would close when the Tab key was pressed. (5567)
- An error was displayed while using the external OSK. If the F1 key was pressed while using the OSK, an "exception" error was displayed. (5568)
- VPM caused excessive CPU usage. An issue with screen repainting caused unnecessary CPU use. (5574)
- The Disallowed Characters function was not working properly. In the Text Entry control, the characters were not being captured correctly if the Enter key was pressed. (5584)
- The Basic and Branch tools displayed a confusing "Abort Cause." If the tool contained no Basic code, "Failed" was displayed. It is now valid to have a tool that contains no code. (5589)
- The system log would not refresh correctly. If the system log object was selected, the log would not refresh while changing modes. (5643)
- One of the sample programs' run time increased. The run time for the Sample Pinpoint PickPlace program increased greatly. (5715)
- The Counter tool did not display fail correctly. The tool did not turn red in the task tree when it failed. (5717)
- An error occurred in the Font Library control. When a second character was deleted, the error was displayed. (5758)
- The documentation of Ethernet/IP tool properties was unclear. It was not clear that linked input lists would be padded or truncated depending on the tool's list size. (5803)
- One of the properties in the Camera Object did not work properly. Certain entries in the Camera Trigger Edge property caused incorrect results. (5869)
- An incorrect error dialog was displayed during IP Address editing. When the "Edit IP Address" button on the Connect dialog was used to change the address, the incorrect error "IP Address already exists" was displayed. (5882)
- The Line Find tool's subpixel method could not be disabled. The method can now be disabled to allow more accurate location. (5890)
- The Pinpoint Pattern Find tool did not respond to the time out setting. The tool would continue to run after the Task Timeout setting had expired. (5892)

- The P-Series camera would not respond correctly during reboot. When the camera was rebooted using VPM, an incorrect error was returned. (5907)
- The system log displayed an unnecessary error under certain conditions. When the Code Reader tool was trained, a “tool timeout” error was logged. (5911)
- An error occurred when an input was deleted in the Ethernet/IP Explicit Message tool. If two properties were linked from the same tool, the error occurred. (5929)
- The Font Library control did not work correctly if the device was online. The control can now modify the OCR tool while the device is online. (5945)
- In the Multiple Image Stitch tool, making an incorrect link prevented further links. If a property was linked to an invalid property, further links were prevented. (5953)
- The device time did not update. When security was enabled on the P-Series camera, the time was not updated. (5972)
- Loading a control panel caused an exception error. If the panel attempted to change a button control’s appearance while loading, the error could occur. (5977)
- The Pinpoint Pattern Find tool’s description was misleading. It was not clear the fine locate algorithm always uses correlation matching. (5985)
- An unnecessary error appeared in the system log. A random error about a TimeStamp Thread was logged. (5995)
- The Average Intensity tool’s default property was changed for convenience. The default Tolerance type was changed in the setup. (6006)
- Under certain conditions, saving a file caused an error. If a file was unloaded, then saved, an exception error was displayed. (6020)
- The “Connect to Vision Device or Emulator” button did not work. The large button on the right side of the home screen did not work. (6027)
- The Color Blob setup did not work correctly. The Pass/Fail setup did not update values. (6054)
- The TCP/IP tool displayed the incorrect IP Address. On the tool setup, the wrong address was displayed when a Server connection type was selected. (6065)
- Editing the Switch tool could cause the Emulator to stop responding. The problem occurred when cases that contained links were deleted. (6077)
- The Image Archiving tool leaked memory. The memory leaked if a vision program file was unloaded, then reloaded. (6160)
- Pressing the Delete key incorrectly deleted an ROI. The Delete key would delete an ROI even when the toolbar was hidden. (6208)

