



VisionPro 9.20

About This Release

10/20/2023
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 9.20 contains new or changed features since the previous release of VisionPro 9.10.

New Features in This Release

This release supports the following new features:

- Trevista Computational Imaging (CI) Dome integration through the built-in Trevista Acquisition Wizard for system setup, along with the new Trevista tool for computational imaging based on shape-from-shading with structure diffuse lighting. See the topic *Using a Trevista Tool* in your installed VisionPro documentation for more information.

VisionPro supports a large selection of industrial cameras manufactured by Baumer. Be aware that after installing this VisionPro release including the Trevista Dome device drivers, select Baumer cameras might not be listed as explicit image sources for your vision application. Know that these exclusions are intentional as Cognex intends that these Baumer cameras be used exclusively with the new Trevista Acquisition Wizard. See the topic *Using the Trevista Acquisition Wizard* in your installed VisionPro documentation for details.

Contact your Cognex sales representative if you need to use an excluded Baumer camera for applications independent of a Trevista Dome.

- The SmartLine tool for locating edge features in your acquired images. A SmartLine tool can locate line features with the highest vision tool reliability while shortening the time to determine the best search parameters. The SmartLine tool requires your PC supports the AVX2 instruction set. See the topic *Finding Lines with a SmartLine Tool* in your installed VisionPro documentation for more information.

3D Operations Requirements

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

VisionPro supports 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 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 2D vision tools and features on Windows 10 and Windows 10 IoT Enterprise.

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

3D Hardware/Feature	Required OS
VisionPro with the 3D-L4000, DS1000 and DS900 series sensors	Windows 10 Pro and Windows 10 IoT Enterprise, Windows 11 Pro

VisionPro with the DSMax series sensors	Windows 10 Pro, Windows 11 Pro
3D-A5000 sensor with A5000 Viewer and 3D HandEye Field Calibrator	Windows 10 Pro, Windows 11 Pro
CAD Import Tool	Windows 10 Pro, Windows 11 Pro
Cognex 3DExpress	Windows 10 Pro, Windows 11 Pro

Supported Visual Studio Development Environments

VisionPro 9.20 supports development and deploying using the following compilers that target the .NET Framework version 4.8.1:

- 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
- 3D-L4000 Series 3D Sensors (3D-L4050, 3D-L4100, 3D-L4300, 3D-L4033)
- DS900 Series 3D Sensors
- DSMax Series 3D Sensors
- MVS-851x series (Only MVS-8511, MVS-8511e, MVS-8514, MVS-8514e)
- CFG-8700 series
- USB 3.0 cameras by means of a GenTL consumer

Support for Cognex Designer and VisionPro Deep Learning

Refer to the following for information on using Cognex Designer and VisionPro Deep Learning with VisionPro 9.20:

Designer	VisionPro 9.20 supports Designer 4.4.3 and cannot be used with earlier versions of Designer.
VisionPro Deep Learning (VPDL)	Using VisionPro 9.20 and VisionPro Deep Learning on the same system requires you install both: • VPDL 3.2.0 (earlier versions of VPDL are not compatible) • The VisionPro 9.20 supplemental GPU installer, which you can find in the same location on MyCognex as the VisionPro 9.20 installer.

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.

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	
- Any 3D operations - ViDiEL tools	AVX2	Any AVX instruction sets prior to AVX2 are not sufficient for 3D operations.