

# PerceptionMatrix

## Patented AI Technology

The PerceptionMatrix (US patent #15/128,150) provides the IDA Software Suite with a **substantial competitive edge** over traditional IDP vendors in terms of capturing, data extraction, and understanding of documents, emails, etc.

### How it works

In contrast to conventional OCR techniques for generating transcriptions, PLANET AI's technology produces a PerceptionMatrix as the outcome **by processing input sequentially**. This abstract metadata format retains content probabilities in a highly memory-efficient manner.



PLANET AI's patented PerceptionMatrix offers numerous benefits, allowing for **deep content analysis** and diverse applications, such as full-text transcriptions using downstream language models, content searches using keywords or regular expressions, and tasks like automatic document classification and data extraction.

# TECHNOLOGY BRIEF

## Excelling where other cognitive systems fail

The main benefit of this approach stands out, especially when it's used on unclear inputs like low-quality scans or handwritten notes. Usually, traditional OCR (Optical Character Recognition) techniques that stick to precise transcriptions can cause a lot of information to be missed. This makes the next steps harder and often requires extra work to check and fix errors.

PLANET AI's technology offers a solution to this issue.

It creates the PerceptionMatrix without relying on any specific language, allowing it to be added to PDFs or moved into databases. This special technology gives PLANET AI a big advantage, resulting in **high-quality data capture, extraction, and understanding**.

## Winner of multiple research awards

PLANET AI's fruitful and long-standing collaboration with the [CITlab](#) team at the University of Rostock has yielded numerous successes in international competitions and conventions.



Three won competitions at ICDAR 2017

(Information Extraction and Layout Analysis of Historical Documents)

PLANET AI is a research-driven company that develops AI applications to unlock and process information from documents and automate data capture with unprecedented accuracy.