

FOR IMMEDIATE RELEASE:

Microscan Offers Advanced Optical Character Recognition for Machine Vision with New IntelliText OCR Tool

RENTON, WA, November 13, 2014 – Microscan, a global technology leader in barcode, machine vision, and lighting solutions, announces the latest innovation from its award-winning [AutoVISION® machine vision suite](#): IntelliText OCR. With advanced optical character recognition (OCR) functionality, AutoVISION's IntelliText OCR tool is capable of converting human-readable characters into machine-readable characters with the most aggressive algorithms available. Allowing user control of customizable parameters, IntelliText OCR can be quickly adjusted to recognize characters regardless of marking or printing method, including low contrast text on poor backgrounds.



Optical character recognition is a process by which software converts human-readable text into characters that can be stored, interpreted, and segmented by machines. Optical character recognition technology has been used extensively in commercial applications since the 1970s, and today plays a role in the automation of tasks from document processing to consumer goods packaging (batch codes, lot codes, expiration dates) to clinical applications. OCR is accomplished when an image captured by a camera is interpreted by OCR software, such as a [machine vision system](#), which has additional capabilities such as barcode reading and product inspection.

With the release of Microscan's latest user-friendly machine vision software, AutoVISION 3.0, Microscan has introduced the IntelliText OCR tool with advanced OCR functionality for reading the most difficult characters on parts and products in automated identification, tracking, and inspection applications. IntelliText OCR is capable of reading text printed by various methods, including inkjet, Drop on Demand (DOD), direct part marking, and more. The tool's multi-neural network allows it to train on character variations and store these in a font library for increased OCR speed as the library grows. Advanced character segmentation in IntelliText OCR allows the software to easily parse characters regardless of uniformity of each character or the precision of the print region (useful when print consistency, label placement, or text location is subject to variation). To aid segmentation in difficult reading environments, IntelliText OCR offers image pre-processing, enabling the software to run filters on an image taken by a machine vision camera to produce the cleanest image possible for OCR.

Unique to IntelliText OCR is the software's image binarization process, which converts the grayscale image taken by the camera to a binary image. The binary image allows the user to see the image features that the software is able to recognize as characters and gives users the ability to set tolerances that determine how much of the image is in view. This allows the most difficult text to be adjusted for and read with ease. With adjustments to image binarization, users have the power to tailor the software to anticipate and enhance dark text on dark backgrounds, light text on light backgrounds, text on damaged

surfaces, or even text printed on challenging surfaces such as transparent packaging. The tool can even interpret rotated text in cases where product codes are printed or labeled at variable angles.

IntelliText OCR supports advanced string matching, which is the process of comparing an interpreted string of text to match an expected string. This includes using regular expressions (TRE) as a match string. A regular expression is a standardized way of defining variable text, for instance when checking the proper formatting of a date code. The regular expression match string can be set to check a range of acceptable numerals for an expiration date, including limits for year numerals and limits for the initial character in a month or date numeral (for instance, a month numeral beginning with 0 or 1).

The [AutoVISION machine vision family](#) continues to be the industry's most flexible machine vision solution, allowing users to build a single, scalable vision system from a range of tools. Now with IntelliText OCR, AutoVISION also offers the industry's leading character recognition technology.

For more information about IntelliText OCR or AutoVISION, visit www.microscan.com, or see how IntelliText OCR works in Microscan's video: www.microscan.com/trainingandresources/videos/avdemo-intellitext.aspx.

About Microscan

Microscan is a global leader in technology for precision data acquisition and control solutions serving a wide range of automation and OEM applications. Founded in 1982, Microscan has a strong history of technology innovation that includes the invention of the first laser diode barcode scanner and the Data Matrix symbology. Today, Microscan remains a technology leader in automatic identification and machine vision with extensive solutions for tracking, traceability, and inspection, ranging from basic barcode reading to complex machine vision inspection, identification, and measurement.

As an ISO 9001:2008 certified company recognized for quality leadership in the U.S., Microscan is known and trusted by customers worldwide as a provider of quality, high precision products. Microscan is a [Spectris](#) company.

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