



ABBYY Mobile Capture SDK

Developer's Guide

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Introducing ABBYY Mobile Capture

Welcome to ABBYY Mobile Capture.

ABBYY Mobile Capture is a software development kit that provides flexible methods of mobile data capture. The Mobile Capture SDK will automatically capture the image for further back-end processing or recognize the data from the document in real-time on the mobile device, requiring minimal interaction from the user.

Key features:

The ABBYY Mobile Capture SDK can power your applications with:

Out-of-the-box image capture: Easily add image capture with UI components by utilizing our API, to automatically capture the best quality image suitable for OCR for further back-end processing.

Automatic document detection: Detects document boundaries, crops and corrects perspective.

On device OCR: Automatically recognizes text from a static image or on the smartphones' camera preview screen from video stream by simply pointing the camera on the document or object.

Customizable data capture: Extract any specific data from a document by setting a regular expression describing the required content. Capture machine-readable zones (MRZ) or international bank account numbers (IBAN) by simply applying predefined profiles.

Out-of-the-box document capture: Easily add ready-made functionality to extract important fields from specific documents: passports, IDs, driver licenses, bank cards and others.

Ready-to-use business card reading: Allows automatic and convenient extraction of contact data from business cards by simply pointing the camera at the card to use within your mobile CRM or lead management app or for customer onboarding.

Out-of-the-box image capture scenario: Implement image capture by adding just a few lines of code to your app, using API that can draw UI, handle phone camera and perform image capture.

Translation: Provides built-in translation dictionaries; word-by-word and phrase-by-phrase.

Benefits:

- *Increase your customer retention rates:* Provide your customers with a seamless customer experience with a friendly mobile onboarding solution, meeting customers in their preferred channel with accurate results and minimal steps for the end user.
- *Get ahead of the competition:* Provide a better customer experience by minimizing the efforts by the end user to capture and deliver data within the onboarding experience with seamless accurate back-end integration to process the required information.
- *Optimize your development resources:* Easily integrate a pre-built comprehensive mobile capture solution into your mobile application.

Guided Tour

This section will help you to get started using ABBYY Mobile Capture.

- [How to Add the Library to Your Xcode Project](#)
- [Implementation of any capture scenario, using the User Interface API](#)
- Step-by-step guides to the simple scenarios:
 - [How to Capture Text from Camera](#)
 - [How to Recognize Text on Photos](#)
 - [How to Capture Data from Documents](#)
 - [How to Capture a Custom Data Field](#)
 - [How to Capture Image from Camera](#)
- [Code Samples](#)

How to Add the Library to Your Xcode Project

To create an application which uses ABBYY Mobile Capture SDK, you will need to add the library to your project, copy resource files and sign the framework. The configuring can be done mostly manually or by scripts. This is required for new projects only — packaged examples work out of the box.

Building application in manual mode

1. Add the frameworks from the **libs** folder to your project. Please keep strictly to the following order:
 - 1) AbbyyRtrSDK.framework
 - 2) AbbyyZlib.framework
 - 3) CustomAllocator.framework
 - 4) FineMachineLearning.framework
 - 5) FineObj.framework
 - 6) Image.Services.Core.framework
 - 7) MobileImaging.framework
2. Add the **license** file to your project (simply drag and drop it into your project window).
3. Select your project in the **Target** group and open the **Build Phases** tab. In the **Link Binary With Libraries** section, click "+" and add the **AbbyyRtrSDK.framework**.
4. Open the **General** tab and add all the frameworks to the section **Embedded Binaries**.
5. Now you need to add the resource files and set up the copying rules. See Distribution Kit for a detailed description of the necessary resources. To add the resource files do the following:
 - 1) Go to **Build Phases** and add a new **Copy Files** phase.
 - 2) In the **Destination** field, specify **Resources**.
 - 3) In the **Subpath** field, specify **bcr, dictionaries, patterns, translation** and other required resource files.
6. Finally, add framework signing:
 - 1) In **Build Phases**, add a new **Run Script** phase.
 - 2) Run the **copy_frameworks.sh** script that removes the frameworks for the non-active CPU architectures (the complete list depends on the project settings), and sign the resulting framework. This is a required step before uploading your application to App Store.

```
/bin/sh "${SRCROOT}/../libs/copy_frameworks.sh"
```

Building application using scripts

1. Add the **license** file to your project (simply drag and drop it into your project window).

2. Add the **AbbyRtrSDK.framework** from the **libs** folder to your project.
3. Select your project in the **Target** group and open the **Build Phases** tab. In the **Link Binary With Libraries** section, click "+" and add the **AbbyRtrSDK.framework**.
4. Add all the other frameworks to your project using script:
 - a. In **Build Phases**, add a new **Run Script** phase.
 - b. Run the **copy_frameworks.sh** script to add all the frameworks to you project. It will also remove from the frameworks the non-active CPU architectures (the complete list depends on the project settings) and sign the resulting framework. This is a required step before uploading your application to App Store.

```
/bin/sh "${SRCROOT}/../libs/copy_frameworks.sh"
```

5. Now you need to add the resource files and set up the copying rules:
 - a. In **Build Phases**, add a new **Run Script** phase.
 - b. Run the **copy_assets.py** script to automatically copy all resource files to corresponding destinations and add necessary dictionaries. Your scenario may require only certain assets, therefor the script provides customizable settings: keys. Set the key value to copy only specified for the scenario source files. See the script file for details.

```
python "${SRCROOT}/../assets/copy_assets.py"
```

! Important! *Your application needs an Internet connection to gather the information about the current state of the library.*

How to Implement Capture Scenario With User Interface

This guide helps you to implement the whole capture scenario including the user interface part with just a little effort.

How it works

Mobile Capture technologies can be easily integrated to your application with the User Interface API. To implement any type of capture scenario you should just set preferable one during the User Interface implementation. Inner UI functionality extends the standard camera mode with features required for capturing elements. Specify the events, on which the capture scenario will start, and receive the results.

! Note: *Currently UI components support only Mobile Imaging scenario integration. Other scenarios will be integrated in future versions.*

Implementation

! Note: *Before you begin, see [How to Add the Library to Your Xcode Project](#).*

1. Add the **NSCameraUsageDescription** key into the info.plist file for requesting access to the device's camera.
2. Create an instance of the **AUICaptureController** interface for managing user interface and starting capture scenario. On this step you can use the properties of this interface to tune the user interface appearance and the settings of the camera.
3. To get access to the processing mechanisms for chosen scenario create an **RTREngine** object using the **sharedEngineWithLicenseData:** method. The method requires an **NSData** object containing your

- license data. For example, you can use [dataWithContentsOfFile:](#) to create a data object, then pass this object to the [sharedEngineWithLicenseData:](#) method.
4. Create an instance of an interface inherited from the [AUICaptureController](#) for managing user interface and starting capture scenario. Choose the inherited interface depending on your scenario. I.e. for image capture scenario use the [AUIImageCaptureScenario](#) interface and pass the previously created [RTREngine](#) object as an input parameter to the [initWithEngine:](#) method for connecting scenario with processing mechanisms.
 5. Implement the delegate interface, corresponding to the scenario object, i.e. [AUIImageCaptureScenarioDelegate](#) interface. The delegate will receive result of the scenario, error or warning messages, so you should also implement its method:
 - a. The [captureScenario:didCaptureImageWithResult:](#) method returns the result image
 - b. The [captureScenario:didFailWithError:](#) method delivers error messages
 - c. The [captureScenarioDidCancel:](#) method notifies that the scenario was canceled.
 6. Add the instance of the interface as a **delegate** property of the [AUIImageCaptureScenario](#) object.
 7. Define created scenario object as a **captureScenario** property of the [AUICaptureController](#). Scenario will start immediately at the camera start. You can pause the scenario using the [setPaused:animated:](#) method of the [AUICaptureController](#) object or implement immediate capturing on button click with the [captureImageManually](#) method of the scenario object.
 8. Process the messages sent by scenario to the delegate object. The result will be delivered as an [AUIImageCaptureResult](#) object, storing the captured image and document boundaries in case the image was not cropped.

How to Capture Text from Camera with iOS

This guide walks you through a simple real-time text capture scenario, in which the user points the device's camera at the text to be recognized.

How it Works

The purpose of Mobile Capture SDK for OCR development is to enable your application to capture information directly from the smartphone camera preview frames, without actually snapping a picture. Once you start capturing, the Mobile Capture SDK engine will automatically receive new camera frames and process them, using each new frame to verify and improve the recognition result from the previous frame. This process is continued until the result reaches the required stability level. Combining several images enables Mobile Capture SDK to recognize text even in situation when it is hard to obtain a still photo of suitable quality for recognition.

Note that Mobile Capture SDK also supports recognizing text on an image that was already saved to a file, which allows it to process existing photos, scanned texts, and so on. See [How to Recognize Text on Photos](#) for the description of this scenario.

Implementation

 **Note:** Before you begin, see [How to Add the Library to Your Xcode Project](#).

To implement the real-time text capture scenario, follow these steps:

1. Implement a delegate conforming to the [RTRTTextCaptureServiceDelegate](#) protocol. The delegate will handle messages from the text capture service. Here are the recommendations on what its methods should do:
 - The [onBufferProcessedWithTextLines:resultStatus:](#) method is where you work with the results, display them to the user, etc.
 - The [onError:](#) method is for handling processing errors.

- The [onWarning:](#) method can optionally be used to show warnings to the user.
2. Create an [RTREngine](#) object using the [sharedEngineWithLicenseData:](#) method. The method requires an [NSData](#) object containing your license data. For example, you can use [dataWithContentsOfFile:](#) to create a data object, then pass this object to the [sharedEngineWithLicenseData:](#) method.
 3. Use the [createTextCaptureServiceWithDelegate:](#) method of the [RTREngine](#) object to create a background text capture service. Only one instance of the service per application is necessary: multiple threads will be started internally.
 4. Configure the text capture service:
 - If you are using a recognition language different from English, specify it using the [setRecognitionLanguages:](#) method. Multiple languages are also supported, although setting too many languages may decrease recognition performance.
 - Your application can automatically translate the recognized text. To enable translation, add a dictionary using the [setTranslationDictionary:](#) method.
Note that when a dictionary is set, recognition results are returned in the target language, and text in the source language is no longer available.
 - It is also recommended to call the [setAreaOfInterest:](#) method to specify the rectangular area on the frame where the text is likely to be found. For example, your application may show a highlighted rectangle in the UI into which the end users will try to fit the text they are capturing. The best result is achieved when the area of interest does not touch the boundaries of the frame but has a margin of at least half the size of a typical printed character.
 5. Implement a delegate that adopts the [AVCaptureVideoDataOutputSampleBufferDelegate](#) protocol. Instantiate an [AVCaptureSession](#) object, add video input and output and set the video output delegate. When the delegate receives a video frame via the [captureOutput:didOutputSampleBuffer:fromConnection:](#) method, pass this frame on to the text capture service by calling the [addSampleBuffer:](#) method.
We recommend using the `AVCaptureSessionPreset1280x720` preset for your [AVCaptureSession](#). Also note that your video output must be configured to use the `kCVPixelFormatType_32BGRA` video pixel format.
 6. Process the messages sent by the service to the [RTRTextCaptureServiceDelegate](#) delegate object. The result will be delivered via the [onBufferProcessedWithTextLines:resultStatus:](#) method. It also reports the result stability status, which indicates if the result is available and if it is likely to be improved by adding further frames (see the *resultStatus* parameter). Use it to determine whether your application should stop processing and display the result to the user. We do not recommend using the result until the stability level has reached at least [RTRResultStabilityAvailable](#).
The result consists of one or more text lines represented by objects of the [RTRTextLine](#) class. Each [RTRTextLine](#) contains information about the bounding quadrangle of a single line of text, and the recognized text as a string.
Work with the results on your side.
 7. When pausing or quitting the application, call the [stopTasks](#) method to stop processing and clean up image buffers. The text capture service keeps its configuration settings (language, area of interest) and necessary resources. The processing will start automatically on the new call to the [addSampleBuffer:](#) method.

See the description of classes and methods in the [API Reference](#) section.

How to Recognize Text on Photos

This guide explains how Mobile Capture SDK can be used as a common OCR solution, recognizing text on existing images.

How it Works

Mobile Capture SDK provides access to single image processing functions, enabling the generic OCR functionality. This scenario works with any image file you can load to memory. It does not require access to the camera on the device.

Implementation

Note: Before you begin, see [How to Add the Library to Your Xcode Project](#).

To implement the image recognition scenario, follow these steps:

1. Create an [RTREngine](#) object using the [sharedEngineWithLicenseData:](#) method. The method requires an [NSData](#) object containing your license data. For example, you can use [dataWithContentsOfFile:](#) to create a data object, then pass this object to the [sharedEngineWithLicenseData:](#) method.
2. Use the [createCoreAPI](#) method of the [RTREngine](#) object to create a recognizer object which conforms to the [RTRCoreAPI](#) protocol.
3. If you want to change recognition settings, use the [textRecognitionSettings](#) property of the recognizer object ([RTRCoreAPITextRecognitionSettings](#) protocol).
 - If you are using a recognition language different from English, specify it using the [setRecognitionLanguages:](#) method. Multiple languages are also supported, although setting too many languages may decrease recognition performance.
 - It is also recommended to call the [setAreaOfInterest:](#) method to specify the rectangular area of the image where to search for text. For example, your application may provide controls that allow user to select a smaller part of image for recognition if needed. Also, best results are achieved when the area of interest does not cover the whole image but has a margin of at least half the size of a typical printed character.
4. The [processingSettings](#) property of the recognizer object ([RTRCoreAPIProcessingSettings](#) protocol) allows you to set the number of processing threads.
5. Recognition starts with a call to the [recognizeTextOnImage:onProgress:onTextOrientationDetected:error:](#) method. It requires you to implement the following callbacks (passed as arguments to this method):
 - A progress callback (*onProgress*) that receives estimated completion percentage and warnings. This callback should return a BOOL value. The return value can be used to interrupt processing: return TRUE to terminate the current operation, FALSE to continue.
 - A callback that informs you when the image orientation is detected (*onTextOrientationDetected*).
 - A callback to handle errors (*error*).

Please note, that the method is synchronous (blocking) and should not be used on UI thread.
6. When finished, the [recognizeTextOnImage:onProgress:onTextOrientationDetected:error:](#) method will return an array of [RTRTextBlock](#) objects which contain the results of recognition for the text areas found on the image. Each [RTRTextBlock](#) is an array containing one or more text lines represented by [RTRTextLine](#) objects. Each [RTRTextLine](#) contains information about the bounding quadrangle for a single line of text and the recognized text.
Work with the results on your side.

See the description of classes and methods in the [API Reference](#) section.

How to Capture Data from Documents

This guide describes the procedure you need to follow to create an application which captures data from a specified type of document, without snapping a photo.

How it Works

In data capture scenarios, the processing quality is improved by the fact that we know which kind of data fields may be expected on the document. When you start capturing, you specify the type of document you are going to recognize (a data capture profile). The Mobile Capture SDK engine will automatically receive new camera frames and process them, trying to apply corresponding result schemes. The engine uses each new frame to verify and improve the recognition result from the previous frame. This process is continued until a specific result scheme is matched and the result reaches the required stability level.

For some data capture profiles, there are two or more corresponding result schemes. The difference between a data capture profile and a result scheme is the following:

- A data capture profile is the general type of document you specify to the engine — for example, a bank card or some document with a machine-readable zone (MRZ).
- A result scheme is a more specific identifier of the recognized document, returned by the engine — for example, an embossed or unembossed bank card, or a specific MRZ (from a passport, visa, travel document, and so on).

The profile you specify determines which result schemes may be applied during recognition, and the result scheme determines which document fields will be recognized and returned as the result. Data capture profiles and corresponding result schemes supported in Mobile Capture library are detailed in [Data Capture Profiles](#); see also the summary below in [Supported ID Documents](#).

Note that Mobile Capture SDK also allows you to create custom data capture profiles for documents that are not supported out-of-the-box. See [How to Capture a Custom Data Field](#) for the description of this scenario.

Supported Documents

Mobile Capture SDK provides predefined data capture profiles for many types of data, including:

- machine-readable zone ([MRZ](#)) in various documents,
- international bank account numbers ([IBAN](#)),
- [bank card](#) details,
- data from [ID documents](#):
 - ID cards,
 - passports,
 - driver's licenses, and other.

Recognizing with predefined profiles does not require you to set specific rules or specify regular expressions that should match document fields. You simply specify a data capture profile (the general type of a document) and get recognized data with a more specific result scheme identifying the recognized document.

MRZ

Mobile Capture SDK can automatically detect and recognize the machine-readable zone (MRZ) on various ID documents: passports, ID cards, travel documents, and other. For details on supported MRZ types and recognized data, see [MRZ profiles](#).



For example, when recognizing a 2-line or 3-line MRZ of a passport or an ID document, Mobile Capture SDK will recognize and extract the following data:

- Document type and subtype
- Document number
- The country where the document was issued
- Document holder's first and last name, date of birth, sex and nationality
- Document holder's personal number
- Document expiry date

IBAN

Mobile Capture SDK allows to automatically detect and extract international bank account numbers for Germany, France, Spain, and the United Kingdom. IBAN can be extracted from any document.

SEPA-Überweisung/Zahlschein

Name und Sitz des überweisenden Kreditinstituts

BIC

Für Überweisungen in Deutschland und in andere EU-/EWR-Staaten in Euro.

Angaben zum Zahlungsempfänger: Name, Vorname/Firma (max. 27 Stellen bei maschineller Beschriftung max. 35 Stellen)

ABBYY Europe GmbH

IBAN

DE02700800000625550400

(BIC des Kreditinstituts/Zahlungsdienstleisters (8 oder 11 Stellen))

DRESDEFF700

Betrag: Euro, Cent

Spenden-/Mitgliedsnummer oder Name des Spenders: (max. 27 Stellen)

ggf. Stichwort

PLZ und Straße des Spenders: (max. 27 Stellen)

Angaben zum Kontoinhaber/Zahler: Name, Vorname/Firma, Ort (max. 27 Stellen, keine Straßen- oder Postfachangaben)

IBAN

D E

06

Datum

Unterschrift(en)

SPENDE

Bank card

Mobile Capture SDK can capture data from debit and credit cards, embossed and unembossed.

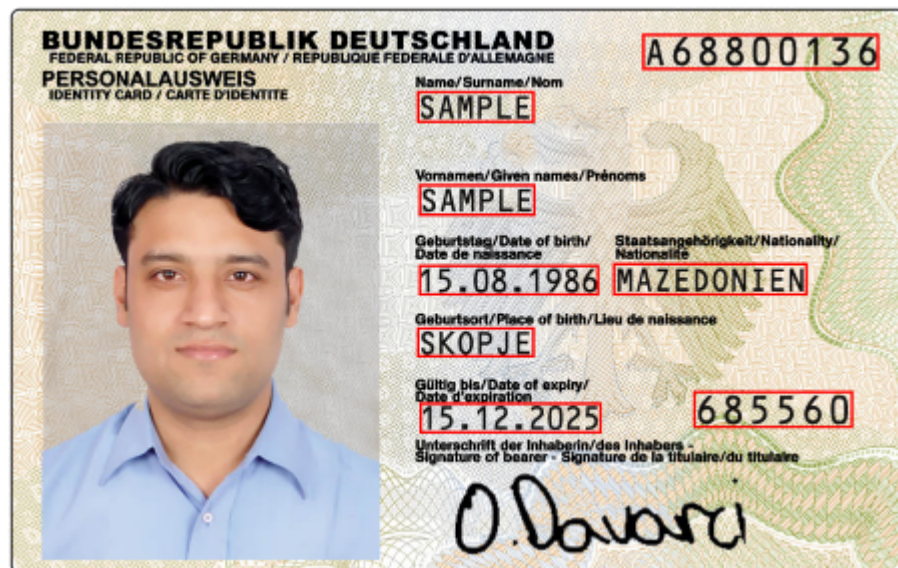




When recognizing a bank card, Mobile Capture SDK will detect and extract the card number, cardholder's full name, and date of expiry.

ID documents

Mobile Capture SDK can automatically extract data from various ID documents such as ID cards, driver's licenses, passports, and other documents from different countries (see [Data Capture Profiles](#) for detailed information).



For example, when recognizing the front side of a German ID card, Mobile Capture SDK will detect and extract the following data:

- Document number
- Document holder's first and last name, nationality, date and place of birth
- RFID number
- Document expiry date

The rest of the data in the German ID card scheme is recognized from the back side of the card; note that the data capture profile you specify and the result data scheme are the same for both card sides.

Business card

Mobile Capture SDK can automatically extract data from various business cards (see [Business cards schema description](#) for detailed information).



On the business card, recognized by Mobile Capture SDK, the following data will be detected and extracted:

- First Name/Last Name
- Phone and/or mobile phone number
- Fax number
- Web address
- Mailing and E-mail address
- Company name
- Job title

The recognition languages of the business card can be specified via data capture profile settings. Please note, that capturing business cards with non-Latin scripts requires English language for E-mail and Web address recognition.

! Important! For best business cards recognition accuracy Full High Definition (Full HD) camera stream is required.

Implementation

! Note: Before you begin, see [How to Add the Library to Your Xcode Project](#).

To implement the document data capture scenario, follow these steps:

1. Implement a delegate conforming to the [RTRDataCaptureServiceDelegate](#) protocol. The delegate will handle messages from the data capture service. Here are the recommendations on what its methods should do:
 - The [onBufferProcessedWithDataScheme:dataFields:resultStatus:](#) method is where you work with the results, display them to the user, etc.
 - The [onError:](#) method is for handling processing errors.
 - The [onWarning:](#) method can optionally be used to show warnings to the user.
2. Create an [RTREngine](#) object using the [sharedEngineWithLicenseData:](#) method. The method requires an [NSData](#) object containing your license data. For example, you can use [dataWithContentsOfFile:](#) to create a data object, then pass this object to the [sharedEngineWithLicenseData:](#) method.

3. Use the [createDataCaptureServiceWithDelegate:profile:](#) method of the [RTREngine](#) object to create a background recognition service. Set the type of document you are going to capture using the *profile* parameter — for example, "IBAN" or "MRZ". The service is created and will further work with this profile (for a full list of available profiles, see [Data Capture Profiles](#)). Only one instance of the service per application is necessary: multiple threads will be started internally.
4. We recommend calling the [setAreaOfInterest:](#) method to specify the rectangular area on the frame where the document is likely to be found. For example, your application may show a highlighted rectangle in the UI into which the end user will try to fit the page they are capturing. The best result is achieved when the area of interest does not touch the boundaries of the frame but has a margin of at least half the size of a typical printed character.
5. Implement a delegate that adopts the [AVCaptureVideoDataOutputSampleBufferDelegate](#) protocol. Instantiate an [AVCaptureSession](#) object, add video input and output and set the video output delegate. When the delegate receives a video frame via the [captureOutput:didOutputSampleBuffer:fromConnection:](#) method, pass this frame on to the data capture service by calling the [addSampleBuffer:](#) method. We recommend using the `AVCaptureSessionPreset1280x720` preset for your [AVCaptureSession](#). Also note that your video output must be configured to use the `kCVPixelFormatType_32BGRA` video pixel format.
6. Process the messages sent by the service to the [RTRDataCaptureServiceDelegate](#) delegate object. The result will be delivered via the [onBufferProcessedWithDataScheme:dataFields:resultStatus:](#) method:
 - an [RTRDataScheme](#) object; use its **id** property to determine what recognition scheme has been applied to the document (some profiles provide two or more recognition result schemes), and its **name** property to display a human-readable description to the user, if needed. For details on recognition schemes corresponding to the profile you selected, see [Data Capture Profiles](#).

! Important! *If `nil` is passed instead of a valid [RTRDataScheme](#) object, the data scheme has not yet been matched, which may mean that the document the user is trying to recognize is not a passport. In this case, the results are not usable.*

 - an array of [RTRDataField](#) objects, each representing one of the fields found and recognized. An [RTRDataField](#) object provides the identifier and the human-readable name for the field, the field text, and its location.
 - the result stability status, which indicates if the result is available and if it is likely to be improved by adding further frames. Use it to determine whether the application should stop processing and display the result to the user. We do not recommend using the result until the stability level has reached at least [RTRResultStabilityAvailable](#) and the data scheme has been matched.
7. Save the results for the recognized page. Call the [stopTasks](#) method to stop processing and clean up image buffers. The data capture service keeps its configuration settings (such as area of interest) and necessary resources. The processing will start automatically on the new call to the [addSampleBuffer:](#) method.

See the description of classes and methods in the [API Reference](#) section.

How to Capture a Custom Data Field with iOS

This section contains a step-by-step guide to creating an application that captures a single custom data field.

How it Works

With Mobile Capture SDK you can create custom data capture profiles for documents that are not supported out-of-the-box. In the corresponding result schemes you define custom data fields. (Currently, only one scheme per profile is supported, and only one field may be defined in the scheme). To tell the recognition engine that some text string is a data value (a field value), you will have to specify a regular expression that should match the strings you are looking for. The value may be a date, some code with a known format, and so on: the more specific the data is, the easier it would be to capture it.

This guide uses an alphanumeric code as an example of data that can be captured. Code format is the following: it contains 15 characters that are either digits or capital letters, and the first two characters are always digits. Example: 69KL46D7WF2AR5U.

Implementation

 **Note:** Before you begin, see [How to Add the Library to Your Xcode Project](#).

Implementing the delegates

1. Implement a delegate conforming to the [RTRDataCaptureServiceDelegate](#) protocol. The delegate will handle messages from the data capture service. Here are the recommendations on what its methods should do:
 - The [onBufferProcessedWithDataScheme:dataFields:resultStatus:](#) method is where you work with the results, display them to the user, etc.
 - The [onError:](#) method is for handling processing errors.
 - The [onWarning:](#) method can optionally be used to show warnings to the user.
2. Implement a delegate that adopts the [AVCaptureVideoDataOutputSampleBufferDelegate](#) protocol. Instantiate an [AVCaptureSession](#) object, add video input and output and set the video output delegate. When the delegate receives a video frame via the [captureOutput:didOutputSampleBuffer:fromConnection:](#) method, pass this frame on to the data capture service by calling the [addSampleBuffer:](#) method of the [RTRDataCaptureService](#) object. We recommend using the `AVCaptureSessionPreset1280x720` preset for your [AVCaptureSession](#). Also note that your video output must be configured to use the `kCVPixelFormatType_32BGRA` video pixel format.

Loading the library and setting up the service

1. Create an [RTREngine](#) object using the [sharedEngineWithLicenseData:](#) method. The method requires an [NSData](#) object containing your license data. For example, you can use [dataWithContentsOfFile:](#) to create a data object, then pass this object to the [sharedEngineWithLicenseData:](#) method.
2. Use the [createDataCaptureServiceWithDelegate:profile:](#) method of the [RTREngine](#) object to create a background recognition service. The *profile* parameter should be left empty. Only one instance of the service per application is necessary: multiple threads will be started internally.
3. Call the [configureDataCaptureProfile](#) method of the [RTRDataCaptureService](#) object to create an [RTRDataCaptureProfileBuilder](#) object. Create a data scheme builder using the [addScheme:](#) method.

The scheme builder will allow you to specify a human-readable name for the scheme and to add field definitions.

4. Use the [addField](#) method to create a new field builder. Use [setName](#) to add a human-readable field name and [setRegex](#) to specify the regular expression that should match the field text. The *regex* parameter `@ "[0-9]{2}[0-9A-Z]{13}"` — match 2 digits followed by 13 characters which are digits or capital letters.

Note: For details on regular expression syntax supported in ABBYY Mobile Capture SDK, see the [Regular Expressions](#) section.

An alphanumeric code needs no additional check besides the regular expression. However, there is the option of implementing a block which would perform additional validation after the data has passed the regular expression check, for example, calculate the field's checksum (see the [setPredicateBlock](#) method).

5. Call the [checkAndApply](#) method of the [RTRDataCaptureProfileBuilder](#) object to submit the profile for use in the data capture service. If an error is returned at this stage, it is probable the regular expression has mistakes in the syntax, please check it again.
6. We recommend also calling the [setAreaOfInterest](#) method to specify the rectangular area on the frame where the field is likely to be found. For example, your application may show a highlighted rectangle in the UI into which the end user will try to fit the page they are capturing. The best result is achieved when the area of interest does not touch the boundaries of the frame but has a margin of at least half the size of a typical printed character.

Processing

1. Process the messages sent by the service to the [RTRDataCaptureServiceDelegate](#) delegate object. The result will be delivered via the [onBufferProcessedWithDataScheme:dataFields:resultStatus](#) method:

- An [RTRDataScheme](#) object. Its **id** property should return the same identifier you specified in the custom profile.

Important! If *nil* is passed instead of a valid [RTRDataScheme](#) object, the data scheme has not yet been matched, which may mean that there is no data of the required type in the area of interest. In this case, the results are not usable.

- An array containing, in this case, one [RTRDataField](#) object which represents the extracted field. It provides the identifier and the human-readable name for the field, the field text, and its location.
 - The result stability status, which indicates if the result is available and if it is likely to be improved by adding further frames. Use it to determine whether the application should stop processing and display the result to the user. We do not recommend using the result until the stability level has reached at least [RTRResultStabilityAvailable](#) and the data scheme has been matched.
2. Save the results. Call the [stopTasks](#) method to stop processing and clean up image buffers. The data capture service keeps its configuration settings (the custom profile, the area of interest) and necessary resources. The processing will start automatically on the new call to the [addSampleBuffer](#) method.

See the description of classes and methods in the [API Reference](#) section.

How to Capture Image from Camera

This guide walks you through a simple image capture scenario, in which the user points the device's camera at the document for capturing the image before sending to the server.

How it Works

The purpose of image capture scenario is to enable your application to capture the image from the smartphone camera preview frames. Once you begin capturing, the Mobile Capture engine will automatically receive new camera frames, detecting the quality assessment of the captured image to OCR and filtering out low quality photos. This process is continued until the result reaches the required stability level. Accessible image is cropped and justified. Then it can be compressed and exported to the processing server.

Implementation

! **Note:** Before you begin, see [How to Add the Library to Your Xcode Project](#).

To implement the image capture scenario, follow these steps:

1. Implement a delegate conforming to the [RTRImageCaptureServiceDelegate](#) protocol. The delegate will handle messages from the image capture service. Here are the recommendations on what its methods should do:
 - The [onBufferProcessedWithStatus:result:](#) method is where you work with the results, display them to the user, etc.
 - The [onError:](#) method is for handling processing errors.
 - The [onWarning:](#) method can optionally be used to show warnings to the user.
2. Create an [RTREngine](#) object using the [sharedEngineWithLicenseData:](#) method. The method requires an [NSData](#) object containing your license data. For example, you can use [dataWithContentsOfFile:](#) to create a data object, then pass this object to the [sharedEngineWithLicenseData:](#) method.
3. Use the [createImageCaptureServiceWithDelegate:](#) method of the [RTREngine](#) object to create a background image capture service. Only one instance of the service per application is necessary: multiple threads will be started internally.
4. Implement a delegate that adopts the [AVCaptureVideoDataOutputSampleBufferDelegate](#) protocol. Instantiate an [AVCaptureSession](#) object, add video input and output and set the video output delegate. When the delegate receives a video frame via the [captureOutput:didOutputSampleBuffer:fromConnection:](#) method, pass this frame on to the image capture service by calling the [addSampleBuffer:](#) method. We recommend using the `AVCaptureSessionPreset1920x1080` preset for your [AVCaptureSession](#). Also note that your video output must be configured to use the `kCVPixelFormatType_32BGRA` video pixel format.
5. Process the messages sent by the service to the [RTRImageCaptureServiceDelegate](#) delegate object. The result will be delivered via the [onBufferProcessedWithStatus:result:](#) method. It also reports the result stability status, which indicates if the result is available and if it is likely to be improved by adding further frames (see the *Status* parameter).
6. Process the delivered result using the [RTRImagingCoreAPI](#) functionality:
 - load the captured image to an [RTRCoreAPIImage](#) protocol instance;
 - crop it with the [RTRCoreAPICropOperation](#) in case the lens correction is required.

7. Export the processed result to the server in one of available formats: [JPG](#), [JPG 2000](#), [PNG](#) or [PDF](#). It is recommended to use the [RTRCoreAPIExportCompressionNormalLevel](#) compression mode for saving high quality while reducing image size.
8. When pausing or quitting the application, call the [stopTasks](#) method to stop processing and clean up image buffers. The image capture service keeps its configuration settings and necessary resources. The processing will start automatically on the new call to the [addSampleBuffer:](#) method.

See the description of classes and methods in the [API Reference](#) section.

Code Samples

The ABBYY Mobile Capture SDK distribution package includes several code samples that show API usage and provide examples of typical scenarios.

The code samples are found in the root folder of the distribution package. All samples are provided in Objective-C and/or Swift programming languages.

Sample scenario	Folder name	Description
Text Capture	sample-textcapture sample-textcapture-swift	A simple text capture scenario. The only setting available to the user is the text language.
Data Capture	sample-datacapture	The general data capture scenario showing how to capture a predefined document and a custom data field.
Image Capture	sample-imagecapture sample-imagecapture-swift	This simple image capture scenarios demonstrate how to automatically capture an image from the smartphone video preview frames.
	sample-ui-imagecapture	The image capture scenario and corresponding user interface implementation with the special API for UI.
Core API	sample-coreapi sample-coreapi-swift	The sample demonstrates a simple scenario of a single image processing with the core API.

Configuring the code samples

The samples can be opened and built right from where they are in the downloaded distribution package. To work with any of the code samples you need to do only a little configuring first.

1. Please change the bundle ID before building, modifying or otherwise using any of the samples.
2. All samples expect that the license file (named **license**) is found into the **assets** folder located in the distribution package root. Copy your license to this folder and rename the file if necessary (a license obtained from your supplier may have a different name).

You can also change the license file name or path in the sample code: see the `RTRViewController` implementation.

API Reference

This section describes the Objective-C API of ABBYY Mobile Capture SDK.

