

The Only "100%" Vision Inspection System on the market. The LVS® 7000 is the ONLY Vision System capable of Blemish/Defect Detection plus variable data, bar code reading and ISO Grading abilities.

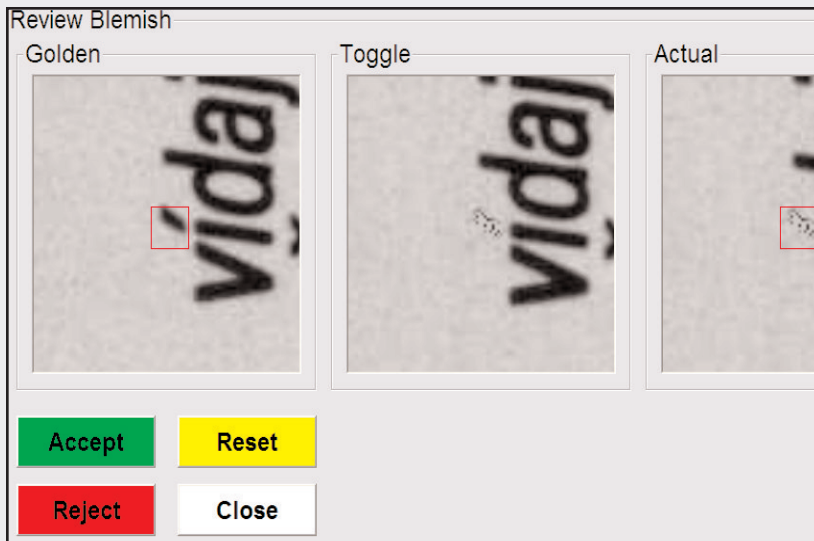
**Don't get stuck with less than 100%**

### *The LVS® 7000 Series Modules Explained*

#### **Blemish (Defect) Detection Module:**

The LVS® 7000 Blemish Detection module (also known as Defect detection) is capable of detecting a multitude of print faults from: skew, smear, print registration, die-cut errors, edge determination, and missing information. LVS® has designed special algorithms to obtain high speeds and accuracy. These algorithms also include our special "variable data" function which accounts for variable data within a pattern-matching zone and does not report them as blemishes.

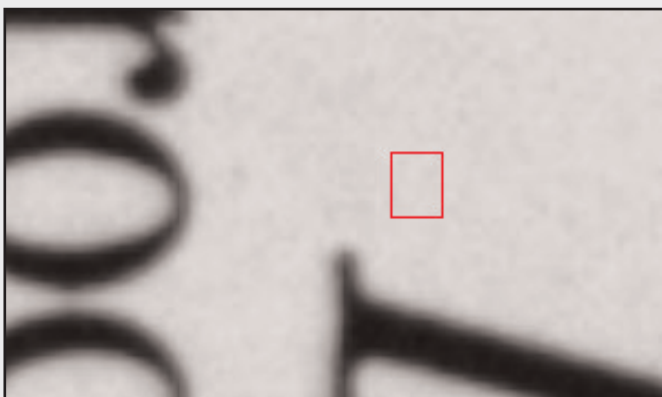
Ease of use is a must for a vision system and the LVS® 7000 has been designed for simple operation - if your operators use a PC with a mouse they can manage the LVS® 7000 system. It is a step by step "click" through guide to setting up a job with basic instruction on every page.



**Image to the left is the 7000 Blemish review screen. The operator is able to review each blemish against the exact area of the Golden image. He simply chooses "Accept" or "Reject" to log the blemish as they occur or after the run has completed.**

**Image below is an upclose look at a blemish / golden image comparison.**

Most forms of Blemish detection are based on a "Golden Image" (the ideal image of a printed label original artwork) and a label by label image comparison of the latest harvested image against that original "Golden Image". Any deviation from the "Golden Image" can trigger an alarm (visual and audible) and automatically generate a digital I/O signal or activate a relay that can be used to perform the desired action on the machinery (ex. automatic shut down). See example comparison below:



**Golden Image - Displayed on-screen**



**LVS® 7000 Image with error displayed**

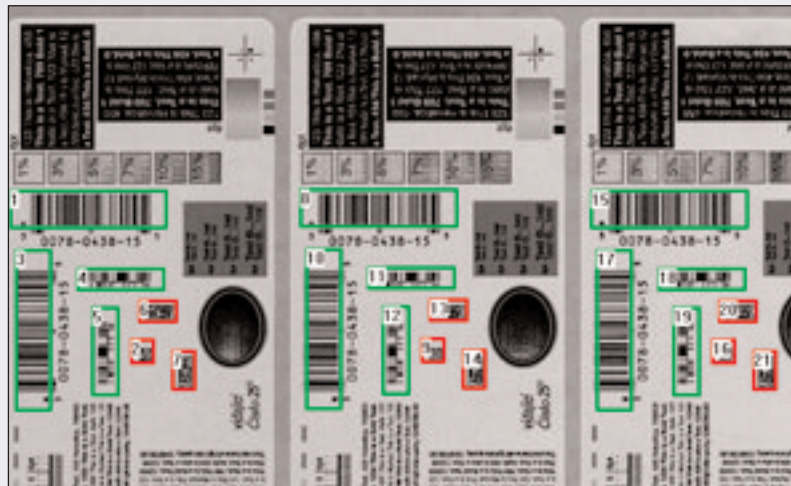
### ISO Verification Module:

The LVS® 7000 ISO Verification module verifies any combination of linear, matrix and stacked codes (including PDF-417, Micro PDF, Data Matrix ECC-200, RSS, Composite Codes, QR Code and others) to ISO print quality standards. The bar codes can be in any orientation, with any number and mix of codes on a label, and as many labels across the web or form as required.

