

ABBYY FlexiCapture 12 Release 3 Update 1 Release Notes

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Introduction

About this document

This document describes the changes made in ABBYY FlexiCapture 12 Release 3 Update 1.

About the product

ABBYY FlexiCapture 12 is a new version of the FlexiCapture product, whose main goal is to provide a stable and scalable Data Capture platform that can serve as a basis for creating regional and vertical solutions.

About the update

The update includes new features and bug fixes. It can be installed on its own, on top of ABBYY FlexiCapture 12 Release 1 or Release 2 (with any updates installed), or on top of ABBYY FlexiCapture 12 Release 3.

Technical Information

Release	Part #	Build #	Installer build #	OCRT build #	Release date
Release 3 Update 1	1299/39	12.0.3.2634	108384	16.1.814.24	2020.03.06
Release 3	1299/35	12.0.3.2525	70734	16.1.681.26	2019.10.04

New functionality

1. Import from an SFTP server

An SFTP server can be used to send documents to the ABBYY FlexiCapture-based cloud service over a secure connection. It can be also used with a common FlexiCapture installation. Documents are imported into ABBYY FlexiCapture automatically, making all the Hot Folder capabilities available to the ABBYY FlexiCapture-based cloud service.

To use the SFTP import feature, follow these steps:

1. Select **Hot Folder** for the import source.
2. Select **SFTP server** for the Hot Folder type. Specify the address of your SFTP server. If you are using a non-standard port, specify it after the server address (e.g. sftp://address:port/).
3. Click the **Settings...** button and enter your login and password in the **Network Settings** dialog box.
4. Make sure the following permissions are given to the SFTP server:
 - a. File permissions: Download, Upload, and Delete
 - b. Directory permissions: List, Create, and Delete

Note: Only password-based authentication is allowed.

2. Export to JSON

Starting from this release, JSON can be selected as a file saving format when exporting data to a file.

You can:

- Specify additional data to be exported (e.g. field locations, errors, or recognition quality data).
- Select the **Preserve value type on export** option to save an XML schema with field type descriptions.
- Select an encoding (see the “Export file formats” section).
- Specify field names, if necessary. To do this, click **Field Mapping** and, in the **Field Mapping** dialog box that opens, specify the field names.

Known limitation: Decimal values will be enclosed in quotation marks (e.g. "14.25").

3. ABBYY FlexiCapture for Invoices: Purchase Order Number field extraction is improved

In ABBYY FlexiCapture 12 Release 3 and earlier, Purchase Order Numbers could only be extracted using databases or regular expressions. Now PO numbers are extracted using neural networks and such extraction is enabled by default.

Extraction based on neural networks is supplementary to other methods so it will work in case PO number was not extracted with other methods such as database lookup or search using regular expression.

The quality of extraction out-of-the-box was measured on testing batches with normal quality of images for OCR:

CountryF measure Recall Precision

AU 90,25% 98,43% 83,33%

CA 94,85% 99,63% 90,51%

DE 90,85% 98,69% 84,17%

US 93,94% 98,94% 89,42%

Country	F measure	Recall	Precision
AU	90,25%	98,43%	83,33%
CA	94,85%	99,63%	90,51%
DE	90,85%	98,69%	84,17%
US	93,94%	98,94%	89,42%

If for some reason you need to disable Purchase Order Number extraction based on neural networks add the register key and set a value as described:

`[HKEY_CURRENT_USER\Software\ABBYY\FlexiCapture\12.0\DAForms]`

`EnableNeuralNetPONumber = false`

4. ABBYY FlexiCapture for Invoices: extraction of BU name and Vendor name based on neural networks

Neural Network is also trained to extract Vendor name and BU name. This extraction will work in both cases: no vendor or BU databases are connected, or databases are connected but database lookup was not successful.

5. ABBYY FlexiCapture for Invoices: Purchase Order number extraction trained on the user's side

Extraction of Purchase Order Numbers can now be trained on the user's side. For several Purchase Order Numbers in one document, only the first instance will be used for training.

