

ABBYY® FineReader Engine 10

What's new



ABBYY FineReader Engine 10 represents the next generation of ABBYY's award-winning recognition technology. Companies working with FineReader Engine 10 will benefit from performance enhancements in speed and accuracy, easier development and many other technology improvements. New pricing models offer greater flexibility in licensing ABBYY technology according to business model and deployment requirements. A highlight of key new features includes:

New Licensing & Pricing Structure	New & Improved Funtionality
<ul style="list-style-type: none"> - New Project-based Licensing & Pricing - New Project-based Pricing for Fraktur/Gothic OCR - New entry-level CPU Core Pricing - Concurrent CPU Network Licensing - Simplified Runtime Pricing, more Add-ons included 	<ul style="list-style-type: none"> - New image pre-processing for enhanced recognition results - Improved Document Analysis technology - Up to 92% faster processing with Enhanced Fast Mode** - Increased accuracy for low resolution images and Asian languages - Profile-driven development (pre-tuned Processing Profiles and Export Profiles) for more efficient integration - Added export formats* - New Document Structure API for access to ABBYY ADRT® 2.0

Business: New Licensing Structure and Options


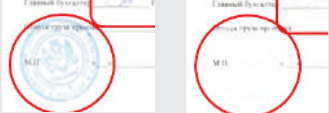
New licensing and pricing models for ABBYY FineReader Engine 10 make it easy to select the appropriate model based on your own business needs.

Feature	Description	Benefit
New Project Pricing	New project-based pricing designed to better support medium-to large-volume processing scenarios. Allows processing of a defined volume with unlimited number of CPU cores and machines.	Greater flexibility for project-based use of ABBYY technology.
New Pricing for Historic Font OCR	New project-based pricing for using ABBYY technologies with "frakturschrift" or black letter font processing ("broken" font types for old texts).	Licensing model better suited for high volume digitisation of documents with mixed font types.
New CPU Core Pricing	Reduced entry level for CPU Core Pricing.	Lower entry-level price point for licences.
New CPU Core Network Licensing	Licence manager for distributing cores concurrently across a network. For example: 6 "CPU network cores" can be used on only one or up to 6 different instances.	CPU cores executing OCR processes can now be distributed within a network. Ideally suited for virtual, server based environments.
Simplified Runtime Licensing	<p>Simplified Runtime Licence structure with more runtime functionality. Standard "Runtime Professional" licences now include:</p> <ul style="list-style-type: none"> - 2D Barcode Support: PDF417, Aztec, Data Matrix, QR Code - Visual components*: set of graphical user interface elements to scan, preview pages, show document analysis results and verify the recognition results. - E-Book Formats: .epub* & .FB2* - Open Office Text Format. .odt* 	Additional functionality now available through a standard Runtime Professional purchase. Add more features to your application without increasing the deployment costs.

New Technical Features and Improvements

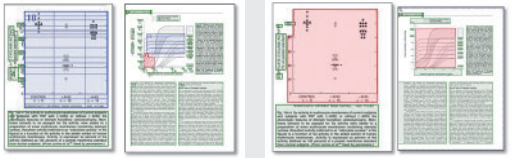
Image Pre-processing Enhancements

Because image quality can dramatically impact overall recognition and conversion, ABBYY delivers new image pre-processing functions designed to deliver better results. FineReader Engine 10's new pre-processing enhancements help improve document images to make them more suitably prepared for OCR processing.

Feature	Description	Benefit
New Binarisation	Enhanced technologies for converting images into binary images. As character recognition is always executed on a binary image, the new technology in version 10 increases accuracy of the binarisation process, focusing on eliminating typical issues associated with binarisation. Focuses on retention of complete text and prevents information loss in difficult cases.	Enhanced binarisation quality and retention of valuable information for better OCR accuracy. 
Enhanced pre-processing for camera images	Designed to support recognition from images captured using digital cameras (e.g. within book scanners or mobile phones). Addresses specific characteristics related to camera image documents. 3rd generation Camera OCR now includes: <ul style="list-style-type: none"> - Automatic correction of 3D perspective distortions - Blurred image correction - ISO noise reduction 	Greater support and accuracy for document images captured with a wide range of digital camera devices. Camera-based document acquisition enables new and emerging applications such as mobile capture and remote capture with server-based processing.
Colour mask, marks and stamps filtering	Filtering of background colours, colour marks and stamps. Includes stamps or marks on document images made by pens or markers which can interfere with the original text and reduce OCR quality.	An excellent feature for data capture systems. Prevents data loss from fields covered by stamps and colour marks. 

Improved Document Analysis

Before recognition, document images must be analysed and text, tables, pictures and barcodes identified. Layout analysis algorithms in FineReader Engine 10 have been enhanced in scenarios where text, graphical elements and images are mixed or overlaid.

Feature	Description	Benefit
Chart and diagram detection	Improvements in automatic chart and diagram detection. Now diagrams are more clearly identified as a unit. Additionally it is possible to select if text should be extracted from a chart or if it should remain as part of the original image.	
Picture and table caption processing	Automatically detects picture and table captions and exports them to the final document as a single frame, including the picture and its title.	New document analysis algorithms provide a more detailed evaluation of complicated layouts. Converted documents are easier to edit and more text is extracted. Also enables higher compression rates for PDF file export.
“Glossy magazine” processing model	Enhanced reconstruction of complicated layouts with many pictures or text blocks on a page or full page image backgrounds.	

