

IDA Recognition SDK

Plug-and-play solution for unmatched OCR and ICR quality

The IDA Recognition SDK is a versatile and streamlined tool for seamlessly implementing PLANET AI's **core feature for data capture** into software applications. Despite scenarios like distorted, poor-quality scans with machine-print and difficult-to-read handwriting, the IDA Recognition SDK delivers **OCR and ICR results with exceptional accuracy**. As a result, there is a reduced need for manual corrections, leading to **enhanced straight-through processing**. Furthermore, downstream processes utilizing NLP technologies benefit from high-quality input data with significant improvements.

KEY FEATURES

Patented PerceptionMatrix

The IDA Recognition SDK leverages PLANET AI's patented PerceptionMatrix capability to effortlessly capture the most complex documents. This approach ensures that all possible transcriptions of a given text are preserved without any loss of information, resulting in ground-breaking accuracy.

Wide scope of scenarios

The IDA Recognition SDK captures machine-printed and handwritten text, checkboxes, tables and historical scripts, even in poor-quality scans with rotated, skewed print. No prior binarization is necessary.

Automatic language detection

The IDA Recognition SDK offers language models for Western languages (Latin script) that have been refined over years. It can automatically recognize multiple languages and autonomously apply the appropriate language model.

Default configuration:

- Western languages (Latin script)
- **Input:** PDF (incl. AcroForm fields, images, OCR, plain text), various image formats (.jpeg, .png, .tiff, .tif, ...)
- **Output:** PDF, PDF/A, JSON

Add-on options:

- Barcode Recognition
- Entity Finder (highlighting, redaction^{BETA})
- Historical Scripts
- Non-Latin Script Languages^{BETA}
- Table Recognition^{BETA}

IDA Recognition is also available as a client-server application.

Comprehensive PDF capabilities

OCR results can be stored as SmartPDFs with text layers containing the generated transcriptions. The IDA Recognition SDK supports PDF and all PDF/A conformance levels for efficient document archiving. Additionally, the output PDFs can be searched using our patented PerceptionMatrix.

Versatile JSON output format

By capturing documents using the IDA Recognition SDK, you can easily access them for subsequent tasks in downstream processing any time. This is made possible by a JSON format.

Easy deployment and integration

IDA Recognition is available as a Java SDK with an optional C# wrapper provided as a DLL. The API facilitates seamless and swift integration. Alternatively, IDA Recognition is offered as a client-server application.

SYSTEM REQUIREMENTS

For 64-bit systems

Linux: Ubuntu 18.04 - 23.10, Debian 11, CentOS 8, Red Hat 8.x, LEAP 15.x, SLES 15 SP 4-5

Windows: 10, 11

Windows Server: 2012, 2012 R2, 2016, 2019, 2022

Docker

At least **6 GB hard disk storage**
+ up to 0.5 GB to store logging data

Supported programming

languages: Java, C#

HOW IT WORKS

Neural networks

The IDA Recognition SDK utilizes multiple neural nets in **automatic rotation detection**, **text finding**, and **reading**. They have undergone extensive training on large datasets over the years. As a result, Perception Matrices are created, based on sequential processing and represented in an abstract metadata format.

Decoding

Decoding describes the process of transforming the abstract Perception Matrices into **human-readable transcriptions**. By default, the IDA Recognition SDK utilizes language models, trained neural networks, for decoding.

AVAILABLE LANGUAGES

The IDA Recognition SDK offers character recognition for Western languages that use the Latin script. Pre-trained language models to further enhance the recognition results are provided for the following languages:

IDA RECOGNITION SDK

- Czech
- Dutch
- English
- French
- German
- Italian
- Latin
- Norwegian
- Portuguese
- Slovene
- Spanish
- Swedish
- Swiss German
- Turkish

Arabic and Chinese (simplified) are available as an add-on (Non-Latin Script Languages^{BETA}).

Additional languages available by request

ADD-ONS

Barcode Recognition

Supported codes:

1D		2D
CodaBar	EAN8	Aztec
Code39	EAN13	DataMatrix
Code93	ITF	PDF417
Code128	UPC-E	QR

Historical Scripts

Support of historical blackletter scripts (also referred to as Gothic) and historical handwriting styles (e. g. the German Kurrent and Sütterlin) for the following languages: English, French, German, Latin, Italian.

Entity Finder

Allows for the highlighting and the redaction^{BETA} of information based on either a list of words or regular expressions.

Non-Latin Script Languages^{BETA}

- Arabic
- Chinese (simplified)

Table Recognition^{BETA}

Interpretation of table structures on documents.

For more information, please refer to the [software documentation](#).