



## ABBYY® FlexiCapture Engine 11

The Most Comprehensive SDK for Data Capture

### What is FlexiCapture Engine 11?

*FlexiCapture Engine 11 is a comprehensive data capture SDK to combine technologies and tools for intelligent document classification and form processing. Our SDK enables developers to bring powerful functionality for automating data extraction to their applications, no matter if they run on a desktop machine or a server. FlexiCapture Engine facilitates tight integration of complex data capture functionalities for processing semi-structured and unstructured documents such as invoices, bills, contracts and many more. With FlexiCapture Engine you can easily add value to applications while simultaneously reducing development costs.*

### Extend Existing Applications or Build Automated Data Capture Solutions

FlexiCapture Engine 11 delivers a full-range of state-of-the-art technologies for data extraction, document classifying and indexing. Developers benefit from a single approach in developing, maintenance, and training for the SDK. Additionally, ready-to-use components for data export into backend systems and archiving can easily be integrated into one single application.

#### Intelligent Document Processing

Automated data extraction from fixed forms, processing of semi- and unstructured documents and document classification in one SDK.

#### Advanced Processing of Multi-Page Documents

Unique technology to easily process documents with multiple pages and tables stretching over more than one page.

#### Reliable Platform for Processing

Powerful SDK compliant to industry data capture standards for data processing in enterprise projects.

#### Automated Data Extraction into Backend Applications

Export of data into any backend applications via standard interfaces can be built using FlexiCapture Engine.

#### Ready for International Business and Documents

Language support for the development of world-wide localized applications.

#### Auto-Learning Features

The new Auto-Learning API and a source code sample offer a new, fast way to train the data extraction from simple document types via a custom designed point-and-click user interface. Once the training is done, the data will be automatically extracted from similar documents.

#### Cost Savings

Reduce costs of data extraction by deploying automated data capture capabilities.

#### Efficient Development

Set of standard components enables fast integration, thus shortening development cycles.

#### High Quality Data Output

Highly accurate recognition technologies combined with rule-based automated verification methods ensure optimized and validated data output.

#### Tight Integration with Applications

FlexiCapture Engine enables developers to ensure that data capture technologies are perfectly integrated into their custom applications.

### Key Functionality

- Integration of intelligent data capture to process forms and questionnaires
- Document classification and automated document separation
- Powerful data extraction for semi- and unstructured documents
- Verification and monitoring methods for optimised data output
- High quality recognition technologies for OCR, ICR, OMR, 1D and 2D Barcodes
- Language support for 198 OCR and 112 ICR languages
- Automated data export to backend applications
- PDF, MRC PDF & PDF/A document export for archiving
- Special module for invoices support

### Benefits for Developers

- Enhance your applications with data capture components
- Unique and powerful feature set and API for data extraction
- Ready-to-use SDK components to speed up development processes
- Full control over document processing, extracted data and document routing
- Compatibility to FineReader Engine 11 API, which can be licensed within FlexiCapture

# Development Overview



## Integration, Document Descriptions Development and Processing

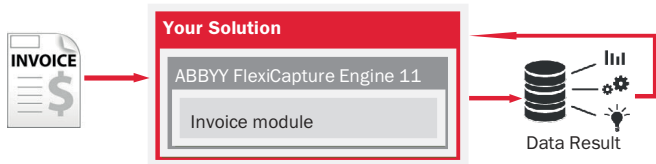
### Integration in Custom Applications and Processing

FlexiCapture Engine has a clear and easy-to-use API. Development can take place in C/C++, Visual Basic, .Net, Delphi, or any other tools supporting COM components. The following steps show how your application can be extended with Data Capture functionalities:

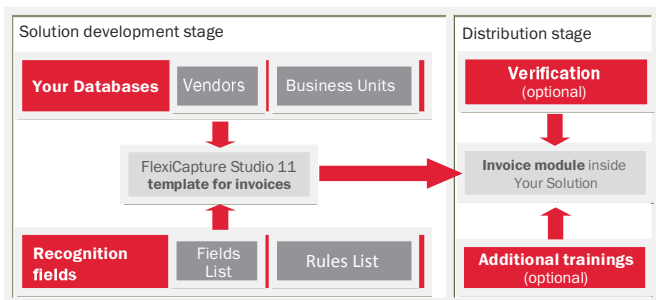
1. **Integrate FlexiCapture Engine DLLs** into your application, workflow or business system.
2. **Load a predefined set of document templates** that have been created via the new Auto-Learning API or developed and tested with FlexiLayout Studio.
3. **Load the documents and PDFs to be processed.** Document separation, classification and recognition are automatically executed.
4. **Verify result** by Data Verification API of FlexiCapture Engine 11 provides access to the internal recognition results. The Visual Components, provided as a source code sample, allow fast and easy implementation of user driven verification with a GUI.
5. **Process extracted data** in your application, or send to other applications or exported to XML, XLS, CSV. The separated documents can be exported as image files, as well as searchable PDFs or PDF/A.