Version 11.6.1.16

Released September 22, 2015

Bugs Fixed

- On the T4x-Series and A30 cameras, Ethernet I/P connections were interrupted every 72 minutes. When a camera was connected to a PLC using Ethernet I/P protocol, the connection would reset every 72 minutes. (5014)
- An improved time calculation was introduced. The firmware time calculation was improved to implement ProfinetIO protocol. (5521)
- Camera uptime is now logged. For M-Series and MX-U Series cameras, a system log entry is now created indicating how long the camera has had power. This will help determine camera disconnect versus power loss issues. (5951)
- Output pulse times were inconsistent. When a pulsed output time was set for Output 3, the pulse duration would change when the camera was put offline then online. (6222)
- Image acquisition in the Smart Cameras would be slow under certain conditions. If a task's execution time was When the camera was online, image acquisition would pause. The camera would pause and possibly miss images if a software connection was made while the camera was online. (6267)
- longer than the trigger interval, the image buffers would fill and the camera would acquire an image every five or ten seconds instead of at the trigger rate. (6279)
- The Code Reader tool had a long execution time. The first time the tool was run, the execution time was longer than subsequent times. (6309)
- The Wide Edge Point Find and Origin tools failed to find an edge. The edge find would fail in some cases where a blob merge was used. (6431)
- Camera calibration failed. If the calibration image's lens distortion was large enough, the calibration would fail. (6467)
- All ProfinetIO control register values were sent when any of them changed. All register values were sent to the PLC, even if the value had not changed. This caused unpredictable event firing in the PLC. (6497)
- A system log entry could cause VPM to stop responding. If a "System overrun" message was logged, an exception error would be displayed and VPM would stop responding. (6505)
- Input image corruption could occur. When the camera's internal illuminator was turned off, and the part moved before the image processing was complete, the input image could be partly overwritten and thus corrupted. (6507)
- On the P-Series camera, Ethernet I/P connections were interrupted every 72 minutes. When a camera was connected to a PLC using Ethernet I/P protocol, the connection would reset every 72 minutes. (6578)

Version 11.7.0

Released October 30, 2015

Key enhancements in this release include the ability to use EtherNet/IP™ or PROFINET protocols in many more ways – including user-defined events. Additionally, a new line of M6xx cameras is now supported, a smart camera output can be used to indicate online/offline status, the OCR tool has new properties, line scan cameras have a time based trigger period, the Button control can be used as a momentary switch, the P-Series camera has longer shutter open times, the number of image buffers used is now available, and the Vision SDK has been improved. The Impact Lite installer name was changed.

Enhancements

- A device's status can be checked and set remotely. Using EtherNet/IP or Profinet, a device's Online status can be checked and set. (2514)
- A device's status can be set using EtherNet/IP Explicit. Using EtherNet/IP Explicit or Profinet, a device's Online status can be set. (4686)
- The range value for incorrect values is now shown. If an incorrect property value is entered for an integer or real value, the correct range is displayed. (4783)
- A new line of cameras is now supported. The M6xx series of cameras has been added to the M-Series processor. (5101)
- An output can be used as feedback. One of the outputs on a smart camera can now be used to indicate Online/Offline status. (5695)
- Files can now be loaded using EtherNet/IP. Vision program file loading using EtherNet/IP has been implemented. (6106)
- The Button control has a new property. The momentary press of the button control can now be detected. (6334)
- A time-based trigger period is available with line scan cameras. This capability makes it possible to configure the camera from the Setup tab without an encoder. (6468)
- Longer shutter open times can be set on the P-Series camera. When the internal illuminator is disabled, a time up to 1 second is possible. (6476)
- The maximum number of image buffers used is now logged. An entry is made to the system log when the number of image buffers increases. (6495)
- Vision programs can be saved using Telnet or EtherNet/IP commands. The ability to save vision programs has been added. (6515)
- Profinet and EtherNet/IP protocols now behave the same on the P-Series camera. The two communication types now use the same register structure. (6531)
- Eight User Events have been added. Up to eight user events can be defined for EtherNet/IP and Profinet. (6685)
- The maximum number of image buffers is now a property. The maximum number of buffers used since the device started is available. (6687)
- The Vision SDK now supports all Impact data types. Additional data types were added. (6721)
- All the Impact enumeration types are now in the Vision SDK. Additional enumeration types were added. (6722)
- Extensive Vision SDK documentation was added. Documentation and code suggestions were added. (6723)