Unlike bar code validation, the ISO Verification module actually reads and analyzes the 1-D or 2-D symbol to published international specifications (i.e. ISO 15415, ISO 15416, and symbology specifications), and then gives that symbol an overall ANSI / ISO grade based on those specifications.



The various parameters of the ISO Print Quality Guidelines are made up of measurements dealing with both reflectance and structural rules for a given symbol. The lowest grade received by any individual ISO parameter becomes the overall ISO grade for that scan. A minimum of ten scan grades are required to calculate the overall grade of a bar code symbol.



### Bar code Validation Module:

The 7000 series Validation module is designed to simply capture and decode bar codes, and ensure a 100% confirmation of each and every bar code passing the Field of View. The LVS® 7000 series Validation module is capable of decoding any combination of linear, matrix, and stacked codes in any orientation, even if they are in the same field of view. In addition, the LVS® 7000 Series Validation Module is capable of scanning and confirming variable (ascending, descending or from an input file) and fixed data symbols.

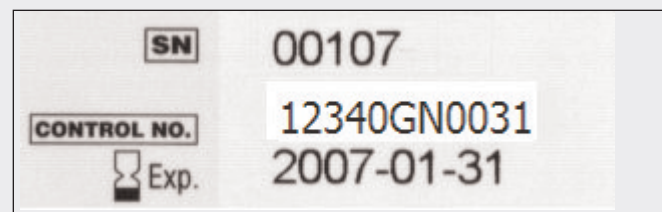
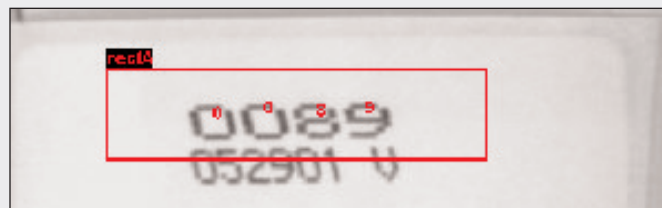
### Optical Character Recognition (OCR) Module:

Unlike the OCV module, the LVS® 7000 OCR module is able to "read" characters and report the data content. The data is typically variable in nature and the content is unknown until it is read. **Ideal for Random Serialization applications.**

### Optical Character Verification (OCV) Module:

The LVS® 7000 OCV module can verify human readable characters at unparalleled speeds at point sizes as low as two printer points (A printer point is defined as 1/72nd of an inch or .35mm). The 7000 series OCV module ensures that a string of sequential alpha-numeric characters are read and/or verified against a known field or database. **Ideal for serial Tracking applications.**

The system can verify variable (ascending, descending or from an input file) and fixed data. Since the system "knows" what the character in a given position should be, a quality threshold can be set and a failure reported if the chosen threshold is not achieved.



### Standard Benefits:

As with all the individual sector analysis capabilities of the LVS® 7000, each module utilizes a user definable sensitivity bar. The sensitivity level can be set HIGH to detect slight variances. If a less sensitive setting is desired the operator can set the level lower to allow a moderate level of variance. Each sector allows variable control of the sensitivity and is set by the user as part of the set-up process.

A typical LVS® 7000 system is quoted with an "alert response to faults discovered" in the form of a light tower and high/low output as required by your technical team to stop press, visual alert, audible alert, digital I/O output or relay to perform the desired action.

**Ease of Use:** Once set-up of a job is initially completed it only needs to be called up from a stored file for future runs of that job.

**Security:** Password protection secures the system from unauthorized changes.

**Reporting:** All inspected sections and the results are date and time stamped and archived for use by the customer for analysis. All inspected data is stored in a CSV file for end user extraction in any format desired.

### Other Key Benefits:

- Unlimited lanes across a web on a single system
- Intuitive & Quick user setups that can be stored and recalled
- All major bar codes can be verified to ISO Standards
- Bar code to human readable comparison and match

### Supported Symbologies:

- |                       |                      |
|-----------------------|----------------------|
| • Code 39             | • UPC-A & E          |
| • I 2 of 5 (ITF)      | • EAN-8 & 13         |
| • UCC/EAN 128         | • ITF-14             |
| • Code 128            | • Pharmacode         |
| • Codabar             | • Data Matrix        |
| • GS1 Databar         | • PDF-417            |
| • GS1 Databar Limited | • Micro PDF-417      |
| • GS1 Databar Linear  | • OCR Validation     |
| • GS1 Databar Stacked | • QR Code            |
| • Composite           | • Mirco QR Code      |
| (CCA/CCB/CCC)         | • E-Pedigree Capable |

### Warranty:

Label Vision Systems, Inc. is pleased to offer a one year Return to Base warranty on any defects due to workmanship or materials for LVS products.

Label Vision Systems will provide telephone support (5) five days a week 9 a.m. to 4 p.m. EST.

