

Camera & Software Vision Package

PC VISION SYSTEM FJ SERIES

Create your ideal system



» Flexible vision system

» Easy customization

» Highly robust cutting-edge algorithms

Quick Installation on Your PC-based Systems

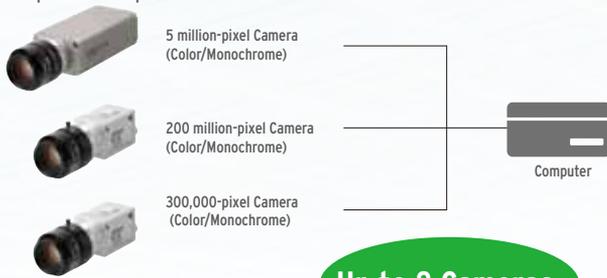
Omron now provides our machine vision solution developed for the manufacturing floor as a package that can be installed on PC-based systems.

Cameras

Connect quickly and Expand easily

GigE Cameras

Six different GigE cameras which has compatibility with FJ software are available. They can realize quick connectivity and stable working. It can be expanded up to 8 cameras.



Measurement Controls

Simple programming and quick testing

Menu driven Software

Approx. 60 proven processing items from OMRON, have a GUI developed for the manufacturing floor in a long factory automation experiences. This greatly reduces program development work in comparison with library based programming.



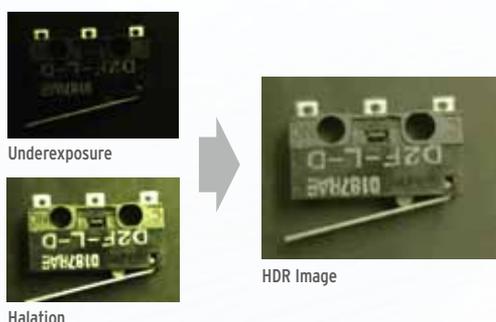
Computer with FJ-series Application Software installed.

Algorithms

Highly robust measurement algorithms.

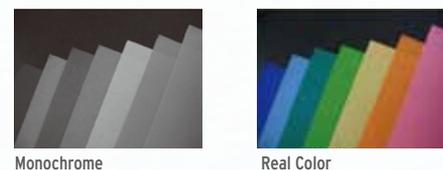
HDR Sensing

The dynamic range has been increased by up to 5,000 times to enable clear imaging of inspection objects that was previous not possible due to lighting inconsistencies or halation.



Real Color Sensing

Inspecting real color data enables detecting minute differences in colors that are difficult to detect with color gray conversion or filtering.

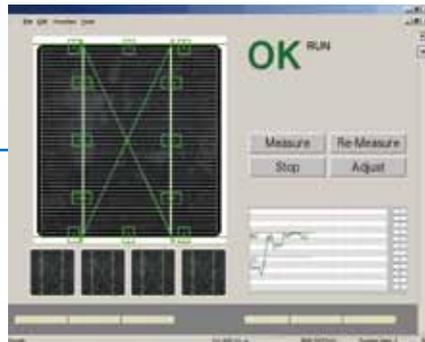


Monochrome

Real Color

GUI Design

Quick development original GUIs

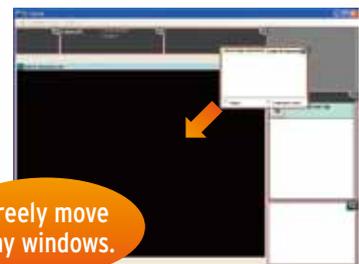


Operation GUI Example

(This example was created with FJ's Application Producer and Visual Studio®.)

Layout Editor

You can easily customize the positions, sizes, and functions of windows and buttons based on OMRON's GUIs, which are highly appraised for being easy to use and easy to understand.



Wide Range of GUI Modules

You can use a lot of custom controls and sample codes implemented in Application Producer to create your own GUIs easily.