Classes

- [RTREngine](#)
- [RTRCharInfo](#)
- [RTRDataField](#)
- [RTRDataScheme](#)
- [RTREngineSettings](#)
- [RTRExtendedSettings](#)
- [RTRFileOutputStream](#)
- [RTRImageCaptureStatus](#)
- [RTRImageCaptureResult](#)
- [RTRMemoryOutputStream](#)
- [RTROutputStream](#)
- [RTRTextLine](#)
- [RTRTextBlock](#)

Protocols

- [RTRCoreAPI](#)
- [RTRCoreAPICropOperation](#)
- [RTRCoreAPIDetectDocumentBoundaryOperation](#)
- [RTRCoreAPIExportOperation](#)
- [RTRCoreAPIExportToJpeg2000Operation](#)
- [RTRCoreAPIExportToJpgOperation](#)
- [RTRCoreAPIExportToPdfOperation](#)
- [RTRCoreAPIExportToPngOperation](#)
- [RTRCoreAPIImage](#)
- [RTRCoreAPIImageOperation](#)
- [RTRCoreAPIOperation](#)
- [RTRCoreAPIProcessingSettings](#)
- [RTRCoreAPIQualityAssessmentForOCROperation](#)
- [RTRCoreAPIRotateOperation](#)
- [RTRCoreAPITextRecognitionSettings](#)
- [RTRDataCaptureProfileBuilder](#)
- [RTRDataCaptureService](#)
- [RTRDataCaptureServiceDelegate](#)
- [RTRDataFieldBuilder](#)
- [RTRDataSchemeBuilder](#)
- [RTRDataCaptureProfileBuilder](#)
- [RTRImageCaptureService](#)
- [RTRImageCaptureServiceDelegate](#)
- [RTRImagingCoreAPI](#)
- [RTROutputStream](#)
- [RTRQualityAssessmentForOCRBlock](#)
- [RTRRecognitionService](#)
- [RTRRecognitionServiceDelegate](#)
- [RTRTextCaptureService](#)
- [RTRTextCaptureServiceDelegate](#)

Enumerations

- [RTRCallbackWarningCode](#)
- [RTRCoreAPIExportCompressionLevel](#)
- [RTRCoreAPIPdfExportCompressionType](#)
- [RTRQualityAssessmentForOCRBlockType](#)
- [RTRResultStabilityStatus](#)

RTREngine class

The main ABBYY Mobile Capture SDK class which serves to initialize the library and create a background recognition service. It is a singleton class: only one instance may exist at a time. Repeated attempts to create an **RTREngine** object will return the same object.

Properties

Name	Type	Description
extendedSettings	RTREngineSettings , read-only	Additional settings for ABBYY Mobile Capture SDK engine which apply to all processing scenarios.

Methods

Name	Description
+ sharedEngineWithLicenseData:	Creates the RTREngine object or returns its existing instance.
- createCoreAPI	Creates a core API object which provides access to low-level single image processing functions.
- createDataCaptureServiceWithDelegate:profile:	Creates a background service for data capture.
- createTextCaptureServiceWithDelegate:	Creates a background service for text recognition.
- createImageCaptureServiceWithDelegate:	Creates a background service for image capture.

Name	Description
- languagesAvailableForOCR	Returns the set of languages which can be used for text recognition.
- languagesAvailableForBCR	Returns the set of languages which can be used for text recognition.

sharedEngineWithLicenseData: method of the RTREngine class

Creates or returns the [RTREngine](#) object. Repeated calls to this method will result in the same object instance.

```
+ (instancetype)sharedEngineWithLicenseData:(NSData*) licenseData;
```

Parameters

licenseData

The license data to initialize ABBYY Mobile Capture SDK.

Return values

The method returns an instance of the [RTREngine](#) object, or **nil** if object creation failed.

createCoreAPI method of the RTREngine class

Creates a core API object which provides access to low-level single image processing functions.

```
- (id<RTRCoreAPI>)createCoreAPI;
```

Return values

The method returns an instance implementing the [RTRCoreAPI](#) protocol.

createDataCaptureServiceWithDelegate:profile: method of the RTREngine class

Creates a background recognition service to run in data capture mode. Only one instance of the service is necessary per application: multiple threads for processing will be started internally.

Before a call to this method, implement the [RTRDataCaptureServiceDelegate](#) protocol to work with processing results and handle errors and warnings.

```

- (id<RTRDataCaptureService>)createDataCaptureServiceWithDelegate:
(id<RTRDataCaptureServiceDelegate>)delegate profile:(NSString*)profile;

- (id<RTRDataCaptureService>)createDataCaptureServiceWithDelegate:
(id<RTRDataCaptureServiceDelegate>)delegate profile:(NSString*)profile
settings:(RTRExtendedSettings*)settings;

```

Parameters

delegate

The delegate object that implements the [RTRDataCaptureServiceDelegate](#) protocol for interacting with the service.

profile

The name of a data capture profile (data scheme) to use. For the available predefined profiles see [Data Capture Profiles](#).

Use an empty string or **nil** to configure your own profile for custom data field capture with the help of the [configureDataCaptureProfile](#) method of the [RTRDataCaptureService](#) protocol. You can also configure the predefined recognition languages using this method, if the data capture profile is set to [BusinessCards](#).

settings

[optional] Extended service configuration settings represented by an [RTRExtendedSettings](#) object.

Return values

The method returns an instance implementing the [RTRDataCaptureService](#) protocol.

createTextCaptureServiceWithDelegate: method of the RTREngine class

Creates a background recognition service to run in text capture mode. Only one instance of the service is necessary per application: multiple threads for processing will be started internally.

Before a call to this method, implement the [RTRTextCaptureServiceDelegate](#) protocol to work with processing results and handle errors and warnings.

```

- (id<RTRTextCaptureService>)createTextCaptureServiceWithDelegate:
(id<RTRTextCaptureServiceDelegate>)delegate;

- (id<RTRTextCaptureService>)createTextCaptureServiceWithDelegate:
(id<RTRTextCaptureServiceDelegate>)delegate
settings:(RTRExtendedSettings*)settings;

```

Parameters

delegate

The delegate object that implements the [RTTextCaptureServiceDelegate](#) protocol for interacting with the service.

settings

[optional] The extended service configuration settings represented by an [RTExtendedSettings](#) object.

Return values

The method returns an instance implementing the [RTTextCaptureService](#) protocol.

createImageCaptureServiceWithDelegate: method of the RTREngine class

Creates a background recognition service to run in image capture mode. Only one instance of the service is necessary per application: multiple threads for processing will be started internally.

Before a call to this method, implement the [RTImageCaptureServiceDelegate](#) protocol to work with processing results and handle errors and warnings.

```
- (id<RTImageCaptureService>) createImageCaptureServiceWithDelegate:
(id<RTImageCaptureServiceDelegate>) delegate;

- (id<RTImageCaptureService>) createImageCaptureServiceWithDelegate:
(id<RTImageCaptureServiceDelegate>) delegate
    settings: (RTExtendedSettings*) settings;
```

Parameters

delegate

The delegate object that implements the [RTImageCaptureServiceDelegate](#) protocol for interacting with the service.

settings

[optional] The extended service configuration settings represented by an [RTExtendedSettings](#) object.

Return values

The method returns an instance implementing the [RTImageCaptureService](#) protocol.

languagesAvailableForOCR method of the RTREngine class

Returns the set of languages which can be used for text recognition in the current application (for which the necessary resources are available).

```
- (NSSet*) languagesAvailableForOCR;
```

Return values

Returns a set of strings containing internal language names. See [Available Languages](#) for a complete list of languages and the corresponding internal names.

languagesAvailableForBcr method of the RTREngine class

Returns the set of languages which can be used for business cards recognition in the current application (for which the necessary resources are available).

```
- (NSSet*) languagesAvailableForBCR;
```

Return values

Returns a set of strings containing internal language names. See [Available Languages](#) for a complete list of languages and the corresponding internal names.

Services API

RTRDataCaptureService protocol

A background data capture service protocol. Inherits from the [RTRRecognitionService](#) protocol.

This protocol is adopted by the data capture service object returned by the [createDataCaptureServiceWithDelegate:profile:](#) method. Its methods are used to tune the processing settings, pass video frames from the camera to the background processing engine, and release the resources afterwards.

The data capture service requires a delegate that conforms to the [RTRDataCaptureServiceDelegate](#) protocol. The service informs the delegate when the result is ready, sends progress information, warnings and errors.

Methods

Name	Description
- addSampleBuffer:	Sends the video frame obtained from camera to the service. Inherited from the RTRRecognitionService protocol.

Name	Description
- configureDataCaptureProfile	Creates a profile builder object with which you will be able to configure the data capture service to recognize fields of a specific type.
- setAreaOfInterest:	Sets the search area on the frame. Inherited from the RTRRecognitionService protocol.
- stopTasks	Stops processing and releases the resources used by the service. Inherited from the RTRRecognitionService protocol.

addSampleBuffer: method of the RTRDataCaptureService protocol

Sends the video frame obtained from camera to the service.

Call this method to pass on the video sample buffer received by an [AVCaptureVideoDataOutputSampleBufferDelegate](#) object via the [captureOutput:didOutputSampleBuffer:fromConnection:](#) method. The service will pick the frames it needs from the sequence of the frames you supply.

Note: The video output must be configured to use the `kCVPixelFormatType_32BGRA` video pixel format. Other pixel formats are currently not supported.

```
- (void)addSampleBuffer:(CMSampleBufferRef) sampleBuffer;
```

Parameters

sampleBuffer

A [CMSampleBuffer](#) object containing the video frame data.

configureDataCaptureProfile method of the RTRDataCaptureService protocol

Creates a profile builder object with which you will be able to configure the data capture service to recognize fields of a specific type. This is the first step for capturing a custom field, without using any of the predefined data capture profiles, and makes sense only if you have left the profile name parameter empty when creating the data capture service.

```
- (id<RTRDataCaptureProfileBuilder>)configureDataCaptureProfile;
```

Return values

The method returns an instance implementing the [RTRDataCaptureProfileBuilder](#) protocol, or **nil** if a profile may not be configured (e.g. you have already specified a profile name on creating the data capture service).

setAreaOfInterest: method of the RTRDataCaptureService protocol

Sets the search area on the frame.

The size of the area of interest affects performance and the speed of convergence of the result. The best result is achieved when the area of interest does not touch the boundaries of the frame but has a margin of at least half the size of a typical printed character.

```
- (void)setAreaOfInterest:(CGRect)areaOfInterest;
```

Parameters

areaOfInterest

The rectangle specifying the area of interest in the image coordinates. Pass CGRectZero as this parameter to select the default area of interest that covers the whole frame (not recommended).

stopTasks method of the RTRDataCaptureService protocol

Stops processing and cleans up image buffers. The service keeps its configuration settings and necessary resources, so the processing will start automatically when the service receives a new frame.

```
- (void)stopTasks;
```

RTRDataCaptureServiceDelegate protocol

The protocol for a delegate object to receive results, status information, warnings and errors from the data capture service. Inherits from the [RTRRecognitionServiceDelegate](#) protocol. The methods are to be implemented on the client side.

Methods

Name	Description
- onBufferProcessedWithDataScheme:dataFields:resultStatus:	Notifies the delegate that a frame was recognized, delivers the result and status information.

Name	Description
- onError:	Notifies the delegate about an error. Inherited from the RTRRecognitionServiceDelegate protocol.
- onWarning:	Optional method. Informs the delegate about warnings from the service. Inherited from the RTRRecognitionServiceDelegate protocol.

onBufferProcessedWithDataScheme:dataFields:resultStatus: method of the RTRDataCaptureServiceDelegate protocol

Notifies the delegate that a frame was recognized, delivers the result and its stability status.

The result stability status should be used to determine if the accuracy is high enough for the result to be used for any practical purposes. We recommend not to use the data in any way until the stability level has reached at least [RTRResultStabilityAvailable](#) and the data scheme has been matched. When stability of the result has reached the desired level, the service may be stopped by calling the [stopTasks](#) method of the [RTRDataCaptureService](#) protocol.

This method is to be implemented on the client side. The implementation of this method will probably contain assessing the result plausibility, displaying the results to the user or using them in any other way you need.

```
- (void)onBufferProcessedWithDataScheme: (RTRDataScheme*) dataScheme
    dataFields: (NSArray<RTRDataField*>*) dataFields
        resultStatus: (RTRResultStabilityStatus) resultStatus;
```

Parameters

dataScheme

Information on the data scheme applied to the recognized frame, represented by a [RTRDataScheme](#) object.

! Important! If *nil* is passed instead of a valid [RTRDataScheme](#) object, the data scheme has not yet been matched, which may mean that the document the user is trying to recognize does not fit the data capture profile with which the data service was created. In this case, the results are not usable.

dataFields

The result as an array of data fields, represented by [RTRDataField](#) objects.

resultStatus

The estimate of how stable the result is, represented by an [RTRResultStabilityStatus](#) enumeration constant. It is not guaranteed that it ever reaches the desired level for a particular scene.

onError: method of the RTRDataCaptureServiceDelegate protocol

Notifies the delegate about an error.

```
- (void)onError:(NSError*)error;
```

Parameters

error

The error that has occurred.

onWarning: method of the RTRDataCaptureServiceDelegate protocol

Informs the delegate about warnings. This method is optional.

```
- (void)onWarning:(RTRCallbackWarningCode)warningCode;
```

Parameters

warningCode

The warning that has occurred, represented by an [RTRCallbackWarningCode](#) enumeration constant.

RTRDataCaptureProfileBuilder protocol

The protocol for a builder object which allows you to configure a custom data capture profile.

Methods

Name	Description
- checkAndApply	Submits the configured profile for use in the data capture service.
- addScheme:	Creates a new scheme in the data capture profile. Using the scheme builder you will then be able to add the data fields and define the rules to which they should conform.

Name	Description
- setRecognitionLanguages:	Sets the languages to be used for field recognition.

checkAndApply method of the RTRDataCaptureProfileBuilder protocol

Submits the configured profile for use in the data capture service.

This method should be called after all your modifications to the profile are completed. If this method call is successful, the service is ready to capture custom data fields as specified by the profile.

```
- (NSError*) checkAndApply;
```

Return values

The method returns **nil** if the profile was applied successfully. If there were some problems (for example, the regular expression is not valid), the error object is returned instead.

addScheme: method of the RTRDataCaptureProfileBuilder protocol

Creates a new scheme in the data capture profile. Using the scheme builder you will then be able to add the data fields and define the rules to which they should conform.

 **Note:** Currently, only one scheme may exist in the profile, and only one field may be defined in the scheme.

```
- (id<RTRDataSchemeBuilder>) addScheme: (NSString*) id;
```

Parameters

id

The scheme identifier.

Return values

The method returns an instance implementing the [RTRDataSchemeBuilder](#) protocol.

setRecognitionLanguages: method of the RTRDataCaptureProfileBuilder protocol

Sets the languages to be used for recognition.

By default, only the English language is set. Setting the correct languages for your text will improve recognition accuracy. However, setting too many languages may decrease performance.

Use the [languagesAvailableForOCR](#) method to check which languages are supported in your application.

```
- (id<RTRDataCaptureProfileBuilder>) setRecognitionLanguages: (NSSet*)
  recognitionLanguages;
```

Parameters

recognitionLanguages

The set of languages to be used for recognition, each language represented by its internal name as a string. See [Available Languages](#) for the list of languages and corresponding internal names.

Return values

The method returns the same [RTRDataCaptureProfileBuilder](#) object on which it was called.

RTRDataSchemeBuilder protocol

The protocol for a scheme builder object which lets you add fields to the scheme.

Note: *Currently, only one scheme may exist in the profile, and only one field may be defined in the scheme.*

Methods

Name	Description
- addField:	<p>Adds a new field.</p> <p>The rules to which the data should conform may be specified later via the field builder object.</p>
- setName:	Sets the scheme name.

addField: method of the RTRDataSchemeBuilder protocol

Adds a new field.

The rules to which the data should conform may be specified later via the field builder object.

! **Note:** Currently, only one scheme may exist in the profile, and only one field may be defined in the scheme.

```
- (id<RTRDataFieldBuilder>)addField:(NSString*)id;
```

Parameters

id

The field identifier.

Return values

The method returns an instance implementing the [RTRDataFieldBuilder](#) protocol.

setName: method of the RTRDataSchemeBuilder protocol

Sets the scheme name.

```
- (id<RTRDataSchemeBuilder>)setName:(NSString*)name;
```

Parameters

name

The new scheme name.

Return values

The method returns the same [RTRDataSchemeBuilder](#) object on which it was called.

RTRDataFieldBuilder protocol

The protocol for a field builder object which allows you to set the name and rules for the data field.

Properties

Name	Type	Description
id	NSString*, read-only	Field identifier.

Methods

Name	Description
- setName:	Sets a human-readable name for the field.
- setPredicateBlock:	Sets the user-implemented validation block which will be called for further verification of the data (e.g. calculating the checksum) after it has passed the regular expression check.
- setRegex:	Sets the regular expression to match the field data.

setName: method of the RTRDataFieldBuilder protocol

Sets the field name.

```
- (id<RTRDataFieldBuilder>) setName: (NSString*) name;
```

Parameters

name

The new field name.

Return values

The method returns the same [RTRDataFieldBuilder](#) object on which it was called.

setPredicateBlock: method of the RTRDataFieldBuilder protocol

Sets the validation block which will be called for further verification of the data (e.g. calculating the checksum) after it has passed the regular expression check.

```
- (id<RTRDataFieldBuilder>) setPredicateBlock: (RTRFieldPredicateBlock) predicateBlock;
```

Parameters

predicateBlock

The user-implemented validation block of the type [RTRFieldPredicateBlock](#). May be **nil**, which means the data will not be verified.

Return values

The method returns the same [RTRDataFieldBuilder](#) object on which it was called.

setRegex: method of the RTRDataFieldBuilder protocol

Sets the regular expression that should match the field's text.

Note: For details on regular expression syntax supported in ABBYY Mobile Capture SDK, see the [Regular Expressions](#) section.

Important! If the field contains two or more matches for the specified regular expression, the engine will extract and return only the first one.

```
- (id<RTRDataFieldBuilder>) setRegex: (NSString*) regex;
```

Parameters

regex

A string describing the regular expression.

Return values

The method returns the same [RTRDataFieldBuilder](#) object on which it was called.

RTRFieldPredicateBlock

This is a type definition for a user-defined validation block which will be called for further verification of the data (e.g. calculating the checksum) after it has passed the regular expression check.

A typical use for the validation block would be to calculate a checksum.

```
typedef BOOL (^RTRFieldPredicateBlock) (NSString* value);
```

Parameters

value

The string with the recognized text of the field.

Return values

The block must return TRUE if the data is correct, FALSE otherwise.

RTRImageCaptureService protocol

A background image capture service protocol. Inherits from the [RTRRecognitionService](#) protocol.

This protocol is adopted by the image capture service object returned by the [createImageCaptureServiceWithDelegate:](#) method. Its methods are used to tune the processing settings, pass video frames from the camera to the background processing engine, and release the resources afterwards.

The image capture service requires a delegate that conforms to the [RTRImageCaptureServiceDelegate](#) protocol. The service informs the delegate when the result is ready, sends progress information, warnings and errors.

Methods

Name	Description
- addSampleBuffer:	Sends the video frame obtained from camera to the service. Inherited from the RTRRecognitionService protocol.
- setAreaOfInterest:	Sets the search area on the frame. Inherited from the RTRRecognitionService protocol.
- setDocumentSize:	Sets the physical size of the document to be captured.
- stopTasks	Stops processing and releases the resources used by the recognition service. Inherited from the RTRRecognitionService protocol.

addSampleBuffer: method of the RTRImageCaptureService protocol

Sends the video frame obtained from camera to the service.

Call this method to pass on the video sample buffer received by an [AVCaptureVideoDataOutputSampleBufferDelegate](#) object via the [captureOutput:didOutputSampleBuffer:fromConnection:](#) method. The service will pick the frames it needs from the sequence of the frames you supply.

Note: The video output must be configured to use the `kCVPixelFormatType_32BGRA` video pixel format. Other pixel formats are currently not supported.

```
- (void)addSampleBuffer:(CMSampleBufferRef) sampleBuffer;
```

Parameters

sampleBuffer

A [CMSampleBuffer](#) object containing the video frame data.

setAreaOfInterest: method of the RTRImageCaptureService protocol

Sets the search area on the frame.

The size of the area of interest affects performance and the speed of convergence of the result. The best result is achieved when the area of interest does not touch the boundaries of the frame but has a margin of at least half the size of a typical printed character.

```
- (void)setAreaOfInterest:(CGRect)areaOfInterest;
```

Parameters

areaOfInterest

The rectangle specifying the area of interest in the image coordinates. Pass CGRectZero as this parameter to select the default area of interest that covers the whole frame (not recommended).

setDocumentSize: method of the RTRImageCaptureService protocol

Sets the physical size of the document to be captured.

The values set by this method are used in various purposes. Setting this parameter will help to improve document boundary detection accuracy and preserve aspect ratio after crop. Known physical size of the document is used for document orientation detection during capture. The image resolution is automatically calculated to the physical size before export.

```
- (void)setDocumentSize:(CGSize)size;
```

Parameters

size

The size of the document in millimeters.

stopTasks method of the RTRImageCaptureService protocol

Stops processing and cleans up image buffers. The service keeps its configuration settings and necessary resources, so the processing will start automatically when the service receives a new frame.

```
- (void)stopTasks;
```

RTRImageCaptureServiceDelegate protocol

The protocol for a delegate object to receive results, status information, warnings and errors from the text capture service. Inherits from the [RTRRecognitionServiceDelegate](#) protocol. The methods are to be implemented on the client side.

Methods

Name	Description
- onBufferProcessedWithStatus:result:	Notifies the delegate that the image was captured and delivers the result.
- onError:	Notifies the delegate about an error. Inherited from the RTRRecognitionServiceDelegate protocol.
- onWarning:	Optional method. Informs the delegate about warnings from the service. Inherited from the RTRRecognitionServiceDelegate protocol.

onBufferProcessedWithStatus:result: method of the RTRImageCaptureServiceDelegate protocol

Notifies the delegate that an image was captured and delivers the result.

When stability of the result has reached the desired level, the service may be stopped by calling the [stopTasks](#) method of the [RTRImageCaptureService](#) protocol.

This method is to be implemented on the client side. The implementation of this method will probably contain assessing the result plausibility, displaying the results to the user or using them in any way you need.

```
- (void)onBufferProcessedWithStatus:(RTRImageCaptureStatus*)status result:
(RTRImageCaptureResult*)result;
```

Parameters

status

The status of the image capture.

result

The result of the image capture.

onError: method of the RTRImageCaptureServiceDelegate protocol

Notifies the delegate about an error.

```
- (void)onError:(NSError*)error;
```

Parameters

error

The error that has occurred.

onWarning: method of the RTRImageCaptureServiceDelegate protocol

Informs the delegate about warnings. This method is optional.

```
- (void)onWarning:(RTRCallbackWarningCode)warningCode;
```

Parameters

warningCode

The warning that has occurred, represented by an [RTRCallbackWarningCode](#) enumeration constant.

RTRTextCaptureService protocol

A background text capture service protocol. Inherits from the [RTRRecognitionService](#) protocol.

This protocol is adopted by the text capture service object returned by the [createTextCaptureServiceWithDelegate:](#) method. Its methods are used to tune the processing settings, pass video frames from the camera to the background processing engine, and release the resources afterwards.

The text capture service requires a delegate that conforms to the [RTRTextCaptureServiceDelegate](#) protocol. The service informs the delegate when the result is ready, sends progress information, warnings and errors.

Methods

Name	Description
- addSampleBuffer:	Sends the video frame obtained from camera to the service. Inherited from the RTRRecognitionService protocol.
- setAreaOfInterest:	Sets the search area on the frame. Inherited from the RTRRecognitionService protocol.
- setRecognitionLanguages:	Sets the languages to be used for recognition.
- setTranslationDictionary:	Sets the name of the translation dictionary.
- stopTasks	Stops processing and releases the resources used by the recognition service. Inherited from the RTRRecognitionService protocol.

addSampleBuffer: method of the RTRTextCaptureService protocol

Sends the video frame obtained from camera to the service.

Call this method to pass on the video sample buffer received by an [AVCaptureVideoDataOutputSampleBufferDelegate](#) object via the [captureOutput:didOutputSampleBuffer:fromConnection:](#) method. The service will pick the frames it needs from the sequence of the frames you supply.

! Note: The video output must be configured to use the `kCVPixelFormatType_32BGRA` video pixel format. Other pixel formats are currently not supported.

```
- (void)addSampleBuffer:(CMSampleBufferRef) sampleBuffer;
```

Parameters

sampleBuffer

A [CMSampleBuffer](#) object containing the video frame data.

setAreaOfInterest: method of the RTRTextCaptureService protocol

Sets the search area on the frame.

The size of the area of interest affects performance and the speed of convergence of the result. The best

result is achieved when the area of interest does not touch the boundaries of the frame but has a margin of at least half the size of a typical printed character.

```
- (void)setAreaOfInterest:(CGRect)areaOfInterest;
```

Parameters

areaOfInterest

The rectangle specifying the area of interest in the image coordinates. Pass `CGRectZero` as this parameter to select the default area of interest that covers the whole frame (not recommended).

setRecognitionLanguages: method of the RTRTextCaptureService protocol

Sets the languages to be used for recognition.

By default, only the English language is set. Setting the correct languages for your text will improve recognition accuracy. However, setting too many languages may decrease performance.

Use the [languagesAvailableForOCR](#) method to check which languages are supported in your application.

```
- (void)setRecognitionLanguages:(NSSet*)recognitionLanguages;
```

Parameters

recognitionLanguages

The set of languages to be used for recognition, each language represented by its internal name as a string. See [Available Languages](#) for the list of languages and corresponding internal names.

setTranslationDictionary: method of the RTRTextCaptureService protocol

Sets current translation dictionary, attaches or detaches a dictionary to enable or disable translation. By default, translation is disabled and no translation dictionary is used.

Translation dictionaries should be put in the **Translation** subfolder of the application bundle. Some dictionaries are supplied with the distribution. See [Available Translation Dictionaries](#) for a full list.

! Important! *Calling this method with a dictionary name attaches this translation dictionary (or changes the one currently attached). With a dictionary attached, the recognized text will be translated automatically, and the [onBufferProcessedWithTextLines:resultStatus:](#) method will return the result in the target language. The result of recognition in the source language will be unavailable. To detach a dictionary, pass a **nil** argument.*

```
- (void)setTranslationDictionary:(NSString*)dictionaryName;
```


Parameters

dictionaryName

The name of the translation dictionary file, without extension. Can also be **nil** to detach the current dictionary.

stopTasks method of the RTRTextCaptureService protocol

Stops processing and cleans up image buffers. The service keeps its configuration settings and necessary resources, so the processing will start automatically when the service receives a new frame.

```
- (void)stopTasks;
```

RTRTextCaptureServiceDelegate protocol

The protocol for a delegate object to receive results, status information, warnings and errors from the text capture service. Inherits from the [RTRRecognitionServiceDelegate](#) protocol. The methods are to be implemented on the client side.

Methods

Name	Description
- onBufferProcessedWithTextLines:resultStatus:	Notifies the delegate that a frame was recognized, delivers the result and status information.
- onError:	Notifies the delegate about an error. Inherited from the RTRRecognitionServiceDelegate protocol.
- onWarning:	Optional method. Informs the delegate about warnings from the service. Inherited from the RTRRecognitionServiceDelegate protocol.

onBufferProcessedWithTextLines:resultStatus: method of the RTRTextCaptureServiceDelegate protocol

Notifies the delegate that a frame was recognized, delivers the result and its stability status.

The result stability status should be used to determine if the accuracy is high enough for the result to be used for any practical purposes. We recommend not to use the data in any way until the stability level has

reached at least [RTRResultStabilityAvailable](#). When stability of the result has reached the desired level, the service may be stopped by calling the [stopTasks](#) method of the [RTRTextCaptureService](#) protocol.

This method is to be implemented on the client side. The implementation of this method will probably contain assessing the result plausibility, displaying the results to the user or using them in any way you need.

```
- (void)onBufferProcessedWithTextLines:(NSArray*)textLines resultStatus:
(RTRResultStabilityStatus)resultStatus;
```

Parameters

textLines

The result as an array of text lines, represented by [RTRTextLine](#) objects.

resultStatus

The estimate of how stable the result is, represented by an [RTRResultStabilityStatus](#) enumeration constant. It is not guaranteed that it ever reaches the desired level for a particular scene.

onError: method of the RTRTextCaptureServiceDelegate protocol

Notifies the delegate about an error.

```
- (void)onError:(NSError*)error;
```

Parameters

error

The error that has occurred.

onWarning: method of the RTRTextCaptureServiceDelegate protocol

Notifies the delegate about warnings. This method is optional.

```
- (void)onWarning:(RTRCallbackWarningCode)warningCode;
```

Parameters

warningCode

The warning that has occurred, represented by an [RTRCallbackWarningCode](#) enumeration constant.

RTRRecognitionService protocol

The base background recognition service protocol, inherited by the [RTRDataCaptureService](#), [RTRTextCaptureService](#) and [RTRImageCaptureService](#) protocols.

Requires a delegate that conforms to the [RTRRecognitionServiceDelegate](#) protocol.

Methods

Name	Description
- addSampleBuffer:	Sends the video frame obtained from camera to the service.
- setAreaOfInterest:	Sets the search area on the frame.
- stopTasks	Stops processing and releases the resources used by the service.

addSampleBuffer: method of the RTRRecognitionService protocol

Sends the video frame obtained from camera to the service.

Call this method to pass on the video sample buffer received by an [AVCaptureVideoOutputSampleBufferDelegate](#) object via the [captureOutput:didOutputSampleBuffer:fromConnection:](#) method. The service will pick the frames it needs from the sequence of the frames you supply.

Note: The video output must be configured to use the `kCVPixelFormatType_32BGRA` video pixel format. Other pixel formats are currently not supported.

```
- (void)addSampleBuffer:(CMSampleBufferRef) sampleBuffer;
```

Parameters

sampleBuffer

A [CMSampleBuffer](#) object containing the video frame data.

setAreaOfInterest: method of the RTRRecognitionService protocol

Sets the search area on the frame.

The size of the area of interest affects performance and the speed of convergence of the result. The best result is achieved when the area of interest does not touch the boundaries of the frame but has a margin of at least half the size of a typical printed character.

```
- (void)setAreaOfInterest:(CGRect)areaOfInterest;
```

Parameters

areaOfInterest

The rectangle specifying the area of interest in the image coordinates. Pass CGRectZero as this parameter to select the default area of interest that covers the whole frame (not recommended).

stopTasks method of the RTRRecognitionService protocol

Stops processing and cleans up image buffers. The service keeps its configuration settings and necessary resources, so the processing will start automatically when the service receives a new frame.

```
- (void)stopTasks;
```

RTRRecognitionServiceDelegate protocol

The base protocol for a recognition service delegate, inherited by the [RTRDataCaptureServiceDelegate](#), [RTRTextCaptureServiceDelegate](#) and [RTRImageCaptureServiceDelegate](#) protocols. The methods are to be implemented on the client side.

Methods

Name	Description
- onError:	Notifies the delegate about an error.
- onWarning:	Optional method. Informs the delegate about warnings from the service.

onError: method of the RTRRecognitionServiceDelegate protocol

Notifies the delegate about an error.

```
- (void)onError:(NSError*)error;
```

Parameters

error

The error that has occurred.

onWarning: method of the RTRRecognitionServiceDelegate protocol

Informs the delegate about warnings. This method is optional.

```
- (void)onWarning:(RTRCallbackWarningCode)warningCode;
```

Parameters

warningCode

The warning that has occurred, represented by an [RTRCallbackWarningCode](#) enumeration constant.

RTRResultStabilityStatus enumeration

Result stability status: the estimate of how stable the result is, and whether it is likely to be improved by adding new frames. We do not recommend using the results in any way while stability is below `RTRResultStabilityAvailable`.

```
typedef NS_ENUM(NSInteger, RTRResultStabilityStatus) {
    RTRResultStabilityNotReady,
    RTRResultStabilityTentative,
    RTRResultStabilityVerified,
    RTRResultStabilityAvailable,
    RTRResultStabilityTentativelyStable,
    RTRResultStabilityStable
};
```

Constants

Name	Description
<code>RTRResultStabilityNotReady</code>	No content available.
<code>RTRResultStabilityTentative</code>	Content detected on a single frame.
<code>RTRResultStabilityVerified</code>	Content verified: matching content found in at least two frames.
<code>RTRResultStabilityAvailable</code>	Matching content found in three or more frames. The content is recognized and the result is available, though the result can still vary with the addition of new frames.

Name	Description
RTRResultStabilityTentativelyStable	The result has been stable in the last two frames.
RTRResultStabilityStable	The result has been stable in the last three or more frames.

Core API

RTRCoreAPI protocol

Provides access to low-level functions for single image processing. Useful when you need to recognize an image that was not taken by the camera of the device on which the application operates — for example, scans sent by email.

Inherits from [RTRRecognitionCoreAPI](#), [RTRDataCaptureCoreAPI](#) and [RTRImagingCoreAPI](#) protocols.

Properties

Name	Type	Description
processingSettings	RTRCoreAPIProcessingSettings	Provides access to the general processing settings common for different scenarios.
textRecognitionSettings	RTRCoreAPITextRecognitionSettings	Provides access to the settings of text recognition.

Methods

Name	Description
- recognizeText:onProgress:onTextOrientationDetected:error:	Performs recognition of a single image.

recognizeText:onProgress:onTextOrientationDetected:error: method of the RTRCoreAPI protocol

Performs recognition of a single image.

```
- (NSArray*) recognizeText: (UIImage*) image
    onProgress: (BOOL(^) (int percentage, RTRCallbackWarningCode
warningCode)) progressCallback
    onTextOrientationDetected: (void(^) (int angle))
textOrientationDetectedCallback
    error: (___autoreleasing NSError**) error;
```

Parameters

image

The image to be recognized.

onProgress

The callback informing you of approximate percentage of operation completed, and any warning that occurred (represented by an [RTRCallbackWarningCode](#) constant). This callback can also be used to interrupt processing: return TRUE if you wish to terminate the current operation, FALSE to continue.

onTextOrientationDetected

The callback informing you when the image orientation is detected. The *angle* parameter can take values of 0, 90, 180, and 270, and means the angle on which the image should be rotated to get normal orientation.

error

The error callback.