### Fast and easy process of Invoice module set up

ABBYY FlexiCapture Engine 11 supports automation technology that enables developers and organizations to integrate brand new ABBYY Invoices recognition module to their applications/systems/devices to increase AP process productivity while lowering the cost of processing per invoice:



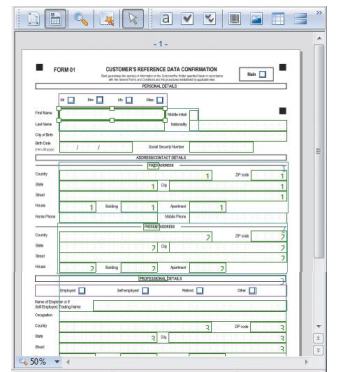
With embedded invoice module in ABBYY technology inside, developed solution delivers all essential functionality for establishing a fast, cost-effective, and transparent invoice processing procedure, from document arrival to posting



### Development of Document Templates for Forms

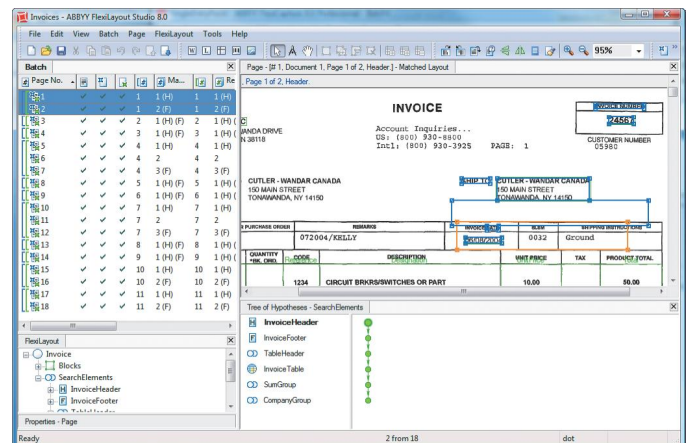
The Document Template editor allows fast and intuitive development of document templates to process static, fixed forms.

- 1) Load the different segments of the multipage form to the editor.
- 2) Define the elements that are used to match the document: anchors, static texts and separators.
- 3) Define the different recognition areas in a graphical editor where, e.g. text blocks, tables, checkmarks, checkmark groups, barcodes and pictures are located.
- 4) Set up the recognition properties for each area, e.g. OCR, ICR and attach data type definitions, dictionaries and verification rules.



### Development of Multipage FlexiLayout Templates with FlexiLayout Studio

- 1) Load a selection of documents with different layouts.
- 2) Define some generic elements that allow to identify documents and that can be used for orientation within one document, e.g. text strings, lines, spaces between elements.
- 3) Define search elements for the data you are looking for e.g. text, numbers, date, tables, the length of the string, the set of characters, one or multiple words, one or multiple lines. Additionally these elements are set into a relation with other areas set up in 2), for example right or below.





# Functionality Overview

## ABBYY FlexiCapture Technology for Data Capture

### Unique Set of OCR, ICR, OMR and Barcode Recognition Technologies

FlexiCapture Engine's core recognition technologies process 198 languages in OCR, 112 languages in ICR as well as checkmarks and barcodes (OMR).

### Processing Different Document Types in One Stream

FlexiCapture Engine has ready-to-use components which enable developers to integrate automatic extraction of valuable data from the stream of forms and documents. Automatic document type recognition allows processing of different documents (structured, semi-structured, unstructured) via Fixed Forms and FlexiLayouts.

### Document Separation

Simple and advanced document separation is built into FlexiCapture Engine. Simple separation is managed via blank pages and barcodes, advanced document separation via intelligent document definitions. Even template matching can be performed without any manual labour.

### Document Classification

Once a document matches a Fixed Form or a FlexiLayout, a document type (e.g. invoice, contract) is automatically classified.

### Fixed Forms Processing

FlexiCapture Engine is perfectly designed to process any kind of fixed forms, like questionnaires, surveys and/or coupons.

### Protection redundancy

While working in a network, the failure of the license server stops the processing on all workstations in the network. To prevent this situation, a fail proof redundant license server configuration has been introduced in this release. Now you can set up a backup license server which will take over the license management if the main license server breaks down.

