FlexSystems™

FlexVision™

Reading and Verifying

A Complete Solution for Code Creation, Reading and Processing

The FlexVision system is developed for deployment in the document production and processing environment like addressing and inserting. The system is designed to increase productivity and integrity with an easy to use and affordable solution. FlexVision is developed with the following applications in mind:

- Read-and-Print. Read a barcode, look up the address or any additional data in a database and print the information. Fast random searches are supported.

- Mail piece production control. Monitor mail piece printing or inserting and enable easy reconciliation of faulty or missing mail pieces by checking off or time stamp records in a database when they pass the reader to ensure 100% mailings and/or reprints.

- Matching. Match documents that are collated from different stations on inserters (including swing-arm-inserters) or other production lines and make sure the items match.

- Barcode verification. Check barcodes for readability and ensure that printed barcodes meet the (postal) specifications. Includes IMB (MERLIN) verification (300 system only).

- Image capture. Capture and index images of scanned documents or envelopes, as proof that the item was handled correctly.

One Single Integrated System

Putting a vision system together no longer requires the risky and time consuming integration of hardware and software of different vendors. Flex Systems' FlexVision system is developed as a single turnkey system consisting of all necessary key components that seamlessly fit together:

- A choice of two different industry standard cameras for code reading depending on your needs and application. Both have integrated lighting and autofocus.

- An I/O controller offering connections for cameras, encoders, digital inputs, and TCP/IP as well as outputs to control devices and an optional light tower with alarm.

- FlexMail or FlexStream professional printing and document processing software with access and control of the controller, camera and any other connected device completely integrated. No need for additional software.

Easy Deployment and Operation

The system is easy to setup and guarantees a very fast turn-around time between varying jobs.

- Plug and Play installation with automatic detection of both the FlexVision I/O controller as well as any connected FlexVision cameras.

- Camera setup from within the software with intelligent tuning. Image based reader visualization allows you to see what the reader sees for image review or no-read feedback, directly and completely integrated in the FlexMail and FlexStream software.

- Powerful processing of received input by FlexMail or FlexStream. Processing steps are defined by filling out some simple setup windows.

FlexVision Components for any Requirement

FlexStream's powerful document output processing features that allow you to dynamically select the delivery method of each document, together with the highly secure email and tracking service give you an unsurpassed solution for emailing your documents.

FlexVision Cameras

The FlexVision cameras are optimized for the highest read rates in the most challenging applications. Advantages include: Omnidirectional code reading, extreme perspective code reading and reading of damaged, poorly printed or barcodes with quiet zone violations, reading through windows envelopes.

FlexVision 200

FlexVision 200 offers industry-leading performance with patented code-reading technology, fast communication and superior optics.

- Integrated lighting, camera, processor and communications.
- Variable focus liquid lens technology, so there is no need to manually adjust the focus.
- Up to 45 decodes per second.
- Integrated laser aimer.
- Extremely small form factor.

The FlexVision 200 model is your choice for fixed setups and/or limited spaces.

FlexVision 300

Capable of handling the most difficult-to-read codes as well as challenging 1-D and 2-D codes.

- Controllable lighting ensuring the highest read rates (up to 60 decodes per second).
- Intelligent tuning automatically adjusts the settings of the integrated lighting.
- Variable focus optics automatically finds the optimal setup for the camera.
- Postal barcode (Merlin) verification.

The FlexVision 300 model is your choice for reading at high speeds under variable conditions.

Universal FlexVision Controller

The FlexVision controller is an integrated device that provides all logic and connectors to connect cameras, encoders and an alarm plus handle digital inputs and digital outputs.
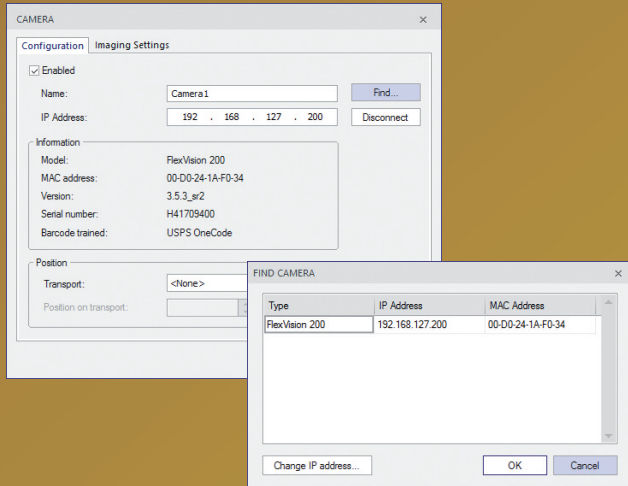
- Supports up to three FlexVision cameras. FlexVision 200 and FlexVision 300 cameras may be mixed.
- 6 digital inputs are available to connect sensors or other input devices.
- 2 encoder inputs allow for tracking items over multiple transports.
- 4 digital outputs enable you to control the machine (e.g. start/stop) and any other hardware like diverters, stackers, batch kickers etc.
- A three color alarm with audio can be connected to inform the operator about processing state.

Optional encoders, sensors and light tower are available. All wired and with connectors ready to be plugged in the FlexVision controller.