Return values

The method returns an array of [RTRTextBlock](#) objects which contain the results of recognition for the text areas found on the image.

RTRCoreAPIDataCaptureSettings protocol

Settings specific for data capture scenario.

Properties

Name	Type	Description
profile	NSString*	The name of a data capture profile (data

Name	Type	Description
		<p>scheme) to use. For the available predefined profiles see Data Capture Profiles.</p> <p>Note: Currently only the BusinessCards profile is supported in the data capture scenario with the core API usage.</p>

Methods

Name	Description
- setAreaOfInterest:	Sets the search area on the image.
- configureDataCaptureProfile	Sets the languages to be used for recognition.

setAreaOfInterest: method of the RTRCoreAPIDataCaptureSettings protocol

Sets the search area on the image.

```
- (void) setAreaOfInterest: (CGRect) areaOfInterest;
```

Parameters

areaOfInterest

The rectangle specifying the area of interest in the image coordinates. Pass CGRectZero as this parameter to select the default area of interest that covers the whole frame.

configureDataCaptureProfile method of the RTRCoreAPIDataCaptureSettings protocol

Creates a profile builder object with which you will be able to configure the data capture core API to recognize a custom field.

```
- (id<RTRDataCaptureProfileBuilder>) configureDataCaptureProfile;
```


Return values

The method returns an instance implementing the [RTRDataCaptureProfileBuilder](#) protocol, or **nil** if a profile may not be configured (e.g. you have already specified a profile name on creating the data capture service).

RTRCoreAPIProcessingSettings protocol

General processing settings common for different scenarios.

Properties

Name	Type	Description
processingThreadsCount	NSInteger	<p>Specifies the number of threads to be used for processing.</p> <p>The default value of this property is 0, which means that the number of processing threads will be determined automatically.</p>

RTRCoreAPITextRecognitionSettings protocol

Settings specific for text recognition scenario.

Methods

Name	Description
- setAreaOfInterest:	Sets the search area on the image.
- setRecognitionLanguages:	Sets the languages to be used for recognition.

setAreaOfInterest: method of the RTRCoreAPITextRecognitionSettings protocol

Sets the search area on the image.

```
- (void) setAreaOfInterest: (CGRect) areaOfInterest;
```

Parameters

areaOfInterest

The rectangle specifying the area of interest in the image coordinates. Pass CGRectZero as this parameter to select the default area of interest that covers the whole frame.

setRecognitionLanguages: method of the RTRCoreAPITextRecognitionSettings protocol

Sets the languages to be used for recognition.

By default, only the English language is set. Setting the correct languages for your text will improve recognition accuracy. However, setting too many languages may decrease performance.

Use the [languagesAvailableForOCR](#) method to check which languages are supported in your application.

```
- (void)setRecognitionLanguages:(NSSet*) recognitionLanguages;
```

Parameters

recognitionLanguages

The set of languages to be used for recognition, each language represented by its internal name as a string. See [Available Languages](#) for the list of languages and corresponding internal names.

RTRDataCaptureCoreAPI protocol

Provides access to low-level single image core API functions for current thread, that are intended for capturing data. The protocol should be used in the same thread in which it was created. Multiple objects can be created on different threads and used concurrently. All methods are synchronous (blocking) and should not be used on UI thread. Intended for advanced users.

Properties

Name	Type	Description
processingSettings	RTRCoreAPIProcessingSettings	Provides access to the general processing settings common for different scenarios.
dataCaptureSettings	RTRCoreAPIDataCaptureSettings	Provides access to the settings of data capture.

Name	Type	Description
extendedSettings	RTRExtendedSettings	Extended service configuration settings. Intended for advanced users: most common scenarios will work with the default settings.

Methods

Name	Description
- extractDataFromImage:onProgress:onTextOrientationDetected:dataScheme:error:	Extracts data from a still image.

extractDataFromImage:onProgress:onTextOrientationDetected:dataScheme:error: method of the RTRDataCaptureCoreAPI protocol

Extracts data from a still image.

```
- (NSArray<RTRDataField*>*)extractDataFromImage:(UIImage*)image onProgress:
(RTRProgressCallbackBlock)progressCallback
    onTextOrientationDetected:(RTRTextOrientationDetectedBlock)
textOrientationDetectedCallback
    error:(__autoreleasing NSError**)error;
```

Parameters

image

The image to be recognized..

progressCallback

The callback informing you of approximate percentage of operation completed, and any warning that occurred (represented by an [RTRCallbackWarningCode](#) constant). This callback can also be used to interrupt processing: return TRUE if you wish to terminate the current operation, FALSE to continue.

textOrientationDetectedCallback

The callback informing you when the image orientation is detected. The *angle* parameter can take values of 0, 90, 180, and 270, and means the angle on which the image should be rotated to get normal orientation.

error

The error callback.

Return values

The method returns an array of data fields, represented by [RTRDataField](#) objects.

RTRRecognitionCoreAPI protocol

Provides access to low-level single image core API functions for current thread, that are intended for text recognition on photos. The protocol should be used in the same thread in which it was created. Multiple objects can be created on different threads and used concurrently. All methods are synchronous (blocking) and should not be used on UI thread. Intended for advanced users.

Properties

Name	Type	Description
processingSettings	RTRCoreAPIProcessingSettings	Provides access to the general processing settings common for different scenarios.
textRecognitionSettings	RTRCoreAPITextRecognitionSettings	Provides access to the settings of text recognition scenario.
extendedSettings	RTRExtendedSettings	Extended service configuration settings. Intended for advanced users; most common scenarios will work with the default settings.

Methods

Name	Description
-recognizeTextOnImage:onProgress:onTextOrientationDetectedCallback:error:	Recognizes text on a still image.

recognizeTextOnImage:onProgress:onTextOrientationDetectedCall back:error: method of the RTRRecognitionCoreAPI protocol

Recognizes text on a still image.

```
- (NSArray<RTRTextBlock*>*) recognizeTextOnImage:(UIImage*) image onProgress:
(RTRProgressCallbackBlock) progressCallback
    onTextOrientationDetected: (RTRTextOrientationDetectedBlock)
textOrientationDetectedCallback
    error: (NSError**) error;
```

Parameters

image

The image to be recognized..

progressCallback

The callback informing you of approximate percentage of operation completed, and any warning that occurred (represented by an [RTRCallbackWarningCode](#) constant). This callback can also be used to interrupt processing: return TRUE if you wish to terminate the current operation, FALSE to continue.

textOrientationDetectedCallback

The callback informing you when the image orientation is detected. The *angle* parameter can take values of 0, 90, 180, and 270, and means the angle on which the image should be rotated to get normal orientation.

error

The error callback.

Return values

The method returns an array of data fields, represented by [RTRTextBlock](#) objects.

MobileImagina Core API

RTRCoreAPICropOperation protocol

An operation for image crop. The crop is performed on the image taking into account the orientation that is stored in certain metadata of the corresponding **UIImage** object (see the [UIImageOrientation](#) for more information).

This operation not only crops the image but also applies perspective distortion if needed.

Use the [applyToImage:](#) method of the [RTRCoreAPIImageOperation](#) protocol to apply the operation to the image.

Properties

Name	Type	Description
documentBoundary	NSArray<NSValue*>*, read-only	<p>[in] The detected document boundary. Currently the result is always returned as the four vertex points of the bounding quadrangle. The vertices are indexed clockwise starting from the bottom left.</p> <p>Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint.</p>
documentSize	CGSize	[in, optional] the document size in millimeters.
imageResolution	CGSize	[out] Image resolution as calculated from image size and physical page size.

RTRCoreAPIDetectDocumentBoundaryOperation protocol

An operation for image boundaries detection. Use the [applyToImage](#) method of the [RTRCoreAPIImageOperation](#) protocol to apply the operation to the image.

Properties

Name	Type	Description
areaOfInterest	CGPoint	Area of interest for the operation.
documentSize	CGSize	[in, out] The document size in millimeters.
documentBoundary	NSArray<NSValue*>*, read-only	<p>[out] The detected document boundary. Currently the result is always returned as the four vertex points of the bounding quadrangle. The vertices are indexed clockwise starting from the bottom left.</p> <p>Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint.</p>

RTRCoreAPIExportOperation protocol

Export operation protocol.

Images are added to the export operation as pages. Some export operations support adding multiple pages and some do not. Export operations should be properly closed with the **close** method to ensure that all required content has been written to the output stream.

Methods

Name	Description
- addPageWithImage:	Adds the page to the export target.
- close:	Call this method to ensure that all required content has been written to the output stream.

addPageWithImage: method of the RTRCoreAPIExportOperation protocol

Adds the page to the export target.

```
- (BOOL)addPageWithImage:(UIImage*)page;
```

Parameters

page

The page that must be added to the export target.

close: method of the RTRCoreAPIExportOperation protocol

This method is called to ensure that all required content has been written to the output stream.

```
- (BOOL)close;
```

RTRCoreAPIExportToPngOperation protocol

An operation for image export into PNG format. Inherits from the [RTRCoreAPIExportOperation](#) protocol. Use the [addPageWithImage:](#) method of the [RTRCoreAPIExportOperation](#) protocol to export the image.

Properties

Name	Type	Description
imageResolution	CGSize	Image resolution in EXIF. The default value of this property is 0.

RTRCoreAPIExportToJpgOperation protocol

An operation for image export into JPG format. Inherits from the [RTRCoreAPIExportOperation](#) protocol. Use the [addPageWithImage:](#) method of the [RTRCoreAPIExportOperation](#) protocol to export the image.

Properties

Name	Type	Description
imageResolution	CGSize	Image resolution in EXIF. The default value of this property is 0.
compression	RTRCoreAPIExportCompressionLevel	Page compression rate. This property should be tuned depending on the image resolution and the font size.

RTRCoreAPIExportToJpeg2000Operation protocol

An operation for image export into JPG 2000 format. Inherits from the [RTRCoreAPIExportOperation](#) protocol. Use the [addPageWithImage:](#) method of the [RTRCoreAPIExportOperation](#) protocol to export the image.

Properties

Name	Type	Description
imageResolution	CGSize	Image resolution in EXIF. The default value of this property is 0.

Name	Type	Description
compression	RTRCoreAPIExportCompressionLevel	Page compression rate. This property should be tuned depending on the image resolution and the font size.

RTRCoreAPIExportToPdfOperation protocol

An operation for image export into PDF format. Inherits from the [RTRCoreAPIExportOperation](#) protocol. Use the [addPageWithImage:](#) method of the [RTRCoreAPIExportOperation](#) protocol to export the image.

Properties

Name	Type	Description
compressionType	RTRCoreAPIPdfExportCompressionType	The type of compression for PDF files depending on the base image format. The default value of this property is RTRCoreAPIPdfExportUpgCompression .
compression	RTRCoreAPIExportCompressionLevel	Page compression rate. This property should be tuned depending on the image resolution and the font size.
pageSize	CGSize	Page width in points (1/72 per inch). The page size of A4 is 595x842. If the value of this property is CGSizeZero , the page size is the same as the size of the image in pixels. The default value of this property is CGSizeZero .

RTRCoreAPIImage protocol

The protocol stores the captured image. All the operations are applied to the image loaded to this format.

```
- (UIImage*) UIImage;
```

RTRCoreAPIImageOperation protocol

The image operation protocol. Inherits from the [RTRCoreAPIOperation](#) protocol.

After the image is captured a sequence of specified operations is applied to it. The operations can modify the image, then the returned result is the modified image, fill the [out] parameters of the operation or combine these two behavior types.

Methods

Name	Description
- applyToImage:	Applies chosen operation to the image.

applyToImage: method of the RTRCoreAPIOperation protocol

Applies chosen operation to the image.

```
- (BOOL) applyToImage: (id<RTRCoreAPIImage>) image;
```

Parameters

image

The image represented by an [RTRCoreAPIImage](#) object to which the operation is to be applied.

RTRCoreAPIOperation protocol

The base background operation protocol, inherited by the [RTRCoreAPIImageOperation](#) protocol.

Properties

Name	Type	Description
error	NSError*	The error that has occurred.

RTRCoreAPIQualityAssessmentForOCROperation protocol

Note: This is a technology preview feature. The functionality will be improved and completed in future versions.

An operation for image quality assessment for OCR. Use the [applyToImage:](#) method of the [RTRCoreAPIImageOperation](#) protocol to apply the operation to the image.

Properties

Name	Type	Description
documentBoundary	NSArray<NSValue*>*, read-only	<p>[out] The detected document boundary. Currently the result is always returned as the four vertex points of the bounding quadrangle. The vertices are indexed clockwise starting from the bottom left.</p> <p>Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint.</p>
qualityAssessmentBlocks	NSArray< RTRQualityAssessmentForOCRBlock *>*	[out] The quality assessment blocks.

RTRCoreAPIRotateOperation protocol

An operation for rotating the image to a specified angle. Use the [applyToImage:](#) method of the [RTRCoreAPIImageOperation](#) protocol to apply the operation to the image.

Properties

Name	Type	Description
angle	NSInteger	The angle in degrees. Available values of the angle: 0, 90, 180, 270.

RTRImagingCoreAPI protocol

Provides access to low-level single image core API functions for current thread. Inherits from the [RTRCoreAPI](#) protocol. Should be used on the same thread on which it was created. Multiple objects can be created on different threads and used concurrently. All methods are synchronous (blocking) and should not be used on UI thread. Intended for advanced users.

Methods

Name	Description
- loadImage:error:	This method loads the image object into the internal format.

Name	Description
- createDetectDocumentBoundaryOperation	Creates an operation for document boundary detection.
- createQualityAssessmentForOCROperation	Creates an operation for image quality assessment for OCR.
- createCropOperation	Creates an operation for image crop.
- createRotateOperation	Creates an operation for rotating the image.
- createExportToPngOperation:	Creates an operation for exporting image to PNG format.
- createExportToJpgOperation:	Creates an operation for exporting image to JPG format.
- createExportToJpg2000Operation:	Creates an operation for exporting image to JPG 2000 format.
- createExportToPdfOperation:	Creates an operation for exporting image to PDF format.

createCropOperation method of the RTRImagingCoreAPI protocol

Creates an operation for image crop.

```
- (id<RTRCoreAPICropOperation>) createCropOperation;
```

Return values

The method returns an instance implementing the [RTRCoreAPICropOperation](#) protocol. Use the [applyToImage:](#) method of the [RTRCoreAPIImageOperation](#) protocol to apply the operation to the image.

createDetectDocumentBoundaryOperation method of the RTRImagingCoreAPI protocol

Creates an operation for document boundary detection.

```
- (id<RTRCoreAPIDetectDocumentBoundaryOperation>)
createDetectDocumentBoundaryOperation;
```

Return values

The method returns an instance implementing the [RTRCoreAPIDetectDocumentBoundaryOperation](#) protocol. Use the [applyToImage:](#) method of the [RTRCoreAPIImageOperation](#) protocol to apply the operation to the image.

createExportToPngOperation: method of the RTRImagingCoreAPI protocol

Creates an operation for exporting image to PNG format.

```
- (id<RTRCoreAPIExportToPngOperation>) createExportToPngOperation:
(id<RTROutputStream>) outputStream;
```

Parameters

outputStream

The output stream for export.

Return values

The method returns an instance implementing the [RTRCoreAPIExportToPngOperation](#) protocol. Use the [addPageWithImage:](#) method of the [RTRCoreAPIExportOperation](#) protocol to export the image.

createExportToJpgOperation: method of the RTRImagingCoreAPI protocol

Creates an operation for exporting image to JPG format.

```
- (id<RTRCoreAPIExportToJpgOperation>) createExportToJpgOperation:
(id<RTROutputStream>) outputStream;
```

Parameters

outputStream

The output stream for export.

Return values

The method returns an instance implementing the [RTRCoreAPIExportToJpgOperation](#) protocol. Use the [addPageWithImage:](#) method of the [RTRCoreAPIExportOperation](#) protocol to export the image.

createExportToJpeg2000Operation: method of the RTRImagingCoreAPI protocol

Creates an operation for exporting image to JPG 2000 format.

```
- (id<RTRCoreAPIExportToJpg2000Operation>) createExportToJpg2000Operation:
(id<RTROutputStream>) outputStream;
```

Parameters

outputStream

The output stream for export.

Return values

The method returns an instance implementing the [RTRCoreAPIExportToJpeg2000Operation](#) protocol. Use the [addPageWithImage:](#) method of the [RTRCoreAPIExportOperation](#) protocol to export the image.

createExportToPdfOperation: method of the RTRImagingCoreAPI protocol

Creates an operation for exporting image to PDF format.

```
- (id<RTRCoreAPIExportToPdfOperation>) createExportToPdfOperation:
(id<RTROutputStream>) outputStream;
```

Parameters

outputStream

The output stream for export.

Return values

The method returns an instance implementing the [RTRCoreAPIExportToPdfOperation](#) protocol. Use the [addPageWithImage:](#) method of the [RTRCoreAPIExportOperation](#) protocol to export the image.

createQualityAssessmentForOCROperation method of the RTRImagingCoreAPI protocol

Note: *This is a technology preview feature. The functionality will be improved and completed in future versions.*

Creates an operation for image quality assessment for OCR.

```
- (id<RTRCoreAPIQualityAssessmentForOCROperation>)
createQualityAssessmentForOCROperation;
```

Return values

The method returns an instance implementing the [RTRCoreAPIQualityAssessmentForOCROperation](#) protocol. Use the [applyToImage:](#) method of the [RTRCoreAPIImageOperation](#) protocol to apply the operation to the image.

createRotateOperation method of the RTRImagingCoreAPI protocol

Creates an operation for rotating the image.

```
- (id<RTRCoreAPIRotateOperation>)createRotateOperation;
```

Return values

The method returns an instance implementing the [RTRCoreAPIRotateOperation](#) protocol. Use the [applyToImage:](#) method of the [RTRCoreAPIImageOperation](#) protocol to apply the operation to the image.

loadImage:error: method of the RTRImagingCoreAPI protocol

This method loads the image object into the internal format.

```
- (id<RTRCoreAPIImage>)loadImage:(UIImage*)image;
error: (NSError**)error;
```

Parameters

image

The image to be loaded.

error

The error that has occurred.

Return values

The method returns an instance implementing the [RTRCoreAPIImage](#) protocol.

RTROutputStream protocol

This output stream protocol is used for exporting the processed image. You can use one of three interfaces implementing the protocol. The protocol and its methods can also be implemented on the client side.

Methods

Name	Description
- writeData:	Writes the provided data to the specified destination.

writeData: method of the RTROutputStream protocol

Writes the provided data to the specified destination.

```
- (BOOL)writeData:(NSData*) data;
```

Parameters

data

The data that must be written to stream.

RTRQualityAssessmentForOCRBlock protocol

Note: *This is a technology preview feature. The functionality will be improved and completed in future versions.*

The block for the quality assessment for OCR.

Properties

Name	Type	Description
type	RTRQualityAssessmentForOCRBlockType	Type of quality assessment block.

Name	Type	Description
quality	NSInteger	Value from 0 to 100 that indicates suitability of the text for OCR.
rect	CGRect	Block rectangle.

RTRMemoryOutputStream class

This output stream class conforms to the [RTROutputStream](#) protocol and is used for exporting the processed image as data to memory.

Properties

Name	Type	Description
data	NSData*	The data exported to memory.

Methods

Name	Description
- writeData:	Writes the provided data to the specified destination.

writeData: method of the RTRMemoryOutputStream class

Writes the provided data to the specified destination.

```
- (BOOL)writeData:(NSData*)data;
```

Parameters

data

The data that must be written to stream.

RTRFileOutputStream class

This output stream class conforms to the [RTROutputStream](#) protocol and is used for exporting the processed image as data to a specified file.

Properties

Name	Type	Description
filePath	NSString*	The address of the file to which the exported data will be written.
error	NSError*	The error that has occurred. In case no errors occurred, this property is nil .

Methods

Name	Description
- writeData:	Writes the provided data to the specified destination.
- initWithFilePath:	Returns an initialized output stream for writing to the specified 'filePath'.

initWithFilePath: method of the RTRFileOutputStream class

Returns an initialized output stream for writing to the specified 'filePath'.

```
- (instancetype) initWithFilePath: (NSString*) filePath;
```

Parameters

filePath

The address of the file to which the exported data will be written.

Return values

The method returns an instance of the [RTRFileOutputStream](#) object, or **nil** if object creation failed.

writeData: method of the RTRFileOutputStream class

Writes the provided data to the specified destination.

```
- (BOOL)writeData:(NSData*)data;
```

Parameters

data

The data that must be written to stream.

RTROutputStream class

This output stream class conforms to the [RTROutputStream](#) protocol and is used for exporting the processed image as data to the stream.

Properties

Name	Type	Description
outputStream	NSOutputStream*	The output stream to which the exported data will be written.
error	NSError*	The error that has occurred. In case no errors occurred, this property is nil .

Methods

Name	Description
- writeData:	Writes the provided data to the specified destination.
- initWithOutputStream:	Returns an initialized output stream for writing to the specified output stream.

initWithOutputStream: method of the RTROutputStream class

Returns an initialized output stream for writing to the specified output stream. This output stream must be opened before using.

```
- (instancetype)initWithOutputStream:(NSOutputStream*)outputStream;
```

Parameters

outputStream

The output stream to which the exported data will be written.

Return values

The method returns an instance of the [RTROutputStream](#) object, or **nil** if object creation failed.

writeData: method of the RTROutputStream class

Writes the provided data to the specified destination.

```
- (BOOL)writeData:(NSData*)data;
```

Parameters

data

The data that must be written to stream.

RTRProgressCallbackBlock

This is a type definition for approximate progress of the operation block that will be passed to the methods of data capturing or text recognition as an **onProgress** parameter.

```
typedef BOOL (RTRProgressCallbackBlock) (NSInteger percentage,
RTRCallbackWarningCode warningCode);
```

Parameters

percentage

The approximate percentage of the work currently done. This parameter is in the range from 0 to 100.

warningCode

A warning that occurred during processing represented by an [RTRCallbackWarningCode](#) constant.

Return values

The block must return NO if the recognition process should be terminated, TRUE otherwise.

RTRTextOrientationDetectedBlock

This is a type definition for a block informing if the image orientation is detected. The block is passed to the methods of data capturing or text recognition as an **onTextOrientationDetected** parameter.

```
typedef void (RTRTextOrientationDetectedBlock) (NSInteger angle);
```

Parameters

angle

The angle on which the image should be rotated to get normal orientation. The angle parameter can take values of 0, 90, 180, and 270.

RTRImageCaptureStatus

The current status of the image capture. Returned value is intended for the UI feedback.

Properties

Name	Type	Description
motionVector	CGVector	The vector that indicates the image position shifting in comparison to the previous state.
relativeQuality	NSInteger	<p>The value from internal image quality scale. Larger value means better image quality. The minimum value is 0.</p> <p>! Note: This API is available only in the extended version of the library. For correct quality comparison the image should represent the document at the same scene. If the background changes at some images, parameter values will not represent appropriate for comparison data.</p>
documentBoundary	NSArray<NSValue*>*	The detected document boundary. Currently the result is always returned as the four vertex points of the bounding

Name	Type	Description
		<p>quadrangle. The vertices are indexed clockwise starting from the bottom left.</p> <p>Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint.</p>
qualityAssessmentForOCRBlocks	NSArray< RTRQualityAssessmentForOCRBlock >*	The quality assessment blocks.

RTRImageCaptureResult

The result of the image capture.

Properties

Name	Type	Description
image	UIImage*	The captured image.
documentBoundary	NSArray<NSValue*>*	<p>The detected document boundary. Currently the result is always returned as the four vertex points of the bounding quadrangle. The vertices are indexed clockwise starting from the bottom left.</p> <p>Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint.</p>
documentSize	CGSize	The document size (as specified in setDocumentSize:).
qualityAssessmentForOCRBlocks	NSArray< RTRQualityAssessmentForOCRBlock >*	The quality assessment blocks.

RTRCharInfo class

Extended information about the character formatting.

! Important! *This class is reserved for future use.*

Properties

Name	Type	Description
backgroundColor	NSInteger, read-only	<p>The color of the background.</p> <p>! Note: The int value is calculated from the RGB triplet using the formula: (red value) + (256 x green value) + (65536 x blue value), where red value is the first triplet component, green value is the second triplet component, blue value is the third triplet component. For example, the int value of the color white equals 16777215.</p>
foregroundColor	NSInteger, read-only	The color of the symbol.
quadrangle	NSArray<NSValue*>, read-only	<p>The four vertex points of the bounding quadrangle. The vertices are indexed clockwise starting from the bottom left.</p> <p>Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint.</p>
rect	CGRect, read-only	The bounding rectangle.

RTRDataField class

A recognized data field. Provides field contents, location and included data fields, if applicable.

The field can be compound, which means that it consists from several parts.

Note that a field may have several components — for example, it can contain two or more words. Component details are available from the **components** array. Each element of this array is an [RTRDataField](#) object with its own **text** property (for example, a word) and **quadrangle** property (the bounding quadrangle of this component). The field's **text** property contains its entire text, and the field's

quadrangle property represents the whole area of a field: this quadrangle encloses the quadrangles of all components.

The **components** array always contains at least one element. When a field contains only one component, the **text** and **quadrangle** properties of the field and this component are identical.

Properties

Name	Type	Description
id	NSString*, read-only	The internal field identifier. Can be one of the predefined fields listed in Data Capture Profiles or the custom field identifier that you specified when adding the field in RTRDataSchemeBuilder . May be nil in case the component is a part of a compound component.
name	NSString*, read-only	The name of the field as seen in the document or specified in the custom data capture profile.
quadrangle	NSArray<NSValue*>*, read-only	The four vertex points of the bounding quadrangle. The vertices are indexed clockwise starting from the bottom left. Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint .
text	NSString*, read-only	The recognized field contents.
components	NSArray<RTRDataField*>*, read-only	Field components represented by RTRDataField objects. If the field has only one component, this array contains one element.

RTRDataScheme class

Information on the data scheme applied to the recognized frame.

Properties

Name	Type	Description
id	NSString,	The internal scheme identifier. Can be one of the predefined data schemes listed in Data Capture Profiles or the custom scheme identifier that you

	read-only	specified when creating the scheme in the RTRDataCaptureProfileBuilder .
name	NSString, read-only	The name of the scheme. If you are using a custom data capture profile, this is the same name you specified when creating the scheme in the RTRDataCaptureProfileBuilder .

RTREngineSettings class

Additional settings for ABBYY Mobile Capture SDK engine. They apply to all processing scenarios.

Properties

Name	Type	Description
externalAssetsPath	NSString*	<p>The additional path to search for framework data.</p> <p>The program will search for any resource file it needs first in the bundle root, then in the specified custom folder, each time looking in the corresponding subfolder. For example, it will try to locate a pattern file (*.rom) like this:</p> <ol style="list-style-type: none"> 1) in <bundle path>/Patterns 2) in <custom search path>/Patterns 3) if the file is not found, an error will be returned

RTRExtendedSettings class

Extended service configuration settings. Intended for advanced users: most common scenarios will work with the default settings.

Properties

Name	Type	Description
CJKVerticalTextEnabled	BOOL	Enables or disables vertical writing direction for Chinese, Japanese, and Korean languages.

Name	Type	Description
		The default value of this property is NO (disabled).
frameMergingEnabled	BOOL	<p>Enables or disables merging of recognition results. Frame merging is one of the key features of Mobile Capture SDK, which improves recognition accuracy.</p> <p>The default value of this property is YES (enabled).</p>
processingThreadsCount	NSInteger	<p>The number of processing threads to be used by the service. Up to 16 threads are allowed. Set to 0 to determine the number of threads automatically.</p> <p>The default value of this property is 0.</p>

RTRTextLine class

A line of recognized text; the location and additional information are also available.

Properties

Name	Type	Description
charsInfo	NSArray*, read-only	<p>Extended characters' information as an array of RTRCharInfo objects.</p> <p>! Important! <i>This property is reserved for future use.</i></p>
quadrangle	NSArray<NSValue*>, read-only	<p>The four vertex points of the bounding quadrangle. The vertices are indexed clockwise starting from the bottom left.</p> <p>Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint.</p>
rect	CGRect, read-only	The bounding rectangle.
text	NSString*, read-only	The recognized text.

RTRTextBlock class

A block of recognized text, containing an array of text lines found in one text area on the image.

Properties

Name	Type	Description
textLines	NSArray*, read-only	The array of RTRTextLine objects representing the lines of recognized text.

RTRQualityAssessmentForOCRBlockType enumeration

Note: *This is a technology preview feature. The functionality will be improved and completed in future versions.*

Type of the block for quality assessment for OCR.

```
typedef NS_ENUM(NSUInteger, RTRQualityAssessmentForOCRBlockType) {
    RTRQualityAssessmentForOCRTextBlock,
    RTRQualityAssessmentForOCRUnknownBlock,
};
```

Constants

Name	Description
RTRQualityAssessmentForOCRTextBlock	The text detected.
RTRQualityAssessmentForOCRUnknownBlock	The unknown type.

RTRCoreAPIExportCompressionLevel enumeration

The uniform image compression scale for lossy formats.

```
typedef NS_ENUM(NSUInteger, RTRCoreAPIExportCompressionLevel) {
    RTRCoreAPIExportCompressionLowLevel,
    RTRCoreAPIExportCompressionNormalLevel,
    RTRCoreAPIExportCompressionHighLevel,
    RTRCoreAPIExportCompressionExtraHighLevel,
};
```

Constants

Name	Description
RTRCoreAPIExportCompressionLowLevel	The lowest compression rate, that still might have any noticeable effect on recognition of small text.
RTRCoreAPIExportCompressionNormalLevel	[Default] Balanced trade-off between compression and quality. Good safety margin.
RTRCoreAPIExportCompressionHighLevel	More compression, less safety margin. Might perform poorly with small text, but generally still ok.
RTRCoreAPIExportCompressionExtraHighLevel	The maximum recommended compression rate. Will perform poorly with small text. Advisable only for relatively large text and very slow networks.

RTRCoreAPIPdfExportCompressionType enumeration

The type of compression for PDF files depending on the base image format.

```
typedef NS_ENUM(NSUInteger, RTRCoreAPIPdfExportCompressionType) {
    RTRCoreAPIPdfExportJpgCompression,
    RTRCoreAPIPdfExportJpeg2000Compression,
};
```

Constants

Name	Description
RTRCoreAPIPdfExportJpgCompression	The image compression type for PDF files based on the JPG format.
RTRCoreAPIPdfExportJpeg2000Compression	The image compression type for PDF files based on the JPG 2000 format.

RTRCallbackWarningCode enumeration

A warning that occurred during processing.

```
typedef NS_ENUM(NSInteger, RTRCallbackWarningCode) {
    RTRCallbackWarningNoWarning,
    RTRCallbackWarningRecognitionIsSlow,
    RTRCallbackWarningProbablyLowQualityImage,
    RTRCallbackWarningProbablyWrongLanguage,
    RTRCallbackWarningWrongLanguage,
    RTRCallbackWarningTextTooSmall
};
```

Constants

Name	Description
RTRCallbackWarningProbablyLowQualityImage	The image quality (contrast, resolution) may not be good enough for accurate results.
RTRCallbackWarningProbablyWrongLanguage	The recognition language may be specified incorrectly.
RTRCallbackWarningRecognitionIsSlow	Recognition takes too much time. Check if there is some problem.
RTRCallbackWarningTextTooSmall	The text is too small. Advise the end user to move the camera closer or zoom in.
RTRCallbackWarningWrongLanguage	The recognition language is specified incorrectly.

User Interface API Reference

This section describes provided Objective-C API for user interface implementation.

AUICaptureScenario interface

Provides access to the capture scenario management. Inherited by the [AUImageCaptureScenario](#) interface.

Requires a delegate that conforms to the [AUICaptureScenarioDelegate](#) protocol.

Properties

Name	Type	Description
delegate	AUICaptureScenarioDelegate	Delegate object for receiving results, status information, warnings and errors.

Methods

Name	Description
+ supportedCameraResolutionsForDevice	Returns the camera resolutions from the AUICameraResolution enumeration, supported by the device.
- cancel:	Stops the scenario.

cancel method of the AUICaptureScenario interface

Stops the scenario.

```
- (void)cancel;
```

supportedCameraResolutionsForDevice

Returns the camera resolutions from the [AUICameraResolution](#) enumeration, supported by the device.

```
+ (NSArray<NSNumber*>*) supportedCameraResolutionsForDevice;
```

Return values

The method returns an array storing the resolutions supported by the device camera.

AUICaptureScenarioDelegate protocol

Delegate object for receiving results, status information, warnings and errors during the capture scenario. Inherited by the [AUImageCaptureScenarioDelegate](#) protocol.

The method is to be implemented on the client side.

Methods

Name	Description
- captureScenarioDidCancel:	Notifies the delegate that performing scenario was canceled.

captureScenarioDidCancel: method

Notifies the delegate that the capture scenario was canceled.

```
- (void)captureScenarioDidCancel:(AUICaptureScenario)scenario;
```

Parameters

scenario

Scenario that was canceled.

AUICaptureController interface

Configures the work with camera preview. Provides properties for specifying capture scenario and customizing the user interface appearance.

If created without initial view controller, pushes camera controller automatically.

Properties

Name	Type	Description
localizedStringsBundle	NSBundle*	Bundle storing the localized source strings for the interface.

Name	Type	Description
		<p>! <i>Note:</i> By default all the strings are in English. To change the interface language according to your needs, please localize the source strings in the AbbyUI.strings file located in the AbbyUI.framework.</p>
captureScenario	AUICaptureScenario*	<p>Capture scenario that will be performed on the camera preview.</p> <p>! <i>Note:</i> Only image capture scenario is currently supported.</p>
cameraOverlayView	UIView*	<p>Camera overlay view. Shows over camera view.</p> <p>To define in storyboard it must be placed outside AUICaptureController.</p>
flashButton	UIButton*	<p>Camera torch toggle button.</p> <p>Selected state is stored in NSUserDefaults.</p>
captureButton	UIButton*	Button for capturing image immediately.
closeButton	UIButton*	Button for closing the camera preview.
cameraSettings	AUICameraSettings	<p>Camera settings for current capture session.</p> <p>If the capture session is not started, this property is nil.</p>
theme	AUITheme	Color theme of the user interface, defining colors of the text, buttons' background, etc. The theme can be light or dark.
customColor	UIColor*	Custom color of the button for manual taking photo.