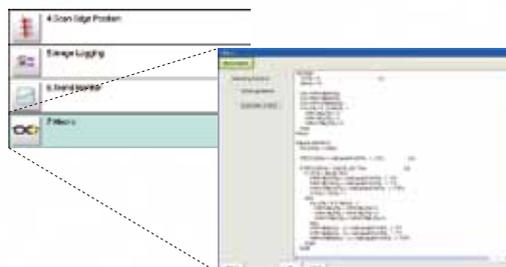
Programming

Implement own program

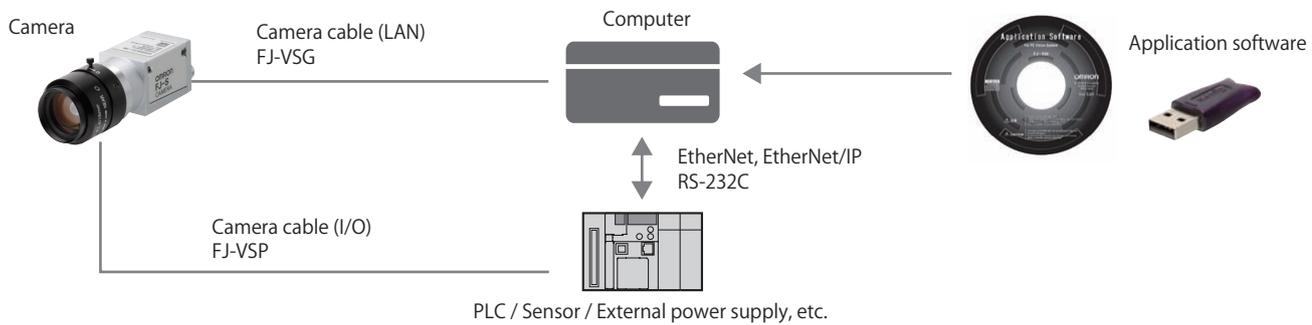
You can implement your own program as original processing item with using Visual Studio® and Application Producer easily.

Macro Processing Items

You can implement even advanced calculations on the processing flow as a Macro processing items easily. It allow you to edit the program on the controller and the compiling is not necessary. So you can develop and adjust the system quickly.



System configuration



Ordering Information

	Type		Model	Operating environment	
Camera & Software Vision Package • Application software x 1 license • Camera x 1 unit		300,000 pixels	Monochrome	FJ-SG-S	<ul style="list-style-type: none"> • CPU: Intel Pentium Processor (SSE2 or higher) • OS: Windows XP Professional (32bit) Service pack 3 or later, or Windows 7 Professional (32bit) or Enterprise (32bit) or Ultimate (32bit) • .NET Framework: .NET Framework 3.5 or higher • Memory: At least 2 GB RAM • Available disk space: At least 2 GB • Camera interface: Ethernet 1000BASE-T • Display: XGA (1024 x 768), True Color (32-bit) or higher • Optical drive: CD/DVD drive
		300,000 pixels	Color	FJ-SCG-S	
		2 million pixels	Monochrome	FJ-S2MG-S	
		2 million pixels	Color	FJ-SC2MG-S	
		5 million pixels	Monochrome	FJ-S5MG-S	
		5 million pixels	Color	FJ-SC5MG-S	
Camera (Single unit)		300,000 pixels	Monochrome	FJ-SG	
		300,000 pixels	Color	FJ-SCG	
		2 million pixels	Monochrome	FJ-S2MG	
		2 million pixels	Color	FJ-SC2MG	
		5 million pixels	Monochrome	FJ-S5MG	
		5 million pixels	Color	FJ-SC5MG	
Camera cable (LAN)		Cable length: 3 m, 5 m, 10 m, 20 m, 40 m	FJ-VSG		
Camera cable (Power, I/O)		Cable length: 3 m, 5 m, 10 m *1	FJ-VSP		
Development environment		Application Producer	FJ-AP1	<ul style="list-style-type: none"> • CPU: Intel Pentium Processor (SSE2 or higher) • OS: Windows XP Professional (32bit) Service pack 3 or later, or Windows 7 Professional (32bit) or Enterprise (32bit) or Ultimate (32bit) • .NET Framework: .NET Framework 3.5 or higher • Memory: At least 2 GB RAM • Available disk space: At least 2 GB • Browser: Microsoft® Internet Explorer 6.0 or later • Display: XGA (1024 x 768), True Color (32-bit) or higher • Optical drive: CD/DVD drive • The following operating environment is required to use the Camera FJ-S□□□G. • Camera interface: Ethernet 1000BASE-T • The following software is required to customize the software: Microsoft® Visual Studio® 2010 Professional 	

*1. 10-m cable can be used with 300,000-pixel cameras FJ-SCG/SG and 2-million pixel cameras FJ-SC2MG/S2MG.

Ratings and Performance

Camera

	FJ-SCG/SG	FJ-SC2MG/S2MG	FJ-SC5MG/S5MG
Imaging element	Progressive scan 1/3-inch CCD	Progressive scan 1/1.8-inch CCD	Progressive scan 2/3-inch CCD
Effective pixels	658 (H) × 492 (V): Color	1624 (H) × 1234 (V): Color	2454 (H) × 2056 (V): Color
	659 (H) × 494 (V): Monochrome	1626 (H) × 1236 (V): Monochrome	2456 (H) × 2058 (V): Monochrome
Frame rate	90fps	20fps	17fps
I/F	Gigabit Ethernet (1 Gbit/s)		
Lens mount	C mount		

Refer to the datasheet for details.

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