New Technical Features and Improvements

Improved OCR Accuracy and Speed

Building upon the multi-core architecture introduced with FineReader Engine 9.0. With FineReader 10, a performance increase for multipage documents is almost linear when adding more processing cores. ABBYY focuses on increasing throughput while at the same time trying to maintain high standards of accuracy. Recognition processing optimisation in FineReader Engine 10 focuses on:

- increased processing speed for good quality images, and
- increased accuracy for low quality images

Feature	Description	Benefit
Enhanced Fast Mode Recognition	New Enhanced Fast Mode designed to optimise processing speed/accuracy balance for images of good quality. Up to 92% faster page throughput while maintaining the high level of recognition accuracy**.	High performance speed-accuracy ratio for popular European languages.
New mode for low resolution scans	New recognition mode for low quality document processing. Delivers up to 20% higher accuracy when recognising documents such as old faxes or low resolution scans, with only slightly higher processing time (compared to Normal Mode recognition).	Higher recognition accuracy on documents of low quality e.g. faxes. As a result, processing steps which follow (e.g. data extraction) can thus be executed more efficiently with less manual correction.
Improved classifier for CJK	New classifiers for Asian languages deliver a recognition accuracy increase of up to 40% for Chinese, Japanese and Korean languages.	High recognition quality even for projects with mixed Asian and European languages.

New and Improved Export Options

Next export options enable greater compatibility with other applications and formats.

Feature	Description	Benefit
New Open Office Text Export*	Added support for XML-based OpenDocument Text (ODT)* format that is used by the Open Office Suite.	Adds export to an ISO standard format used by many public institutions.
New E-book Formats*	Two new e-book export formats: EPUB & FB2. EPUB (.epub)* is a free and open e-book standard officially accepted by the International Digital Publishing Forum. FictionBook (.FB2)* is an open XML-based e-book format that doesn't specify the appearance of a document but describes its structure instead.	Ability to deliver converted documents suitable for emerging e-book readers and tablet devices.
High quality, highly compressed PDF files & PDF Export Profiles	New optimised PDF export routines and improved MRC (Mixed Raster Content) compression. Enables higher compression rates for PDF documents while preserving the visual quality. New pre-defined PDF export profiles with settings for commonly used scenarios including: <ul style="list-style-type: none"> • Maximum Quality • Balanced (quality / file size) • Minimal Size • Maximum Speed For simplified fine tuning, there are 6 new high-level and 40 low-level parameters.	Improved MRC compression saves bandwidth and storage, especially for colour documents. Application users benefit from the combination of good visual quality with small file sizes – particularly useful for reading documents on mobile devices. Pre-defined PDF export profiles simplify the development process, providing guidance for developers with set parameters designed to deliver the desired performance levels.

New Technical Features and Improvements

Developer Tool Enhancements

ABBYY FineReader Engine 10 introduces new tools to help make the process of integrating ABBYY technologies more efficient. Special tools for developers are designed to simplify integration and deployment processes.

Feature	Description	Benefit
Optimised Development Profiles for popular usage scenarios	Optimised Development Profiles make it easier for developers to get started with new projects. Each profile is a pre-determined set of parameters based on the most common recognition tasks. Developers benefit from a ready-to-use or "out-of-box" set of parameters which are designed to deliver high OCR quality without long-time manual tuning.	The new optimised profiles speed-up development, eliminating significant time spent learning API features and parameters at the start of the integration process. Simply choose the suitable profile and deliver excellent recognition results.
Document structure API with Table of Contents reconstruction based on ADRT	With FineReader Engine 9.0 ABBYY introduced Adaptive Document Recognition Technology (ADRT). ADRT analyses a document as a whole and uses the results to export Microsoft Word documents with logical structure intact. The new ADRT API gives developers access to document structure elements such as headers and footers, footnotes, running titles, font styles, main text, lists, headings, tables of contents, endnotes, etc.	Developers gain access to and detailed information about the structure of a multi-page document. Meta information can be used to classify content within applications, e.g. in clipping or book processing scenarios.
Improved Developer's Guide (Help)	Newly revised and restructured documentation / help file delivers enhanced product descriptions, API specifications, usage samples and best practice information.	Easier access to relevant information for better results and less preparation time.

Additional Information

- * Still under development, planned to be released in a maintenance release of FineReader Engine 10 (Q1/2011)
- ** Based on internal testing of FineReader Engine 9 (release 1) vs. FineReader Engine 10 (release 1). Tests included standard business document scans in English, German, French, Spanish and Italian. Your results may vary based on scan quality, document complexity, system and application type.
- The update for FineReader Engine 10 is free if you have purchased a SMUA (Software Maintenance and Upgrade Assurance) together with your Developer and Runtime Licence purchase. SMUA is available for an annual fee of 20 % of the purchase price.
- If you have licensed an older version of ABBYY FineReader Engine please contact ABBYY Europe to upgrade your existing development tools and the deployed installation.
- ABBYY Europe can also provide Professional Services and Consulting to extend your development resources. Take advantage of our industry expertise and make sure your project is realised successfully and in time.



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