Name	Type	Description
paused	BOOL	Indicates if the scenario is in a paused state.

Methods

Name	Description
- setPaused:animated:	Sets or turns off the paused state.
- pushCameraControllerAnimated:animated:	<p>Pushes the camera controller.</p> <p>Note: This method is used in case camera controller is not the only controller inside the AUICaptureController object and so is not pushed automatically.</p>

setPaused:animated: method of the AUICaptureController interface

Sets or turns off the paused state. During the pause state the interface elements disappear and the background is turning blurred.

```
- (void)setPaused:(BOOL)paused animated:(BOOL)animated;
```

Parameters

paused

Defines if the scenario is set to the paused state. Set YES for pausing, NO otherwise.

animated

Defines if the interface elements vanishing and background blurring will be performed slower when the pause state is set. Pass YES to show the animation, NO otherwise.

pushCameraControllerAnimated: method of the AUICaptureController interface

Pushes the camera controller.

```
- (void)pushCameraController:(BOOL)animated;
```

Parameters

animated

Defines if the interface elements vanishing and background blurring will be performed slower on the start. Pass YES to show the animation, NO otherwise.

AUImageCaptureResult interface

Captured image with detected document boundaries. This result can be received in both real-time capturing from camera preview and from an immediate manual capture scenario.

Properties

Name	Type	Description
image	UIImage*	<p>The captured image.</p> <p>Note: In case cropEnabled property of the AUImageCaptureScenario interface is set to TRUE, the property stores the result of the crop operation. Otherwise the full captured image is saved to this property.</p>
documentBoundary	NSArray<NSValue*>*	<p>The detected document boundary, returned as the four vertex points of the bounding quadrangle. The vertices are indexed clockwise starting from the bottom left.</p> <p>Get the NSValue.CGPointValue property to obtain point coordinates as a CGPoint.</p> <p>You can edit document boundaries, changing values of the points' coordinates.</p> <p>Important! In case cropEnabled property of the AUImageCaptureScenario interface is set to TRUE, the property is <i>nil</i>.</p>

AUImageCaptureScenario interface

Provides access to the image capture scenario settings. Inherits from the [AUCaptureScenario](#) interface.

Requires a delegate that conforms to the [AUImageCaptureScenarioDelegate](#) protocol.

Properties

Name	Type	Description
delegate	AUImageCaptureScenarioDelegate	Delegate object for receiving results, status information, warnings and errors.
active	BOOL	<p>Denotes if the automatic capturing from the video stream is enabled. If FALSE, only manual capturing is available during the scenario.</p> <p>This property is TRUE by default and is set to FALSE automatically after image is captured.</p>
minimumDocumentToView Ratio	CGFloat	<p>The [0..1] ratio of the minimum document area relative to the whole frame area.</p> <p>The default value is 0.15.</p>
documentSize	AUDocumentSize	<p>Document physical size.</p> <p>The default value is AUDocumentSizeAny.</p>
cropEnabled	BOOL	<p>Indicates if the captured image should be cropped. If this parameter is set to TRUE, AUImageCaptureResult.image parameter will contain cropped image and the AUImageCaptureResult.documentBoundary parameter will be nil.</p> <p>The default value is FALSE.</p>

Methods

Name	Description
- initWithEngine:	Connects the AUImageCaptureScenario object with the RTREngine object that implements recognition.

Name	Description
- captureImageManually	Captures image immediately on button click.

initWithEngine: method of the AUImageCaptureScenario interface

Connects the [AUImageCaptureScenario](#) object with the [RTREngine](#) object that implements capturing and recognition.

```
- (instancetype)initWithEngine:(RTREngine*)engine;
```

Parameters

engine

An instance of the corresponding to the scenario [RTREngine](#) object.

Return values

The method returns an instance of the [AUImageCaptureScenario](#) interface initialized with the [RTREngine](#) object.

captureImageManually

Captures image immediately on button click.

```
- (void)captureImageManually;
```

AUImageCaptureScenarioDelegate protocol

Delegate object for receiving results, status information, warnings and errors during the image capture scenario.

Inherits from the [AUICaptureScenarioDelegate](#) protocol. The methods are to be implemented on the client side.

Methods

Name	Description
- captureScenario:didCaptureImageWithResult:	Notifies the delegate that an image was captured, delivers the result object.

Name	Description
- captureScenario:didFailWithError:	Notifies the delegate that an error has occurred while capturing.

captureScenario:didCaptureImageWithResult: method

Notifies the delegate that an image was captured, delivers the result object.

```
- (void)captureScenario:(AUIImageCaptureScenario*)captureScenario
didCaptureImageWithResult:(AUIImageCaptureResult*)result;
```

Parameters

captureScenario

[AUIImageCaptureScenario](#) object, corresponding to the [AUIImageCaptureScenarioDelegate](#) delegate that should be notified.

result

The captured image as an [AUIImageCaptureResult](#) object with detected document boundaries.

captureScenario:didFailWithError: method

Notifies the delegate that an error has occurred while capturing.

```
- (void)captureScenario:(AUICaptureScenario*)scenario didFailWithError:
(NSError*)error;
```

Parameters

captureScenario

[AUIImageCaptureScenario](#) object, corresponding to the [AUIImageCaptureScenarioDelegate](#) delegate that should be notified about the error.

error

The error that has occurred.

captureScenarioDidCancel: method

Notifies the delegate that the capture scenario was canceled.

```
- (void)captureScenarioDidCancel:(AUICaptureScenario)scenario;
```

Parameters

scenario

Scenario that was canceled.

AUIThemeButton interface

Provides settings for button with borders and blurred background appearance. The color of the borders depends on the color theme.

Properties

Name	Type	Description
selectedColor	UIColor*	The color of button borders.

AUICameraSettings protocol

Manages camera flashlight and resolution, defined for the capture scenario.

Properties

Name	Type	Description
preferredResolution	AUICameraResolution	Defines the camera resolution.
hasFlashlight	BOOL	Defines if the device has a flashlight.
flashlightEnabled	BOOL	Defines if the flashlight is currently enabled in a torch mode.

AUIDocumentSize

The size of captured document in millimeters. You can define the size of the document to be captured so that the capturing mechanism will search the exact document on frames of the video stream. In case document size is unknown the mechanism will search for any document.

```
typedef CGSize AUIDocumentSize NS_TYPED_EXTENSIBLE_ENUM; {
    extern AUIDocumentSize const AUIDocumentSizeAny;
    extern AUIDocumentSize const AUIDocumentSizeA4;
```

```
extern AUIDocumentSize const AUIDocumentSizeBusinessCard;
extern AUIDocumentSize const AUIDocumentSizeLetter;
};
```

Constants

Name	Description
AUIDocumentSizeAny	The document can be of any size.
AUIDocumentSizeA4	The size of the captured document is 210 x 297 mm.
AUIDocumentSizeBusinessCard	The size of the captured document is 53.98 x 85.6 mm.
AUIDocumentSizeLetter	The size of the captured document is 215.9 x 279.4 mm.

UIView (AUIRotation)

The category AUIRotation extends the UIView class. Add the method of this category to the custom control and return YES to rotate according to device orientation on iPhone.

Methods

Name	Description
- aui_canRotate	Defines if the custom control should be rotated according to the device orientation.

aui_canRotate method

Add this method to custom control and return YES to rotate the control according to device orientation on iPhone.

```
- (BOOL) aui_canRotate;
```

Return values

The method returns YES if the control should be rotated, NO otherwise.

AUICameraResolution enumeration

The resolution of the images captured from the camera preview.

```
typedef NS_ENUM(NSUInteger, AUICameraResolution) {
    AUICameraResolutionHD,
    AUICameraResolutionFullHD
    AUICameraResolution4K
};
```

Constants

Name	Description
AUICameraResolutionHD	Captured image will have: <ul style="list-style-type: none"> • 1280x720 px resolution on iPhone • 1024x768 px resolution on iPad
AUICameraResolutionFullHD	Captured image will have: <ul style="list-style-type: none"> • 1920x1080 px resolution on iPhone • 1920x1440 px resolution on iPad This is the default value.
AUICameraResolution4K	Captured image will have <ul style="list-style-type: none"> • 3840x2160 px resolution on iPhone • 3264x2448 px resolution on iPad


AUITheme enumeration


The user interface theme. Chosen theme defines the following:

- background color
- color of the text
- buttons color
- document tracking frame color
- capture area corners color

```
typedef NS_ENUM(NSUInteger, AUITheme) {
    AUIThemeLight,
    AUIThemeDark
};
```


Constants

Name	Description
AUIThemeLight	

Name	Description
AUIThemeDark	

Specifications

This section describes the technical requirements and capabilities of ABBYY Mobile Capture SDK.

Device Requirements

iOS version: 10.x or later

Supported devices:

- iPhone 5S or newer
- iPad Pro
- iPad (4th generation)
- iPad Air or newer
- iPad mini 2 or newer

Memory requirements

Library operation takes up to:

- for texts in alphabetic languages — **40 MB RAM**
- for texts in Chinese, Japanese, or Korean languages — **70 MB RAM**

Library operation in the data capture scenario (for example, passport recognition) takes up to **105 MB RAM**.

Please note, that your device may require more memory for certain processing scenario than specified in this section. For example, the next parameters may increase required RAM:

- recognition threads number
- device speed
- camera resolution
- recognition complexity

The higher are these indices, the more RAM is required.

Distribution Kit

ABBYY Mobile Capture SDK distribution pack includes the library, various resource files, samples and documentation. This section will help you determine which of the files to include when distributing your own application, and minimize the size of the final package.

The following folders contain files for development purposes only, not to be distributed:

Folder	File name	Description
	Readme.html	Readme file.

Folder	File name	Description
help	MobileCaptureDevelopersGuide.pdf	This Developer's Guide.
sample-ui-imagecapture sample-ui-imagecapture-swift	All files in this folder.	This sample illustrates the steps you need to perform to create a simple mobile application for image capture.
sample-datacapture sample-datacapture-swift	All files in this folder.	The sample code in Objective-C and Swift programming languages implementing a data capture scenario where the capture rule is specified by a regular expression.
sample-textcapture sample-textcapture-swift	All files in this folder.	The sample code in Objective-C and Swift programming languages implementing a simple text capture scenario.
sample-imagecapture sample-imagecapture-swift	All files in this folder.	The sample code in Objective-C and Swift programming languages implementing an image capture scenario.
sample-coreapi sample-coreapi-swift	All files in this folder.	The sample code in Objective-C and Swift programming languages demonstrating the core API usage in a simple scenario of capturing data from an image.

The files in the **libs**, **assets**, and **notice** folders are intended for the final distribution of your application. The table below shows what files you should distribute depending on your needs.

Folder	File name	Description	Distribution
libs	AbbyyRtrSDK.framework AbbyyZlib.framework CustomAllocator.framework FineMachineLearning.framework	The ABBYY Mobile Capture SDK frameworks.	Always required.

Folder	File name	Description	Distribution
	FineObj.framework Image.Services.Core.framework MobileImaging.framework copy_frameworks.sh		
assets/dictionaries	Brazil.edc	Portuguese (Brazil) language recognition dictionary.	Only those dictionaries that correspond to the languages you will work with.
	Bulgar.edc	Bulgarian language recognition dictionary.	
	Czech.edc	Czech language recognition dictionary.	
	Danish.edc	Danish language recognition dictionary.	
	Dutch.edc	Dutch (Netherlands) language recognition dictionary.	
	English.edc	English language recognition dictionary.	
	Eston.edc	Estonian language recognition dictionary.	
	Finnish.edc	Finnish language recognition dictionary.	
	Flemish.edc	Dutch (Belgium) language recognition dictionary.	
	French.edc	French language recognition dictionary.	

Folder	File name	Description	Distribution
	German.edc	German (old spelling) language recognition dictionary.	
	GermanNS.edc	German (new spelling) language recognition dictionary.	
	Greek.edc	Greek language recognition dictionary.	
	Indones.edc	Indonesian language recognition dictionary.	
	Italian.edc	Italian language recognition dictionary.	
	NorwBok.edc	Norwegian (Bokmal) language recognition dictionary.	
	NorwNyn.edc	Norwegian (Nynorsk) language recognition dictionary.	
	Polish.edc	Polish language recognition dictionary.	
	Portug.edc	Portuguese (Portugal) language recognition dictionary.	
	Russian.edc	Russian language recognition dictionary.	
	Spanish.edc	Spanish language recognition dictionary.	

Folder	File name	Description	Distribution
	Swedish.edc	Swedish language recognition dictionary.	
	Turkish.edc	Turkish language recognition dictionary.	
	Ukrain.edc	Ukrainian language recognition dictionary.	
assets/patterns	DIQBlockClassifier.imodel DIQClassifier.imodel	The ABBYY Mobile Imaging SDK II resource files	Required for image capture scenario.
	ChineseJapanese.rom	Recognition database for Chinese, Japanese, and Korean languages.	Required for recognition of texts in Chinese, Japanese and Korean languages.
	European.rom	Recognition database for all supported recognition languages except Chinese, Japanese, and Korean.	Required for all recognition languages except Chinese, Japanese and Korean.
	FindText.rom	Recognition database for all languages.	Always required.
	KoreanSpecific.rom	Recognition database for Korean language.	Required for recognition of texts in Korean language.
assets/bcr	Brazil.akw	Source file for Brazilian business cards recognition.	Required for business cards recognition scenario.
	ChineseSimplified.akw	Source file for Chinese Simplified business cards recognition.	

Folder	File name	Description	Distribution
	ChineseTraditional.akw	Source file for Chinese Traditional business cards recognition.	
	Czech.akw	Source file for Czech business cards recognition.	
	Danish.akw	Source file for Danish business cards recognition.	
	Dutch.akw	Source file for Dutch business cards recognition.	
	English.akw	Source file for English business cards recognition.	
	Eston.akw	Source file for Estonian business cards recognition.	
	Finnish.akw	Source file for Finnish business cards recognition.	
	French.akw	Source file for French business cards recognition.	
	German.akw	Source file for German business cards recognition.	
	Greek.akw	Source file for Greek business cards recognition.	

Folder	File name	Description	Distribution
	Indones.akw	Source file for Indonesian business cards recognition.	
	Italian.akw	Source file for Italian business cards recognition.	
	Japanese.akw	Source file for Japanese business cards recognition.	
	Korean.akw	Source file for Korean business cards recognition.	
	NorwBok.akw	Source file for Norwegian (Bokmal) business cards recognition.	
	NorwNyn.akw	Source file for Norwegian (Nynorsk) business cards recognition.	
	Polish.akw	Source file for Polish business cards recognition.	
	Portug.akw	Source file for Portuguese business cards recognition.	
	Russian.akw	Source file for Russian business cards recognition.	
	Spanish.akw	Source file for Spanish business cards recognition.	

Folder	File name	Description	Distribution
	Swedish.akw	Source file for Swedish business cards recognition.	
	Turkish.akw	Source file for Turkish business cards recognition.	
	Ukrain.akw	Source file for Ukrainian business cards recognition.	
	WestEuropean.akw	Source file for recognition of English, French, German, Portuguese, Spanish and Italian business cards.	
assets/	copy_assets.py	Script for automatic copying resource files to corresponding destinations and adding necessary dictionaries to the Xcode project.	
scenarios-datacapture/assets/patterns	All_EDC.rom	All recognition databases from this directory.	Required if all *.rom files from this directory will be used.
	MRZ.rom	Recognition database for MRZ of the passport.	Required for MRZ data recognition.
	MRZ_EDC.rom	Extended MRZ recognition database for various document types.	Required for recognizing MRZ and MRZ-like zone data on supported documents (see Data Capture Profiles for details).

Folder	File name	Description	Distribution
	BankCards_EDC.rom	Bank card recognition database.	Required for bank card recognition.
	ID_AE_EDC.rom	Recognition database for UAE documents.	Only the databases for the countries you are going to support are required.
	ID_AL_EDC.rom	Recognition database for Albanian documents.	
	ID_AM_EDC.rom	Recognition database for Armenian documents.	
	ID_AT_EDC.rom	Recognition database for Austrian documents.	
	ID_AZ_EDC.rom	Recognition database for Azerbaijani documents.	
	ID_BE_EDC.rom	Recognition database for Belgium documents.	
	ID_BG_EDC.rom	Recognition database for Bulgarian documents.	
	ID_BH_EDC.rom	Recognition database for Bahrain documents.	
	ID_BR_EDC.rom	Recognition database for Brazilian documents.	

Folder	File name	Description	Distribution
	ID_BY_EDC.rom	Recognition database for Belarusian documents.	
	ID_CA_EDC.rom	Recognition database for Canadian documents.	
	ID_CH_EDC.rom	Recognition database for Swiss documents.	
	ID_CL_EDC.rom	Recognition database for Chile documents.	
	ID_CN_EDC.rom	Recognition database for Chinese documents.	
	ID_CY_EDC.rom	Recognition database for Cyprus documents.	
	ID_CZ_EDC.rom	Recognition database for Czech documents.	
	ID_DE_EDC.rom	Recognition database for German documents.	
	ID_DZ_EDC.rom	Recognition database for Algerian documents.	
	ID_EE_EDC.rom	Recognition database for Estonian documents.	
	ID_EG_EDC.rom	Recognition database for Egyptian documents.	

Folder	File name	Description	Distribution
	ID_ES_EDC.rom	Recognition database for Spanish documents.	
	ID_FI_EDC.rom	Recognition database for Finnish documents.	
	ID_FR_EDC.rom	Recognition database for French documents.	
	ID_GE_EDC.rom	Recognition database for Georgian documents.	
	ID_GR_EDC.rom	Recognition database for Greek documents.	
	ID_HK_EDC.rom	Recognition database for Hong Kong documents.	
	ID_HR_EDC.rom	Recognition database for Croatian documents.	
	ID_HU_EDC.rom	Recognition database for Hungarian documents.	
	ID_IL_EDC.rom	Recognition database for Israeli documents.	
	ID_IN_EDC.rom	Recognition database for Indian documents.	
	ID_IT_EDC.rom	Recognition database for Italian documents.	

Folder	File name	Description	Distribution
	ID_JP_EDC.rom	Recognition database for Japanese documents.	
	ID_KG_EDC.rom	Recognition database for Kyrgyzstani documents.	
	ID_KW_EDC.rom	Recognition database for Kuwait documents.	
	ID_KZ_EDC.rom	Recognition database for Kazakhstan documents.	
	ID_LT_EDC.rom	Recognition database for Lithuanian documents.	
	ID_LV_EDC.rom	Recognition database for Latvian documents.	
	ID_MD_EDC.rom	Recognition database for documents of Republic of Moldova.	
	ID_MK_EDC.rom	Recognition database for Macedonian documents.	
	ID_MX_EDC.rom	Recognition database for Mexican documents.	
	ID_MY_EDC.rom	Recognition database for Malaysian documents.	
	ID_NG_EDC.rom	Recognition database for Nigerian	

Folder	File name	Description	Distribution
		documents.	
	ID_NO_EDC.rom	Recognition database for Norwegian documents.	
	ID_NZ_EDC.rom	Recognition database for New Zealand documents.	
	ID_PH_EDC.rom	Recognition database for Philippine documents.	
	ID_PL_EDC.rom	Recognition database for Polish documents.	
	ID_PT_EDC.rom	Recognition database for Portuguese documents.	
	ID_RO_EDC.rom	Recognition database for Romanian documents.	
	ID_RS_EDC.rom	Recognition database for Serbian documents.	
	ID_RU_EDC.rom	Extended recognition database for Russian documents.	
	ID_SE_EDC.rom	Recognition database for Swedish documents.	
	ID_SG_EDC.rom	Recognition database for Singapore documents.	

Folder	File name	Description	Distribution
	ID_SI_EDC.rom	Recognition database for Slovenian documents.	
	ID_SK_EDC.rom	Recognition database for Slovak documents.	
	ID_SV_EDC.rom	Recognition database for Salvadorean documents.	
	ID_SY_EDC.rom	Recognition database for Syrian documents.	
	ID_TJ_EDC.rom	Recognition database for Tajikistan documents.	
	ID_TR_EDC.rom	Recognition database for Turkish documents.	
	ID_UA_EDC.rom	Recognition database for Ukrainian documents.	
	ID_UK_EDC.rom	Recognition database for British documents.	
	ID_US_EDC.rom	Recognition database for USA documents.	
	ID_UY_EDC.rom	Recognition database for Uruguayn documents.	
	ID_UZ_EDC.rom	Recognition database for Uzbekistan documents.	

Folder	File name	Description	Distribution
	ID_VN_EDC.rom	Recognition database for Vietnamese documents.	
	ID_ZA_EDC.rom	Recognition database for South African Republic documents.	
assets/translation	Menu_CH-EN.trdic	Dictionary for translating menus from Chinese to English.	The files contain translation dictionaries. You need only the files for the language pairs you use.
	Menu_DE-EN.trdic	Dictionary for translating menus from German to English.	
	Menu_EN-CH.trdic	Dictionary for translating menus from Chinese to English.	
	Menu_EN-DE.trdic	Dictionary for translating menus from English to German.	
	Menu_EN-ES.trdic	Dictionary for translating menus from English to Spanish.	
	Menu_EN-FR.trdic	Dictionary for translating menus from English to French.	
	Menu_EN-ID.trdic	Dictionary for translating menus from English to Indonesian.	

Folder	File name	Description	Distribution
	Menu_EN-JP.trdic	Dictionary for translating menus from English to Japanese.	
	Menu_EN-PL.trdic	Dictionary for translating menus from English to Polish.	
	Menu_EN-PTBR.trdic	Dictionary for translating menus from English to Portuguese (Brazil).	
	Menu_EN-RU.trdic	Dictionary for translating menus from English to Russian.	
	Menu_ES-EN.trdic	Dictionary for translating menus from Spanish to English.	
	Menu_FR-EN.trdic	Dictionary for translating menus from French to English.	
	Menu_ID-EN.trdic	Dictionary for translating menus from Indonesian to English.	
	Menu_JP-EN.trdic	Dictionary for translating menus from Japanese to English.	
	Menu_PL-EN.trdic	Dictionary for translating menus from Polish to English.	

Folder	File name	Description	Distribution
	Menu_PTBR-EN.trdic	Dictionary for translating menus from Portuguese (Brazil) to English.	
	Menu_RU-EN.trdic	Dictionary for translating menus from Russian to English.	
notice	All files in this folder.	Third party software components information and licenses.	These files have to be redistributed.

Available Recognition Languages

This section lists the languages available for text processing with ABBYY Mobile Capture SDK. Some of the languages have built-in dictionary support, which improves recognition quality but takes up additional memory.

See also [Available Translation Dictionaries](#).

Internal name	Recognition language	Can be used for OCR	Can be used for BCR	Full dictionary support
Afrikaans	Afrikaans	+		
Albanian	Albanian	+		
Basque	Basque	+		
Belarusian	Belarusian	+		
Breton	Breton	+		
Bulgarian	Bulgarian	+		+

Internal name	Recognition language	Can be used for OCR	Can be used for BCR	Full dictionary support
Catalan	Catalan	+		
Chechen	Chechen	+		
ChineseSimplified	Chinese Simplified	+	+	
ChineseTraditional	Chinese Traditional	+	+	
CrimeanTatar	Crimean Tatar	+		
Croatian	Croatian	+		
Czech	Czech	+	+	+
Danish	Danish	+	+	+
DutchBelgian	Dutch (Belgium)	+	+	+
Dutch	Dutch (Netherlands)	+	+	+
English	English	+	+	+
Estonian	Estonian	+	+	+
Fijian	Fijian	+		
Finnish	Finnish	+	+	+
French	French	+	+	+

Internal name	Recognition language	Can be used for OCR	Can be used for BCR	Full dictionary support
German	German (old spelling)	+	+	+
GermanNewSpelling	German (new spelling)	+	+	+
Greek	Greek	+	+	+
Hawaiian	Hawaiian	+		
Hungarian	Hungarian	+		
Icelandic	Icelandic	+		
Indonesian	Indonesian	+	+	+
Irish	Irish	+		
Italian	Italian	+	+	+
Japanese	Japanese	+	+	
Kabardian	Kabardian	+		
Korean	Korean	+	+	
Latin	Latin	+		
Latvian	Latvian	+		
Lithuanian	Lithuanian	+		
Macedonian	Macedonian	+		

Internal name	Recognition language	Can be used for OCR	Can be used for BCR	Full dictionary support
Malay	Malay	+		
Maori	Maori	+		
Moldavian	Moldavian	+		
Mongol	Mongol	+		
NorwegianBokmal	Norwegian (Bokmal)	+	+	+
NorwegianNynorsk	Norwegian (Nynorsk)	+	+	+
Ossetic	Ossetic	+		
Polish	Polish	+	+	+
PortugueseBrazilian	Portuguese (Brazil)	+	+	+
Portuguese	Portuguese (Portugal)	+	+	+
Provençal	Provençal	+		
RhaetoRomanic	Rhaeto-Romanic	+		
Romanian	Romanian	+		
Russian	Russian	+	+	+
Samoan	Samoan	+		

Internal name	Recognition language	Can be used for OCR	Can be used for BCR	Full dictionary support
Serbian	Serbian	+		
Slovak	Slovak	+		
Slovenian	Slovenian	+		
Spanish	Spanish	+	+	+
Swahili	Swahili	+		
Swedish	Swedish	+	+	+
Tagalog	Tagalog	+		
Tatar	Tatar	+		
Turkish	Turkish	+	+	+
Ukrainian	Ukrainian	+	+	+
Welsh	Welsh	+		

Translation Dictionaries

In the distribution pack you can find several translation dictionaries. Currently all the dictionaries are intended for translating restaurant menus and may not work in other contexts. The following language pairs are available:

English to Chinese

Chinese to English

English to French

French to English

English to German

German to English

English to Indonesian

Indonesian to English

English to Japanese

Japanese to English

English to Polish

Polish to English

English to Portuguese (Brazil)

Portuguese (Brazil) to English

English to Russian

Russian to English

English to Spanish

Spanish to English

You can also create your own dictionary and use it for translation. Contact our [technical support](#) for advice on the required format.

Supported ID Documents

ABBYY Mobile Capture SDK supports a whole range of identity documents out of the box. Consult the table below for a full list. For the detailed profile specifications, see [Data Capture Profiles](#).

Document	Supported in
All documents with Machine Readable Zone (MRZ)	All Countries
Bank cards: embossed and indent	All Countries
Driver's license	Albania, Armenia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, Croatia, Czech Republic, Finland, Germany, Greece, Hungary, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Moldova, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK, Ukraine, USA, Uzbekistan, Vietnam
International Passport	Albania, Algeria, Armenia, Austria, Brazil, Canada, China, Croatia, Czech Republic, Georgia, Germany, Greece, Hungary, India, Israel, Italy, Japan, Kazakhstan, Kyrgyzstan, Moldova, Philippines, Poland, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Syria, Tajikistan, Turkey, UK, Ukraine, Uruguay, USA, Uzbekistan
National ID card	Albania, Armenia, Austria, Bahrain, Belgium, Brazil, Bulgaria, Chile, Croatia, Cyprus, Czech Republic, Egypt, Estonia, Finland, France, Georgia, Germany, Hong Kong, Hungary, Israel, Italy, Kazakhstan, Kuwait, Kyrgyzstan, Latvia, Lithuania, Macedonia, Malaysia, Mexico, Moldova, Nigeria, Norway, Poland, Portugal, Romania, El Salvador, Serbia, Slovakia, Slovenia, Singapore, South Africa, Spain, Switzerland, Turkey, UAE, Ukraine

Document	Supported in
National passport	Belarus, Russian Federation
INN	Russian Federation
Aadhaar card	India
Birth certificate	Russian Federation
Death Certificate	Russian Federation
Marriage Certificate	Russian Federation
Divorce Certificate	Russian Federation
Compulsory Health Insurance Certificate – OMS	Russian Federation
Personal insurance policy number	Russian Federation
Vehicle Registration Certificate (STS)	Azerbaijan, Belarus, Czech Republic, El Salvador, Kazakhstan, Russian Federation, Slovakia, Ukraine
Vehicle Passport - PTS	Russian Federation
VISA	Russian Federation, USA, Czech Republic, Slovakia
Border Crossing Card	USA
Passport Card	USA
Health insurance card	Japan
Work permit	Russian Federation, Singapore

Document	Supported in
Residence permit	Austria, Czech Republic, Germany, Russian Federation, Slovakia, Slovenia, Spain
Asylum Residence Permit	Austria
Migration Card	Russian Federation
Permanent residency card (Green card)	USA
Residence License	Brazil
Crew Member Certificate	South Africa
Military, Police and Soldier ID	Russian Federation

The list of supported documents and captured fields for each document differ depending on the country. You can find the detailed information in the [Data Capture Profiles](#) table.

Data Capture Profiles

The following table lists predefined capture profiles and corresponding result data schemes. Profile name is specified when creating a Data Capture service, and result scheme identifiers are returned by the service. Note that in some cases the result scheme depends on the type of your license. If you are not sure which profiles are enabled by your license, please [contact support](#).

Document type	Profile name	Result scheme	Result description
Bank card	BankCards	BankCardEmbossed	Bank cards with embossed fields (front side)
		BankCardUnembossed	Bank cards with indent-printed fields (front side)
Business card	BusinessCards	BusinessCards	Business card of a person or a company.

