

iREAD Forms™

The only character recognition API that can learn fonts, languages, and handwriting styles while in operation

The Foundation of Powerful Recognition Applications

iREAD Forms™ from CharacTell is the most powerful development library you'll find anywhere for a range of ICR and OCR (Intelligent and Optical Character Recognition) applications. Whether all you need is an accurate recognition engine added to an existing system, or you are developing new applications and need powerful image and form handling tools, iREAD Forms is for you.

iREAD Forms is based on CharacTell's revolutionary Advanced Character Recognition™ (ACR™) but also combines three additional recognition engines. All four work in conjunction with our sophisticated voting and dictionary lookup technologies to deliver unparalleled high accuracy and reduced error rates.

iREAD Forms now includes a host of useful calls to powerful algorithms and functions such as robust form field setup, fast form identification and registration, form preprocessing for recognition (image clean-up, text and line removal), optical mark reading (OMR), US address verification, and scores of others. Our next version to follow will feature machine print reading, hand and machine print reading per field, and voting among three engines, as well as an optional bar-code recognition module.

Each form zone can be assigned a set of parameters as needed

The screenshot shows the 'Build region parameters' dialog box with various settings for field type, segmentation, and character sets. Below the dialog is a sample form image with handwritten text: '20 05 56 X', '8838514 039 24262', '18 3 2592', 'BAIAGAO DO INSOLE', 'VILAO', 'BILAS', '3020 COIMBORA'. The interface also includes a 'Collect images' window and a 'Build parameters' button.

Fast and easy zone designation with provided utilities

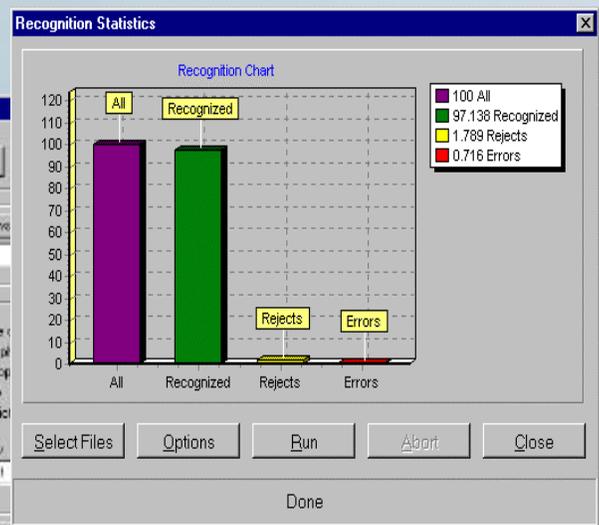
iREAD Forms Learns Fonts, Languages and Writing Styles

Often your business requires reading a unique or difficult font, special language characters, or processing of different writing styles. iREAD Forms allows you to easily train it on new characters using a small sample of only a few hundred words or characters. iREAD Forms can even search and find a desired font anywhere in a scanned page, use the font to identify the page and proceed to recognize its content. This saves time and money and may even allow you to address otherwise impossible applications.

JustICR, Bar-Code and CMC7 Reader

If your needs call for recognizing only certain types of handwritten characters, or the special CMC7 font used in check processing applications, we offer the JustICR™ and CMC7 Reader™, Bar-Code reading, as well as other subsets of the iREAD Forms library to suit specialized needs.

Make iREAD Forms the heart of your advanced form processing application, and see how accuracy, breadth of functions, and ease of integration combine to bring you the best in a form processing API.



Statistics utilities summarize performance

iREAD Forms version 4.2 Technical Specifications

RECOGNITION CHARACTERISTICS

Technology	Advanced Character Recognition™ technology for handwriting Multiple OCR engines working simultaneously for printed characters Sophisticated voting and dictionary support coupled with recognition
Text Types	Machine-print, handprint (upper-case, lower-case), non-connected handwriting, numerals, Farrington 7, CMC7
Voting	Two handwriting recognition engines vote for the most accurate results
Dictionary	Standard language dictionaries can be used in conjunction with the actual recognition process for higher accuracy and reduced error rates
OMR	Optical Mark Reading (OMR) standard. Mark boxes may be dropped during scanning or not
Learning	Fast, one-time learning of population/individual handwriting styles Continuous, automated, on-going optimization while in use
Bar Code Types	Code 11, Code 39, Code 93, Code 128, Codabar, Interleaved 2 of 5, EAN 13, EAN 8, PDF417, DataMatrix, Telepen, UPC A, UPC E, 2 and 5 digit supplementals associated with EAN and UPC barcodes
Patch Codes Types	1, 2, 3, 4, 6 and T
Address Reading	City, State, ZIP verification of US addresses in relation to US Postal Service database

IMAGE HANDLING AND FORM PROCESSING FUNCTIONS

Image Processing	Image deskew Image rotation (90°, 180°, 270°) Noise removal and despeckle Line & text removal
Multi-line reading	Single line, multi-line, full page
Form Identification	Form template is identified from a library of forms. Library size is practically unlimited without noticeable throughput degradation
Form Registration	Form is registered and coordinates fixed for recognition and output

IMAGE INPUT AND DATA OUTPUT

Image Formats	TIFF Uncompressed, TIFF Packbits, TIFF Group 3, TIFF Group 3 Modified, TIFF Group 4, PCX, Uncompressed 256 gray levels BMP
Resolution	150 to 300 dpi, binary
Size	Up to 8,000 x 8,000 pixels
Output	recognized characters by choice; confidence factors; coordinates

DEVELOPMENT ENVIRONMENT

Library type	Dynamic Link Library (DLL)
Environment	Any compiler supporting DLL calls such as C/C++/Delphi/VB and others
Development Tools	Sample source code for C/C++/VB Character training Statistics generation and performance summary
GUI Language	English

SYSTEM REQUIREMENTS

Operating System	Windows 95/98/98SE/ME/NT (4.0 or later)/2000 (SP2 or later)/XP
CPU	Pentium 75MHz or higher
CD-ROM Drive	1X CD-ROM drive for orders delivered on CD-ROM (optional)
Memory	64Mb or larger
Disk Space	400Mb of available disk space or more

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