In fact, another non-repeatable field is trained because of the restriction to train repeatable group. Then the value is automatically copied back to the instance of the group. That is why for new invoice projects, training of PO number will be enabled by default but when using an invoice project created in an earlier version, additional adjustments should be done. After project update to the new version, please follow these steps:

1. Open your project in ABBYY FlexiCapture 12 Release 3 Update 1. Your project will be updated.
2. Open the **Document Definition Properties** dialog box, click the **Invoice Settings** tab, and make sure that the following options are selected:
3. Purchase order matching
4. Thorough extraction of invoice header fields
5. On the **Event Handler** tab, select **After document state changed**.
6. For the **TrainablePO** group of fields, select the **Copy PO data to TrainablePO** rule.
7. Check the recognition setting of fields from **TrainablePO** group and if they have **Do not recognize** setting on Recognition tab, change it to **Standard Recognition**.
8. Start training PO number extraction.

6. ABBYY FlexiCapture for Invoices: improved detection of line items

In case of multi-line product or service descriptions, a line item could be incorrectly separated into several lines. Extraction of such line items has been improved so now the program interpret them like single line item with long description. Please note that the extraction of multi-line description of the last Lineltem on the page may fail.

If you need to extract a lot of multi-line description, the mode of extraction of Lineltems can be changed using registry key:

```
[Computer\HKEY_CURRENT_USER\Software\ABBYY\FlexiCapture\12.0\DAForms]
```

```
"EnableExtendingDescriptionInLineltems" = true
```

7. Updated EULA

The EULA has been updated. Besides English, the EULA is now available in Russian, Japanese, German, French, and Spanish.

8. Web Verification UI translated into Traditional Chinese

The UI of the Web Verification, Web Scanning and Web Capture stations is now available in Traditional Chinese.

9. Help of Scanning Station is translated into German and French

Help file for Scanning Station is available now on German and French.

[Online help in French](#)

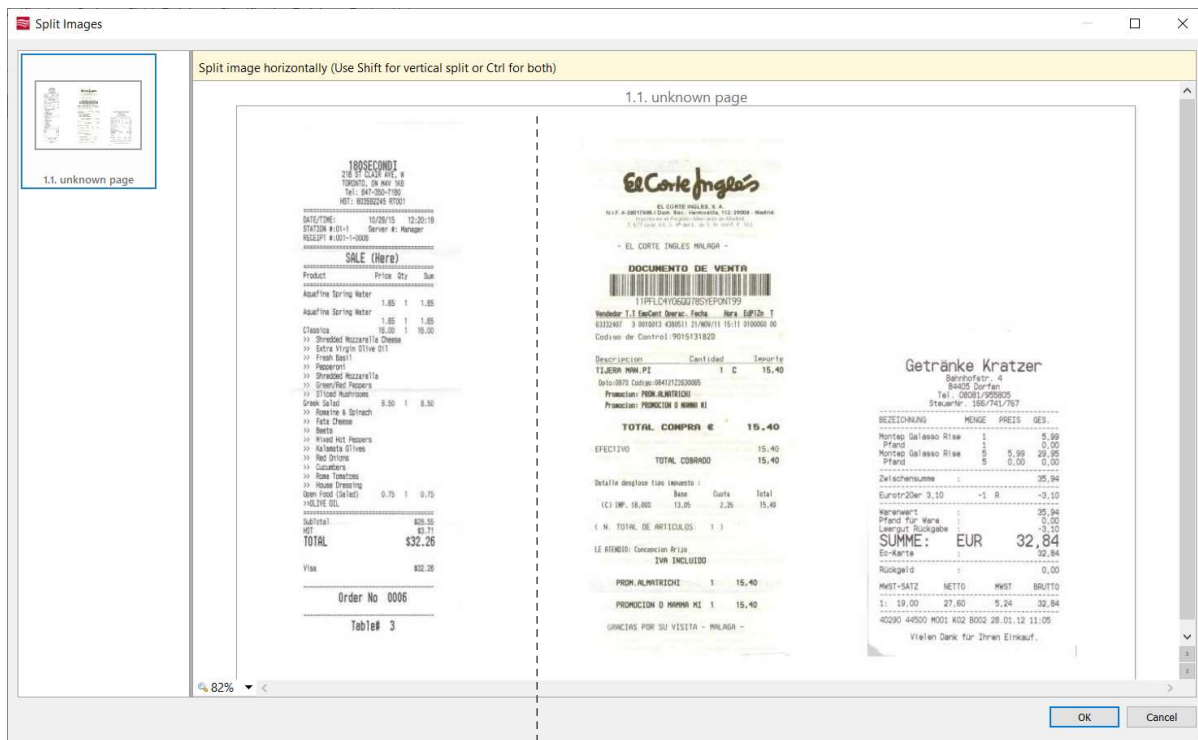
[Online help in German](#)

