

VisionPro® Surface is an easy-to-use, self-learning inspection software that is used to find critical surface defects affecting product quality or process efficiency, which offers:

- **Easy Guided Setup**
- **Accurate Defect Detection and Classification**
- **Simple Operator Interface**
- **Versatile Web-based Reporting**

The new VisionPro Surface inspection software from Cognex, is the latest advancement in flat product inspection from the recognized leader in the machine vision industry.

The easy-to-use setup tools and visual user interface enable users at all levels to inspect their products. The advanced defect detection and classification algorithms enable users to easily address a broad variety of flat product inspection applications. Automatic web-based reporting enables users across the factory to access the quality information by just a few clicks in any web browser.

In every industry, competition continues to increase while the demand for lower priced goods continues to get stronger. This puts constant strain on manufacturers to produce higher quality products at lower cost. Under these circumstances, inexpensive yet powerful quality tools are a necessity.

VisionPro Surface is a standalone software package for inspecting a wide range of flat products. It delivers reliable and accurate quality measurement at a low cost of ownership.

Key functions include:

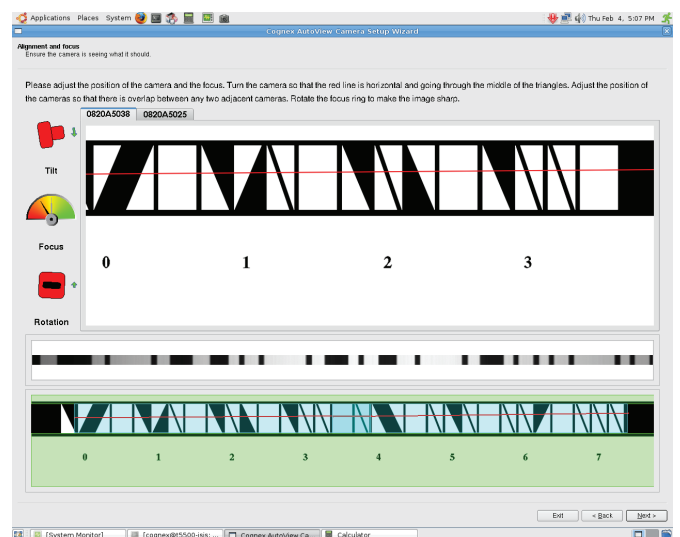
- Easy-to-use setup tools
- Self-learning visual defect detection based on contrast, geometry, or texture
- Self-learning visual classifier
- Photo-quality real-time defect visualization
- Convenient I/O for inspection control and material handling
- Concise web-based reporting

Typical Inspection Applications

- Polyester staple fiber
- Pulp
- Coated products (steel, aluminum, film, glass, paper, etc.)
- Laminated products (steel, aluminum, glass, paper, nonwovens, etc.)
- Roofing material
- Technical textiles
- Textiles
- Nonwovens
- Plastic films
- Aluminum profiles
- Glass
- Solar products (glass, wafers)

Guided Setup

The first step in setting up any vision system is properly aligning the camera to the area to be inspected. The Camera Setup Wizard in VisionPro Surface ensures that the alignment is done right. The Camera Setup Wizard guides the user through all the steps necessary to optically configure the system. Easy-to-interpret graphical tools are used to provide feedback regarding camera position, focus, and lighting adjustments.



