



## Want to maximize your profit and strengthen your customer relationships?

Let AMETEK Surface Vision show you how to get the most out of your SmartView system and learn how to enhance and grow your business through targeted training courses.

Minimize your downtime and build a higher level of product and system knowledge with targeted training courses that will help you get the most out of your SmartView<sup>®</sup> system. The SmartView System Administrator Training curriculum has been carefully designed to develop your technical capabilities effectively.

The SmartView System Administrator Training is a 5-day introduction to automated surface inspection, defect detection and classification, display and reporting, system operation, and system administration.

Our focus is to provide you with the knowledge to use our SmartView software in the most proficient and productive manner possible. By offering standard and industry-specific training programs, we provide you with the highest level of skill you need to bring better products to market more quickly and efficiently.

Our training is delivered by experienced, qualified trainers who have a broad understanding of our products, systems, and applications. The training course is comprised of classroom-style instruction, accompanied by exercises to solidify the concepts learned. The course is intended for engineers who will be configuring and maintaining the SmartView system.

**“The course was very good and taught well. This gave me much more confidence when returning back to the field.”**

— Anonymous Aluminum Customer

### Intended Audience for training:

#### Who Should Attend?

Technicians, quality assurance managers, project engineers, and process engineers.

### Course Prerequisites:

#### What prior training is required?

None. However, the course material is assimilated better when the student has already had a hands-on introduction to a working system, preferably within the first month after system installation.

### Course Objectives:

#### What will I get out of the training?

If you have recently purchased a SmartView system, the SmartView System Administrator Training will enable you and your staff to achieve the highest possible return on investment. If on the other hand, you have an established SmartView system, administrator training will enable you to get added benefit from your system or train new employees. Once completed, you will learn how to setup the SmartView system, inspect live production, display and report on defects and process conditions, and visualize the entire product.

### Expected Outcomes:

#### What will I be able to do after the training?

After training, you will be able to collect defect libraries, setup a classifier, evaluate system performance, troubleshoot problems, and train your other staff.

## COURSE BENEFITS

- **Accelerate speed to learning:** With both instructor-led and hands-on learning, your engineers will increase their skill set and ensure your SmartView system **operates at peak performance.**
- **Improve engineering proficiency:** Trained and qualified engineers and operators will be able to take advantage of SmartView's full range of advanced capabilities and features.
- **Improve operations productivity:** Maximize your productivity by training your operators to optimally use your SmartView system to its fullest capacity.
- **Minimize downtime:** Help reduce scheduled and unscheduled downtime by training to self-maintain your SmartView system — helping you to realize the ROI of your SmartView purchase even sooner.

# SmartView System Admin. Training

## Course Description

Through the intensive practical training, and very well designed exercises, you will learn very fast how to use the powerful features of your SmartView® system to achieve the highest performance of the software. The course syllabus includes the following topics:

### Introduction

The introduction includes an introduction to automatic web inspection with the SmartView inspection system, a description of hardware components and their function, and an overview of the software components.

### Operator Console

Operator Console Displays & Controls  
Inspection Setup  
Controlling Inspection  
Individual Defect Details  
Sheet Quality Viewer  
Video Console (SV 7.0 and later)

### Report Manager

Report Types  
Previewing Reports  
Using Query to Customize Reports  
Exporting Inspection Data  
Video Console (SV 7.0 and later)

### Configuration Manager

Camera Offsets  
Physical Input and Output Parameters  
Inspection Setup Parameters  
Crossweb Calibration  
Field of View  
Encoder Setup

### Recipe Manager

Defining a New Recipe  
Edge Tracking  
Linescan Configuration  
Signal Adjustment - Normalization  
Thresholding Algorithms

### Classifier Manager (SmartLearn®)

Creating a classifier  
Creating Defect and Filter Classes  
Selecting a classification engine  
Building defect libraries  
Defining rules  
Testing the classifier

### Pixel Filter

Defect Parameters  
Repeating Defect Setup  
Lane Map  
Report Setup

## What Our Customers Are Saying...

"Very good! Even with some experience with the system, I was able to take back several key points that will help in the future."

– Anonymous Plastics Customer

"Excellent course. Answered many of the questions and helped in most all areas of setup and running of inspections."

– Anonymous Paper Customer

"The course met my expectations. All my questions were addressed. There is a lot to absorb, and the instructor did a good job allocating appropriate amounts of time to each subject."

– Anonymous Steel Customer

## Course Curriculum

### Day 1 – Monday (8:30 a.m. to 5:30 p.m.)

- Introduction to Surface Inspection
- SmartView architecture and options
- Basic Recipe Development and Operation
- Exercise 1 – Set up simple defect detection and run inspection.
- Set up typical operator displays and customize with defect queries.

### Day 2 – Tuesday (8:30 a.m. to 5:30 p.m.)

- Defect Classification, Reporting, Exporting Data and I/O
- Exercise 2 – Manually define general and specific defect classes. Test the classifier against production files
- Exercise 3 – Use digital outputs to turn on light tower for specific conditions
- Exercise 4 – Preview inspection reports, set up query to customize reports
- Exercise 5 – Export data to an Excel spreadsheet
- Exercise 6 – Set up repeating defect detection

### Day 3 – Wednesday (8:30 a.m. to 5:30 p.m.)

- In-depth Recipe Development and Operation
- Exercise 7 – Edge Tracking
- Exercise 8 – Thresholding Algorithms
- Exercise 9 – Pixel Filtering
- Exercise 10 – Use grayscale bins to classify subtle and extreme bright and dark defects

### Day 4 – Thursday (8:30 a.m. to 5:30 p.m.)

- In-depth Recipe Development and Operation (continued)
- Defect Libraries for analysis and classification
- System Maintenance and Troubleshooting
- Exercise 11 – Build and fine tune defect libraries
- Exercise 12 – Reboot system, focus cameras, check calibration, troubleshoot problems

### Day 5 – Friday (8:30 a.m. to 5:30 p.m.)

- Advanced Classification
- Defect Library Management
- 1:00 – 5:30
- Open Format

## Course Availability

Classes are scheduled throughout the year. In general, there is a class every 4 weeks. System Administrator classes are held in the following locations:

- ✓ Hayward, CA, United States
- ✓ Karlsruhe, Germany
- ✓ Tokyo, Japan
- ✓ Shanghai, China

To register for a class and get an up-to-date training schedule, go to:

[Http://www.ameteksurfacevision.com/ametektraining/training](http://www.ameteksurfacevision.com/ametektraining/training)