10. Ability to crop and split images during verification

When multiple documents were scanned together (e.g. when scanning IDs or receipts), it was only possible to split the resulting image on the Scanning Station. Autocrop was only available on the Scanning Station or via an image enhancement profile. Now Automatic crop, Split and manual Crop tools are also available to verification operators. They can use corresponding buttons on the toolbar:



Splitting receipts scanned on the same page:



11. Ability to delete a project form the list of recent projects

Sometimes there is no need to keep a project on the list of recently opened projects. For example, the administrator may upload a project to the server and have no need to work with its local version. Now such redundant projects can be deleted from the list of recently opened projects so as not to confuse the operators.

Note. The feature is only available on Windows clients.

12. Ability to export classification statistics to a CSV file

Classification statistics can now be exported to a CSV file for further analysis.

To export classification statistics to CSV, open the **Classification Statistics** dialog box, click the **Export Statistics...** button, specify a path and file name, and select the type of statistics to export. The following export options are available: **Summary**, **Statistics by class**, **Confusing classes**, **All classes**.

The exported statistics will correspond to the set of documents selected in the **Document type** field: **For testing**, **For training** or both.

13. ABBYY FlexiCapture Web Verification Station improvements

- Performance improvements for large data forms:
 - Smooth scrolling for data forms containing over 600 line items

- The GUI is now more responsive when correcting large numbers of errors
- Working with links to existing fields and with the summary section is now supported. For more information, see these help articles: [Link to existing field](#), [Summary section](#).
 - Please note that you can currently work with links to existing fields and with the summary section only within one document (e.g. a large document with multiple sections). The full functionality for working with document sets is not currently available on the web stations.
 - Field values of the following types can now be normalized: int, currency, date, and time.
 - Opening tasks sped up on Web
 - The Web Verification station has been redesigned. Operator waiting times for starting verification tasks were reduced by half.

14. ABBYY FlexiCapture Developer's Package

Release 3 includes an ABBYY FlexiCapture Developer's Package for use with ABBYY FlexiCapture Cloud and the ABBYY FlexiCapture SDK. The Developer's Package can be downloaded and installed separately and contains only the following components required to develop and maintain FlexiCapture projects: Project Setup Station, FlexiLayout Studio, FCAdminTools, License Manager, and Licensing Server. To develop projects with NLP features, NLP components must be installed.

To use Developer's Package customers will need license for FlexiCapture Distributed with a permission to use Project Setup Station.

Bug Fixes

Issue description
A new database could not be created and an existing database could not be upgraded in Oracle 12.0.1.* due to a compatibility issue.
A classifier training task failed if the number of images in its training batch reached a certain limit.
Checking rules on web stations failed if working with WinAuth.
Multiple "-" symbols were not allowed in a login.
If a group contained only subgroups, syncing with AD removed all users from that subgroup.
On some scanner models, an error occurred if ISIS drivers were used for scanning.
Fixed forms became invalid after updating the project.
FlexiCapture for Invoices. Keywords from all recognition languages influenced field extraction for invoices in unrelated languages. For example, Russian keywords could hamper the processing of Swiss invoice. After the fix, if the country is detected, only languages related to that country will affect field extraction. If the country is not detected, the behavior will remain the same as before the fix.
While working on the web, a script rule failed if it used a shared assembly.
An error occurred when recognizing certain documents.
Table column was not found if it contained "-1" values.
Japanese UI improved based on feedback.
Project size reduced for projects with a lot of fields in Document Definitions (saving field settings in a workflow has been optimized).
The following security issues found during penetration testing have been fixed:

Issue description
<ul style="list-style-type: none"> An operator with restricted permissions (e.g. a Scanning Operator) was able to close sessions of other operators. An operator was able to postpone any task, even those already open and in use by another user.
Sometimes, the user needed to click repeatedly in order to select records in a data set.
In projects uploaded to the server, the Disabled parameter for training batches was ignored and trained layouts were still applied.
Excessive memory usage for Document Definitions with empty FlexiLayouts.
After publishing a Document Definition on the server, an error icon was displayed even if there were no errors.
Occasional slow processing speeds when using a classifier or additional FlexiLayouts.
The Project Setup Station sometimes crashed when testing a Document Definition following a FlexiLayout update. The crash was caused by a specific location of data fields on the data form.
After updating a .NET assembly to a different version, it was necessary to recreate a reference to this assembly and save all the scripts once again.
During web verification, a document sent to back-end processing sometimes got stuck with an incorrect status.
An export task failed and would loop in some cases if the Delete documents after export option was on. Now this option will be ignored and a warning will be added into the log.
The orientation of some thumbnails was incorrect after rotating pages. The bug occurred only in local projects.
After SSO integration with IdP Auth, a ticket timestamp made the ticket invalid.
Automated processing failed when executing a script that edited a field with a long text string (1000+ characters).
An error saying <i>“Invalid character value for cast specification”</i> occurred when comparing a 5-digit number in a field of “Decimal” type.
Sometimes, an error occurred when a local project was used to update another project to a new version.
Field groups overlapped when scrolling data on a web station.
Sometimes, redundant indents occurred on the data form displayed on the Web Verification Station.
When using certain script rules, there were issues with loading the data form on the Web Verification Station.
In some projects, data could not be added to data sets on the Web Verification Station.
The user interface of the Web Capture Station became blocked when the user downloaded batch results locally.
Sometimes, after installing ABBYY FlexiCapture, the Administration and Monitoring Console would not open.
When the user specified an empty time period on the Monitoring & Reporting Station and then corrected the error, the interface still indicated the time period as incorrect.
In ABBYY FlexiCapture for Invoices, reduced RAM requirements for advanced field extraction technology involving deep learning. Previously, this feature required at least 2.5 GB of RAM per CPU core, now it is decreased and require 1GB. Peaks until 2.0GB can happen on complex multipage documents.
There were problems decoding e-mail bodies with unsupported characters when importing from mail boxes.
In FlexiLayout Studio, the order of columns in a column element could not be changed.
Fixed security vulnerability issue CVE-2019-20383 . Users could elevate their rights to the Administrator or System level.
A program file required for recognition of Georgian texts was not installed. As a workaround, the required file could be copied manually onto the stations where recognition was carried out. Now necessary files are installed during application installation.
A training task failed if a batch contained documents for which several Document Definition versions were available.
Inline images and tables larger than A4 were not scaled correctly and so could not be processed.
Web Capture stations consumed too much backend resources, which led to random errors.

Issue description
Applications crashed during data verification after latest update of Microsoft Windows.
ABBYY FlexiCapture Cloud
Sometimes, a task looped at automated processing stages.
The Project Setup Station could not open a tenant's project in the cloud if the tenant used its own license.
After upgrading the Application Server in a cluster, all the nodes had to be reconfigured manually in order to synchronize the values of the <i>machineKey</i> section in the <i>web.config</i> file.
After updating an expired license, the Processing Server had to be restarted in order to resume the processing.

Known Issues

1. Limitations of usage of Internet Explorer browser for Web stations

Due to the known limitations of Internet Explorer 11, you may observe the issues while processing dozens of pages at once or having numerous verification tasks with ABBYY FlexiCapture. Using Internet Explorer 11 browser for an extended period of time can cause the browser to consume a lot of the machine's memory and slow down the client performance and eventually crash the browser.

To avoid the unwanted interruptions of ABBYY FlexiCapture processing tasks ABBYY recommends you to use Microsoft Edge, Google Chrome or other browsers for the professional verification tasks. Nevertheless, ABBYY FlexiCapture web-stations are fully functioning in Internet Explorer 11, thus they should be used for ad-hoc processing preferably.

Important notes for users of Internet Explorer 11

1. In the event of a verification malfunction, the operator will not be able to resume the task immediately after the session is restored. This task will become available only after the inactive sessions have been purged. By default, the time since last user activity after which inactive session will be automatically closed, is equal to 120 minutes. You can change the setting *SessionInactiveLifetimeInMinutes* in the **web.config** file on the Application Server. We do not recommend purging inactive sessions too often. The recommended minimum setting is 10 minutes.
2. Starting from FlexiCapture R3 Update 1, each new task is opened in a new tab to optimize memory use when working in Internet Explorer 11. However, this also means that operators will not be able to receive new tasks automatically. To revert to the old behavior, open the **web.config** file for the web station and set the *IEVerificationNewWindow* key to *false*.
3. Purchase Orders matching does not work on Web Verification opened from Internet Explorer 11 in case of several instances of Purchase Orders Numbers instances on the same document. When clicking **Details** button, an error occurs (*ReferenceError: 'customActionContext' is undefined*). This error will be fixed in next updates.