



# ACHIEVE BETTER EFFICIENCY WITH HIGHER QUALITY OUTPUT

Automate Processes, Traceability and Visual Inspection  
with Zebra Fixed Industrial Scanning and Machine Vision Cameras



# ZEBRA'S FIXED INDUSTRIAL SCANNING AND MACHINE VISION SYSTEMS

## Industrial Automation without the Hassles and Headaches

Demand for supply chain efficiency and quality has never been greater. From manufacturing to packaging and distribution, companies are under tremendous pressure to deliver high-quality products flawlessly and with uncompromising speed.

Achieving this level of performance is a major challenge for many production and distribution operations. But Zebra's Fixed Industrial Scanning and Machine Vision solutions make it possible with easy-to-deploy technologies that automate and error-proof traceability, work-in-process, and quality inspections.

### Fixed Industrial Scanning

Using Zebra's Fixed Industrial Scanning, you can automatically capture barcodes, direct part marks (DPMs), and text to automate processes, eliminate errors, and achieve immediately traceability.

### Machine Vision

With Zebra's Machine Vision cameras and toolsets, you can automate and streamline visual inspection processes such as part and product verification, defect detection, counting, and process step and assembly verification.

### Amazingly Simple Setup

Zebra's solutions enable industrial automation with powerful plug-and-play technology that is easy to set up, deploy and run. With Zebra's intuitive and easy-to-learn software, you can get industrial automation up and running in less time, and you can start boosting productivity and achieving higher-quality output on day one.





## HIGH-PERFORMANCE TRACEABILITY: ZEBRA FIXED INDUSTRIAL SCANNING

Inspired by the needs of real-world floor operations, Zebra Fixed Industrial Scanning (FIS) hardware and software deliver intelligent, reliable and flexible data capture to solve some of the biggest challenges in workflow automation.

### Automated and Reliable Data Capture

- Capture 1D/2D barcodes, DPMs and text
- Capture multiple barcodes simultaneously
- Get high read rates of 60 frames per second

### Proven Track-and-Trace

- Trace parts, components, subassemblies, assemblies and finished goods
- Track virtually any asset on the move with high speed and precision
- Confirm label data with smart camera capabilities

### Quick and Easy Deployment

- Intuitive software interface with guided tutorials
- Easy-to-use with no expertise required
- Built-in illumination with multiple options
- Push-button auto tuning of image capture

### Complete Integration and Communication

- USB-C, Serial or Ethernet communication
- Support for EthernetIP, ProfiNet, CC-Link, ModBus and TCP/IP
- Fully customizable I/O
- Multiple ways to connect to power via 24VDC, USB-C or PoE



## EXCELLENCE IN INSPECTION: ZEBRA MACHINE VISION SOLUTIONS

Zebra's Machine Vision (MV) solutions capture production defects, streamline inspections, and allow companies to reach new levels of visibility and quality with state-of-the-art smart cameras and easy-to-learn software.

### High-Quality Image Capture

- Wide range of sensors from 1 to 5 megapixels
- External or modular integrated lighting
- Liquid lens technology or a wide range of C-Mount lenses
- ImagePerfect capture of multiple images, each with its own setting
- Wavelength, bandpass and polarizing filters

### Sophisticated Image Analysis

- Quickly detect and capture defects before they become an issue
- Inspect images with pattern matching, edge, presence/absence, measurement, counting and OCR tools
- Logically set up inspection jobs with Zebra's FlowBuilder

### Quick and Easy Deployment

- Intuitive software interface with guided tutorials
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### Complete Integration and Communication

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## FOOD AND BEVERAGE USE CASES: FIXED INDUSTRIAL SCANNING

Zebra FIS devices are designed specifically for the unique needs of food and beverage manufacturing, packaging and distribution operations, with an array of potential use cases and applications.

### **Traceability and Process Automation**

Count, route, sort, verify and trace products to automate and error-proof production lines and your supply chain with precision accuracy.

### **Label Quality Inspection**

Check dates and lot codes using barcode scans or optical character recognition (OCR).

### **Barcode-Based Assembly Checks**

Scan barcodes, DPMs or text to check kits or assemblies and ensure the correct components are present.

### **Packaging**

Ensure the correct goods are packaged and distributed by automatically reading barcodes and grading print quality on individual, inner and outer packaging.

### **High-Speed and Multi-Code Scanning**

Read and decode 1D, 2D and multiple barcodes fast, reliably and simultaneously on high-speed lines—even from long range, at difficult angles, and on multiple sides.

### **Robotic Palletization**

Identify different product boxes travelling on the same conveyor so machines can automatically route each box type to a specific diverter line and a robot can package it.