Bugs Fixed

- The number of buffered images reported was incorrect. In the Camera object, the number of buffered images was always zero. (3529)
- Impact programs would display in front of other running programs. When Impact programs were started, they would take over the display at first. (3807)
- The T49 would lose communication. The camera would run out of memory and stop responding because sixteen image buffers used too much memory. (4525)
- EtherNet/IP tool documentation was unclear. The description of the list properties was incomplete. (4885)
- The setup and properties tabs in the Origin tool could report different origin locations. On certain images with rising/falling edges, the origin could be placed differently. (5156)

- Under certain conditions, the OCR tool would cause the Emulator to stop responding. If the Variable Split height property was set too high, the Emulator would stop. (5344)
- Copying and pasting the Code Reader tool caused an error. The error occurred on M-Series and MX-U Series processors. (5606)
- The ability to set a Time Based trigger type was added. With line scan cameras, you can now snap images and configure the camera on the Camera setup tab without an encoder. (5623)
- The Electronic Data Sheet for EtherNet/IP was updated. The EDS file was updated and enhanced. (6035)
- The Branch tool could stop responding. Using the variable name “result” in the expression could cause the tool to stop responding. “Result” is a reserved word and cannot be used in the expression. (6099)
- No message was displayed when the license level was changed. A message is now displayed warning the device will restart. (6219)
- The wrong title was displayed in VPM Lite. In the About dialog, the VPM title was displayed. (6262)
- The General – System – Time property was documented incorrectly. The description said the time was stored as the number of “seconds” since the device started instead of “milliseconds.” (6312)
- If the Vision SDK was connected, the vision device would stop responding. After running an inspection for some time, the device would stop. (6380)
- Font libraries did not load properly. In the OCR properties tab, the wrong font library would load. (6423)
- The Delete All function in font library did not work. In the OCR properties tab, the wrong font library would get deleted. (6424)
- Serial port settings could not be saved. Selecting an invalid baud rate for smart cameras prevented saving the setting. (6446)
- The sensor board temperature property description was incomplete. For the P-Series, this is the internal illuminator temperature. (6484)
- A tool tip word was misspelled. The word “blocks” was incorrect in OCR setup. (6500)
- The device would stop responding when image buffers filled. In T49 and P19 cameras, the device would stop responding when the trigger rate was too fast. (6504)
- The Code Reader could not detect a specific EAN13 code. The ability to detect the code depended on the ROI size and placement. (6523)
- The pass/fail status of images in the history list was not correctly updated. The status was not updated when the Run Once button was used. (6533)
- The camera shutter speed could not be set. Using the call SetIntegerPortValue() did not work. (6538)
- Vision SDK Image transfer was slow. Vision SDK Image transfer speed was doubled. (6539)
- Text entered in a tool’s property field would be offset. If you double-clicked a word to select it, then entered new text, the text would be offset in the field. (6567)
- CPM would not close. CPM would not close if logging was enabled. (6568)
- VPM would incorrectly change a program name. If you switched programs while the device was online, it would rename the program. (6645)
- If a P-Series camera was set to go online when it starts, the time and date didn’t get set. The time and date now get set when a connection was made and the camera online status is changed. (6653)
- Some property names were misspelled. There were wrong property names in the MultipleData and MultipleDataRequest. (6666)
- The Reset action API was missing. The API was necessary because some tools can be reset. (6667)
- A java error could occur when switching to display mode. If no program was loaded on the device, or it was in Monitor mode, the error would occur. (6674)
- In the OCR tool, the “Discard Undersized” property was not enabled. The property is now present on the Setup tab. (6679)
- A link in the reference guide was broken. The link to the Datalogic web site was broken. (6689)
- In the OCR tool, the minimum match score was stored incorrectly. The value was stored as an integer but displayed as a real number. (6704)