Document type	Profile name	Result scheme	Result description
International bank account number	IBAN	IBAN	International bank account number
Machine-readable document zone	MRZ	MRZ	MRZ of a passport
		MRZ_MRP	ICAO Doc 9303 machine-readable passports (2 lines, 44 characters each)
		MRZ_MRV_A	ICAO Doc 9303 machine-readable visa MRV-A (2 lines, 44 characters each)
		MRZ_MRV_B	ICAO Doc 9303 machine-readable visa MRV-B (2 lines, 36 characters each)
		MRZ_TD1	ICAO Doc 9303 machine-readable travel document TD-1 (3 lines, 30 characters each)
		MRZ_TD2	ICAO Doc 9303 machine-readable travel document TD-2 (2 lines, 36 characters each)
		MRZ_BG_VEHICLEREGISTRATION	MRZ-like zone of the Bulgarian vehicle registration document (3 lines, 30 characters each)
		MRZ_CH_DRIVERLICENCE	MRZ-like zone of the Swiss driver's license (3 lines, 9, 30 and 30 characters)

Document type	Profile name	Result scheme	Result description
		MRZ_FR_ID	MRZ-like zone of the French national identity card (2 lines, 36 characters each)
		MRZ_RU_PASSPORT	MRZ-like zone of the Russian passport (2 lines, 44 characters each)
		MRZ_RU_VISA	MRZ-like zone of the Russian visa (2 lines, 44 characters each)
Albanian driver's license	DriverLicense_AL	DriverLicense_AL_TYPE1	Albanian driver's license (Albanian emblem in the background)
Albanian ID card	ID_AL	ID_AL_TYPE1	Albanian ID Card (Albanian emblem in the background, front side; Albanian emblem in the background and top-left corner, back side)
Albanian passport	InternationalPassport_AL	InternationalPassport_AL_TYPE1	Albanian passport (Albanian emblem in the background)
		InternationalPassport_AL_TYPE2	Albanian passport (Albanian emblem in the background and top-left corner, red horizontal line along the entire document)
Algerian passport	InternationalPassport_DZ	InternationalPassport_DZ_TYPE1	Algerian passport (the contour of the country on the right and sun in the bottom-right of the photo, main page)

Document type	Profile name	Result scheme	Result description
Armenian driver's license	DriverLicense_AM	DriverLicense_AM_TYPE1	Armenian driver's license (stamp with Armenian emblem on the right, front)
Armenian ID card	ID_AM	ID_AM_TYPE1	Armenian ID card (Armenian emblem on the background, front)
Armenian passport	InternationalPassport_AM	InternationalPassport_AM_TYPE1	Armenian passport (old type, framed photo, main page)
		InternationalPassport_AM_TYPE2	Armenian passport (line of patterns on the top, main page)
		InternationalPassport_AM_TYPE3	Armenian passport (new type, main page)
Austrian Asylum Residence Permit	AsylumResidencePermit_AT	AsylumResidencePermit_AT_RP_TYPE1	Austrian asylum residence permit (white background, front)
Austrian Residence Permit	ResidencePermit_AT	ResidencePermit_AT_TYPE2	Austrian residence permit (Austrian emblem on the left and biometrical symbol on the top, front)
Austrian passport	InternationalPassport_AT	InternationalPassport_AT	Austrian international passport (main page)
Austrian ID card	ID_AT	ID_AT_TYPE1	Austrian ID card (red stripes on the left, back; Austrian emblem on the left)

Document type	Profile name	Result scheme	Result description
Austrian driver's license	DriverLicense_AT	DriverLicense_AT_TYPE 1	Austrian driver's license with the title at the top (front side)
		DriverLicense_AT_TYPE 2	Austrian driver's license with the title in the top-right corner (front side)
Azerbaijan Vehicle Registration Certificate	VehicleRegistration_AZ	VehicleRegistration_AZ_TYPE1	Azerbaijan vehicle registration certificate (document without a personal photo, AZ sign in the top-left corner and the flag of Azerbaijan near it, main page)
Bahrain ID card	ID_BH	ID_BH_TYPE1	Bahrain ID card (front)
Belarusian passport	Passport_BY	Passport_BY_TYPE1	Belarusian passport (main page)
		Passport_BY_PAGE31_TYPE1	Belarusian passport (page 31 type 1)
		Passport_BY_PAGE31_TYPE2	Belarusian passport (page 31 type 2)
Belarusian driver's license	DriverLicense_BY	DriverLicense_BY_TYPE 1	Belarusian driver's license (card-size, front side, horizontal)
		DriverLicense_BY_TYPE 2	Belarusian driver's license (front side, vertical)
Belarusian Vehicle Registration Certificate	VehicleRegistration_BY	VehicleRegistration_BY_TYPE1	Belarusian vehicle registration certificate

Document type	Profile name	Result scheme	Result description
Belgian ID card	ID_BE	ID_BE_TYPE1	Belgian ID card (front side)
Belgian driver's license	DriverLicense_BE	DriverLicense_BE_TYPE1	Belgian driver's license (the sign of the European Union with letter B in the top-left corner and the contour of country on the bottom-right corner, front side)
Brazilian driver's license	DriverLicense_BR	DriverLicense_BR_TYPE1	Brazilian driver's license (Brazilian emblem in the top-left corner, front; green background, back)
Brazilian ID card	ID_BR	ID_BR_TYPE1	Brazilian ID Card (Brazilian emblem on the background, new type)
		ID_BR_TYPE2	Brazilian ID Card (Brazilian emblem on the background, old type, front)
Brazilian passport	InternationalPassport_BR	InternationalPassport_BR_TYPE1	Brazilian passport (Brazil on the background, main page)
		InternationalPassport_BR_TYPE2	Brazilian passport (barcode on the bottom, main page)
Brazilian Residence license	ResidenceLicense_BR	ResidenceLicense_BR_TYPE1	Brazilian real estate license (Brazilian emblem on the top-left corner, back; hummingbird in the middle, front)

Document type	Profile name	Result scheme	Result description
British passport	InternationalPassport_UK	InternationalPassport_UK_TYPE1	British passport (bird on the background, main page)
		InternationalPassport_UK_TYPE2	British passport (compass in the top-left corner, main page)
British driver's license	DriverLicense_UK	DriverLicense_UK_TYPE1	British driver's license (front side)
		DriverLicense_UK_TYPE2	British driver's license with a logo on the right (front side)
		DriverLicense_UK_TYPE3	British driver's license with a round stamp on the left (front side)
		DriverLicense_UK_PROVISIONAL_TYPE1	British driver's license, provisional (line of text Provisional on the top, front)
		DriverLicense_UK_PROVISIONAL_TYPE2	British driver's license, provisional (rubber stamp on the right, front)
		DriverLicense_UK_PROVISIONAL_TYPE3	British driver's license, provisional (round stamp on the left, front)
Bulgarian driver's license	DriverLicense_BG	DriverLicense_BG_TYPE1	Bulgarian driver's license (front side)
		DriverLicense_BG_TYPE2	Bulgarian driver's license (front side)

Document type	Profile name	Result scheme	Result description
Bulgarian ID card	ID_BG	ID_BG_TYPE1	Bulgarian ID card (new type, front side)
		ID_BG_TYPE2	Bulgarian ID card (old type, front side)
		ID_BG_TYPE3	Bulgarian ID card
Canadian driver's license	DriverLicense_CA	DriverLicense_CA_BC_TYPE1	Canadian driver's license - British Columbia (flag of British Columbia on the background and the coat of arms of British Columbia on the right, front side)
		DriverLicense_CA_ON_TYPE1	Canadian driver's license (the flower on the background, front side)
Canadian passport	InternationalPassport_CA	InternationalPassport_CA_TYPE1	Canadian passport (Canadian national symbols in the top-right corner, main page)
		InternationalPassport_CA_TYPE2	Canadian passport (biometric symbol in the top-right corner and Canadian coat of arms on the background, main page)
Czech Residence Permit	ResidencePermit_CZ	ResidencePermit_CZ_TYPE1	Czech Residence Permit (type 1)
		ResidencePermit_CZ_TYPE2	Czech Residence Permit (type 2)

Document type	Profile name	Result scheme	Result description
		ResidencePermit_CZ_TY PE3	Czech Residence Permit (type 3)
Chilean ID card	ID_CL	ID_CL_TYPE1	Chile identity card (front side)
Chinese passport	InternationalPassport_CN	InternationalPassport_CN_TYPE1	Chinese passport (China from the bottom in the background and barcode on the left, main page)
		InternationalPassport_CN_TYPE3	Chinese passport (biometric symbol in the top-right corner and a flower on the background, main page)
Croatian driver's license	DriverLicense_HR	DriverLicense_HR_TYPE1	Croatian driver's license (sign of the European Union with letters HR in the top-left corner, front side)
Croatian ID card	ID_HR	ID_HR_TYPE1	Croatian identity card (older type, front side)
		ID_HR_TYPE2	Croatian identity card (newer type, front side)
Croatian passport	InternationalPassport_HR	InternationalPassport_HR_TYPE1	Croatian passport (RH sign on the left, main page)
Cyprus ID card	ID_CY	ID_CY_TYPE1	ID Card of Cyprus (Cyprus coat of arms on the background, front side)

Document type	Profile name	Result scheme	Result description
		ID_CY_TYPE2	ID Card of Cyprus (Cyprus coat of arms on the top-left corner and biometric symbol, front side)
Czech driver's license	DriverLicense_CZ	DriverLicense_CZ_TYPE1	Czech driver's license card (front side)
Czech ID card	ID_CZ	ID_CZ_TYPE1	Czech ID card (front side)
		ID_CZ_TYPE2	Czech ID card (front side)
		ID_CZ_TYPE3	Czech ID card (front side)
Czech passport	InternationalPassport_CZ	InternationalPassport_CZ_TYPE1	Czech passport (stamp on the top, main page)
Czech vehicle registration certificate	VehicleRegistration_CZ	VehicleRegistration_CZ_TYPE1	Czech vehicle registration certificate (front side, back side)
Czech visa	Visa_CZ	Visa_CZ_TYPE1	Czech visa
Egyptian ID card	ID_EG	ID_EG_TYPE1	Egyptian ID card (Egyptian pyramids on the background, front side)
Estonian driver's license	DriverLicense_EE	DriverLicense_EE_TYPE1	Estonian driver's license card (front side)
		DriverLicense_EE_TYPE2	Estonian driver's license card (front side)

Document type	Profile name	Result scheme	Result description
		DriverLicense_EE_TYPE3	Estonian driver's license card (front side)
		DriverLicense_EE_TYPE4	Estonian driver's license card (front side)
		DriverLicense_EE_TYPE5	Estonian driver's license card (front side, back side)
Estonian ID card	ID_EE	ID_EE_TYPE1	Estonian ID card (front side)
		ID_EE_TYPE2	Estonian ID card (front side)
Estonian passport	InternationalPassport_EE	InternationalPassport_EE_TYPE1	Estonian passport (main page)
Finnish ID card	ID_FI	ID_FI_TYPE1	Finnish identity card (older type, front side)
		ID_FI_TYPE2	Finnish identity card (newer type, front side)
Finnish driver's license	DriverLicense_FI	DriverLicense_FI_TYPE1	Finnish driver's license (number-field under the personal photo, front side)
		DriverLicense_FI_TYPE2	Finnish driver's license (number-field in the right side of the photo, front side)

Document type	Profile name	Result scheme	Result description
French driver's license	DriverLicense_FR	DriverLicense_FR_TYPE1	French driver's license (the sign of the European Union with letter in the top-left corner, front)
French ID card	ID_FR	ID_FR_TYPE1	French identity card (front side)
French passport	InternationalPassport_FR	InternationalPassport_FR_TYPE1	French passport (RF sign in the photo corner, main page)
		InternationalPassport_FR_TYPE2	French passport (photo in the middle on the background, main page)
Georgian driver's license	DriverLicense_GE	DriverLicense_GE_TYPE1	Georgian driver's license (front side)
		DriverLicense_GE_TYPE2	Georgian driver's license (front side)
Georgian ID card	ID_GE	ID_GE_TYPE1	Georgian identity card (front side)
Georgian passport	InternationalPassport_GE	InternationalPassport_GE_TYPE1	Georgian passport (newer type, main page)
		InternationalPassport_GE_TYPE2	Georgian passport (older type, main page)
		InternationalPassport_GE_TYPE3	Georgian passport (main page)
Georgian vehicle registration certificate	VehicleRegistration_GE	VehicleRegistration_GE_TYPE1	Georgian vehicle registration certificate

Document type	Profile name	Result scheme	Result description
			(front side, back side)
German passport	InternationalPassport_DE	InternationalPassport_DE_TYPE1	German passport (the coat of arms of Germany on the right side, main page)
		InternationalPassport_DE_TYPE2	German passport (the coat of arms of Germany in the top-left corner and in the middle on the background, main page)
German ID card	ID_DE	ID_DE_TYPE1	German ID card (front side)
		ID_DE_TYPE2	German ID card with TD-1 MRZ on the front (front side)
German driver's license	DriverLicense_DE	DriverLicense_DE_TYPE1	German driver's license (sign of the European Union with letter D in the top-left corner and three road signs in the bottom-right corner, front side)
		DriverLicense_DE_TYPE2	German driver's license (sign of the European Union with letter D in the top-left corner and stamp with the silhouette of the letter D in the bottom-right corner, front side)
German residence permit	ResidencePermit_DE	ResidencePermit_DE_TYPE1	German residence permit (biometric

Document type	Profile name	Result scheme	Result description
			symbol in the top-left corner and a bull above the photo, front side)
Greek driver's license	DriverLicense_GR	DriverLicense_GR_TYPE1	Greek driver's license (the sign of the European Union with letter in the top-left corner, front)
Greek passport	InternationalPassport_GR	InternationalPassport_GR_TYPE1	Greek passport (Greek emblem on the background, main page)
Hong Kong ID card	ID_HK	ID_HK_TYPE1	Hong Kong identity card (front side)
Hungarian driver's license	DriverLicense_HU	DriverLicense_HU_TYPE1	Hungarian driver's license (the sign of the European Union with letter in the top-left corner, front)
Hungarian ID card	ID_HU	ID_HU_TYPE1	Hungarian identity card (older type, front side)
		ID_HU_TYPE2	Hungarian identity card (newer type, front side)
Hungarian passport	InternationalPassport_HU	InternationalPassport_HU_TYPE1	Hungarian passport (main page)
Indian Aadhaar card	Aadhaar_IN	Aadhaar_IN_TYPE1	Indian card with Aadhaar number
Indian passport	InternationalPassport_IN	InternationalPassport_IN	Indian passport (main page)

Document type	Profile name	Result scheme	Result description
Israel driver's license	DriverLicense_IL	DriverLicense_IL_TYPE1	Israel driver's license (the coat of arms of Israel in the top-right corner, front side)
Israel ID card	ID_IL	ID_IL_TYPE1	Israel ID card (front side)
		ID_IL_TYPE2	Israel ID card (front side)
Israel passport	InternationalPassport_IL	InternationalPassport_IL_TYPE1	Passport of Israel (the coats of arms of Israel all over the background, main page)
		InternationalPassport_IL_TYPE2	Passport of Israel (the coat of arms of Israel in the middle of the background, main page)
Italian ID card	ID_IT	ID_IT_TYPE1	Italian ID Card (Italian emblem on the top, page 1)
		ID_IT_TYPE2	Italian ID Card (Italian emblem in the top-left corner, front)
		ID_IT_TYPE3	Italian ID Card (biometric symbol the top-left corner, page 1)
Italian passport	InternationalPassport_IT	InternationalPassport_IT	Italian passport (Italian emblem on the background, main page)

Document type	Profile name	Result scheme	Result description
Italian driver's license	DriverLicense_IT	DriverLicense_IT_TYPE1	Italian driver's license (new type, front side)
		DriverLicense_IT_TYPE2	Italian driver's license (issued 2007-2013, front side)
Japanese passport	InternationalPassport_JP	InternationalPassport_JP	Japanese passport (Mount Fuji on the background and the Government Seal of Japan in the top-left and -right corner, main page)
Japanese driver's license	DriverLicense_JP	DriverLicense_JP_TYPE1	Japanese driver's license (front side)
Japanese health insurance	HealthInsurance_JP	HealthInsurance_JP	Japanese health insurance card (front side)
Kazakh driver's license	DriverLicense_KZ	DriverLicense_KZ_TYPE1	Kazakh driver's license (stamp with car on the middle, front)
		DriverLicense_KZ_TYPE2	Kazakh driver's license (chip on the right and Kazakh flag in the top-left corner, front)
Kazakh ID card	ID_KZ	ID_KZ_TYPE1	Kazakhstan ID card with 2-line MRZ (front and back sides)
		ID_KZ_TYPE2	Kazakhstan ID card with 3-line MRZ (front and back sides)

Document type	Profile name	Result scheme	Result description
Kazakh passport	InternationalPassport_KZ	InternationalPassport_KZ_TYPE1	Kazakh passport (stamp in the top-left corner on the photo, main page)
		InternationalPassport_KZ_TYPE2	Kazakh passport (Kazakh emblem on the bottom, main page)
Kazakh vehicle registration certificate	VehicleRegistration_KZ	VehicleRegistration_KZ_TYPE1	Kazakh vehicle registration certificate (KZ sign on the top, back)
Kuwait ID card	ID_KW	ID_KW_TYPE1	Kuwait ID card (card-size, front side)
Kyrgyz driver's license	DriverLicense_KG	DriverLicense_KG_TYPE1	Kyrgyz driver's license (KS sign in the top-left corner and the flag of Kyrgyzstan in the top-right corner, front side)
Kyrgyz ID card	ID_KG	ID_KG_TYPE1	Kyrgyz ID card (the coat of arms of Kyrgyzstan in the middle on the top, front side)
		ID_KG_TYPE2	Kyrgyz ID card (the coat of arms of Kyrgyzstan in the top-left corner and biometric symbol in the top-right corner, front side)
Kyrgyz passport	InternationalPassport_KG	InternationalPassport_KG_TYPE1	Kyrgyz passport (the coat of arms of Kyrgyzstan in the top-right corner near the small personal photo, main page)

Document type	Profile name	Result scheme	Result description
Latvian driver's license	DriverLicense_LV	DriverLicense_LV_TYPE1	Latvian driver's license (a small personal photo and LV letters in the bottom-right corner, main page)
		DriverLicense_LV_TYPE2	Latvian driver's license (a personal photo in the middle on the background, main page)
Latvian ID card	ID_LV	ID_LV_TYPE1	Latvian ID card (front side)
Latvian passport	InternationalPassport_LV	InternationalPassport_LV_TYPE1	Latvian passport (a tracery on the right, main page)
		InternationalPassport_LV_TYPE2	Latvian passport (a goose in the top-right corner, main page)
		InternationalPassport_LV_TYPE3	Latvian passport (diplomatic document, main page)
		InternationalPassport_LV_TYPE4	Latvian passport (service document, main page)
		InternationalPassport_LV_TYPE5	Latvian passport (ordinary document, main page)
Lithuanian driver's license	DriverLicense_LT	DriverLicense_LT_TYPE1	Lithuanian driver's license (a small personal photo in the bottom-right corner, main page)

Document type	Profile name	Result scheme	Result description
		DriverLicense_LT_TYPE2	Lithuanian driver's license (a car on the top, main page)
		DriverLicense_LT_TYPE3	Lithuanian driver's license (cars in the bottom-right corner, main page)
Lithuanian ID card	ID_LT	ID_LT_TYPE1	Lithuanian ID card (front side)
		ID_LT_TYPE2	Lithuanian ID card (front side)
Lithuanian passport	InternationalPassport_LT	InternationalPassport_LT_TYPE1	Lithuanian passport (biometric symbol above the personal photo, main page)
		InternationalPassport_LT_TYPE2	Lithuanian passport (circle stamp in the top-right corner, main page)
		InternationalPassport_LT_TYPE3	Lithuanian passport (the coat of arms of Lithuania in the middle on the background, main page)
Macedonian ID card	ID_MK	ID_MK_TYPE1	Macedonian ID card (name of document in the top is written on two languages, front side)
		ID_MK_TYPE2	Macedonian ID card (ename of document in the top is written

Document type	Profile name	Result scheme	Result description
			on three languages, front side)
Malaysian ID card	ID_MY	ID_MY_TYPE1	Malaysian ID card (front side)
Mexican ID card	ID_MX	ID_MX_TYPE3	Mexican ID Card (Mexican emblem in the top-left corner, front)
Moldavian driver's license	DriverLicense_MD	DriverLicense_MD_TYP E1	driver's license of Republic of Moldova (flag of Republic of Moldova in the top-left corner, front)
		DriverLicense_MD_TYP E2	driver's license of Republic of Moldova (emblem of Republic of Moldova in the top-right corner, front)
Moldavian ID card	ID_MD	ID_MD_TYPE1	ID Card of Republic of Moldova (emblem of Republic of Moldova on the background, front)
		ID_MD_TYPE2	ID Card of Republic of Moldova (blue stamp with emblem of Republic of Moldova in the left and pink background, front)
		ID_MD_TYPE3	ID Card of Republic of Moldova (biometric symbol in the top-right corner, front)

Document type	Profile name	Result scheme	Result description
Moldavian passport	InternationalPassport_MD	InternationalPassport_MD_TYPE1	Passport of Republic of Moldova (biometric symbol in the top-left corner, main page)
		InternationalPassport_MD_TYPE2	Passport of Republic of Moldova (vertical field nationality on the right, main page)
New Zealand driver's license	DriverLicense_NZ	DriverLicense_NZ_TYPE1	New Zealand driver's license (flag of New Zealand above the personal photo, front side)
Nigerian ID card	ID_NG	ID_NG_TYPE1	Nigerian ID card (front side)
Norwegian driver's license	DriverLicense_NO	DriverLicense_NO_TYPE1	Norwegian driver's license (ninth poin under the photo and a watermark with Norwegian coat of arms to the right of the photo, front side)
		DriverLicense_NO_TYPE2	Norwegian driver's license (N sign in the top-left corner and ninth point under the signature, main page)
Norwegian ID card	ID_NO	ID_NO_TYPE1	Norwegian ID card (front side)
Passport of Syrian Arab Republic	InternationalPassport_SY	InternationalPassport_SY_TYPE1	Passport of Syrian Arab Republic (national coat of arms on the top, main page)

Document type	Profile name	Result scheme	Result description
Philippine passport	InternationalPassport_PH	InternationalPassport_PH_TYPE1	Philippine passport (the Philippine coat of arms on the background, main page)
		InternationalPassport_PH_TYPE2	Philippine passport (the Philippine flag in the top-left corner and biometric symbol on the top-right corner, main page)
Polish ID card	ID_PL	ID_PL_TYPE1	Polish ID card, older type (front and back)
		ID_PL_TYPE2	Polish ID card, newer type (front and back)
		ID_PL_TYPE3	Polish ID card (front and back)
Polish driver's license	DriverLicense_PL	DriverLicense_PL_TYPE1	Polish driver's license, old type (front side)
		DriverLicense_PL_TYPE2	Polish driver's license (front side, back side)
Polish passport	InternationalPassport_PL	InternationalPassport_PL_TYPE1	Polish passport (front side)
Portuguese ID card	ID_PT	ID_PT_TYPE1	Portuguese ID card (front side)
Portuguese driver's license	DriverLicense_PT	DriverLicense_PT_TYPE1	Portuguese driver's license (sign of the European Union with letter P in the top-left corner, front side)

Document type	Profile name	Result scheme	Result description
Romanian driver's license	DriverLicense_RO	DriverLicense_RO_TYPE1	Romanian driver's license (sign of the European Union with letters RO in the top-left corner, front side)
Romanian ID card	ID_RO	ID_RO_TYPE1	Romanian ID card (front side)
Russian international biometric passport	InternationalPassport_RU	InternationalPassport_RU	Russian international biometric passport (main page)
Russian visa	Visa_RU	Visa_RU_TYPE1	Russian visa
Russian passport	Passport_RU	Passport_RU	Russian passport (pages 2 and 3)
		MRZ_RU_PASSPORT	Russian passport (page 2, with signatures)
Russian birth certificate	BirthCertificate_RU	BirthCertificate_RU_TYPE1	Russian birth certificate
Russian death certificate	DeathCertificate_RU	DeathCertificate_RU_TYPE1	Russian death certificate
Russian divorce certificate	DivorceCertificate_RU	DivorceCertificate_RU_TYPE1	Russian divorce certificate
Russian insurance individual account number (SNILS)	SocialSecurityNumber_RU	SocialSecurityNumber_RU_TYPE1	Laminated SNILS (front side)
		SocialSecurityNumber_RU_TYPE2	Card-size SNILS (front side)
Russian health insurance	HealthInsurance_RU	HealthInsurance_RU_TYPE1	Russian health Insurance (round

Document type	Profile name	Result scheme	Result description
			stamp in the down-left corner, front side)
		HealthInsurance_RU_TY PE2	Russian health Insurance (round stamp in the down-right corner, front side)
		HealthInsurance_RU_TY PE3	Russian health Insurance (national coat of arms in the top-left corner and chip in the middle on the left, front side)
		HealthInsurance_RU_TY PE4	Russian Health Insurance (the coat of arms of Moscow in the top-right corner, front side)
Russian driver's license	DriverLicense_RU	DriverLicense_RU_TYPE 1	Russian driver's license, old type (front side)
		DriverLicense_RU_TYPE 2	Russian driver's license, old type, vertical (front side)
		DriverLicense_RU_TYPE 3	Russian driver's license, new type (front side)
Russian ID card	ID_RU	ID_RU_MILITARY_TYPE1	Russian military ID card (front side)
		ID_RU_MILITARY_TYPE2	Russian military ID card (front side)

Document type	Profile name	Result scheme	Result description
		ID RU MILITARY TYPE3	Russian military ID card (front side)
		ID RU MILITARY TYPE4	Russian military ID card (front side)
		ID RU POLICE TYPE1	Russian police ID card (front side)
		ID RU PROSECUTOR TYPE1	Russian prosecutor ID card (front side)
		ID RU PROSECUTOR TYPE2	Russian prosecutor ID card (front side)
		ID RU SOLDIER TYPE1	Russian soldier ID card (front side)
Russian INN	INN_RU	INN RU CITIZEN TYPE1	Russian INN for citizens (main page)
		INN RU CITIZEN TYPE2	Russian INN for citizens (main page)
		INN RU CITIZEN TYPE3	Russian INN for citizens (main page)
		INN RU CITIZEN TYPE4	Russian INN for citizens (main page)
		INN RU ENTITY TYPE1	Russian entity INN (main page)
		INN RU ENTITY TYPE2	Russian entity INN (main page)
Russian marriage certificate	MarriageCertificate_RU	MarriageCertificate_RU_TYPE1	Russian marriage certificate (main

Document type	Profile name	Result scheme	Result description
			page)
Russian migration card	MigrationCard_RU	MigrationCard_RU_TYP E1	Russian migration card (front side)
Russian residence permit	ResidencePermit_RU	ResidencePermit_RU_T YPE1	Russian residence permit (main page)
		ResidencePermit_RU_T YPE2	Russian residence permit (main page)
Russian vehicle passport	VehiclePassport_RU	VehiclePassport_RU_TY PE1	Russian vehicle passport (front side)
Russian vehicle registration certificate	VehicleRegistration_RU	VehicleRegistration_RU _TYPE1	Russian vehicle registration certificate, old type (front and back sides)
		VehicleRegistration_RU _TYPE2	Russian vehicle registration certificate, new type (front and back sides)
Russian work permit	WorkPermit_RU	WorkPermit_RU_TYPE1	Russian work permit (front side)
Salvadorean ID card	ID_SV	ID_SV_TYPE1	Salvadorean ID card (front side)
Salvadorean vehicle registration	VehicleRegistration_SV	VehicleRegistration_SV _TYPE1	Salvadorean vehicle registration (front side)
Serbian driver's license	DriverLicense_RS	DriverLicense_RS_TYPE 1	Serbian driver's license (SRB sign in the top-left corner and the coat of arms of Serbia in the top-

Document type	Profile name	Result scheme	Result description
			right corner, front side)
Serbian ID card	ID_RS	ID_RS_TYPE1	Serbian ID card (front side)
Singapore ID card	ID_SG	ID_SG_TYPE1	Singapore ID card (front side)
Singapore work permit	WorkPermit_SG	WorkPermit_SG_TYPE1	Singapore work permit (front side)
Slovakian driver's license	DriverLicense_SK	DriverLicense_SK_TYPE1	Slovakian driver's license (the contour of country with letters SK on the right, main page)
		DriverLicense_SK_TYPE2	Slovakian driver's license (the contour of country with letters SK in the bottom-right corner, main page)
		DriverLicense_SK_TYPE3	Slovakian driver's license (leaves in the bottom-right corner, main page)
Slovakian ID card	ID_SK	ID_SK_TYPE1	ID Card of Slovakia (a round stamp in the top-right corner of the photo and leaves in the top-right corner, front side)
		ID_SK_TYPE2	ID Card of Slovakia (a round stamp under the photo and the national coat of arms on the background, main page)

Document type	Profile name	Result scheme	Result description
Slovakian passport	InternationalPassport_SK	InternationalPassport_SK_TYPE2	Passport of Slovakia (SVK sign in the left-bottom corner of photo, main page)
		InternationalPassport_SK_TYPE3	Passport of Slovakia (inscription with the name of country above the mrz zone, main page)
Slovakian vehicle registration certificate	VehicleRegistration_SK	VehicleRegistration_SK_TYPE1	Vehicle registration certificate of Slovakia
Slovakian residence permit	ResidencePermit_SK	ResidencePermit_SK_TYPE1	Residence permit of Slovakia (biometric symbol on the top, front side)
		ResidencePermit_SK_TYPE2	Residence permit of Slovakia (parallelogram on the top, front side)
Slovakian visa	Visa_SK	Visa_SK_TYPE1	Slovakian visa
Slovenian driver's license	DriverLicense_SI	DriverLicense_SI_TYPE1	Slovenian driver's license (country's name is written in one line, front side)
		DriverLicense_SI_TYPE2	Slovenian driver's license (country's name is written in two lines, front side)
Slovenian ID card	ID_SI	ID_SI_TYPE1	Slovenian ID card (the Slovenian coat of arms on the top, front side; cavalryman motif in the middle above

Document type	Profile name	Result scheme	Result description
			the mrz zone, back side)
Slovenian passport	InternationalPassport_SI	InternationalPassport_SI_TYPE1	Slovenian passport (a leaf in the top-right corner and a small personal photo on the right , main page)
Slovenian residence permit	ResidencePermit_SI	ResidencePermit_SI_TYPE1	Slovenian residence permit (a bull in the middle on the background and sign of the European Union in the top-left corner, front side)
		ResidencePermit_SI_TYPE2	Slovenian residence permit (a bull above the personal photo and a biometric symbol on the top, front side)
South African Republic ID card	ID_ZA	ID_ZA_TYPE1	South African Republic ID card (front side)
South African pilot's license	CrewMember_ZA	CrewMember_ZA_TYPE1	South African pilot's license (biometric symbol in the top-right corner, main page)
Spanish ID card	ID_ES	ID_ES_TYPE1	Spanish ID card (old type, front side)
		ID_ES_TYPE2	Spanish ID card (new type, front side)

Document type	Profile name	Result scheme	Result description
Spanish driver's license	DriverLicense_ES	DriverLicense_ES_TYPE 1	Spanish driver's license (card-size, number field below the photo)
		DriverLicense_ES_TYPE 2	Spanish driver's license (card-size, number field to the right of the photo)
Spanish passport	InternationalPassport_ES	InternationalPassport_ES_TYPE1	Spanish passport (new biometric passport, biometric symbol on the top, main page)
		InternationalPassport_ES_TYPE2	Spanish passport (old biometric, biometric symbol in the top-left corner and a personal photo on the background, main page)
Spanish residence permit	ResidencePermit_ES	ResidencePermit_ES_TY PE1	Spanish residence permit , blue color (front side)
		ResidencePermit_ES_TY PE2	Spanish residence permit , pink color (front side)
Swedish driver's license	DriverLicense_SE	DriverLicense_SE_TYPE 1	Swedish driver's license with a photo near the signature (front side)
		DriverLicense_SE_TYPE 2	Swedish driver's license with a logo on the right (front side)

Document type	Profile name	Result scheme	Result description
Swedish passport	InternationalPassport_SE	InternationalPassport_SE_TYPE1	Swedish passport (a biometric symbol in the top-right corner, main page)
		InternationalPassport_SE_TYPE2	Swedish passport (a square stamp in the top-right corner, main page)
Swiss ID card	ID_CH	ID_CH_TYPE1	Swiss ID card (front side)
Swiss driver's license	DriverLicense_CH	DriverLicense_CH_TYPE1	Swiss driver's license (front side)
Syrian passport	InternationalPassport_SY	InternationalPassport_SY	Syrian passport (main page)
Tajikistani passport	InternationalPassport_TJ	InternationalPassport_TJ_TYPE1	Passport of Tajikistan (the national flag in the top-left corner and a copy of personal photo in the right, main page)
		InternationalPassport_TJ_TYPE2	Passport of Tajikistan (a round stamp in the bottom-right corner of the photo, main page)
Turkish driver's license	DriverLicense_TR	DriverLicense_TR_TYPE1	Turkish driver's license (TR sign in the top-left corner and a car in the bottom-right corner, front side)
		DriverLicense_TR_TYPE2	Turkish driver's license (T.C. sign in

Document type	Profile name	Result scheme	Result description
			the top-left corner, front side)
Turkish ID card	ID_TR	ID_TR_TYPE1	Turkish ID card (national emblem of the Republic of Turkey on the right and a personal photo on the left, front side)
		ID_TR_TYPE2	Turkish ID card (national emblem of the Republic of Turkey on the left and a personal photo on the right, front side)
Turkish passport	InternationalPassport_TR	InternationalPassport_TR_TYPE1	Turkish passport (TR watermark in the top-right corner and a small personal photo on the right, main page)
UAE ID card	ID_AE	ID_AE_TYPE1	UAE ID card (front side)
Ukrainian driver's license	DriverLicense_UA	DriverLicense_UA_TYPE1	Ukrainian driver's license (front side)
		DriverLicense_UA_TYPE2	Ukrainian driver's license (front side)
		DriverLicense_UA_TYPE3	Ukrainian driver's license (front side)
Ukrainian ID card	ID_UA	ID_UA_TYPE1	Ukrainian ID card (front side)
Ukrainian passport	InternationalPassport_UA	InternationalPassport_UA_TYPE1	Ukrainian passport (main page)

Document type	Profile name	Result scheme	Result description
		InternationalPassport_UA_TYPE2	Ukrainian passport (main page)
Ukrainian vehicle registration certificate	VehicleRegistration_UA	VehicleRegistration_UA_TYPE1	Ukrainian vehicle registration certificate (card-sized, coat of arms of Ukraine on background)
USA border crossing	BorderCrossing_US	BorderCrossing_US_TYPE1	USA border crossing (front side)
		BorderCrossing_US_TYPE2	USA border crossing (front side)
USA passport	InternationalPassport_US	InternationalPassport_US_TYPE1	American passport (only for children, main page)
		InternationalPassport_US_TYPE2	American passport (a national flag and coat of arms on the background, main page)
USA passport card	PassportCard_US	PassportCard_US_TYPE1	USA passport card (front side)
		PassportCard_US_TYPE2	USA passport card (front side)
USA driver's license	DriverLicense_US_AK	DriverLicense_US_AK_TYPE1	USA driver's license - Alaska (mountains on the background, front)
		DriverLicense_US_AK_TYPE2	USA driver's license - Alaska (flag of Alaska on the background, front)

Document type	Profile name	Result scheme	Result description
	DriverLicense_US_AL	DriverLicense_US_AL_T YPE1	USA driver's license - Alabama (building on the background, front)
	DriverLicense_US_AR	DriverLicense_US_AR_T YPE1	USA driver's license - Arkansas (stamp with emblem of Arkansas on the background, front)
		DriverLicense_US_AR_T YPE2	USA driver's license - Arkansas (DL sign in the middle on the top, front)
	DriverLicense_US_AZ	DriverLicense_US_AZ_T YPE1	USA driver's license - Arizona (a horizontal card and a cactus silhouette on the right on the background, front side)
		DriverLicense_US_AZ_T YPE2	USA driver's license - Arizona (a vertical card and a cactus silhouette on the right on the background, front side)
		DriverLicense_US_AZ_T YPE3	USA driver's license - Arizona (the Grand Canyon on the background and a personal photo in the bottom-right corner, front side)
	DriverLicense_US_CA	DriverLicense_US_CA_T YPE1	USA driver's license - California (a horizontal card, bears on the background and a small personal

Document type	Profile name	Result scheme	Result description
			photo on the right, front side)
		DriverLicense_US_CA_TYPE2	USA driver's license - California (a vertical card, a small personal photo in the bottom-left corner, front side)
		DriverLicense_US_CA_TYPE3	USA driver's license - California (a horizontal card, a bear with a star above the man on the right on the background, front side)
		DriverLicense_US_CA_TYPE4	USA driver's license - California (a horizontal card, DMV sign in the top-right and in the top-left corner, front side)
	DriverLicense_US_CO	DriverLicense_US_CO_TTYPE1	USA driver's license - Colorado (a horizontal card, a star in the top-right corner and curves on the bottom, front side)
		DriverLicense_US_CO_TTYPE2	USA driver's license - Colorado (a horizontal card, DL sign and a star in a circle are near the state name, front side)
		DriverLicense_US_CO_TTYPE3	USA driver's license - Colorado (a vertical card, DL sign and a star in a circle are

Document type	Profile name	Result scheme	Result description
			under the state name, front side)
	DriverLicense_US_CT	DriverLicense_US_CT_TYPE1	USA driver's license - Connecticut (a horizontal card, letters DL on the top, front side)
		DriverLicense_US_CT_TYPE2	USA driver's license - Connecticut (a vertical card, letters ALP in the top-left corner, front side)
		DriverLicense_US_CT_TYPE3	USA driver's license - Connecticut (a horizontal card, the document's name near the state name and a helicopter on the top, front side)
		DriverLicense_US_CT_TYPE4	USA driver's license - Connecticut (a vertical card, the document's name under the state name and a helicopter in the middle, front side)
		DriverLicense_US_CT_TYPE5	USA driver's license - Connecticut (a horizontal card, a lighthouse on the left on the background and letters DL in the top-right corner, front side)
	DriverLicense_US_DC	DriverLicense_US_DC_TTYPE1	USA driver's license - Columbia (heart in the top-left corner and flag of Washington in