*Traceability*



*Process Automation*



*Label Quality Inspection*



*Packaging*



*Robotic Palletization*



*Bottle Cap Inspection*



*Assembly Checks*

## FOOD AND BEVERAGE USE CASES: MACHINE VISION CAMERAS

You can easily configure Zebra's MV smart cameras to use their built-in imaging capabilities and advanced sensor toolset to streamline and improve an array of food and beverage processes.

### **Label Quality Inspection**

Inspect labels for content, print quality, position, orientation and attachment, and check labels for presence/absence, date/lot codes, and complex text requirements.

### **Package Seal Inspection**

Inspect packages for proper sealing including tamper-proof and safety sealing. Detect when product variations, size, uniformity or other defects might potentially cause packaging issues.

### **Bottle Cap Inspection**

Verify bottle cap height and skew, measure the distance between the cap and bottle neck, and ensure caps are screwed tightly to the safety seal.

### **Foreign Material or Contamination Detection**

Use contrast inspection to automatically detect and identify defects or foreign material with raw food and beverage products.

### **Cosmetic Defect Detection**

Detect defects, scratches, cracks, bubbles, color degradation, and wrapping issues on rough, textured metal, and other challenging surfaces.

### **Case Code Reading**

Use optical character recognition (OCR) to confirm the correct case codes for seasonal, special event, marketing, and time-sensitive casing and packaging.

### **Assembly and Kitting Checks**

Check that all components are present in a kit and that packaging inserts or leaflets are also included.

# THE ZEBRA FIXED SCANNING DEVICE PORTFOLIO

Zebra FIS devices support the latest symbologies and provide outstanding scanning and imaging performance with PRZM Intelligent Imaging to detect the most challenging barcodes and ImagePerfect to capture multiple images of a single item, each with its own settings. You can choose from a wide range of sensors from 1 to 5 megapixels.



## **FS10** **Plug-and-Play Scanning**

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Just plug the FS10 into the USB port of a workstation, laptop, tablet or other host device to start capturing barcode data automatically.



## **FS20** **Easy Network Integration**

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The FS20 includes multiple connectivity options to facilitate easy integration into your PLC or Host network, enabling primary scanning applications to feed all the processes that drive your business.



## **FS40** **Comprehensive Features and Flexibility**

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The FS40 can be tailored to your specific needs with flexible options for decode range, illumination, connectivity, power and much more.



## **FS70** **Fully Customizable Scanning**

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Designed to address the most complex imaging needs and capture even the most challenging barcodes, Zebra's FS70 is a fully customizable device with your choice of four image sensors and a wide range of C-mount lenses and lighting options

## **Easily Upgrade from Fixed Scanning to Machine Vision**

With Zebra's FS20, FS40 and FS70 devices, you can start with a fixed scanner and later convert it into a machine vision smart camera with a simple software license upgrade. There is no additional hardware to buy.

# THE ZEBRA MACHINE VISION PORTFOLIO

Zebra's family of MV solutions deliver lasting performance with features you can add at any time with a simple software license upgrade. Plus you get image and barcode capture, ImagePerfect and PRZM Intelligent Imaging integrated into every model.



## VS20

### Anywhere Integration

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The VS20 is a compact device that fits wherever you need it and integrates easily into a PLC or Host network with multiple connectivity options.



## VS40

### All-in-One Machine Vision

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With the Zebra VS40, you can tailor your device to your needs by choosing from standard and wide-angle field of view, liquid lens options, built-in filters, and multiple illumination, power and connectivity options.



## VS70

### Completely Customizable

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With the Zebra VS70, you can address complex imaging needs by choosing from four image sensors and a wide range of C-mount lenses and lighting options to make even the most challenging inspections easy to capture.

## One Software Platform for All Your Devices

Zebra has brought a new level of simplicity and ease of use to controlling enterprise-wide industrial automation solutions with its Aurora software. Aurora provides a single platform that makes it easy to set up, deploy and run all Zebra FIS and MV devices, with no need for different software for each application.



# SIMPLIFYING SETUP AND COMPLEX FUNCTIONALITY: ZEBRA'S AURORA SOFTWARE

Until now, fixed industrial scanning and machine vision solutions were often tedious and time-consuming to set up, deploy and run, often requiring multiple cumbersome software applications. But Zebra has reinvented deployment with its groundbreaking Aurora software, which makes everything easy with a truly intuitive and user-friendly interface.

## Everything in One or Two Clicks

Aurora's highly intuitive modern interface presents logical workflows. You won't waste time hunting for needed features and functions. Everything just a click or two away, and even complicated settings are easy to execute and are presented as sliders and radio buttons.

## Built-in Help Every Step of the Way

If users have questions, Learn-As-You-Go has the answers, offering built-in tutorials, walk-throughs and videos on all aspects of the software and its comprehensive toolset.