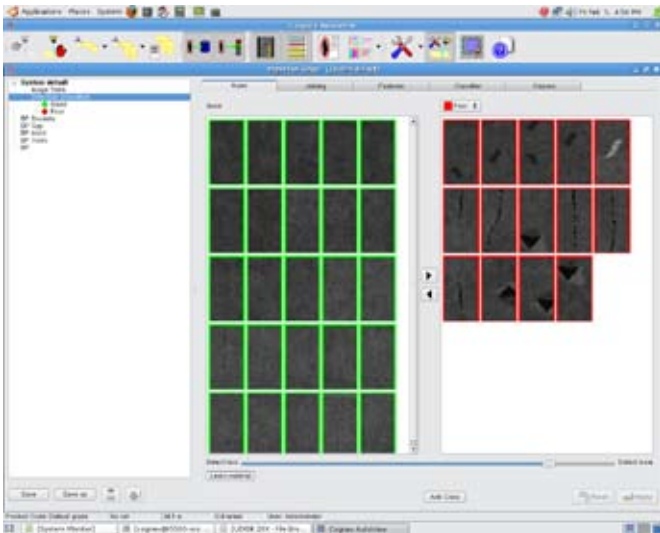
Easy Guided Setup Tools

VisionPro Surface

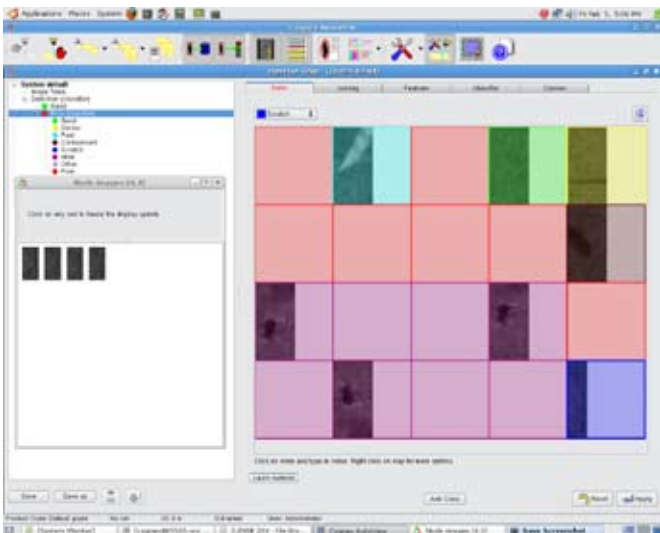
Detection and Classification

VisionPro Surface reliably detects and accurately classifies the critical defects on your flat products. A visual display shows samples of good material and bad material side-by-side for easy comparison. Tuning detection is made fast and intuitive with a sensitivity control that adjusts which samples are grouped as good or bad.

The built-in self-learning classifier classifies defects visually just like a human inspector would. Its training algorithms learn the appearance of each class of defect based on the user's visual cues. This enables the user to pass on their knowledge of the defects that impact quality with minimal understanding of the surface inspection software.



Self-Learning Visual Detection

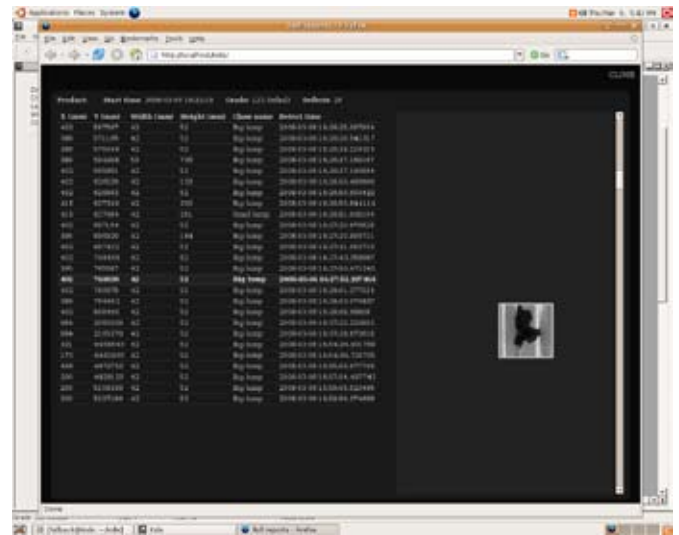


Self-Learning Visual Classification

Operator Interface and Web-based Reporting

VisionPro Surface tools for visualizing the inspection results include a scrolling defect list, scrolling defect map, defect viewer and snapshot web display.

Also, included with VisionPro Surface are reporting tools for reviewing past inspections and for generating defect histograms across multiple inspections. These tools are available through standard internet browsers. Any networked computer can generate the web-based reports.



Web-Based Reporting

Configurations

Systems built around the VisionPro Surface are available in a wide variety of configurations. In addition to the software, which includes the setup tools, real-time inspection, and web-based reporting, the following optional accessory kits are also available from Cognex:

- Linescan camera, lens, mount, accompanying power supply, and environmental enclosure
- PC including framegrabber
- Light and accompanying power supply
- Run length encoder
- I/O subsystem and accessories
- Cabling