### Advanced Processing of Multi-Page Documents with Different Layouts

Most business documents, such as price lists, contracts or surveys consist of several pages. With FlexiCapture Engine 11, developers get a unique technology to easily process multiple page documents with tables that stretch over more than one page.

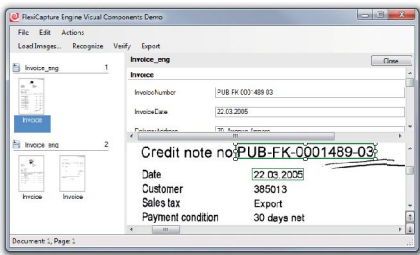
### Invoices module support

Technology 11 provides support Flexi Capture for Invoices projects with ready-to-use settings, which are simple to adjust to the unique business processes of your company and ensure timely response to legislative or internal business requirement changes.

### Data Control and Verification

FlexiCapture Engine offers effective and convenient instruments for checking the validity of captured data and tracking recognition errors:

- Recognized data can automatically be checked which includes simple range checking, comparison with known values from a database. Scripting can be used to create very sophisticated rules.
- The verification API of FlexiCapture Engine allows development of custom interfaces for field and group verification (Visual Components as source code).



### Data & Document Export

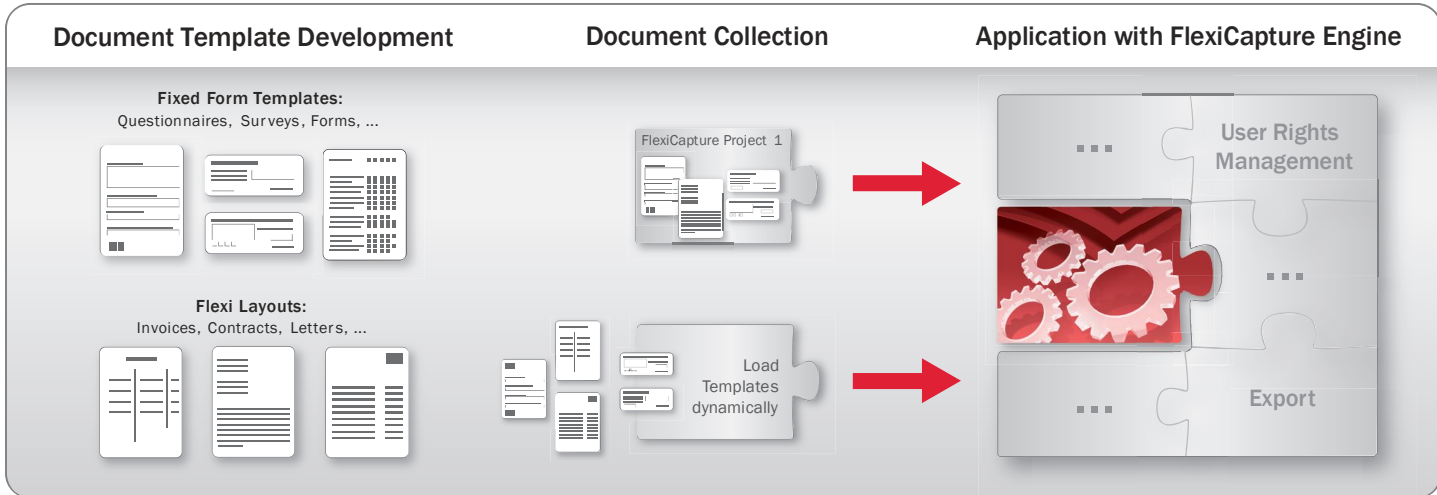
ABBYY FlexiCapture Engine is able to index a document with relevant data for export into backend applications and converts analysed documents into searchable PDFs, highly compressed (MRC) PDFs or PDF/A for archiving purposes.

### Java Wrapper

FlexiCapture Engine 11 provides ready-to-use Java classes for the Engine library. These Java classes can be used directly from Java applications.

### Auto-Classification

FlexiLayout Studio 1.1 features Auto-Classifier, a new way of mixing raster and content classification. The technology is easy to setup and guarantees fast processing. Classification training is also available via API.



# Specifications and Licencing

## Specifications

### System Requirements

- Operating System: Microsoft® Windows Server®2008, Windows 7®, Windows Vista®, Windows Server 2003, Windows® XP, Windows®2000, and 64-bit versions of Windows Server 2008, Windows 7®, Windows Vista, Windows Server 2003, Windows XP
- Memory: min. 1 GB RAM

### Cloud Platforms

- Windows Azure
- Amazon EC2

### Input Formats

BMP, PCX, DCX, JPEG, JPEG 2000, JBIG2, PNG, GIF, TIFF, DjVu, PDFs (up to PDF 1.7)

### Output Formats

- Data Export: XLS, DBF, CSV, TXT, XML
- Document Export: BMP, PCX, DCX, JPEG, JPEG 2000, PNG, TIFF, JBIG2, image snippets, searchable PDF, MRC PDF and PDF/A

### Development

FlexiCapture Engine API supports the COM standard and can be easily used in C/C++, Visual Basic, .Net, Delphi, or others.