Easy to Set-up and Flexible Processing

Installation, set-up and processing of the FlexVision system is tightly integrated in the professional editions of the FlexMail variable data printing software and the FlexStream document processing software.
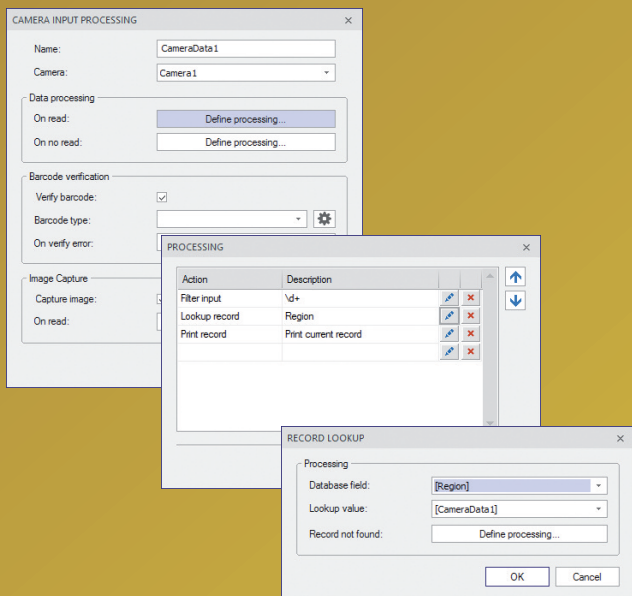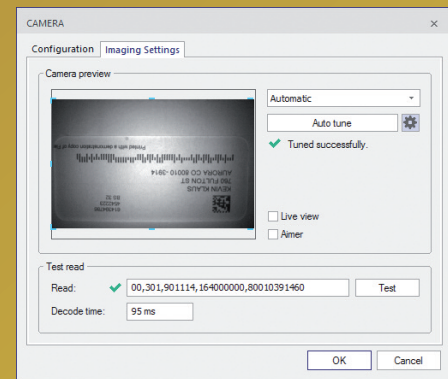
Installation

- All hardware elements are included to quickly install the camera system on a transport base, inserter or other hardware.

- With its integration in FlexMail and FlexStream, there is no additional computer or software required.

- Plug and Play installation with automatic detection of both the FlexVision I/O controller as well as any connected FlexVision cameras. Only one single TCP/IP connection between the Vision system and the PC.

Camera Set-up

- See what the reader sees. Image based reader visualization allows you to see what the reader sees for image review or no-read feedback, directly and completely integrated in the FlexMail and FlexStream software.

- Setup from within the software with intelligent tuning. By putting the most common controls in a single window, allowing you to see how different options affect the reader in real time.

Processing Set-up

- Powerful processing software completely integrated in FlexMail and FlexStream. Processing is defined by filling out some simple setup windows. No programming knowledge necessary.

- Processing is defined by selecting a sequence of processing steps to be performed on receiving input from cameras, digital inputs, serial connections and TCP/IP ports.

- Processing steps include: data filtering, database lookup, database update, marking records, matching values, sequence checking, printing, screen output, triggering outputs, and sending data over serial or TCP/IP connections.

- Next to decoding and processing barcodes read by the camera, camera processing includes verifying barcode module size and readability for all supported barcodes and MERLIN verification for IMB barcodes (300 model only) and image capture.

FlexVision Specifications

	FlexVision 200	FlexVision 300
Barcodes		
1-D codes	UPC/EAN/JAN, Codabar, 2 of 5 Interleaved, Code 39, Code 128, Code 93, POSTNET, PLANET Code, Australia 4-State, Japan 4-State, UPU 4-State, Intelligent Mail Barcode, Pharmacode, GS1 Databar.	
2-D codes	Datamatrix, QR code and MicroQR code.	Datamatrix, QR code,Maxicode and MicroQR code.
Composite barcodes	GS1 (CC-A, CC-B), PFD-417, MicroPDF	
Merlin verification	No	Yes
Camera		
Image resolution	752 x 480	800 x 600
Decode rate	Max 45/sec	Max 60/sec
Lens	Variable auto focus liquid lens	
Sensor	External contrast sensor included	
Aimer	Dual laser	
Lighting	Integrated (2 LEDs)	Integrated (6 light banks)
Status outputs	Beeper 3 multifunctional LEDs	Beeper, 5 multifunctional LEDs 10x LED Bar array
Digital Inputs		
Number of inputs	6	
Sensor type	NPN, PNP	
IO mode	Digital Input or Counter	
Counter frequency	250 Hz	
Digital Outputs		
Number of outputs.	4	
I/O mode	DO or Pulse Output	
Voltage	24 V	
Other I/O		
Encoders	2 (max. 250 Hz)	
Light tower (Red / Yellow / Green) with Alarm	1	

For full deltails visit **www.flex-systems.com**

Protect Your Investment

FlexVision comes at a very affordable price for an extremely robust system. It is supplied as a complete, easy to install package, including cameras with lighting, bracketing, the FlexVision I/O controller, and FlexMail or FlexStream software. No matter what camera type you choose, all other elements are the same, so you can always change camera type in case your requirements change, while protecting and leveraging your investment.

Technical Information

For a full technical specification, system requirements, and any other latest information, check out Flex Systems' web site
www.flex-systems.com

FlexSystems™
Print & Mail Solutions