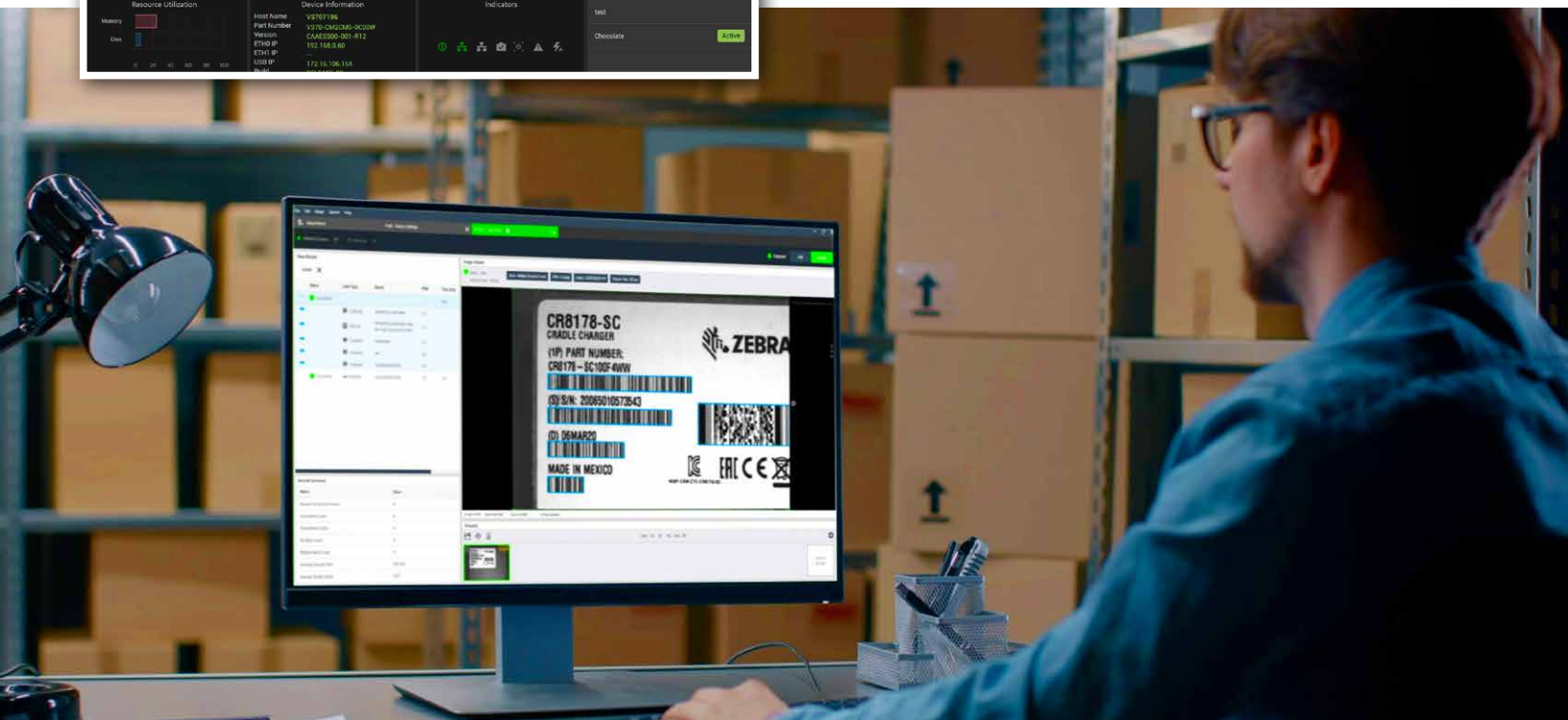
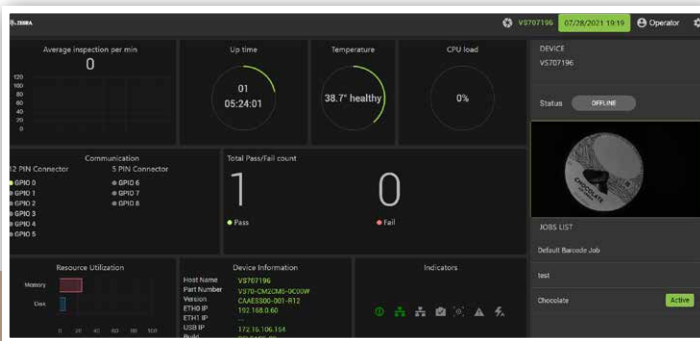
## Designed for Beginners and Experts

First-time users can easily navigate through a well-designed management platform, which guides them through all the steps in the proper order. Experienced users will appreciate easy access to all functions and to streamlined processes that substantially reduce the time and number of clicks it takes to perform tasks.

