Data Matrix Symbol Quality Verification

Manufacturers in nearly every industry, especially those using open source manufacturing, rely on automatic data capture (ADC) to increase productivity, accuracy, and data handling efficiency. Unreadable symbols can lead to strained customer relationships, industry fines or other censures, and ultimately reduced profitability.

A successful read on one imager does not necessarily signify a quality symbol. Verifiers measure the quality of the printed or directly marked symbol against parameters defined by symbol verification standards. The addition of a verification step within the manufacturing process can help you achieve the benefits of ADC and ensure readability throughout the supply chain.

Frequently Asked Questions

Q. Why can't I just use an imager to check readability?

A. Imager technology and performance varies widely and symbols must often be decoded by multiple brands within the supply chain. Your imager's ability to read your symbol does not ensure that it can be read by a different imager. See the reverse side for an illustration of how symbol quality verification improves productivity in open source manufacturing.

Q. How will verifying symbol quality affect my bottom line?

A. Ensuring your symbols can be decoded each and every time can reduce costs associated with returned products; increase the efficiency of your manufacturing process; allow preventative care of the symbol marking equipment; and eliminate fines levied in some industries by non-compliance with symbol quality standards.

Q. What are other benefits of verification?

A. Other benefits include real-time quality control; increased customer satisfaction; and informative verification reports.

Q. Do I need to verify if the encoded data is for internal use only?

A. While verification within a "closed-loop" system is not as critical, ensuring the readability of symbols is an easy way to prevent time-consuming and potentially costly problems within your company.

Q. How does a verifier work?

A. Present a part or label to the Data Matrix Verifier and center the symbol in the Field of View. The image is captured and the verifier evaluates the symbol based on the selected standard. A symbol quality report with graded results is immediately displayed.

Q. How do I choose a verifier?

A. Certified verifiers are highly desirable. The lighting and optics of the verifier must be factory calibrated to gain ISO/IEC 15426-2 certification, which guarantees accurate and consistent verification results from one verifier to another. Pre-set lighting and optics also eliminate the need for a lighting technician during installation.

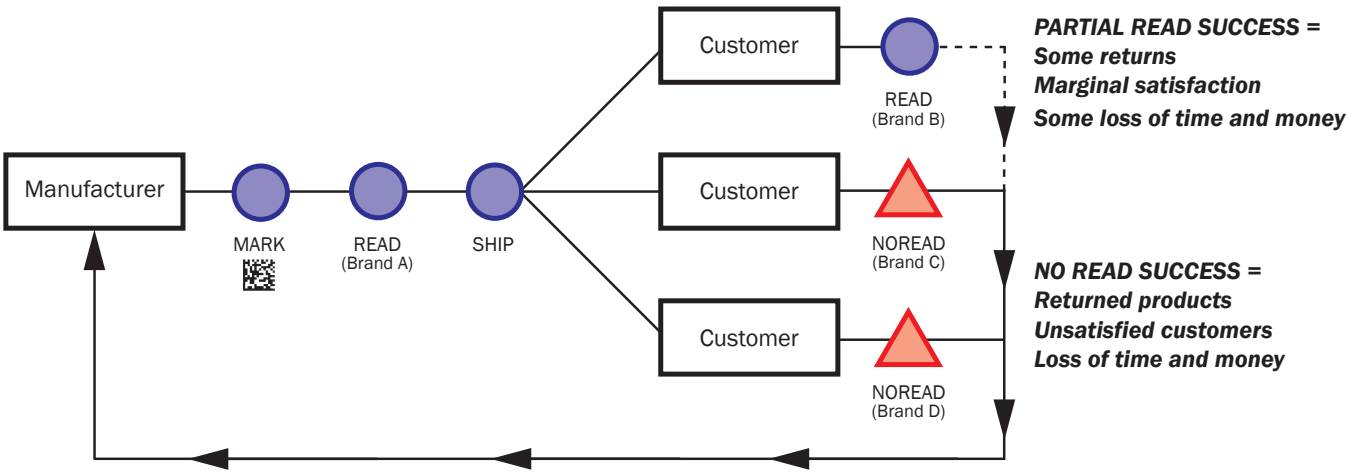
Q. How do I implement verification on the production line?

A. A verification station should be installed as the next step after the marking station. This enables real-time control of the quality of the symbols being produced. The Quadrus Verifier is factory floor ready with flexible mounting options for easy integration into a production line.

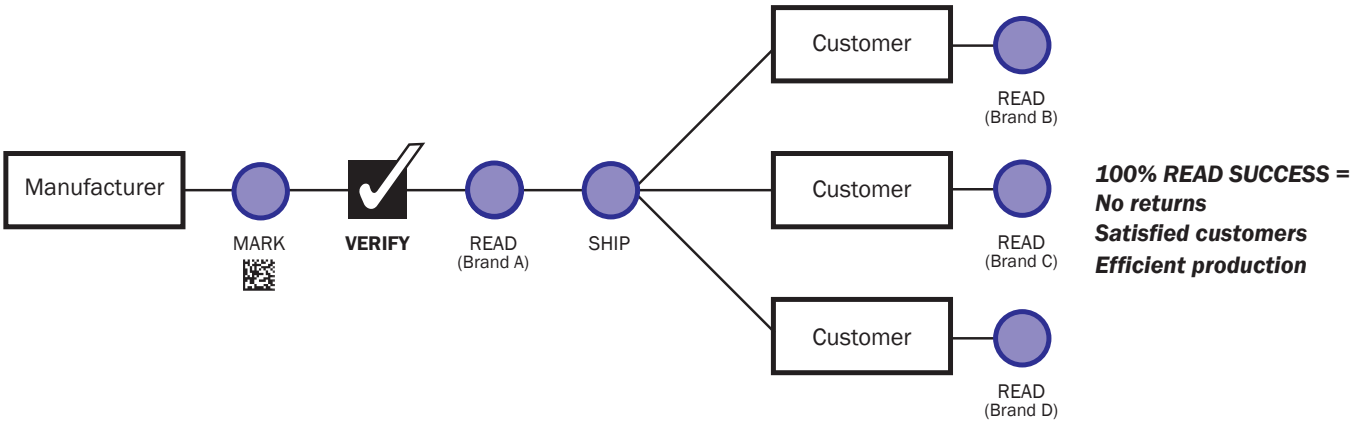
Q. What do I do if the symbols are failing to pass?

A. ESP® software, provided with the Data Matrix Verifier, produces detailed symbol verification reports. The report shows the image, quality grades, and specific problem parameters which can help in determining marketing equipment adjustments.

Open Source Manufacturing



Without Verification



With Verification

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