Document type	Profile name	Result scheme	Result description
			the down-right corner, front)
		DriverLicense_US_DC_TYPE2	USA driver's license - Columbia (stamp with emblem of district of Columbia on the right, front)
	DriverLicense_US_DE	DriverLicense_US_DE_TTYPE1	USA driver's license - Delaware (blue rectangle on the top and star in the top-tight corner, front)
	DriverLicense_US_FL	DriverLicense_US_FL_TTYPE1	USA driver's license - Florida (stamp with emblem of Florida on the left, front)
		DriverLicense_US_FL_TTYPE2	USA driver's license - Florida (star in the circle in the top-right corner, front)
	DriverLicense_US_GA	DriverLicense_US_GA_TTYPE1	USA driver's license - Georgia (copies of a personal photo in the bottom-right corner and a peach on the background, front)
		DriverLicense_US_GA_TTYPE2	USA driver's license - Georgia (vertically oriented, front)
		DriverLicense_US_GA_TTYPE3	USA driver's license - Georgia (a round stamp in the top-left corner of photo and three peaches on the top, front)

Document type	Profile name	Result scheme	Result description
	DriverLicense_US_HI	DriverLicense_US_HI_TY PE1	USA driver's license - Hawaii (a barcode under the photo, front)
		DriverLicense_US_HI_TY PE2	USA driver's license - Hawaii (the flag of state in the top-right corner, front)
	DriverLicense_US_IA	DriverLicense_US_IA_TY PE1	USA driver's license - Hawaii (windmill on the background, front)
		DriverLicense_US_IA_TY PE2	USA driver's license - Hawaii (windmill on the background - vertical card, front)
		DriverLicense_US_IA_TY PE3	USA driver's license - Hawaii (coat of arms of Iowa on the background, front)
	DriverLicense_US_ID	DriverLicense_US_ID_TY PE1	USA driver's license - Alaska (the seal of Idaho in the top-right corner of the personal photo, front side)
	DriverLicense_US_IL	DriverLicense_US_IL_TY PE1	USA driver's license - Illinois (Abraham Lincoln on the background, front side)
		DriverLicense_US_IL_TY PE2	USA driver's license - Illinois (the curves on the background, front side)

Document type	Profile name	Result scheme	Result description
	DriverLicense_US_IN	DriverLicense_US_IL_TY PE3	USA driver's license - Illinois (a personal photo on the right, front side)
		DriverLicense_US_IN_TY PE1	USA driver's license - Indiana (a horizontal card; a small personal photo in the bottom-right corner, front side)
		DriverLicense_US_IN_TY PE2	USA driver's license - Indiana (a vertical card; a small personal photo on the right, front side)
		DriverLicense_US_IN_TY PE3	USA driver's license - Indiana (a horizontal card, the seal of Indiana in the top-left corner, front side)
	DriverLicense_US_KS	DriverLicense_US_KS_T YPE1	USA driver's license - Kansas (ears of corn on the background, horizontal card, front)
		DriverLicense_US_KS_T YPE2	USA driver's license - Kansas (ears of corn on the background, vertical card, front)
		DriverLicense_US_KS_T YPE3	USA driver's license - Kansas (tractor and wagon on the background and star in the top-right corner, horizontal card, front)

Document type	Profile name	Result scheme	Result description
		DriverLicense_US_KS_TYPE4	USA driver's license - Kansas (tractor and wagon on the background and star in the top-right corner, vertical card, front)
		DriverLicense_US_KS_TYPE5	USA driver's license - Kansas (patterns on the bottom and DL sign in the top-right corner, front)
	DriverLicense_US_KY	DriverLicense_US_KY_TYPE1	USA driver's license - Kentucky (horizontal card, fence on the background, front)
		DriverLicense_US_KY_TYPE2	USA Instruction Permit - Kentucky (vertical card, fence on the background, front)
	DriverLicense_US_LA	DriverLicense_US_LA_TYPE1	USA driver's license - Louisiana (horizontal card, emblem of Louisian in the top-right corner on the background, front)
		DriverLicense_US_LA_TYPE2	USA driver's license - Louisiana (vertical card, emblem of Louisian in the down-right corner on the background, front)
		DriverLicense_US_LA_TYPE3	USA driver's license - Louisiana (horizontal card, photo on the right, front)

Document type	Profile name	Result scheme	Result description
	DriverLicense_US_MA	DriverLicense_US_MA_TYPE1	USA driver's license - Massachusetts (a stamp with a bird in the centre, front)
		DriverLicense_US_MA_TYPE2	USA driver's license - Massachusetts (a personal photo on the left and a round stamp in the top-left corner of the photo, front)
		DriverLicense_US_MA_TYPE3	USA driver's license - Massachusetts (a personal photo on the right and the contour of state on the background, front)
		DriverLicense_US_MA_TYPE4	USA driver's license - Massachusetts (vertical card, front)
	DriverLicense_US_MD	DriverLicense_US_MD_TYPE1	USA driver's license - Maryland (the flag of the state in the top-left corner and a star on the top, front)
		DriverLicense_US_MD_TYPE2	USA driver's license - Maryland (a crab in the top right corner and a coat of arms of the state on the background, front)
	DriverLicense_US_ME	DriverLicense_US_ME_TYPE1	USA driver's license - Maine (a moose on the background, front)

Document type	Profile name	Result scheme	Result description
		DriverLicense_US_ME_T YPE2	USA driver's license - Maine (a moose on the background, front)
		DriverLicense_US_ME_T YPE3	USA driver's license - Maine (sunset view on the top, front)
	DriverLicense_US_MI	DriverLicense_US_MI_T YPE1	USA driver's license - Michigan (bridge on the top, horizontal card, front)
		DriverLicense_US_MI_T YPE2	USA driver's license - Michigan (bridge on the top, vertical card, front)
		DriverLicense_US_MI_T YPE3	USA Operator License - Michigan (bridge on the top, horizontal card, front)
	DriverLicense_US_MN	DriverLicense_US_MN TYPE1	USA driver's license - Minnesota (emblem of Minnesota on the background, front)
	DriverLicense_US_MO	DriverLicense_US_MO TYPE1	USA driver's license - Missouri (emblem of Missouri on the background, front)
		DriverLicense_US_MO TYPE2	USA driver's license - Missouri (building on the background, front)
	DriverLicense_US_MS	DriverLicense_US_MS_T YPE1	USA driver's license - Mississippi (DL sign on the top, front)

Document type	Profile name	Result scheme	Result description
		DriverLicense_US_MS_TYPE2	USA driver's license - Mississippi (building on the background, front)
	DriverLicense_US_MT	DriverLicense_US_MT_TTYPE1	USA driver's license - Montana (DL sign on the top and emblem of Montana on the background, front)
		DriverLicense_US_MT_TTYPE2	USA driver's license - Montana (mountains and stars on the background, front)
	DriverLicense_US_NC	DriverLicense_US_NC_TTYPE1	USA driver's license - (lighthouse on the bottom on the background, front)
		DriverLicense_US_NC_TTYPE2	USA driver's license - (building on the middle on the background, front)
	DriverLicense_US_ND	DriverLicense_US_ND_TTYPE1	USA driver's license - North Dakota (a horizontal card; letters DL in the top-right corner, front side)
		DriverLicense_US_ND_TTYPE2	USA driver's license - North Dakota (a horizontal card; horses on the background, front side)
	DriverLicense_US_NE	DriverLicense_US_NE_TTYPE1	USA driver's license - Nebraska (a horizontal card; the

Document type	Profile name	Result scheme	Result description
			great seal of Nebraska in the top-left corner, front side)
		DriverLicense_US_NE_T YPE2	USA driver's license - Nebraska (a vertical card; a star in the circle in the top-right corner, front side)
	DriverLicense_US_NH	DriverLicense_US_NH_T YPE1	USA driver's license - New Hampshire (a horizontal card; the contour of New Hampshire in the top-right corner, front side)
		DriverLicense_US_NH_T YPE2	USA driver's license - New Hampshire (a horizontal card; a small personal photo in the middle on the background, front side)
	DriverLicense_US_NJ	DriverLicense_US_NJ_T YPE1	USA driver's license - New Jersey (a horizontal card; a small personal photo in the bottom-right corner on the background, front side)
		DriverLicense_US_NJ_T YPE2	USA driver's license - New Jersey (a vertical card; a small personal photo in the middle on the right, front side)
	DriverLicense_US_NM	DriverLicense_US_NM_T YPE1	USA driver's license - New Mexico (a

Document type	Profile name	Result scheme	Result description
	DriverLicense_US_NV		horizontal card; flag of New Mexico in the top-left corner, front side)
		DriverLicense_US_NV_TYPE1	USA driver's license - Nevada (a horizontal card; an eagle in the bottom-right corner, front side)
		DriverLicense_US_NV_TYPE2	USA driver's license - Nevada (a vertical card; an eagle in the bottom-right corner, front side)
	DriverLicense_US_NY	DriverLicense_US_NV_TYPE3	USA driver's license - Nevada (a horizontal card; the great seal of Nevada in the top-left corner of personal photo on the right, front side)
		DriverLicense_US_NY_TYPE1	USA driver's license - New York (a horizontal card, emblem of New York on the right and statue of Liberty on the left on the background, front)
		DriverLicense_US_NY_TYPE2	USA driver's license - New York (statue of Liberty on the right on the background, front)
		DriverLicense_US_NY_TYPE3	USA driver's license - New York (emblem of New York on the middle on the

Document type	Profile name	Result scheme	Result description
			background and landscape on the top, front)
		DriverLicense_US_NY_TYPE4	USA driver's license - New York (a vertical card, emblem of New York on the bottom and statue of Liberty in the top-left corner on the background, front)
	DriverLicense_US_OH	DriverLicense_US_OH_TYPE1	USA driver's license - Ohio (horizontal card, flag of Ohio in the down-left corner, front)
		DriverLicense_US_OH_TYPE2	USA driver's license - Ohio (vertical card, flag of Ohio on the bottom, front)
	DriverLicense_US_OK	DriverLicense_US_OK_TYPE1	USA driver's license - Oklahoma (horizontal card, photo on the left and right, front)
		DriverLicense_US_OK_TYPE2	USA driver's license - Oklahoma (vertical card, photo on the left and right, front)
		DriverLicense_US_OK_TYPE3	USA driver's license - Oklahoma (horizontal card, photo on the right and middle, front)
	DriverLicense_US_OR	DriverLicense_US_OR_TYPE1	USA driver's license - Oregon (a horizontal card; the seal of

Document type	Profile name	Result scheme	Result description
			Oregon in the top-right corner of the personal photo, front side)
	DriverLicense_US_PA	DriverLicense_US_PA_TYPE1	USA driver's license - Pennsylvania (a horizontal card; the state's name is written vertically on the left, front side)
		DriverLicense_US_PA_TYPE2	USA driver's license - Pennsylvania (a vertical card; letters JR in the bottom-right corner and a personal photo in the bottom-left corner, front side)
		DriverLicense_US_PA_TYPE3	USA driver's license - Pennsylvania (a vertical card; a small personal photo with letters DL in the bottom-right corner, front side)
		DriverLicense_US_PA_TYPE4	USA driver's license - Pennsylvania (a horizontal card; a small personal photo with letters CDL in the bottom-right corner, front side)
	DriverLicense_US_RI	DriverLicense_US_RI_TYPE1	USA driver's license - Rhode Island (a horizontal card; letters DL in the bottom-right corner, front side)

Document type	Profile name	Result scheme	Result description
	DriverLicense_US_SC	DriverLicense_US_RI_TY YPE2	USA driver's license - Rhode Island (a horizontal card; a bridge on the background and a small personal photo in the top-right corner, front side)
		DriverLicense_US_SC_T YPE1	USA driver's license - South Carolina (emblem of South Carolina on the background, front)
		DriverLicense_US_SC_T YPE2	USA driver's license - South Carolina (flag of South Carolina on the background, front)
	DriverLicense_US_SD	DriverLicense_US_SD_T YPE1	USA driver's license - South Dakota (Rushmore on the background, front)
		DriverLicense_US_SD_T YPE2	USA driver's license - South Dakota (emblem of South Dakota on the background, front)
	DriverLicense_US_TN	DriverLicense_US_TN_T YPE1	USA driver's license - Tennessee (building on the background, front)
		DriverLicense_US_TN_T YPE2	USA driver's license - Tennessee (flag of Tennessee in the top-right corner, front)

Document type	Profile name	Result scheme	Result description
	DriverLicense_US_TX	DriverLicense_US_TX_T YPE1	USA driver's license - Texas (a horizontal card; United States Capitol on the background, front side)
		DriverLicense_US_TX_T YPE2	USA driver's license - Texas (a vertical card; United States Capitol on the background, front side)
		DriverLicense_US_TX_T YPE3	USA driver's license - Texas (a horizontal card; the seal of Texas in the top-right corner and flag of Texas in the top-left corner, front side)
	DriverLicense_US_UT	DriverLicense_US_UT_T YPE1	USA driver's license - Utah (a horizontal card; United States Capitol on the background, front side)
		DriverLicense_US_UT_T YPE2	USA driver's license - Utah (a horizontal card; the great seal of Utah on the background, front side)
		DriverLicense_US_UT_T YPE3	USA driver's license - Utah (a vertical card; United States Capitol on the background, front side)
	DriverLicense_US_VA	DriverLicense_US_VA_T YPE1	USA driver's license - Virginia (a horizontal card; a new sample)

Document type	Profile name	Result scheme	Result description
			with the seal of Virginia in the middle on the background, front side)
		DriverLicense_US_VA_TYPE2	USA driver's license - Virginia (a horizontal card; a star in the circle in the top-right corner and a small personal photo on the right, front side)
		DriverLicense_US_VA_TYPE3	USA driver's license - Virginia (a vertical card; the seal of Virginia in the middle on the background, front side)
		DriverLicense_US_VA_TYPE4	USA driver's license - Virginia (a horizontal card; an old sample with the seal of Virginia in the middle on the background, front side)
	DriverLicense_US_VT	DriverLicense_US_VT_TTYPE1	USA operator's license - Vermont (flag of USA on the left and name of stat on the left, front)
		DriverLicense_US_VT_TTYPE2	USA operator's license - Vermont (name of stat on the top-middle, front)
	DriverLicense_US_WA	DriverLicense_US_WA_TTYPE1	USA driver's license - Washington (George Washington in the top-left corner, front)

Document type	Profile name	Result scheme	Result description
		DriverLicense_US_WA_T YPE2	USA driver's license - Washington (tree on the down-middle, front)
	DriverLicense_US_WI	DriverLicense_US_WI_T YPE1	USA driver's license - Wisconsin (house on the top and emblem of Wisconsin on the background, front)
		DriverLicense_US_WI_T YPE2	USA driver's license - Wisconsin (building on the background, front)
		DriverLicense_US_WI_T YPE3	USA driver's license - Wisconsin (flag of USA in the top-left corner, front)
	DriverLicense_US_WV	DriverLicense_US_WV_T YPE1	USA driver's license - West Virginia (a coat of arms of a state in the top-left corner and the contour of state in the top-right corner, front)
	DriverLicense_US_WY	DriverLicense_US_WY_T YPE1	USA driver's license - Wyoming (a coat of arms of a state in the top-left corner and mountains on the background, front)
USA permanent residency card (Green card)	GreenCard_US	GreenCard_US_TYPE1	USA permanent residency card, also known as Green card (front side)
USA visa	Visa_US	Visa_US_TYPE1	USA visa (front side)

Document type	Profile name	Result scheme	Result description
Uruguayan passport	InternationalPassport_UY	InternationalPassport_UY_TYPE1	Uruguayan passport (main page)
		InternationalPassport_UY_TYPE2	Uruguayan passport (main page)
Uzbek passport	InternationalPassport_UZ	InternationalPassport_UZ_TYPE1	Uzbek passport (UZB sign on the right, main page)
		InternationalPassport_UZ_TYPE2	Uzbek passport (the coat of arms of Uzbekistan on the background, main page)
Vietnamese driver's license	DriverLicense_VN	DriverLicense_VN_TYPE1	Vietnamese driver's license (a circle watermark on the bottom of personal photo , front side)

The following table lists field identifiers used in result data schemes returned by the Data Capture service.

Scheme	Field	Field description	Comments
Aadhaar_IN_TYPE1	Number	Aadhaar number	
AsylumResidencePermit_AT_RP_TYPE1	DateOfBirth	Document holder's date of birth	
	Sex	Document holder's sex	
	FirstName	Document holder's first name	
	Nationality	Document holder's nationality	

Scheme	Field	Field description	Comments
	Number	Document number	
	LastName	Document holder's last name	
BankCardEmbossed BankCardUnembossed	Number	Card number	
	FirstName	Cardholder's first name	
	DateOfExpiry	Card expiry date	
BirthCertificate_RU_TY PE1	FullNumber	Full document number (series and number, including the number sign)	
	Series	Document series (two Latin and two Cyrillic letters, separated by a hyphen)	
	Number	Document number (not including the number sign)	
	DateOfIssue	Document issue date	
	DayOfIssue	The day of issue date	
	MonthOfIssue	The month of issue date	
	YearOfIssue	The year of issue date	
	Sex	Document holder's sex	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	MiddleName	Document holder's patronymic name	
	FirstNameMiddleName	Document holder's first name and patronymic	
	DateOfBirth	Document holder's birth date	
	DateOfBirth_FULL	Document holder's full birth date	
	PlaceOfBirth	Document holder's place of birth	
BusinessCards	Name	Giver's name	
	Phone	Phone number	
	Fax	Fax number	
	Mobile	Cell phone number	
	Email	E-mail address	
	Web	Web address	
	Address	Mailing address	
	Company	Company name	

Scheme	Field	Field description	Comments
	Job	Job title	
	Text	Extra recognized text located on the card	
BorderCrossing_US_T YPE1 BorderCrossing_US_T YPE2	DateOfBirth	Document holder's birth date	
	DateOfExpiry	Card expiry date	
	Sex	Document holder's sex	
	DateOfIssue	Document issue date	
	FirstName	Document holder's first name	
	Number	Document number	
	LastName	Document holder's last name	
	Nationality	Document holder's nationality	In the BorderCrossing_US_TYP E2 only
CrewMember_ZA_TYP E1	DateOfBirth	Document holder's birth date	
	DateOfExpiry	Document expiry date	
	Sex	Document holder's sex	
	FirstName	Document holder's first name	

Scheme	Field	Field description	Comments
	Nationality	Document holder's nationality	
	Number	Document number	
	LastName	Document holder's last name	
DeathCertificate_RU_T YPE1	DateOfBirth	Document holder's full birth date	
	DayOfBirth	Document holder's birth day	
	MonthOfBirth	Document holder's month of birth	
	YearOfBirth	Document holder's year of birth	
	DateOfDeath	Date of death	
	DateOfIssue	Document issue date	
	DayOfIssue	The day of issue date	
	MonthOfIssue	The month of issue date	
	YearOfIssue	The year of issue date	
	LastName	Document holder's last name	
	FirstName	Document holder's first name	

Scheme	Field	Field description	Comments
	MiddleName	Document holder's patronymic name	
	FirstNameMiddleName	Document holder's first name and patronymic	
	Series	Document series	
	Number	Document number	
DivorceCertificate_RU_TYPE1	DateOfBirth_1	Birth date of partner 1	
	DateOfBirth_2	Birth date of partner 2	
	DateOfDivorce	Date of divorce	
	FullNumber	Full document number (series and number, including the number sign)	
	DateOfIssue	Document issue date	
	IssuedToFirstName	Document holder's first name	
	IssuedToMiddleName	Document holder's middle name	
	IssuedToLastName	Document holder's last name	
	FirstName_1	First name of partner 1	
	FirstName_2	First name of partner 2	

Scheme	Field	Field description	Comments
	LastName_NEW	Document holder's new last name	
	Number	Document number	
	MiddleName_1	Middle name of partner 1	
	MiddleName_2	Middle name of partner 2	
	Series	Document series	
	LastName_1	Last name of partner 1	
	LastName_2	Last name of partner 2	
	DateOfVerdict	Date of verdict	
DriverLicense_AL_TYPE 1	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfIssue	Document issue date	
	FirstName	Driver's first name	
	Number	License number	
	Residence	Driver's residence	
	LastName	Driver's last name	

Scheme	Field	Field description	Comments
DriverLicense_AM_TYP E1	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's date of birth	
	DateOfExpiry	Document expiry date	
	PlaceOfBirth	Driver's place of birth	
	PersonalCode	Driver's personal code	
	DateOfIssue	Document issue date	
	FirstName	Driver's first name	
	FirstName_EN	Driver's first name in English	
	FirstName	Driver's first name in Russian	
	Nationality	Driver's nationality	
	Number	License number	
	Residence_EN	Driver's residence in English	
	Residence_RU	Driver's residence in Russian	
	LastName	LastName	
	LastName_EX	Driver's last name in English	

Scheme	Field	Field description	Comments
	LastName	LastName in Russian	
DriverLicense_AT_TYPE 1 DriverLicense_AT_TYPE 2	Number	License number	
	LastName	Driver's last name	
	FirstName	Driver's first name	
	DateOfBirth	Driver's date date of birth	
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	In the DriverLicense_AT_TYPE1 scheme only
	PlaceOfIssue	Region where the license was issued	
	PlaceOfBirth	Driver's place of birth	
DriverLicense_BE_TYPE 1	DateOfIssue	License issue date	
	LastName	Driver's last name	
	FirstName	Driver's first name	
	Number	License number	
	DateOfExpiry	License expiry date	
	DateOfBirth	Driver's date of birth	
DriverLicense_BG_TYP E1	DateOfBirth	Driver's date of birth	

Scheme	Field	Field description	Comments
DriverLicense_BG_TYP E2	DateOfExpiry	License expiry date	
	Sex	Driver's sex	
	PersonalCode	Driver's personal code	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Number	License number	
	MiddleName	Driver's patronymic name	
	LastName	Driver's last name	
DriverLicense_BR_TYPE 1	CPF	Driver's CPF number	
	UF	Driver's UF number	
	CatHab	Driver's license class code	
	DateOfBirth	Driver's date of birth	
	DateOfIssue	License issue date	
	DocumentID	License ID	
	FileNumber	File number	
	Filiation_LINE1	Filiation first line	
	Filiation_LINE2	Filiation second line	

Scheme	Field	Field description	Comments
	License	Driver's license	
	Local	Place of Issue	
	FirstName	Driver's first name	
	Number	License number	
	IssuedBy	The authority that issued the license	
	RegistrationNumber	License registration number	
	Validity	License expiry date	
DriverLicense_BY_TYPE 1 DriverLicense_BY_TYPE 2	Number	License number	
	LastName	Driver's last name	
	FirstName	Driver's first name	
	MiddleName	Driver's patronymic name	
	FirstNameMiddleName	Driver's first and patronymic names	In the DriverLicense_BY_TYPE1 scheme only
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth_EN	Driver's place of birth in English	
	PlaceOfBirth_RU	Driver's place of birth in Russian	

Scheme	Field	Field description	Comments
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
	PlaceOfIssue_EN	Region where the license was issued in English	In the DriverLicense_BY_TYPE1 scheme only
	PlaceOfIssue_RU	Region where the license was issued in Russian	
	RegistrationPlace_EN	Region where the license was registered in English	In the DriverLicense_BY_TYPE2 scheme only
	RegistrationPlace_RU	Region where the license was registered in Russian	
	Series	Document series	
	FirstName_EX	Driver's first name in English	
	LastName_EX	Driver's last name in English	
DriverLicense_CA_BC_TYPE1 DriverLicense_CA_ON_TYPE1	Address	Driver's address	
	DateOfBirth	Driver's date of birth	
	Class	Vehicle class	In the DriverLicense_CA_BC_TYPE1 scheme only
	Endorsements	License endorsements	
	DateOfExpiry	License expiry date	

Scheme	Field	Field description	Comments
	Eyes	Driver's eye color	In the DriverLicense_CA_BC_TY PE1 scheme only
	Sex	Driver's sex	
	Hair	Driver's hair color	In the DriverLicense_CA_BC_TY PE1 scheme only
	Height	Driver's height	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Number	License number	
	LastName	Driver's last name	
	Weight	Driver's weight	In the DriverLicense_CA_BC_TY PE1 scheme only
	Category	License category	In the DriverLicense_CA_ON_T YPE1 scheme only
	Condition	License endorsements	
	DocumentID	License ID	
DriverLicense_CH_TYPE1	Number	License number	
	Number_MRZ	Document number from MRZ	
	LastName	Driver's last name	

Scheme	Field	Field description	Comments
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName	Driver's first name	
	FirstName_MRZ	Driver's first name from MRZ	
	DateOfBirth	Driver's date of birth	
	DateOfBirth_MRZ	Driver's date of birth from MRZ	
	MRZ	Full contents of the machine-readable zone	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	Nationality_MRZ	Document holder's nationality from MRZ	
	PlaceOfBirth	Driver's place of birth	
	PlaceOfIssue	Region where the license was issued	
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	OptionalData_MRZ_LI NE1	Optional second line of MRZ	
	Sex_MRZ	Document holder's from MRZ	
DriverLicense_CZ_TYPE 1	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	DriverID	Driver's personal identifier	
	Class	Vehicle class	
	DateOfExpiry	License expiry date	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Number	License number	
	Number_BACK	License number on back side	
	Residence	Driver's residence	
	LastName	Driver's last name	

Scheme	Field	Field description	Comments
DriverLicense_DE_TYPE1 DriverLicense_DE_TYPE2	Number	License number	
	LastName	Driver's last name	
	LastName_LINE2	Second line of the driver's last name	
	FirstName	Driver's first name	
	DateOfExpiry	License expiry date	In the DriverLicense_DE_TYPE2 scheme only
	DateOfIssue	License issue date	
	PlaceOfBirth	Driver's place of birth	
	DateOfBirth	Driver's date of birth	
	PlaceOfIssue	Region where the license was issued	
	PlaceOfIssue_LINE2	Region where the license was issued, continued	
DriverLicense_EE_TYPE1 DriverLicense_EE_TYPE2 DriverLicense_EE_TYPE3 DriverLicense_EE_TYPE4 DriverLicense_EE_TYPE5	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	In the DriverLicense_EE_TYPE1, DriverLicense_EE_TYPE3 and DriverLicense_EE_TYPE4 scheme only

Scheme	Field	Field description	Comments
	DateOfExpiry	License expiry date	
	DateOfIssue	License issue date	In the DriverLicense_EE_TYPE1 , DriverLicense_EE_TYPE3 , DriverLicense_EE_TYPE4 and DriverLicense_EE_TYPE5 scheme only
	LicenseNumber	License number	In the DriverLicense_EE_TYPE1 scheme only
	FirstName	Driver's first name	
	PersonalNumber	Driver's personal number	In the DriverLicense_EE_TYPE1 , DriverLicense_EE_TYPE3 , DriverLicense_EE_TYPE4 and DriverLicense_EE_TYPE5 scheme only
	SerialNumber	License serial number	In the DriverLicense_EE_TYPE1 scheme only
	LastName	Driver's last name	
	MRZ	Full contents of the machine-readable zone	In the DriverLicense_EE_TYPE3 scheme only
	Number	License number	In the DriverLicense_EE_TYPE2 , DriverLicense_EE_TYPE3

Scheme	Field	Field description	Comments
			DriverLicense_EE_TYPE4 and DriverLicense_EE_TYPE5 scheme only
	Nationality	Driver's nationality	In the DriverLicense_EE_TYPE2 scheme only
DriverLicense_ES_TYPE 1 DriverLicense_ES_TYPE 2	DateOfIssue	License issue date	
	DateOfBirth	Driver's date of birth	
	FirstName	Driver's first name	
	LastName	Driver's last name	
	IssuedBy	The authority that issued the license	
	PlaceOfBirth	Driver's place of birth	
	Number	License number	
	DateOfExpiry	License expiry date	
DriverLicense_FI_TYPE 1 DriverLicense_FI_TYPE 2	Number	License number	
	DriverID	Driver's personal identifier	
	LastName	Driver's last name	
	FirstName	Driver's first name	

Scheme	Field	Field description	Comments
	Nationality	Driver's nationality	
	DateOfBirth	Driver's date of birth	
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
	PlaceOfIssue	Region where the license was issued	
DriverLicense_FR_TYPE 1	DateOfBirth	Driver's date of birth	
	DateOfExpiry	License expiry date	
	DateOfIssue	License issue date	
	MRZ	Full contents of the machine-readable zone	
	FirstName	Driver's first name	
	Number	License number	
	LastName	Driver's last name	
DriverLicense_GE_TYP E1 DriverLicense_GE_TYP E2	IssuedBy	The authority that issued the license	In the DriverLicense_GE_TYPE1 scheme only
	IssuedBy_EN	The authority that issued the license in English	In the DriverLicense_GE_TYPE1 scheme only
	DateOfBirth	Driver's date of birth	

Scheme	Field	Field description	Comments
	PlaceOfBirth	Driver's place of birth	
	PlaceOfBirth_EN	Driver's place of birth in English	
	Class	Vehicle class	In the DriverLicense_GE_TYPE1 scheme only
	DateOfExpiry	License expiry date	
	Sex	Driver's sex	In the DriverLicense_GE_TYPE1 scheme only
	Sex_EN	Driver's sex in English	In the DriverLicense_GE_TYPE1 scheme only
	PersonalCode	Driver's personal code	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	FirstName_EX	Driver's first name in English	
	Number	License number	
	LastName	Driver's last name	
	LastName_EX	Driver's last name in English	
DriverLicense_GR_TYPE1	LastName	Driver's last name	

Scheme	Field	Field description	Comments
	FirstName	Driver's first name	
	DateOfBirth	Driver's birth date	
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
	IssuedBy	The authority that issued the license	
	PersonalCode	Driver's personal code	
	Number	License number	
	Number_BACK	License number on back side	
DriverLicense_HR_TYP E1	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's birth date	
	Class	Vehicle class	
	DateOfExpiry	License expiry date	
	DateOfIssue	License issue date	
	MRZ	Full contents of the machine-readable zone	
	FirstName	Driver's first name	
	Number	License number	

Scheme	Field	Field description	Comments
	LastName	Driver's last name	
DriverLicense_HU_TYP E1	FirstName	Driver's first name	
	LastName	Driver's last name	
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
	DateOfBirth	Driver's birth date	
	Number	License number	
DriverLicense_IL_TYPE 1	Number	License number	
	Address	Driver's address	
	DriverID	Driver's personal identifier	
	LastName	Driver's last name	
	LastName_EN	Driver's last name in English	
	FirstName	Driver's first name	
	FirstName_EN	Driver's first name in English	
	DateOfBirth	Driver's date of birth	
	DateOfIssue	License issue date	

Scheme	Field	Field description	Comments
	DateOfExpiry	License expiry date	
	Number_BACK	License number on back side	
DriverLicense_IT_TYPE 1 DriverLicense_IT_TYPE 2	IssuedBy	The authority that issued the license	
	Number	License number	
	LastName	Driver's last name	
	FirstName	Driver's first name	
	PlaceOfBirth	Driver's place of birth	
	DateOfBirth	Driver's date of birth	
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
DriverLicense_JP_TYPE 1	Number	License number	
DriverLicense_KG_TYP E1	Address	Driver's address	
	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	DateOfExpiry	License expiry date	

Scheme	Field	Field description	Comments
	PersonalCode	Document holder's personal code	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Number	License number	
	LastName	Driver's last name	
DriverLicense_KZ_TYPE 1 DriverLicense_KZ_TYPE 2	IssuedBy	The authority that issued the license	In the DriverLicense_KZ_TYPE2 scheme only
	DateOfBirth	Driver's date of birth	
	DateAndPlaceOfBirth	Driver's date and place of birth	In the DriverLicense_KZ_TYPE1 scheme only
	PlaceOfBirth	Driver's place of birth	
	DateOfExpiry	License expiry date	
	PIN	License PIN	In the DriverLicense_KZ_TYPE2 scheme only
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	FirstNameMiddleName	Driver's first and middle names	In the DriverLicense_KZ_TYPE1 scheme only

Scheme	Field	Field description	Comments
	Number	License number	
	MiddleName	Driver's middle name	
	Residence	Driver's residence	In the DriverLicense_KZ_TYPE1 scheme only
	Residence_EN	Driver's residence in English	In the DriverLicense_KZ_TYPE1 scheme only
	LastName	Driver's last name	
DriverLicense_LT_TYPE 1 DriverLicense_LT_TYPE 2 DriverLicense_LT_TYPE 3	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's date of birth	
	DateOfExpiry	License expiry date	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Number	License number	
	PersonalNumber	Personal number	
	LastName	Driver's last name	
DriverLicense_LV_TYPE 1 DriverLicense_LV_TYPE 2	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's date of birth	

Scheme	Field	Field description	Comments
	PlaceOfBirth	Driver's place of birth	
	DateOfExpiry	License expiry date	
	PersonalCode	Personal code	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Nationality	Document holder's nationality	
	Number	License number	
	LastName	Driver's last name	
	DocumentType	Document type	
DriverLicense_MD_TYP E1 DriverLicense_MD_TYP E2	DateOfBirth	Driver's date of birth	
	DateOfExpiry	License expiry date	
	PersonalCode	Personal code	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Number	License number	
	LastName	Driver's last name	
DriverLicense_NO_TYP E1	FirstName	Driver's first name	

Scheme	Field	Field description	Comments
DriverLicense_NO_TYPE2	LastName	Driver's last name	
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
	DateOfBirth	Driver's birth date	
	Number	License number	
	IssuedBy	The authority that issued the license	
	ReferenceNumber	Reference number	
	Field_7	License seventh field	In the DriverLicense_NO_TYPE 2 scheme only
	PersonalCode	Personal code	In the DriverLicense_NO_TYPE 2 scheme only
DriverLicense_NZ_TYPE1	Number	License number	
	Version	License version	
	DateOfBirth	Driver's birth date	
	LastName	Driver's last name	
	FirstName	Driver's first name	
	FullName_LINE2	Additional line for driver's name	