- The Vision Device could stop responding after receiving TCP/IP trigger commands. It could stop responding if the trigger commands were received at intervals of 100 milliseconds or less. (6710)
- Camera calibration was lost when Impact software was updated. When release 11.6.0 was installed, calibration was lost on the MX and MX-U Series processors. (6718)
- The Modbus register did not work correctly. The server Trigger property could not be set to zero. (6795)

Version 11.8.0

Released February 22, 2016

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.

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

- 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

Enhancements

- New camera connected and disconnected Task Trigger events. A task can be queued when a camera is connected or disconnected. (5733)
- Ethernet/IP and PROFINET tools can handle strings. You can now pass strings from the tools to other devices. (5741)
- Longer shutter open times can be set on the P-Series cameras. Shutter open times as long as one second can be set. (6476)
- The Code Reader tool can read reverse contrast codes. White codes with black backgrounds can be read. (6566)
- VisionSDK: Improved navigation and use. New and reorganized namespaces and methods ease navigation and use. (6672)
- New M-Series Cameras are now available. Two color, two monochrome, and two line scan cameras were added. (6828)
- VisionSDK: Added the ability to get the tool port type. A call is now available to get the type (e.g. rectangle, integer, string, etc.). (6850)
- Ethernet/IP and PROFINET capabilities were expanded. Status Bits were added for Abort Active, Trigger Overrun, Image Buffer Overrun, and Bad Image In. (6854)
- New abilities were added to the Image Sampling tool. The X and Y sampling resolution settings are independent. (6872)
- Camera calibration has been enhanced. New functions were added, and accuracy was improved. (6954)
- 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)
- 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)
- A vision program can be saved. An API call is available to save a vision program. (7067)
- VisionSDK: Images can now be uploaded to the file camera. An API call is now available to upload images and add them to the file camera. (Not functional on the Emulator) (7068)
- VisionSDK: Shapes can now be drawn on images. A call is now available to draw several ROI shapes on the displayed image. (7069)
- Support was added for the SVS-Vistek evo8051MFLGEC camera. This is a monochrome 8 Mpixel GigE camera. (7076)
- Support was added for the SVS-Vistek hr16000MTLGEC camera. This is a monochrome 16 Mpixel GigE camera. (7080)
- Support was added for the JAI SP-20000M-USB camera. This is a monochrome 20 Mpixel USB camera. (7103)
- The Pinpoint Pattern Find tool has been improved. The tool is more accurate and robust. (7189)

Bugs Fixed

- The Pinpoint Pattern Find tool was inconsistent. The tool produced inconsistent pattern matching results on certain images. (2532)

- 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)
- Closing the Modbus client test utility would cause the processor to stop responding. The processor would stop responding during communication with a PLC. (5022)
- A large message size would cause TCP/IP tool errors. If the message size was too large, a Socket error would be logged. (5378)
- The Switch Tool displayed sub-properties. The properties in a Case statement should not be expandable. (5504)
- 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)
- The Code Reader tool provided inconsistent results. The size and location of the ROI could cause different results. (5722)
- The P-Series camera would stop responding. The camera would stop responding when a tool train operation took a long time. (5884)
- The P-Series camera would stop responding. The camera would stop responding if a tool inspection took a long time. (5891)
- 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)
- 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)
- 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)
- An invalid baud rate was displayed in VPM. The 300 baud rate was displayed for smart cameras. (6749)
- 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)
- VisionSDK: The complete Settings Path was not returned. The GetAllSettingPort Api did not return Vision System as part of the path. (6851)
- 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)
- Some controls were hidden in the Average Intensity tool. In the Grid ROI view, some check boxes were cut off. (6932)
- VisionSDK: installer did not interpret the license correctly. The installer displayed the html code from the license. (6943)
- VisionSDK: The installer created unnecessary folders. Several unneeded folders and files were added. (6945)
- 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)
- VisionSDK: P19 camera is always online, so the system time was never updated. The camera time is now updated when a connection is made, even when it is online. (6981)
- The Code Reader tool would not read some codes. The tool would misread some QR codes. (7001)
- 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)
- Send Message tool setup would show an incorrect name. The name of the destination camera would not correspond to its IP Address. (7097)
- 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)
- 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)
- Cameras can now be calibrated using Ethernet/IP and PROFINET. Reserved areas have been added to provide this new ability. (7144)
- The Onscreen Keyboard was not displayed. Clicking in a text field did not display the OSK. (5390)

