

COGNEX®

VisionPro 9.6

About This Release

1/28/2020
Version 1.0

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VisionPro

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OMNIVIEW

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CVL Vision Library

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BGA II and BGA III

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Wire Bonder

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About This Release

VisionPro 9.6 contains new or changed features since the previous release of VisionPro 9.5 SR2.

3D Operations Requirements

Your processor must support the AVX2 instruction set for any Cognex 3D operations.

This release adds the **CPUCanExecute3D** method to return **True** if the processor in your computer is capable of executing Cognex 3D operations. Otherwise the method returns **False**. Use the **CPUCanExecute3D** method to verify any computer you use to create or deploy your application can perform 3D operations.

Supported Operating Systems

VisionPro 9.6 supports development and deployment on single or multiprocessor machines using native languages (English, Japanese, German, Korean, and Simplified Chinese) on a variety of Windows 64-bit operating systems.

VisionPro supports the following operating systems for 2D vision tools and features:

- Windows 10 and Windows 10 IoT Enterprise
- Windows 8 Embedded for Vision Controllers
- Windows 7 Premium, Professional and Ultimate (Service Pack 1)

VisionPro supports various 3D sensors and 3D vision tools based on your 64-bit operating system:

3D Hardware/Feature	Required OS
VisionPro with the DS1000 and DS900 series sensors	Windows 10 Pro and Windows 10 IoT Enterprise Windows 7 Premium, Professional and Ultimate (Service Pack 1)
VisionPro with the DSMax series sensors	Windows 10 Pro Windows 7 Premium, Professional and Ultimate (Service Pack 1)
3D-A5000 sensor with A5000 Viewer and 3D HandEye Field Calibrator	Windows 10 Pro
CAD Import Tool	Windows 10 Pro
Cognex 3DExpress	Windows 10 Pro Windows 7 Premium, Professional and Ultimate (Service Pack 1)

Supported Development Environments

VisionPro 9.6 supports development and deploying using the following compilers that target the .NET Framework version 4.7.2:

- Microsoft Visual Studio 2015 (v. 14.0), Update 3
- Microsoft Visual Studio 2017 (v. 15.0)

Acquisition Platforms

Refer to the VisionPro Camera Support website (<https://www.cognex.com/products/machine-vision/vision-software/visionpro-software/visionpro-camera-support>) for a complete list of cameras VisionPro supports. Be aware that not all acquisition platforms are supported on all operating systems.

- GigE Vision and related performance drivers
- 3D-A5000 3D Sensor
- DS1000 Series 3D Sensors
- DS900 Series 3D Sensors
- DSMax Series 3D Sensors
- MVS-851x series (Only MVS-8511, MVS-8511e, MVS-8514, MVS-8514e)
- CFG-8700 series

Security Key Firmware

VisionPro uses a USB security key attached to your computer to ensure the software is properly authorized for use. This release supports firmware version 4.12 for VisionPro security keys. See the topic Security Key Updates in your installed VisionPro documentation for how to check the firmware version on your security key.

If you are using a security key with a previous version of firmware, contact Cognex Support for assistance in upgrading to the latest version. Keep your security key firmware up to date to take advantage of the latest features and improvements to Cognex software security.

New Features in This Release

The release supports the following new features:

- Bead Inspect Tool
- Support for Multiple Security Devices
- Updated 3D PatMax Tool
- 3D PatMax Tool Available from Visual Studio ToolBox

Bead Inspect Tool

This release adds a Bead Inspect tool for inspecting a uniform path of any length and direction by detecting defects such as gaps, overfilling or underfilling, and other issues.

Support for Multiple Security Devices

This release allows you to connect multiple security devices (USB security keys or Cognex frame grabbers with embedded security) to your computer. VisionPro cannot combine the security licenses from multiple devices, but does allow you to specify which security device contains the licenses your vision application requires.

Updated 3D PatMax Tool

This release updates the 3D PatMax tool with performance improvements. Be aware, however, that the 3D PatMax tool in this release is not compatible with the 3D PatMax tool from previous releases. Loading an existing application with a 3D PatMax tool created with

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an earlier VisionPro release can result in unpredictable behavior. Cognex recommends the following steps to migrate to the 3D PatMax tool in this release:

1. Remove the 3D PatMax tool from any existing application created with a previous VisionPro release.
2. Install this VisionPro release.
3. Recreate the 3D PatMax tool for your application.

3D PatMax Tool Available from Visual Studio ToolBox

This release allows you to drag the 3D PatMax tool from the Visual Studio ToolBox and place it onto a Windows form.

Known Issues in This Release

Be aware of the following reported issue in this release:

- VisionPro fails to correctly calculate the value of **ContrastFraction** in existing applications when migrating to this release.

Cognex recommends you retrain the pattern for any PMRedLine Tool you use in applications created using an earlier VisionPro release, and then save your changes.

See the topic Known Issues in your installed VisionPro documentation for a list of all known issues in this release along with workarounds when available.

Find Additional VisionPro Documentation Online

The [VisionPro Support website](#) contains additional VisionPro documentation not included with your VisionPro installation.

Needed Instruction Sets

The following table lists the specific instruction set your processor must support for various vision tools:

Tool	Instruction Set	Notes
PMAlign	SSE4.1	Instruction set needed for 16-bit image analysis only
PMRedLine	SSE4.1	
3D PatMax	AVX2	Any AVX instruction sets prior to AVX2 are not sufficient for 3D operations.