Scheme	Field	Field description	Comments
DriverLicense_PL_TYPE 1 DriverLicense_PL_TYPE 2	LastName	Driver's last name	
	FirstName	Driver's first name	
	Number	License number	
	DateOfBirth	License birth date	
	DateOfIssue	License issue date	
	Address	Driver's address	
	IssuedBy	The authority that issued the license	
	PlaceOfBirth	Driver's place of birth	
	DateOfExpiry	License expiry date	
	Number_BACK	License number on the back side	
	NumberID	License ID number	
DriverLicense_PT_TYPE 1	Number	License number	
	DriverID	Driver's personal identifier	
	LastName	Driver's last name	
	FirstName	Driver's first name	
	DateOfBirth	Driver's date of birth	

Scheme	Field	Field description	Comments
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
DriverLicense_RO_TYP E1	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	Class	Vehicle class	
	DateOfExpiry	License expiry date	
	PersonalCode	Personal code	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Number	License number	
	LastName	Driver's last name	
DriverLicense_RS_TYPE 1	FirstName	Driver's first name	
	LastName	Driver's last name	
	DateOfExpiry	License expiry date	
	DateOfIssue	License issue date	
	Number	License number	

Scheme	Field	Field description	Comments
	IssuedBy	The authority that issued the license	
DriverLicense_RU_TYP E1	Number	License number	
DriverLicense_RU_TYP E2	Number_EX	License number	In the DriverLicense_RU_TYPE 3 scheme only. Some licenses of this type contain an additional field that repeats the license number. The numbers recognized from the Number and Number_EX fields should be the same.
DriverLicense_RU_TYP E3	Number_BACK	License number on back side	Except the DriverLicense_RU_TYPE 2 schemes only.
	Number2_BACK	License number on back side	In the DriverLicense_RU_TYPE 3 scheme only.
	LastName	Driver's last name	
	FirstName	Driver's first name	
	MiddleName	Driver's patronymic name	
	FirstNameMiddleName	Driver's first and patronymic names	In the DriverLicense_RU_TYPE 1 schemes only
	Sex	Driver's sex	
	DateOfBirth	Driver's date of birth	

Scheme	Field	Field description	Comments
	PlaceOfBirth	Driver's place of birth	
	Residence	Driver's region of residence	
	IssuedBy	The authority that issued the license	Except the DriverLicense_RU_TYPE 2 schemes only
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
DriverLicense_SE_TYPE 1 DriverLicense_SE_TYPE 2	IssuedBy	The authority that issued the license	
	Number	License number	
	DriverID	Driver's personal identifier	
	LastName	Driver's last name	
	FirstName	Driver's first name	
	DateOfBirth	Driver's date of birth	
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
DriverLicense_SI_TYPE 1 DriverLicense_SI_TYPE 2	Address	Driver's address	
	IssuedBy	The authority that issued the license	

Scheme	Field	Field description	Comments
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	DateOfExpiry	License expiry date	
	PersonalCode	Personal code	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	
	Nationality	Driver's nationality	
	Number	License number	
	Number_BACK	License number on the back side	
	LastName	Driver's last name	
DriverLicense_SK_TYPE 1 DriverLicense_SK_TYPE 2 DriverLicense_SK_TYPE 3	IssuedBy	The authority that issued the license	
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	Class	Vehicle class	In the DriverLicense_SK_TYPE1 only
	DateOfExpiry	License expiry date	
	DateOfIssue	License issue date	

Scheme	Field	Field description	Comments
	FirstName	Driver's first name	
	Number	License number	
	LastName	Driver's last name	
	PersonalCode	Personal code	In the DriverLicense_SK_TYPE2 only
DriverLicense_TR_TYPE 1 DriverLicense_TR_TYPE 2	Number	License number	
	IssuedBy	The authority that issued the license	
	DriverID	Driver's personal identifier	In the DriverLicense_TR_TYPE1 only
	LastName	Driver's last name	
	FirstName	Driver's first name	
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	PersonalCode	Driver's personal code	In the DriverLicense_TR_TYPE1 only
	Father	Driver's father	
	Mother	Driver's mother	
	DateOfIssue	License issue date	

Scheme	Field	Field description	Comments
	PlaceOfIssue	Region where the license was issued	In the DriverLicense_TR_TYPE1 only
	ProvinceOfIssue	Province where the license was issued	
	Locality	Driver's locality	
	DateOfExpiry	License expiry date	
	Number_1		In the DriverLicense_TR_TYPE1 only
	Number_EX		
	Number_3		
DriverLicense_UA_TYP E1 DriverLicense_UA_TYP E2 DriverLicense_UA_TYP E3	IssuedBy	The authority that issued the license	
	IssuedBy_EN	The authority that issued the license in English	In the DriverLicense_UA_TYPE 1 only
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	PlaceOfBirth_EN	Driver's place of birth in English	In the DriverLicense_UA_TYPE 1 only
	DateOfExpiry	License expiry date	
	DateOfIssue	License issue date	
	FirstName	Driver's first name	

Scheme	Field	Field description	Comments
	FirstName_EX	Driver's first name in English	
	Number	License number	
	MiddleName	Driver's middle name	
	LastName	Driver's last name	
	LastName_EX	Driver's last name in English	
	PlaceOfResidence	Driver's place of residence	In the DriverLicense_UA_TYPE 3 only
	PlaceOfResidence_EN	Driver's place of residence in English	In the DriverLicense_UA_TYPE 3 only
DriverLicense_UK_TYPE1 DriverLicense_UK_TYPE2 DriverLicense_UK_TYPE3 DriverLicense_UK_PROVISIONAL_TYPE1 DriverLicense_UK_PROVISIONAL_TYPE2 DriverLicense_UK_PROVISIONAL_TYPE3	Number	License number	
	LastName	Driver's last name	
	FirstName	Driver's first name	
	DateOfBirth	Driver's date of birth	
	PlaceOfBirth	Driver's place of birth	
	Residence	Driver's place of residence	
	DatesOfIssueAndExpiry	License issue date and expiry date	In the DriverLicense_UK_TYPE 3 and

Scheme	Field	Field description	Comments
			DriverLicense_UK_PROVISIONAL_TYPE3 only
	DateOfIssue	License issue date	
	DateOfExpiry	License expiry date	
	IssuedBy	The authority that issued the license	
DriverLicense_US_AK_TYPE1 DriverLicense_US_AK_TYPE2 DriverLicense_US_AL_TYPE1 DriverLicense_US_AR_TYPE1 DriverLicense_US_AR_TYPE2 DriverLicense_US_AZ_TYPE1 DriverLicense_US_AZ_TYPE2 DriverLicense_US_AZ_TYPE3 DriverLicense_US_CA_TYPE1 DriverLicense_US_CA_TYPE2 DriverLicense_US_CA_TYPE3 DriverLicense_US_CA_TYPE4 DriverLicense_US_CO_TYPE1 DriverLicense_US_CO_TYPE2 DriverLicense_US_CO_TYPE3 DriverLicense_US_CT_TYPE1 DriverLicense_US_CT_TYPE2 DriverLicense_US_CT_TYPE3	Address	Driver's address	

Scheme	Field	Field description	Comments
DriverLicense_US_CT_T YPE4 DriverLicense_US_CT_T YPE5 DriverLicense_US_DC_ TYPE1 DriverLicense_US_DC_ TYPE2 DriverLicense_US_DE_ TYPE1 DriverLicense_US_FL_T YPE1 DriverLicense_US_FL_T YPE2 DriverLicense_US_GA_ TYPE1 DriverLicense_US_GA_ TYPE2 DriverLicense_US_GA_ TYPE3 DriverLicense_US_HI_T YPE1 DriverLicense_US_HI_T YPE2 DriverLicense_US_IA_T YPE1 DriverLicense_US_IA_T YPE2 DriverLicense_US_IA_T YPE3 DriverLicense_US_ID_T YPE1 DriverLicense_US_IL_T YPE1 DriverLicense_US_IL_T YPE2 DriverLicense_US_IL_T YPE3 DriverLicense_US_IN_T YPE1 DriverLicense_US_IN_T YPE2 DriverLicense_US_IN_T YPE3 DriverLicense_US_KS_T YPE1 DriverLicense_US_KS_T YPE2 DriverLicense_US_KS_T YPE3	Audit	License's audit number	In the DriverLicense_US_LA_TY PE1, DriverLicense_US_LA_TY PE2, DriverLicense_US_LA_TY PE3 only

Scheme	Field	Field description	Comments
DriverLicense_US_KS_T YPE4 DriverLicense_US_KS_T YPE5 DriverLicense_US_KY_T YPE1 DriverLicense_US_KY_T YPE2 DriverLicense_US_LA_T YPE1 DriverLicense_US_LA_T YPE2 DriverLicense_US_LA_T YPE3 DriverLicense_US_MA_ TYPE1 DriverLicense_US_MA_ TYPE2 DriverLicense_US_MA_ TYPE3 DriverLicense_US_MA_ TYPE4 DriverLicense_US_MD_ TYPE1 DriverLicense_US_MD_ TYPE2 DriverLicense_US_ME_ TYPE1 DriverLicense_US_ME_ TYPE2 DriverLicense_US_ME_ TYPE3 DriverLicense_US_MI_T YPE1 DriverLicense_US_MI_T YPE2 DriverLicense_US_MI_T YPE3 DriverLicense_US_MN_ TYPE1 DriverLicense_US_MO_ TYPE1 DriverLicense_US_MO_ TYPE2 DriverLicense_US_MS_ TYPE1 DriverLicense_US_MS_ TYPE2 DriverLicense_US_MT_ TYPE1	IssuedBy	The authority that issued the license	In the DriverLicense_US_CA_TY PE4, DriverLicense_US_SC_TY PE1, DriverLicense_US_SC_TY PE2 only

Scheme	Field	Field description	Comments
DriverLicense_US_MT_TYPE2 DriverLicense_US_NC_TYPE1 DriverLicense_US_NC_TYPE2 DriverLicense_US_ND_TYPE1 DriverLicense_US_ND_TYPE2 DriverLicense_US_NE_TYPE1 DriverLicense_US_NE_TYPE2 DriverLicense_US_NH_TYPE1 DriverLicense_US_NH_TYPE2 DriverLicense_US_NJ_TYPE1 DriverLicense_US_NJ_TYPE2 DriverLicense_US_NM_TYPE1 DriverLicense_US_NV_TYPE1 DriverLicense_US_NV_TYPE2 DriverLicense_US_NV_TYPE3 DriverLicense_US_NY_TYPE1 DriverLicense_US_NY_TYPE2 DriverLicense_US_NY_TYPE3 DriverLicense_US_NY_TYPE4 DriverLicense_US_OH_TYPE1 DriverLicense_US_OH_TYPE2 DriverLicense_US_OK_TYPE1 DriverLicense_US_OK_TYPE2 DriverLicense_US_OK_TYPE3 DriverLicense_US_OR_TYPE1	DateOfBirth	Driver's date of birth	

Scheme	Field	Field description	Comments
DriverLicense_US_PA_T YPE1 DriverLicense_US_PA_T YPE2 DriverLicense_US_PA_T YPE3 DriverLicense_US_PA_T YPE4 DriverLicense_US_RI_T YPE1 DriverLicense_US_RI_T YPE2 DriverLicense_US_SC_T YPE1 DriverLicense_US_SC_T YPE2 DriverLicense_US_SD_ TYPE1 DriverLicense_US_SD_ TYPE2 DriverLicense_US_TN_ TYPE1 DriverLicense_US_TN_ TYPE2 DriverLicense_US_TX_T YPE1 DriverLicense_US_TX_T YPE2 DriverLicense_US_TX_T YPE3 DriverLicense_US_UT_ TYPE1 DriverLicense_US_UT_ TYPE2 DriverLicense_US_UT_ TYPE3 DriverLicense_US_VA_ TYPE1 DriverLicense_US_VA_ TYPE2 DriverLicense_US_VA_ TYPE3 DriverLicense_US_VA_ TYPE4 DriverLicense_US_VT_T YPE1 DriverLicense_US_VT_T YPE2 DriverLicense_US_WA_ TYPE1	CDL	Class of CDL License	In the DriverLicense_US_KY_TY PE1, DriverLicense_US_KY_TY PE2 only

Scheme	Field	Field description	Comments
DriverLicense_US_WA_TYPE2 DriverLicense_US_WI_TYPE1 DriverLicense_US_WI_TYPE2 DriverLicense_US_WI_TYPE3 DriverLicense_US_WV_TYPE1 DriverLicense_US_WY_TYPE1	CDLClass	Class of CDL License	In the DriverLicense_US_KS_TY PE1 DriverLicense_US_KS_TY PE5 only
	City	Driver's city of living	
	Class	Vehicle class	Except the DriverLicense_US_FL_TY PE1, DriverLicense_US_KS_TY PE1, DriverLicense_US_KS_TY PE5, DriverLicense_US_NH_TY PE1
	County	Driver's county	In the DriverLicense_US_GA_TY PE3 only
	CSC	License's two-dimensional bar codes	In the DriverLicense_US_GA_TY PE3 only
	DD	License's document discriminator	Except the DriverLicense_US_AZ_TY PE3, DriverLicense_US_CA_TY PE4, DriverLicense_US_CO_TY PE1, DriverLicense_US_CT_TY PE5, DriverLicense_US_DE_TY PE1, DriverLicense_US_FL_TY PE1, DriverLicense_US_HI_TY PE1, DriverLicense_US_HI_TY PE2, DriverLicense_US_ID_TY PE1,

Scheme	Field	Field description	Comments
			<p>DriverLicense_US_IL_TYP E2, DriverLicense_US_IL_TYP E3, DriverLicense_US_IN_TY PE1, DriverLicense_US_IN_TY PE2, DriverLicense_US_IN_TY PE3, DriverLicense_US_KS_TY PE5, DriverLicense_US_LA_TY PE1, DriverLicense_US_LA_TY PE2, DriverLicense_US_LA_TY PE3, DriverLicense_US_MA_T YPE3, DriverLicense_US_MD_T YPE1, DriverLicense_US_MD_T YPE2, DriverLicense_US_ME_T YPE1, DriverLicense_US_MN_T YPE1, DriverLicense_US_MO_T YPE2, DriverLicense_US_MS_T YPE1, DriverLicense_US_MT_T YPE1, DriverLicense_US_NC_T YPE1, DriverLicense_US_ND_T YPE1, DriverLicense_US_NH_T YPE1, DriverLicense_US_NH_T YPE2, DriverLicense_US_NM_T YPE1, DriverLicense_US_NV_T YPE3, DriverLicense_US_NY_T YPE1, DriverLicense_US_NY_T YPE2,</p>

Scheme	Field	Field description	Comments
			DriverLicense_US_NY_T YPE3 DriverLicense_US_NY_T YPE4, DriverLicense_US_OH_T YPE1, DriverLicense_US_OH_T YPE2, DriverLicense_US_OK_T YPE1, DriverLicense_US_OK_T YPE2, DriverLicense_US_OK_T YPE3, DriverLicense_US_OR_T YPE1, DriverLicense_US_PA_TY PE1, DriverLicense_US_PA_TY PE2, DriverLicense_US_RI_TY PE1, DriverLicense_US_SC_TY PE1, DriverLicense_US_SC_TY PE2, DriverLicense_US_SD_TY PE1, DriverLicense_US_TN_T YPE1, DriverLicense_US_VA_TY PE1, DriverLicense_US_VA_TY PE2, DriverLicense_US_VA_TY PE3, DriverLicense_US_VA_TY PE4, DriverLicense_US_VT_TY PE2, DriverLicense_US_WI_TY PE1, DriverLicense_US_WY_T YPE1
	DLCClass	Class of DL License	In the DriverLicense_US_KS_TY PE1

Scheme	Field	Field description	Comments
			DriverLicense_US_KS_TY PE5 only
	Duplicate	License duplicate	In the DriverLicense_US_FL_TY PE1 only
	Endorsement	Driver's endorsement	Except the DriverLicense_US_AZ_TY PE3, DriverLicense_US_CA_TY PE4, DriverLicense_US_IL_TY PE3, DriverLicense_US_LA_TY PE3, DriverLicense_US_MA_T YPE3, DriverLicense_US_MD_T YPE1, DriverLicense_US_MD_T YPE2, DriverLicense_US_MN_T YPE1, DriverLicense_US_NH_T YPE1
	DateOfExpiry	License expiry date	
	Fee	License fee	In the DriverLicense_US_GA_T YPE3 only
	Eyes	Driver's eyes color	Except the DriverLicense_US_FL_TY PE1, DriverLicense_US_FL_TY PE2, DriverLicense_US_GA_T YPE3, DriverLicense_US_MA_T YPE1, DriverLicense_US_MA_T YPE2, DriverLicense_US_MA_T

Scheme	Field	Field description	Comments
			YPE3, DriverLicense_US_MA_T YPE4, DriverLicense_US_MD_T YPE1, DriverLicense_US_MD_T YPE2, DriverLicense_US_MS_T YPE1
	FirstIssue	License's first Issue	In the DriverLicense_US_OR_T YPE1, DriverLicense_US_SD_TY PE1
	Address_FULL	Driver's full address	
	Sex	Driver's sex	
	Hair	Driver's hair color	Except the DriverLicense_US_AR_TY PE2, DriverLicense_US_CO_T YPE1, DriverLicense_US_CT_TY PE3, DriverLicense_US_CT_TY PE4, DriverLicense_US_CT_TY PE5, DriverLicense_US_DC_T YPE1, DriverLicense_US_DC_T YPE2, DriverLicense_US_DE_TY PE1, DriverLicense_US_FL_TY PE1, DriverLicense_US_FL_TY PE2, DriverLicense_US_GA_T YPE1, DriverLicense_US_GA_T YPE2, DriverLicense_US_GA_T

Scheme	Field	Field description	Comments
			<p>YPE3, DriverLicense_US_IA_TY PE1, DriverLicense_US_IA_TY PE2, DriverLicense_US_IA_TY PE3, DriverLicense_US_IL_TYP E1, DriverLicense_US_IL_TYP E2, DriverLicense_US_IL_TYP E3, DriverLicense_US_KS_TY PE1, DriverLicense_US_KS_TY PE2, DriverLicense_US_KS_TY PE3, DriverLicense_US_KS_TY PE4, DriverLicense_US_KS_TY PE5, DriverLicense_US_KY_TY PE1, DriverLicense_US_KY_TY PE2, DriverLicense_US_LA_TY PE1, DriverLicense_US_LA_TY PE2, DriverLicense_US_LA_TY PE3, DriverLicense_US_MA_T YPE1, DriverLicense_US_MA_T YPE2, DriverLicense_US_MA_T YPE3, DriverLicense_US_MA_T YPE4, DriverLicense_US_MD_T YPE1, DriverLicense_US_MD_T YPE2, DriverLicense_US_MI_TY PE1, DriverLicense_US_MI_TY PE2, DriverLicense_US_MI_TY</p>

Scheme	Field	Field description	Comments
			PE3, DriverLicense_US_MN_T YPE1, DriverLicense_US_MO_T YPE1, DriverLicense_US_MO_T YPE2, DriverLicense_US_MS_T YPE1, DriverLicense_US_MS_T YPE2, DriverLicense_US_MT_T YPE1, DriverLicense_US_MT_T YPE2, DriverLicense_US_NJ_TY PE1, DriverLicense_US_NJ_TY PE2, DriverLicense_US_NM_T YPE1, DriverLicense_US_NY_T YPE1, DriverLicense_US_NY_T YPE4, DriverLicense_US_OK_T YPE1, DriverLicense_US_OK_T YPE2, DriverLicense_US_OK_T YPE3, DriverLicense_US_PA_TY PE1, DriverLicense_US_PA_TY PE2, DriverLicense_US_PA_TY PE3, DriverLicense_US_PA_TY PE4, DriverLicense_US_RI_TY PE1, DriverLicense_US_SC_TY PE1, DriverLicense_US_SC_TY PE2, DriverLicense_US_TN_T YPE1, DriverLicense_US_TN_T YPE2, DriverLicense_US_TX_TY

Scheme	Field	Field description	Comments
			PE1, DriverLicense_US_TX_TY PE2, DriverLicense_US_TX_TY PE3, DriverLicense_US_VA_TY PE1, DriverLicense_US_VT_TY PE1, DriverLicense_US_VT_TY PE2, DriverLicense_US_WA_T YPE1, DriverLicense_US_WA_T YPE2, DriverLicense_US_WV_T YPE1, DriverLicense_US_WY_T YPE1
	Height	Driver's height	
	DateOfIssue	License issue date	Except the DriverLicense_US_NH_T YPE1
	MiddleName	Driver's middle name	Except the DriverLicense_US_NY_T YPE4
	FirstName	Driver's first name	Except the DriverLicense_US_DC_T YPE1
	FullName	Driver's full name	In the DriverLicense_US_DC_T YPE1 only
	NameSuffix	Driver's name suffix	
	Number	License number	

Scheme	Field	Field description	Comments
	Office	Office number	In the DriverLicense_US_LA_TY PE1, DriverLicense_US_LA_TY PE2, DriverLicense_US_LA_TY PE3 only
	Parish	Parish number	In the DriverLicense_US_LA_TY PE1, DriverLicense_US_LA_TY PE2, DriverLicense_US_LA_TY PE3 only
	Restriction	Restriction for license	Except the DriverLicense_US_AZ_TY PE3.
	SSN	Social security number	In the DriverLicense_US_NH_T YPE2 only
	State	Driver's state	
	LastName	Driver's last name	
	Transaction	License transaction	In the DriverLicense_US_IN_TY PE1, DriverLicense_US_IN_TY PE2 only
	TransactionNumber	License transaction number	In the DriverLicense_US_IN_TY PE3 only
	DocumentType	Type of issued document	In the DriverLicense_US_CO_T YPE1, DriverLicense_US_CO_T

Scheme	Field	Field description	Comments
			YPE2, DriverLicense_US_CO_T YPE3, DriverLicense_US_GA_T YPE3, DriverLicense_US_IL_TYP E1, DriverLicense_US_IL_TYP E2, DriverLicense_US_IL_TYP E3, DriverLicense_US_KY_TY PE1, DriverLicense_US_KY_TY PE2, DriverLicense_US_LA_TY PE3 DriverLicense_US_MD_T YPE2, DriverLicense_US_ME_T YPE2, DriverLicense_US_ME_T YPE3, DriverLicense_US_MI_TY PE3
	Weight	Driver's weight	Except the DriverLicense_US_AR_TY PE1, DriverLicense_US_AR_TY PE2, DriverLicense_US_CT_TY PE3, DriverLicense_US_CT_TY PE4, DriverLicense_US_CT_TY PE5, DriverLicense_US_FL_TY PE1, DriverLicense_US_FL_TY PE2, DriverLicense_US_IA_TY PE1, DriverLicense_US_IA_TY PE1, DriverLicense_US_IA_TY PE3, DriverLicense_US_KY_TY PE1,

Scheme	Field	Field description	Comments
			DriverLicense_US_KY_TY PE2, DriverLicense_US_MA_T YPE1, DriverLicense_US_MA_T YPE2, DriverLicense_US_MA_T YPE3, DriverLicense_US_MA_T YPE4, DriverLicense_US_MI_TY PE1, DriverLicense_US_MI_TY PE2, DriverLicense_US_MS_T YPE2, DriverLicense_US_NC_T YPE1, DriverLicense_US_NC_T YPE2, DriverLicense_US_NJ_TY PE1, DriverLicense_US_NJ_TY PE2, DriverLicense_US_NY_T YPE1, DriverLicense_US_NY_T YPE4, DriverLicense_US_PA_TY PE1, DriverLicense_US_PA_TY PE2, DriverLicense_US_PA_TY PE3, DriverLicense_US_PA_TY PE4, DriverLicense_US_TN_T YPE1, DriverLicense_US_TN_T YPE2, DriverLicense_US_TX_TY PE1, DriverLicense_US_TX_TY PE2, DriverLicense_US_TX_TY PE3, DriverLicense_US_VA_TY PE1

Scheme	Field	Field description	Comments
	ZIP	ZIP code	
DriverLicense_VN_TYPE1	DateOfBirth	Driver's date of birth	
	Class	Vehicle class	
	FirstName	Driver's first name	
	Nationality	Driver's nationality	
	Number	License number	
GreenCard_US_TYPE1	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	Number	Document number	
	Category	Category of residency	
	DateOfBirth	Document holder's birth date	
	Sex	Document holder's sex	
	DateOfExpiry	Document expiry date	
	ResidentSince	The residency start date	
HealthInsuranceCard_JP	SerialNumber	Insurance number	
	InsuranceType	Insurance type	

Scheme	Field	Field description	Comments
	InsurerNumber	Insurer number	
	OrganizationCode	Insurer code	
HealthInsurance_RU_T YPE1 HealthInsurance_RU_T YPE2 HealthInsurance_RU_T YPE3 HealthInsurance_RU_T YPE4	DateOfBirth	Driver's date of birth	Except the HealthInsurance_RU_TY PE3
	Sex	Document holder's sex	In the HealthInsurance_RU_TY PE1 and HealthInsurance_RU_TY PE2 only
	DateOfIssue	Document issue date	In the HealthInsurance_RU_TY PE1 only
	LastName	Document holder's last name	Except the HealthInsurance_RU_TY PE3
	FirstName	Document holder's first name	Except the HealthInsurance_RU_TY PE3
	MiddleName	Document holder's middle name	In the HealthInsurance_RU_TY PE1 and HealthInsurance_RU_TY PE2 only
	Number	Document number	
IBAN	IBAN	International bank account number	
ID_AE_TYPE1	Number	Document number	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	FullName_LINE2	Additional line for document holder's name	
	Nationality	Document holder's nationality	
ID_AL_TYPE1	IssuedBy	The authority that issued the license	
	DateOfBirth	Document holder's birth date	
	DateOfBirth_MRZ	Document holder's birth date from MRZ	
	PlaceOfBirth	Document holder's birth place	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName	Document holder's first name	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's gender	
	Sex_MRZ	Document holder's from MRZ	

Scheme	Field	Field description	Comments
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	FirstName_MRZ	Document holder's name from MRZ	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's surname	
ID_AM_TYPE1	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
	LastName_EX	Document holder's last name in English	
	FirstName	Document holder's first name	
	FirstName_EX	Document holder's first name in English	
	MiddleName	Document holder's patronymic name	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's date of birth	
	DateOfExpiry	Document expiry date	
	Number	Document number	
ID_AT_TYPE1	Number	Document number	
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's date of birth	
	IssuedBy	The authority that issued the license	

Scheme	Field	Field description	Comments
	DateOfBirth_MRZ	Driver's date of birth from MRZ	
	PlaceOfBirth	Document holder's birth place	
	BackNumber	Document back number	
	DVRNumber	DVR number	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	EyeColor	Document holder's eye color	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Height	Document holder's height	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	

Scheme	Field	Field description	Comments
	MRZ_LINE3	The third line from MRZ	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number_MRZ	Document number from MRZ	
	Residence	Document holder's residence	
ID_BE_TYPE1	Number	Document number	
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	Sex	Document holder's sex	
	Nationality	Nationality of the document holder	
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	
ID_BG_TYPE1 ID_BG_TYPE2 ID_BG_TYPE3	Number	Document number	
	PersonalCode	Document holder's personal code	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	In the ID_BG_TYPE3 scheme only
	MiddleName	Document holder's patronymic name	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's date of birth	
	PlaceOfBirth	Document holder's place of birth	In the ID_BG_TYPE3 scheme only
	Address	Document holder's address	
	DateOfIssue	Document issue date	
	PlaceOfIssue	Region where the document was issued	In the ID_BG_TYPE3 scheme only
	PlaceOfIssue_EN	Region where the document was issued in English	In the ID_BG_TYPE3 scheme only
	DateOfExpiry	Document expiry date	
	City	The city where the document was issued	From the back side; in the ID_BG_TYPE2 scheme only

Scheme	Field	Field description	Comments
	RegionOfResidence	Document holder's region of residence	From the back side
	MunicipalityAndCity	Municipal district and city	From the back side; in the ID_BG_TYPE2 scheme only
	MRZ	Full contents of the machine-readable zone	
	Number_MRZ	Document number from MRZ	
	PersonalCode_MRZ	Document holder's personal code from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	Nationality	Document holder's nationality	In the ID_BG_TYPE3 scheme only
	Nationality_EN	Document holder's nationality in English	In the ID_BG_TYPE3 scheme only
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfBirth_FORMATTED	Formatted document holder's date of birth from MRZ	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	DateOfExpiry_FORMATTED	Formatted document expiry date from MRZ	
	TypeOfPermission	Type of permission	
	TypeOfPermission_EN	Type of permission in English	In the ID_BG_TYPE3 scheme only
ID_BH_TYPE1	Number	Document number	In the ID_BG_TYPE3 scheme only
	FullName	Document holder's full name	
	DateOfExpiry	Document expiry date	
ID_BR_TYPE1 ID_BR_TYPE2	CPF	Document holder's number	
	DispatchDate	Document dispatch date	
	DateOfBirth	Document holder's date of birth	
	DocumentOrigin	Document origin	
	Filiation_LINE1	Filiation first line	
	Filiation_LINE2	Filiation second line	
	Nationality	Document holder's nationality	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	Number_EX	Secondary document number	
	GeneralRegistration	Number of General Registry	
	porto_alegre	Porto Alegre	
ID_CH_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's sex from MRZ	
	Height	Document holder's height	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	FirstName	Document holder's first name	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_BACK	Document back side number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
ID_CL_TYPE1	LastName	Document holder's last name	
	LastName_LINE2	Second line of the Document holder's last name	
	FirstName	Document holder's first name	
	Nationality	Document holder's nationality	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's date of birth	
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	
	Number	Document number	
ID_CY_TYPE1 ID_CY_TYPE2	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	In the ID_CY_TYPE2 scheme only
	PlaceOfBirth	Document holder's place of birth	

Scheme	Field	Field description	Comments
	PlaceOfBirth_GR	Document holder's place of birth in Greek	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	In the ID_CY_TYPE2 scheme only
	FatherFirstName	Document holder's father first name	
	FatherFirstName_GR	Document holder's father first name in Greek	
	FatherLastName	Document holder's father last name	
	FatherLastName_GR	Document holder's father last name in Greek	
	Sex	Document holder's sex	
	Sex_GR	Document holder's sex in Greek	
	MotherFirstName	Document holder's mother first name	
	MotherFirstName_GR	Document holder's mother first name in Greek	
	MotherLastName	Document holder's mother last name	

Scheme	Field	Field description	Comments
	MotherLastName_GR	Document holder's mother last name in Greek	
	FirstName	Document holder's first name	
	FirstName_GR	Document holder's first name in Greek	
	Nationality	Nationality of the document holder	
	Nationality_GR	Nationality of the document holder in Greek	
	Number	Document number	
	LastName	Document holder's last name	
	LastName_GR	Document holder's last name in Greek	
	FirstName_MRZ	Document holder's first name from MRZ	In the ID_CY_TYPE2 scheme only
	MRZ	Full contents of the machine-readable zone	In the ID_CY_TYPE2 scheme only
	Sex_MRZ	Document holder's sex from MRZ	In the ID_CY_TYPE2 scheme only
	Height	Document holder's height	In the ID_CY_TYPE2 scheme only

Scheme	Field	Field description	Comments
	PersonalCode	Document holder's personal code	In the ID_CY_TYPE2 scheme only
	DateOfIssue	Document issue date	In the ID_CY_TYPE2 scheme only
	PlaceOfIssue	Region where the document was issued	In the ID_CY_TYPE2 scheme only
	PlaceOfIssue_GR	Region where the document was issued in Greek	In the ID_CY_TYPE2 scheme only
	LastName_MRZ	Document holder's last name from MRZ	In the ID_CY_TYPE2 scheme only
	MRZ_LINE1	The first line from MRZ	In the ID_CY_TYPE2 scheme only
	MRZ_LINE2	The second line from MRZ	In the ID_CY_TYPE2 scheme only
	MRZ_LINE3	The third line from MRZ	In the ID_CY_TYPE2 scheme only
	Nationality_MRZ	Nationality of the document holder from MRZ	In the ID_CY_TYPE2 scheme only
	Number_MRZ	Document number from MRZ	In the ID_CY_TYPE2 scheme only
ID_CZ_TYPE1 ID_CZ_TYPE2 ID_CZ_TYPE3	Address	Document holder's address	
	IssuedBy	The authority that issued the license	

Scheme	Field	Field description	Comments
	DateOfBirth	Document holder's birth date	
	DateOfBirth_MRZ	Document holder's birth date from MRZ	
	PlaceOfBirth	Document holder's birth place	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	MaritalStatus	Document holder's marital status	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	

Scheme	Field	Field description	Comments
	MRZ_LINE3	The third line from MRZ	In the ID_CZ_TYPE1 scheme only
	FirstName	Document holder's name	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional second line of MRZ	
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's surname	
	LastNameAtBirth	Document holder's surname at birth	Except the ID_CZ_TYPE1 scheme
	Titul	Document titul	Except the ID_CZ_TYPE3 scheme
ID_DE_TYPE1 ID_DE_TYPE2	Number	Document number	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
	LastName_LINE2	Second line of the Document holder's last name	
	FirstName	Document holder's first name	
	DateOfBirth	Document holder's date of birth	
	DateOfBirthAndNationality	Document holder's date of birth and nationality	In the ID_DE_TYPE1 scheme only
	DateOfBirthPlaceOfBirth	Document holder's date and place of birth	In the ID_DE_TYPE2 scheme only
	PlaceOfBirth	Document holder's place of birth	
	Address	Document holder's full address	
	Address_LINE1	Document holder's address	In the ID_DE_TYPE1 scheme only
	Address_LINE2	Document holder's address, continued	In the ID_DE_TYPE1 scheme only
	Address_LINE3	Document holder's address, continued	In the ID_DE_TYPE1 scheme only
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Document holder's nationality from MRZ	

Scheme	Field	Field description	Comments
	Height	Document holder's height	In the ID_DE_TYPE1 scheme only
	EyeColor	Document holder's eye color	In the ID_DE_TYPE1 scheme only
	IssuedBy	The authority that issued the license	In the ID_DE_TYPE1 scheme only
	DateOfIssue	Document issue date	In the ID_DE_TYPE1 scheme only
	DateOfExpiry	Document expiry date	
	RFID	RFID number	In the ID_DE_TYPE1 scheme only
	MRZ	Full contents of the machine-readable zone	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	In the ID_DE_TYPE1 scheme only
	Number_MRZ	Document number from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	