- CPM could stop communicating. Under certain conditions while saving a program, CPM could display a Null pointer exception and stop. (6915)
- The Correlation Model control should not have been deprecated. The control was incorrectly deprecated in release 11.0.0. (7085)
- Files created in a previous version would not load. If certain fonts were selected, saved files would not load. (7099)
- Cameras can now be calibrated from a control panel. Methods and properties have been added to provide this new ability. (7137)
- The Basic control did not show correct values. Values were not refreshed correctly after the control ran. (7147)
- Links were not cleared correctly in the Basic control. If the data type of one of the properties was changed, the link remained. (7154)
- Certain control panel width settings would cause CPM to stop responding. CPM would stop responding when run mode was selected. (7157)
- The connector control took a long time to connect. The connection took almost three times as long as previous releases. (7180)
- 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)
- The Image Archiving tool would cause the Emulator to stop responding. Archiving a large image would cause the problem. (7199)
- 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)
- 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)
- The P-Series camera could stop responding during software installation. The installation has been improved to optimize memory use. (7308)
- 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)
- 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)
- VPM would stop responding while in Live mode. It would stop responding if a camera was disconnected while Camera setup was being used. (7389)

Version 11.8.1

Released May 20, 2016

This was a service release with three enhancements and several fixed bugs.

Enhancement

- Support was added for two new E-Series cameras. Two new 2 Mpixel CMOS cameras are now supported (E182 and E182C). (7705)
- The CPM Chart control now displays six data series. The control previously displayed five series. (7698)
- 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

- Some Ethernet/IP messages were dropped. On some smart cameras, some Ethernet frame errors would occur. (6421)
- Ethernet/IP communication stops. Communication would stop for up to three seconds. (7182)
- 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)
- There was a memory leak in VPM. The Impact VisionSDK didn't release memory correctly. (7443)
- The web server stopped accepting connections. The device's server would not recover from a processing exception. (7454)
- A line scan camera would not acquire a full image. When the camera was triggered using Ethernet/IP, only two lines were acquired. (7564)
- 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)
- The Tooltip Text property was not editable. The Tooltip Text can now be edited. (7658)
- 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)
- The Ethernet/IP Explicit tool would not transfer string data type. The tool now transfers string data correctly. (7683)
- 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)
- The Code Reader tool would not correctly train on a Pharmacode. The 1D Pharmacode Output Format is now maintained. (7694)
- A warning was added for an outdated USB Hardware key driver. If an outdated driver is installed, the warning is displayed each time the vision device is started. (7715)
- 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)
- 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)
- One of the Code Reader tool properties was described incorrectly. A minimum value description was misleading. (7756)
- The Circular Pattern Find tool had a memory leak. The tool would eventually cause the camera to stop responding. (7758)
- 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)
- A property in the Code Reader tool could cause the tool to malfunction. The 2D DPM Decoding method could create an infinite loop. (7762)
- The CPM Chart control labels were too small. The label font can now be made bigger. (7780)
- There was a memory leak in the Code Reader tool. The tool would leak memory during training. (7781)

- 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)
- 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)