## Single-Tool Simplicity for Reduced Ramp-Up and Training Time

With Zebra's simpler industrial automation architecture, your team only needs to learn one tool, so you can minimize training time and effort.

## Aurora HMI Dashboard



## THE RIGHT DEVICES FOR YOUR APPLICATION



Model	FS10	FS20/VS20	FS40/VS40	FS70/VS70
<b>General Description</b>	Compact fits-anywhere plug-and-play scanning	Easily integrates into your network	Comprehensive features for extraordinary flexibility	Completely customizable to meet unique scanning needs
<b>Applications</b>	Basic track and trace offline applications	Basic track and trace (FS20)/inspection (VS20) networked applications	Sophisticated track and trace (FS40)/inspection (VS40) applications	Challenging requirements for track and trace (FS70) and inspection (VS70)

### HARDWARE FEATURES

<b>Connectivity</b>	Plug and play USB	Built-in network support	Built-in network support Dual Ethernet option	Built-in network support Dual Ethernet option
<b>Sensor/Lens</b>	1.2 MP	1.2 MP	2.3 MP or 5 MP	2.3 MP or 5.1 MP Any external C-mount lens
<b>Lighting</b>	Powerful integrated lighting (red and white LED)	Powerful integrated lighting (red and white LED)	Extensive options — internal and external	Any external lighting solution
<b>Rugged</b>	Ultra-rugged, IP65, chemical and oil resistant aluminum housing	Ultra-rugged, IP65, chemical and oil resistant aluminum housing	Ultra-rugged, IP65/IP67, chemical and oil resistant aluminum housing	Ultra-rugged, IP65/IP67, chemical and oil resistant aluminum housing
<b>I/O Ports</b>	4 programmable	4 programmable	9 programmable	9 programmable
<b>Power</b>	4.4 to 5.5 VDC host powered	Standard PoE, 24 VDC power supply	PoE+, 24 VDC power supply, USB-C	PoE+, 24 VDC power supply, USB-C
<b>Indicators</b>	3 status LEDs: Decode, Power, Online/Run + beeper	4 status LEDs: Decode, Power, Online/Run, Ethernet + beeper	5 status LEDs: Decode, Power, Online/Run, Ethernet, Focus Warning, Error + beeper 360° Decode status lights — visibility on all sides	5 status LEDs: Decode, Power, Online/Run, Ethernet, Focus Warning, Error + beeper 360° Decode status lights — visibility on all sides
<b>USB-C for Expansion</b>	Yes	No	Yes	Yes
<b>Mounting</b>	Standard	Standard	Adaptable	Adaptable
<b>Aiming</b>	Amber LED for easy aiming	Amber LED for easy aiming	Laser starburst for fail-proof aiming simplicity	Not applicable
<b>Other Shared Features</b>	Automatic setup with Auto-Tune First-time every-time data capture Hardware trigger	Automatic setup with Auto-Tune First-time every-time data capture Hardware trigger	Automatic setup with Auto-Tune First-time every-time data capture Hardware trigger	Automatic setup with Auto-Tune First-time every-time data capture Hardware trigger

# INDUSTRIAL AUTOMATION EXPERTISE YOU CAN TRUST

When it comes to industrial automation, every business wants proven and reliable solutions with support you can trust, preferably from leaders in the field. With Zebra and Van Meter, you get it all from industry leaders who are committed to helping you enable performance and inspire potential.



## About Zebra

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As a leader in industrial automation, data capture, printing, mobile computing and RFID for the majority of the Fortune 500, Zebra is constantly innovating and on the cutting edge of developing and delivering solutions that continually improve process efficiency, workforce productivity, and profitability.

With over 50 years of innovation, over 5,00 patents and patents pending, and a global reach from 100 offices in over 45 countries, Zebra has earned an unmatched reputation for technological leadership and product quality. Quite simply, when you want best-in-class solutions from a company you can count on, Zebra delivers on all fronts.



## About Van Meter

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Since 1928, Van Meter has solved problems for our customers by delivering superior products with unparalleled customer service. As a 100 percent employee-owned company, we understand that when you succeed, we succeed.

We create lasting value by providing all the electrical products and technologies you need to solve your operational and business challenges. And we do it by developing lasting relationships with suppliers and working hard to help you maximize productivity and profitability.

We recommend and select the right products for your needs from over 800 best-in-class brands, including Zebra. With dedicated solution innovation teams, 15 branches across the Midwest, \$45 million worth of in-stock inventory and same-day delivery, we'll help you quickly find and deploy the best solution for your needs, with a shared purpose to help you succeed.

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*Everything you need to succeed.*

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