

NI OCR RELEASE NOTES

NI OCR provides functions you use in a machine vision application to perform optical character recognition (OCR). OCR is the process by which the machine vision software reads text and/or characters in an image. NI OCR consists of an application for training characters as well as libraries of LabVIEW VIs, LabWindows™/CVI™ functions, or Microsoft Visual Basic properties and methods. Use these libraries to create a machine vision application that analyzes an image and compares objects in that image to the characters you trained to determine if they match. The machine vision application returns the matching characters that it read.

OCR consists of the following two procedures:

- Training characters
- Reading characters

Training characters is the process by which you teach the machine vision software the types of characters and/or patterns you want to read in the image during the reading procedure. You can use NI OCR to train any number of characters, creating a character set, which is the set of characters that you later compare with

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objects during the reading procedure. You store the character set in a character set file. Training might be a one-time process, or it might be a process you repeat several times, creating several character sets to broaden the scope of characters you want to detect in an image.

Reading characters is the process by which the machine vision application you create analyzes an image to determine if the objects match the characters you trained. The machine vision application reads characters in an image using the character set that you created when you trained characters.

Minimum Requirements

To run NI OCR, the development computer must meet the following minimum system requirements:

- 233 MHz Pentium MMX or higher microprocessor
- Microsoft Windows 2000/NT/XP/Me/9x. If you are using Windows NT 4.0, you must have Service Pack 5 or later installed on the computer to run NI OCR.
- 800 × 600 resolution or higher video adapter, 65,536 colors (16-bit) or higher
- IMAQ Vision for LabVIEW 6.0 or later or IMAQ Vision for Measurement Studio 6.0
- National Instruments IMAQ Hardware and NI-IMAQ 2.5 or later for Windows 2000/NT/XP/Me/9x if you are acquiring images with National Instruments IMAQ image acquisition devices
- Minimum of 64 MB RAM (128 MB recommended)
- Minimum of 150 MB of free hard disk space

Installation Instructions

Complete the following steps to install NI OCR:

1. Insert the NI OCR CD.
2. If you have autorun enabled, `autorun.exe` runs automatically. If you do not have autorun enabled, double-click `autorun.exe`.
3. Follow the instructions on the screen.

When to Use OCR

Typically, you use machine vision OCR in automated inspection applications to identify or classify components. For example, you can use OCR to detect and analyze the serial number on an automobile engine that is moving along a production line. Using OCR in this instance helps you identify the part quickly, which helps you quickly select the appropriate inspection process for the part. You can use OCR in a wide variety of other machine vision applications, such as the following:

- Inspecting pill bottle labels and lot codes in pharmaceutical applications
- Verifying wafers and IC package codes in semiconductor applications
- Controlling the quality of stamped machine parts
- Sorting and tracking mail packages and parcels
- Reading alphanumeric characters on automotive parts

Deployment Policy for NI OCR Software

Pursuant to National Instruments Software License Agreement, NI OCR Software is licensed to run on only one machine. Executable applications that contain NI OCR functions require that either the NI OCR Software be installed and licensed on each target machine, or an OCR and Vision Deployment Engine (part number 778671-01) must be purchased for each target machine. For more information, refer to the enclosed National Instruments Software License Agreement or ni.com/legal/license.