The distribution package contains samples for C/C++, VB 6, VB.Net, C#, Java and Delphi.

### Further information online:

[http://www.abby.com/flexicapture\\_engine/technical\\_specifications/](http://www.abby.com/flexicapture_engine/technical_specifications/)

## ABBYY Licensing Policy

ABBYY FlexiCapture Engine 11 is sold via a flexible, modular licensing policy which allows developers to select the best combination of tools and pricing options for their project. Licensing is offered as:

### Developer Licenses

Provides the right to develop and test the integration of FlexiCapture Engine into your applications. The license includes FlexiCapture 11 Standalone and FlexiLayout Studio for fixed form template and FlexiLayout development.

### Runtime Licenses

Grants the right to distribute applications with FlexiCapture Engine 11 functions incorporated. Runtime licenses (RTLs) differ by functionality, pages processed per year (no CPU limit) or number of CPU cores (no page counter). Per default, ABBYY Europe ships network licenses so that processing can be scaled up and down, on one machine or in the local network. The license is hosted by one central Network License Manager; the running instances can be executed on virtual or physical machines.

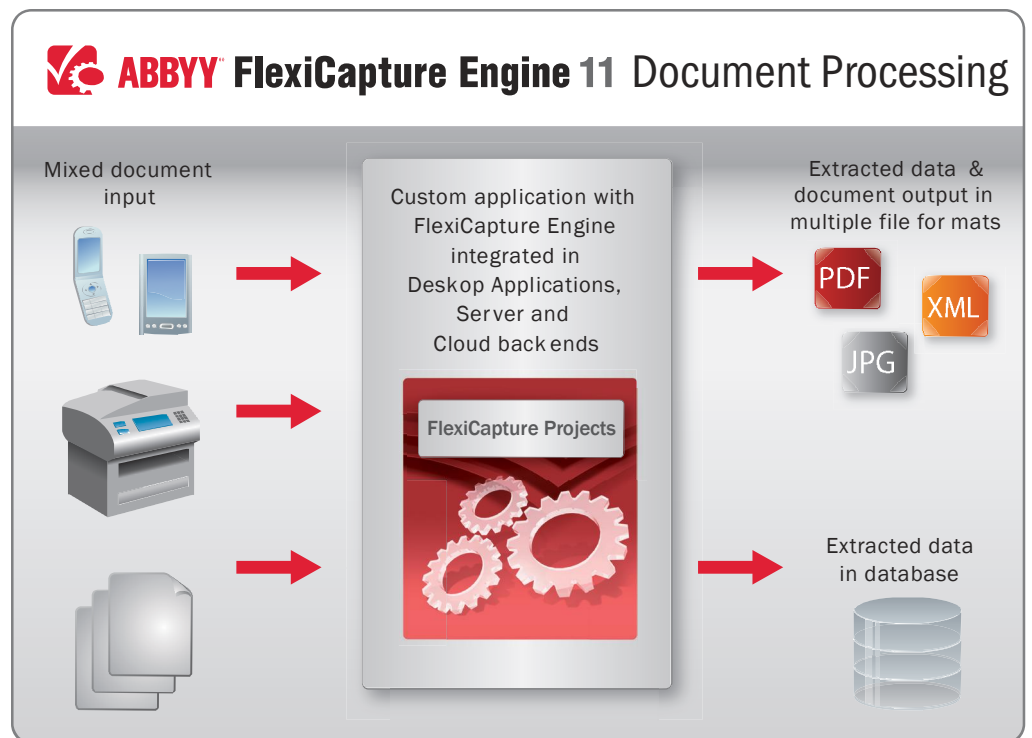
### Add-on Modules for Runtime Licenses

RTLs can be enhanced by adding one or more of the following functionalities offered as add-on modules: additional OCR languages and PDF export. ABBYY FineReader Engine 11 full text and document conversion API\* and processing functionality can also be licenced together with FlexiCapture Engine.

### Support, Maintenance and Upgrade Assurance SMUA), Certification Trainings and Professional Services

To secure the success of your projects, ABBYY offers additional support, training and certification programs for all products. If you need to speed up your project, contact ABBYY for Professional Services.

\* FineReader Engine 11 API is included in the new licensing model of ABBYY Europe, it is still an Add-on in other sales territories.



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