Scheme	Field	Field description	Comments
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
ID_EE_TYPE1 ID_EE_TYPE2	Number	Document number	
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	FirstName_EX	Document holder's first name, continued	
	Sex	Document holder's sex	
	Nationality	Nationality of the document holder	
	DateOfBirth	Document holder's date of birth	
	DateOfExpiry	Document expiry date	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	

Scheme	Field	Field description	Comments
	PlaceOfBirth_EN	Document holder's place of birth in English	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number_MRZ	Document number from MRZ	

Scheme	Field	Field description	Comments
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	
ID_EG_TYPE1	IDCode	Document holder's ID code	
	Number	Document number	
ID_ES_TYPE1 ID_ES_TYPE2	Number	Document number	
	Number_MRZ	Document number from MRZ	
	IssuedBy	The authority that issued the document	
	IDESP	Identity card serial number	
	LastName	Document holder's last name	
	LastName_LINE2	Second line of the Document holder's last name	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	MunicipalityOfBirth	Document holder's municipality of birth	In the ID_ES_TYPE1 scheme only
	ProvinceOfBirth	Document holder's province of birth	
	FirstName	Document holder's first name	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	Nationality	Nationality of the document holder	
	Municipality	Document municipality	
	ProvinceOfIssue	Province of issue	
	Residence	Document holder's residence	
	Nationality_MRZ	Document holder's nationality from MRZ	

Scheme	Field	Field description	Comments
	OptionalData_MRZ_LI NE1	Optional second line of MRZ	
	DateOfBirth	Document holder's date of birth	
	ParentsFirstNames	Document holder's parents' first names	
	DateOfExpiry	Document expiry date	
	RFID	RFID number	In the ID_ES_TYPE2 scheme only
ID_FI_TYPE1 ID_FI_TYPE2	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	
	DateOfBirth	Document holder's date of birth	
	Number	Document number	
	Sex	Document holder's sex	In the ID_FI_TYPE2 scheme only
ID_FR_TYPE1	Number	Document number	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	DateOfBirth	Document holder's date of birth	
	Sex	Document holder's sex	
	MRZ	Full contents of the machine-readable zone	
	FirstName_MRZ	Document holder's first name from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	Number_MRZ	Document number from MRZ	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	OptionalData_MRZ_LI NE1	Optional MRZ line	
	FirstName_0	Document holder's first name	
	FirstName_1	Document holder's first name	
	Address	Document holder's address	

Scheme	Field	Field description	Comments
	Address_0	Document holder's address	
	Address_1	Document holder's address	
	IssuedBy	The authority that issued the license	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	Height	Document holder's height	
	DateOfIssue	Document issue date	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
ID_GE_TYPE1	IssuedBy	The authority that issued the license	
	IssuedBy_EN	The authority that issued the license in English	
	DateOfBirth	Document holder's birth date	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	

Scheme	Field	Field description	Comments
	PlaceOfBirth	Document holder's place of birth	
	PlaceOfBirth_EN	Document holder's place of birth in English	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Driver's sex	
	Sex_EN	Driver's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Document holder's personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName	Document holder's first name	
	FirstName_EX	Document holder's first name in English	

Scheme	Field	Field description	Comments
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	LastName	Document holder's last name	
	LastName_EX	Document holder's last name in English	
ID_HK_TYPE1	Number	Document number	
	Code	Document code	
	FullName	Document holder's full name	
	DateOfBirth	Document holder's birth date	
	DateOfIssue	Document issue date	
ID_HR_TYPE1 ID_HR_TYPE2	LastName	Document holder's last name	
	FirstName	Document holder's first name	

Scheme	Field	Field description	Comments
	DateOfBirth	Document holder's birth date	
	DateOfExpiry	Document expiry date	
	Number	Document number	
	Sex	Document holder's sex	
	Nationality	Nationality of the document holder	
ID_HU_TYPE1 ID_HU_TYPE2	FullName	Document holder's full name	
	Number	Document number	
	DateOfBirth	Document holder's birth date	In ID_HU_TYPE2 scheme only
	DateOfExpiry	Document expiry date	In ID_HU_TYPE2 scheme only
	Sex	Document holder's sex	In ID_HU_TYPE2 scheme only
	CardAccessNumber	Card access number	In ID_HU_TYPE2 scheme only
ID_IL_TYPE1 ID_IL_TYPE2	IssuedBy	The authority that issued the license	In ID_IL_TYPE2 scheme only
	DateOfBirth	Document holder's birth date	
	DateOfBirth_TEXT	Document holder's birth date by text	

Scheme	Field	Field description	Comments
	DateOfExpiry	Document expiry date	In ID_IL_TYPE1 scheme only
	DateOfExpiry_TEXT	Document expiry date by text	In ID_IL_TYPE1 scheme only
	FirstName	Document holder's first name	
	Number	Document number	
	LastName	Document holder's last name	
	PlaceOfBirth	Document holder's place of birth	In ID_IL_TYPE2 scheme only
	Father	Document holder's father's name	In ID_IL_TYPE2 scheme only
	Sex	Document holder's sex	In ID_IL_TYPE2 scheme only
	Mother	Document holder's mother's name	In ID_IL_TYPE2 scheme only
	DateOfIssue	Document issue date	
	DateOfIssue_TEXT	Document issue date by text	
ID_IT_TYPE1 ID_IT_TYPE2 ID_IT_TYPE3	IssuedBy	The authority that issued the license	In ID_IT_TYPE2 scheme only
	Address	Document holder's address	In ID_IT_TYPE1 scheme only

Scheme	Field	Field description	Comments
	DateOfBirth	Document holder's birth date	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	In ID_IT_TYPE2 scheme only
	PlaceOfBirth	Document holder's place of birth	
	Nationality	Nationality of the document holder	
	City	Document holder's city	In ID_IT_TYPE1 scheme only
	Job	Document holder's job	In ID_IT_TYPE1 scheme only
	Residence	Document holder's residence	In ID_IT_TYPE1 scheme only
	MaritalStatus	Document holder's marital status	In ID_IT_TYPE1 scheme only
	LastName	Document holder's last name	
	DateOfExpiry_MRZ	Document expiry date from MRZ	In ID_IT_TYPE2 scheme only
	FirstName_MRZ	Document holder's first name from MRZ	In ID_IT_TYPE2 scheme only
	MRZ	Full contents of the machine-readable zone	In ID_IT_TYPE2 scheme only
	Height	Document holder's height	

Scheme	Field	Field description	Comments
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	In ID_IT_TYPE2 scheme only
	MRZ_LINE2	The second line from MRZ	In ID_IT_TYPE2 scheme only
	MRZ_LINE3	The third line from MRZ	In ID_IT_TYPE2 scheme only
	FirstName	Document holder's first name	
	Nationality_MRZ	Document holder's nationality from MRZ	In ID_IT_TYPE2 scheme only
	Number	Document number	
	Number_MRZ	Document number from MRZ	In ID_IT_TYPE2 scheme only
	Sex	Document holder's sex	In ID_IT_TYPE2 and ID_IT_TYPE3 scheme only
	DateOfExpiry	Document expiry date	In ID_IT_TYPE3 scheme only
	ENumber	Number of identity card	In ID_IT_TYPE3 scheme only
	DateOfIssue	Document issue date	In ID_IT_TYPE3 scheme only
ID_KG_TYPE1 ID_KG_TYPE2	Number	Document number	

Scheme	Field	Field description	Comments
	PersonalCode	Document holder's personal code	
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	In ID_KG_TYPE2 scheme only
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	In ID_KG_TYPE2 scheme only
	MiddleName	Document holder's patronymic name	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	In ID_KG_TYPE2 scheme only
	Nationality	Nationality of the document holder	
	DateOfBirth	Document holder's date of birth	
	PlaceOfBirth	Document holder's place of birth	
	MaritalStatus	Document holder's marital status	In ID_KG_TYPE1 scheme only
	Address	Document holder's address	In ID_KG_TYPE1 scheme only

Scheme	Field	Field description	Comments
	IssuedBy	The authority that issued the document	
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	
	MRZ	Full contents of the machine-readable zone	
	Number_MRZ	Document number from MRZ	
	PersonalCode_MRZ	Document holder's personal code from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	LastName_EN	Document holder's last name in English	
	FirstName_MRZ	Document holder's first name from MRZ	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
ID_KW_TYPE1	DateOfBirth	Document holder's date of birth	

Scheme	Field	Field description	Comments
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	SerialNumber	Document serial number	
	LastName_MRZ	Document holder's last name from MRZ	
	FullName	Document holder's full name	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	Number2_BACK	Document number on back side	

Scheme	Field	Field description	Comments
	Number3_BACK	Document number on back side	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE1	Optional first line of MRZ	
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	
ID_KZ_TYPE1 ID_KZ_TYPE2	The first line from MRZ	The authority that issued the document	
	DateOfIssue	Document issue date	
	Number	Document number	
	PIN	Personal PIN (VIZ)	
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	MiddleName	Document holder's patronymic name	

Scheme	Field	Field description	Comments
	DateOfBirth	Document holder's date of birth	
	DateOfExpiry	Document expiry date	
	PlaceOfBirth	Document holder's place of birth	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	MRZ	Full contents of the machine-readable zone	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	Number_MRZ	Document number from MRZ	
	PIN_MRZ	Personal PIN (VIZ) from MRZ	In the ID_KZ_TYPE2 scheme only
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	Residence	Document holder's residence	
ID_LT_TYPE1 ID_LT_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	

Scheme	Field	Field description	Comments
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_BACK	Document number on the back side	In the ID_LT_TYPE1 scheme only
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	
	PersonalCode	Document holder's personal code	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
	Nationality	Nationality of the document holder	In the ID_LT_TYPE2 scheme only
ID_LV_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	FullName	Document holder's full name	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	

Scheme	Field	Field description	Comments
	Height	Document holder's height	
	PersonalCode	Document holder's personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	
	LastName	Document holder's last name	
	LastName_EX	Document holder's last name in English	

Scheme	Field	Field description	Comments
ID_MY_TYPE1	Number	Document number	
	FullName	Document holder's full name	
	Sex	Document holder's sex	
	Nationality	Nationality of the document holder	
	DateOfBirth	Document holder's date of birth	
	PlaceOfBirth	Document holder's place of birth	
	Confession	Document holder's confession	
	Address_LINE1	Document holder's address	
	Address_LINE2	Document holder's address, continued	
	Address_LINE3	Document holder's address, continued	
	Address_LINE4	Document holder's address, continued	
	Address_LINE5	Document holder's address, continued	
ID_MD_TYPE1 ID_MD_TYPE2 ID_MD_TYPE3	DateOfBirth	Document holder's birth date	

Scheme	Field	Field description	Comments
	DateOfExpiry	Document expiry date	
	Sex	Document holder's sex	
	DateOfIssue	Document issue date	
	FirstName	Document holder's first name	
	Number	Document number	
	LastName	Document holder's last name	
ID_MK_TYPE1 ID_MK_TYPE2	DateOfBirth	Document holder's birth date	
	DateOfExpiry	Document expiry date	
	Sex	Document holder's sex	
	DateOfIssue	Document issue date	
	FirstName	Document holder's first name	
	FirstName_EX	Document holder's first name in English	In the ID_MK_TYPE1 scheme only
	Number	Document number	
	PersonalNumber	Personal number	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
	LastName_EX	Document holder's last name in English	In the ID_MK_TYPE1 scheme only
ID_MX_TYPE3	Address	Document holder's address	
	YearOfExpiry	Document expiry year	
	Sex	Document holder's sex	
	YearOfIssue	Document issue year	
	FirstName	Document holder's first name	
	Number	Document number	
ID_NG_TYPE1	FirstName	Document holder's first name	
	LastName	Document holder's last name	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's birth date	
	Height	Document holder's height	
	MiddleName	Document holder's middle name	
ID_NO_TYPE1	FirstName	Document holder's first name	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
	Sex	Document holder's sex	
	Number	Document number	
	DateOfBirth	Document holder's birth date	
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	
	IssuedBy	The authority that issued the document	
	PersonalNumber	Personal number	
ID_PL_TYPE1 ID_PL_TYPE2 ID_PL_TYPE3	IssuedBy	The authority that issued the document	
	Number	Document number	
	PersonalNumber	PESEL number from the back side	In the ID_PL_TYPE1 and ID_PL_TYPE2 scheme only
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	FamilyName	Document holder's family name (last name at birth)	Except the ID_PL_TYPE3 scheme

Scheme	Field	Field description	Comments
	ParentsFirstNames	First names of document holder's parents	Except the ID_PL_TYPE3 scheme
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfBirth	Document holder's date of birth	
	DateOfExpiry	Document expiry date	
	DateOfIssue	Document issue date	Except the ID_PL_TYPE3 scheme
	MRZ	Full contents of the machine-readable zone	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	Number_MRZ	Document number from MRZ	Except the ID_PL_TYPE1 scheme
	Eyes	Document holder's eye color	In the ID_PL_TYPE1 scheme only
	Height	Document holder's height	In the ID_PL_TYPE1 scheme only

Scheme	Field	Field description	Comments
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	Nationality	Document holder's nationality	In the ID_PL_TYPE2 and ID_PL_TYPE3 scheme only
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number_MRZ	Document number from MRZ	In the ID_PL_TYPE1 scheme only
	PlaceOfBirth	Document holder's place of birth	
	Residence	Document holder's residence	In the ID_PL_TYPE1 scheme only
	YearOfExpiry	Document expiry year	In the ID_PL_TYPE1 scheme only
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	Except the ID_PL_TYPE1 scheme
ID_PT_TYPE1	Number	Document number	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's date of birth	
	DateOfExpiry	Document expiry date	
ID_PY_TYPE1 ID_PY_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	MaritalStatus	Document holder's marital status	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Document holder's personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName	Document holder's first name	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	
	LastName	Document holder's last name	
ID_RO_TYPE1	Address	Document holder's address	
	Address_LINE2	Second line for document holder's address	

Scheme	Field	Field description	Comments
	CNPNumber	CNP Number	
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	MRZ	Full contents of the machine-readable zone	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	Number_MRZ	Document number from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	Nationality_MRZ	Document holder's nationality from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	

Scheme	Field	Field description	Comments
ID_RS_TYPE1	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	DateOfBirth	Document holder's birth date	
	Sex	Document holder's sex	
	Number	Document number	
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	
ID_RU_MILITARY_TYPE1 ID_RU_MILITARY_TYPE2 ID_RU_MILITARY_TYPE3 ID_RU_MILITARY_TYPE4 ID_RU_POLICE_TYPE1 ID_RU_PROSECUTOR_TYPE1 ID_RU_PROSECUTOR_TYPE2 ID_RU_SOLDIER_TYPE1	Number	Document number	
	DateOfExpiry	Document expiry date	In the ID_RU_POLICE_TYPE1 only
	DateOfIssue	Document issue date	In the ID_RU_POLICE_TYPE1 only
	FirstName	Document holder's first name	In the ID_RU_POLICE_TYPE1, ID_RU_PROSECUTOR_TYPE1, ID_RU_PROSECUTOR_TYPE2, ID_RU_SOLDIER_TYPE1
	Number	Document number	

Scheme	Field	Field description	Comments
	MiddleName	Document holder's middle name	In the ID_RU_POLICE_TYPE1, ID_RU_PROSECUTOR_TYPE1, ID_RU_PROSECUTOR_TYPE2, ID_RU_SOLDIER_TYPE1
	PersonalNumber	Document holder's personal number	In the ID_RU_POLICE_TYPE1
	Post	Post	In the ID_RU_POLICE_TYPE1
	Post_LINE1	Post line 1	In the ID_RU_POLICE_TYPE1
	Post_LINE2	Post line 1	In the ID_RU_POLICE_TYPE1
	Rank	Document holder's rank	In the ID_RU_POLICE_TYPE1, ID_RU_PROSECUTOR_TYPE1, ID_RU_PROSECUTOR_TYPE2, ID_RU_SOLDIER_TYPE1
	Series	Document series	In the ID_RU_POLICE_TYPE1, ID_RU_PROSECUTOR_TYPE1, ID_RU_PROSECUTOR_TYPE2, ID_RU_SOLDIER_TYPE1
	LastName	Document holder's last name	In the ID_RU_POLICE_TYPE1, ID_RU_PROSECUTOR_TYPE1, ID_RU_PROSECUTOR_TYPE2, ID_RU_SOLDIER_TYPE1

Scheme	Field	Field description	Comments
ID_SG_TYPE1	Number	Document number	
	FullName	Document holder's full name	
	FullName_EX	Document holder's full name, continued	
	FullName_EX2	Document holder's full name, continued	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's date of birth	
	CountryOfBirth	Document holder's country of birth	
	Nationality	Nationality of the document holder	
ID_SI_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	

Scheme	Field	Field description	Comments
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Document holder's personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	MRZ_LINE3	The third line from MRZ	
	FirstName	Document holder's first name	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	

Scheme	Field	Field description	Comments
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	Residence	Document holder's residence	
	LastName	Document holder's last name	
ID_SK_TYPE1 ID_SK_TYPE2	Address	Document holder's address	
	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	In the ID_SK_TYPE1 only
	PlaceOfBirth	Document holder's birth place	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	In the ID_SK_TYPE1 only
	FirstName_MRZ	Document holder's first name from MRZ	In the ID_SK_TYPE1 only
	LastName_1	Document holder's first surname	

Scheme	Field	Field description	Comments
	MRZ	Full contents of the machine-readable zone	In the ID_SK_TYPE1 only
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	In the ID_SK_TYPE1 only
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	In the ID_SK_TYPE1 only
	FirstName	Document holder's first name	
	Nationality	Document holder's nationality	In the ID_SK_TYPE1 only
	Nationality_MRZ	Document holder's nationality from MRZ	In the ID_SK_TYPE1 only
	Number	Document number	
	Number_MRZ	Document number from MRZ	In the ID_SK_TYPE1 only
	OptionalData_MRZ_LI NE2	Optional MRZ line	In the ID_SK_TYPE1 only
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
ID_SV_TYPE1	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	Number	Document number	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's birth date	
ID_TR_TYPE1 ID_TR_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	In the ID_TR_TYPE1 only
	DateOfExpiry	Document expiry date	In the ID_TR_TYPE1 only
	DateOfExpiry_MRZ	Document expiry date from MRZ	In the ID_TR_TYPE1 only
	Father	Document holder's father	
	Mother	Document holder's mother	
	FirstName	Document holder's first name	

Scheme	Field	Field description	Comments
	FirstName_MRZ	Document holder's first name from MRZ	In the ID_TR_TYPE1 only
	MRZ	Full contents of the machine-readable zone	In the ID_TR_TYPE1 only
	Sex	Document holder's sex	In the ID_TR_TYPE1 only
	Sex_EN	Document holder's sex in English	In the ID_TR_TYPE1 only
	Sex_MRZ	Document holder's sex from MRZ	In the ID_TR_TYPE1 only
	PersonalCode	Document holder's personal code	
	LastName	Document holder's last name	
	LastName_MRZ	Document holder's last name from MRZ	In the ID_TR_TYPE1 only
	LastName_LAST	Document holder's latest last name	In the ID_TR_TYPE2 only
	Nationality	Document holder's nationality	In the ID_TR_TYPE1 only
	Nationality_EN	Document holder's nationality in English	In the ID_TR_TYPE1 only
	Nationality_MRZ	Document holder's nationality from MRZ	In the ID_TR_TYPE1 only
	Number	Document number	

Scheme	Field	Field description	Comments
	Number_MRZ	Document number from MRZ	In the ID_TR_TYPE1 only
	Number_1	First extra line for document number	In the ID_TR_TYPE2 only
	Number_EX	Extra line for document number	In the ID_TR_TYPE2 only
	Number_3	Third extra line for document number	In the ID_TR_TYPE2 only
	OptionalData_MRZ_LI NE1	Optional line of MRZ	In the ID_TR_TYPE1 only
	PlaceOfBirth	Document holder's place of birth	In the ID_TR_TYPE2 only
	District	Document holder's district	In the ID_TR_TYPE2 only
	Locality	Document holder's locality	In the ID_TR_TYPE2 only
	ProvinceOfIssue	Province where the document was issued	In the ID_TR_TYPE2 only
	MaritalStatus	Document holder's marital status	In the ID_TR_TYPE2 only
	DateOfIssue	Document issue date	In the ID_TR_TYPE2 only
	IssueNumber	Document issue number	In the ID_TR_TYPE2 only
	ReasonOfIssue	Reason of issue	In the ID_TR_TYPE2 only

Scheme	Field	Field description	Comments
	Religion	Document holder's religion	In the ID_TR_TYPE2 only
	Series	Document series	In the ID_TR_TYPE2 only
ID_UA_TYPE1	DateOfBirth	Document holder's date of birth	
	DateOfExpiry	Document expiry date	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	
	Number	Document number	
	MiddleName	Document holder's middle name	
	RecordNumber	Record number	
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name	
ID_ZA_TYPE1	LastName	Document holder's last name in English	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	DateOfBirth	Document holder's birth date	
	Sex	Document holder's sex	
	Number	Document number	
	Nationality	Document holder's nationality	
INN_RU_CITIZEN_TYPE 1 INN_RU_CITIZEN_TYPE 2 INN_RU_CITIZEN_TYPE 3 INN_RU_CITIZEN_TYPE 4 INN_RU_ENTITY_TYPE 1 INN_RU_ENTITY_TYPE 2	FullName	Document holder's full name	In the INN_RU_CITIZEN_TYPE1, INN_RU_CITIZEN_TYPE2, INN_RU_CITIZEN_TYPE3, INN_RU_CITIZEN_TYPE4
	PIN	Document holder's PIN	
	FirstName	Document holder's first name	In the INN_RU_CITIZEN_TYPE1, INN_RU_CITIZEN_TYPE2, INN_RU_CITIZEN_TYPE3, INN_RU_CITIZEN_TYPE4
	Number	Document number	In the INN_RU_CITIZEN_TYPE1, INN_RU_CITIZEN_TYPE2, INN_RU_CITIZEN_TYPE3, INN_RU_ENTITY_TYPE1, INN_RU_ENTITY_TYPE2
	MiddleName	Document holder's middle name	In the INN_RU_CITIZEN_TYPE1, INN_RU_CITIZEN_TYPE2, INN_RU_CITIZEN_TYPE3,

Scheme	Field	Field description	Comments
			INN_RU_CITIZEN_TYPE4
	Series	Document series	In the INN_RU_CITIZEN_TYPE1, INN_RU_CITIZEN_TYPE2, INN_RU_CITIZEN_TYPE3, INN_RU_ENTITY_TYPE1, INN_RU_ENTITY_TYPE2
	LastName	Document holder's last name	In the INN_RU_CITIZEN_TYPE1, INN_RU_CITIZEN_TYPE2, INN_RU_CITIZEN_TYPE3, INN_RU_CITIZEN_TYPE4
	KPP	Document holder's KPP	In the INN_RU_ENTITY_TYPE1, INN_RU_ENTITY_TYPE2
	OGRN	Document holder's OGRN	In the INN_RU_ENTITY_TYPE1, INN_RU_ENTITY_TYPE2
InternationalPassport_AL_TYPE1 InternationalPassport_AL_TYPE2	IssuedBy	The authority that issued the license	
	DateOfBirth	Document holder's birth date	
	DateOfBirth_MRZ	Document holder's birth date from MRZ	
	PlaceOfBirth	Document holder's birth place	
	DateOfExpiry	Document expiry date	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	Eyes	Document holder's eyes color	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex_EN	Document holder's gender in English	In the InternationalPassport_A L_TYPE1 only
	Sex_MRZ	Document holder's from MRZ	
	Height	Document holder's height	In the InternationalPassport_A L_TYPE2 only
	PersonalCode	Document holder's personal code	In the InternationalPassport_A L_TYPE2 only
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	

Scheme	Field	Field description	Comments
	FirstName	Document holder's name	
	Nationality	Document holder's nationality	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's surname	
InternationalPassport_AM_TYPE1 InternationalPassport_AM_TYPE2 InternationalPassport_AM_TYPE3	IssuedBy	The authority that issued the license	In the InternationalPassport_AM_TYPE3 scheme only
	DateOfBirth	Document holder's birth date	
	DateOfBirth_MRZ	Document holder's birth date from MRZ	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's name from MRZ	

Scheme	Field	Field description	Comments
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's gender	
	Sex_MRZ	Document holder's from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
	PlaceOfBirth	Document holder's place of birth	In the InternationalPassport_A M_TYPE3 scheme only

Scheme	Field	Field description	Comments
	Field_4	Document forth field	In the InternationalPassport_A M_TYPE3 scheme only
	PersonalCode	Document holder's personal code	In the InternationalPassport_A M_TYPE3 scheme only
InternationalPassport_AT	IssuedBy	The authority that issued the license	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DVRNumber	DVR number	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's from MRZ	

Scheme	Field	Field description	Comments
	Height	Document holder's height	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_BR_TYPE1 InternationalPassport_BR_TYPE2	IssuedBy	The authority that issued the license	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's birth date from MRZ	

Scheme	Field	Field description	Comments
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex_EN	Document holder's gender in English	
	Sex_MRZ	Document holder's from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	

Scheme	Field	Field description	Comments
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_CA_TYPE1 InternationalPassport_CA_TYPE2	IssuedBy	The authority that issued the license	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's birth date from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's last name	
InternationalPassport_CN_TYPE1 InternationalPassport_	DateOfBirth	Document holder's date of birth	

Scheme	Field	Field description	Comments
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	PlaceOfIssue	Region where the document was issued	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	

Scheme	Field	Field description	Comments
	FirstName_CN	Document holder's first name in chinese	In the InternationalPassport_CN_TYPE1 scheme only
	Nationality	Nationality of the document holder	In the InternationalPassport_CN_TYPE3 scheme only
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	Optional_MRZ_LINE2	Optional second line of MRZ	
	LastName	Document holder's last name	In the InternationalPassport_CN_TYPE1 scheme only
	LastName_CN	Document holder's last name in chinese	In the InternationalPassport_CN_TYPE1 scheme only
	LastNameFirstName_CN	Document holder's last name and first name in chinese	In the InternationalPassport_CN_TYPE3 scheme only
InternationalPassport_CZ_TYPE1	IssuedBy	The authority that issued the license	
	IssuedBy_EN	The authority that issued the license in English	

Scheme	Field	Field description	Comments
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	PlaceOfBirth_EN	Document holder's place of birth in English	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	FirstName_EN	Document holder's first name in English	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Document holder's personal code	
	DateOfIssue	Document issue date	

Scheme	Field	Field description	Comments
	LastName_MRZ	Document holder's last name from MRZ	
	LastName_EN	Document holder's last name in English	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_EN	Nationality of the document holder in English	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	LastName	Document holder's last name	
InternationalPassport_DE_TYPE1 InternationalPassport_DE_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	

Scheme	Field	Field description	Comments
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	

Scheme	Field	Field description	Comments
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
	LastName_LINE2	Second line of the document holder's last name	
InternationalPassport_DZ_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	

Scheme	Field	Field description	Comments
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	FirstNameMiddleName	Document holder's first name and middle name	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	MiddleName	Document holder's patronymic name	
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's last name	
InternationalPassport_EE_TYPE1	IssuedBy	The authority that issued the license	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	

Scheme	Field	Field description	Comments
	PlaceOfBirth_EN	Document holder's place of birth in English	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	

Scheme	Field	Field description	Comments
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's last name	
InternationalPassport_ES_TYPE1 InternationalPassport_ES_TYPE2	IssuedBy	The authority that issued the license	In the InternationalPassport_ES_TYPE1 scheme only
	DateOfBirth	Document holder's date of birth	In the InternationalPassport_ES_TYPE1 scheme only
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	In the InternationalPassport_ES_TYPE1 scheme only
	DateOfExpiry	Document expiry date	In the InternationalPassport_ES_TYPE1 scheme only
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	

Scheme	Field	Field description	Comments
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	In the InternationalPassport_E S_TYPE1 scheme only
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Document holder's personal code	In the InternationalPassport_E S_TYPE1 scheme only
	DateOfIssue	Document issue date	In the InternationalPassport_E S_TYPE1 scheme only
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	In the InternationalPassport_E S_TYPE1 scheme only
	Nationality	Nationality of the document holder	In the InternationalPassport_E S_TYPE1 scheme only
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	In the InternationalPassport_E

Scheme	Field	Field description	Comments
			S_TYPE1 scheme only
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional second line of MRZ	
	RFID	Number of RFID chip	In the InternationalPassport_E S_TYPE1 scheme only
	LastName	Document holder's last name	In the InternationalPassport_E S_TYPE1 scheme only
InternationalPassport_ FR_TYPE1 InternationalPassport_ FR_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	EyeColor	Document holder's eyes color	
	FirstName_MRZ	Document holder's first name from MRZ	

Scheme	Field	Field description	Comments
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	Height	Document holder's height	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
	Residence	Document holder's residence	In theInternationalPasspor

Scheme	Field	Field description	Comments
			t_FR_TYPE2 scheme only
InternationalPassport_ GE_TYPE1 InternationalPassport_ GE_TYPE2 InternationalPassport_ GE_TYPE3	IssuedBy	The authority that issued the license	
	IssuedBy_EN	The authority that issued the license in English	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	PlaceOfBirth_EN	Document holder's place of birth in English	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Document holder's personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	In the InternationalPassport_GE_TYPE1,InternationalPassport_GE_TYPE3
	MRZ_LINE2	The second line from MRZ	In the InternationalPassport_GE_TYPE1,InternationalPassport_GE_TYPE3
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	
InternationalPassport_GR_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	Height	Document holder's height	

Scheme	Field	Field description	Comments
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_ HR_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	

Scheme	Field	Field description	Comments
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
InternationalPassport_ HU_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	NameAtBirth	Document holder's name at birth	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_IL_TYPE1 InternationalPassport_IL_TYPE2	IssuedBy	The authority that issued the document	
	IssuedBy_EN	The authority that issued the document in English	In the InternationalPassport_IL_TYPE2 only
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	PlaceOfBirth_EN	Document holder's place of birth in English	
	Nationality	Document holder's citizenship	
	DateOfExpiry	Document expiry date	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line from MRZ	
	MRZ_LINE2	The second line from MRZ	
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	

Scheme	Field	Field description	Comments
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	PersonalNumber	Document holder's personal number	
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	
InternationalPassport_IN	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	PlaceOfIssue	The region where the document was issued	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_IT	DateOfBirth	Document holder's date of birth	

Scheme	Field	Field description	Comments
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	

Scheme	Field	Field description	Comments
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_JP	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	

Scheme	Field	Field description	Comments
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_KG_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	

Scheme	Field	Field description	Comments
	PlaceOfBirth	Document holder's place of birth	
	Nationality	Nationality of the document holder	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName	Document holder's first name	
	Number	Document number	
	Number_MRZ	Document number from MRZ	

Scheme	Field	Field description	Comments
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	LastName	Document holder's last name	
InternationalPassport_KZ_TYPE1 InternationalPassport_KZ_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	In the InternationalPassport_KZ_TYPE1 scheme only

Scheme	Field	Field description	Comments
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	In the InternationalPassport_K Z_TYPE1 scheme only
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	In the InternationalPassport_K Z_TYPE1 scheme only

Scheme	Field	Field description	Comments
InternationalPassport_LT_TYPE1 InternationalPassport_LT_TYPE2 InternationalPassport_LT_TYPE3	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	Except the InternationalPassport_LT_TYPE3 scheme only
	Sex_EN	Document holder's sex in English	Except the InternationalPassport_LT_TYPE3 scheme only
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	Except the InternationalPassport_LT_TYPE3 scheme only

Scheme	Field	Field description	Comments
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	
	LastName	Document holder's last name	
InternationalPassport_LV_TYPE1 InternationalPassport_LV_TYPE2 InternationalPassport_LV_TYPE3 InternationalPassport_LV_TYPE4	IssuedBy	The authority that issued the document	

Scheme	Field	Field description	Comments
InternationalPassport_LV_TYPE5	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	
	Height	Document holder's height	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	

Scheme	Field	Field description	Comments
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
	DocumentType	Document type	
InternationalPassport_MD_TYPE1 InternationalPassport_MD_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
InternationalPassport_MK_TYPE1 InternationalPassport_MK_TYPE2	IssuedBy	The authority that issued the document	
	IssuedBy_AL	The authority that issued the document in Albanian	
	IssuedBy_EN	The authority that issued the document in English	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	PlaceOfBirth_AL	Document holder's place of birth in Albanian	
	PlaceOfBirth_EN	Document holder's place of birth in English	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	

Scheme	Field	Field description	Comments
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	FirstName_AL	Document holder's first name in Albanian	
	FirstName_EN	Document holder's first name in English	
	Nationality	Nationality of the document holder	
	Nationality_AL	Nationality of the document holder in Albanian	
	Nationality_EN	Nationality of the document holder in	

Scheme	Field	Field description	Comments
		English	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	LastName	Document holder's last name	
	LastName_AL	Document holder's last name in Albanian	
	LastName_EN	Document holder's last name in English	
InternationalPassport_PL_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	PersonalNumber	Personal number	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
InternationalPassport_PH_TYPE1 InternationalPassport_PH_TYPE2	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MiddleName	Document holder's patronymic name	

Scheme	Field	Field description	Comments
	MRZ_LINE1	The first line of MRZ	In the InternationalPassport_P H_TYPE1 only
	MRZ_LINE2	The second line of MRZ	In the InternationalPassport_P H_TYPE1 only
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	In the InternationalPassport_P H_TYPE2 only
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	
	LastName	Document holder's last name	
InternationalPassport_RU	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	

Scheme	Field	Field description	Comments
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	

Scheme	Field	Field description	Comments
	Number_MRZ	Document number from MRZ	
	MiddleName	Document holder's patronymic name	
	LastName	Document holder's last name	
InternationalPassport_SE_TYPE1 InternationalPassport_SE_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's sex from MRZ	
	Height	Document holder's height	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
InternationalPassport_SI_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	

Scheme	Field	Field description	Comments
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_SK_TYPE2 InternationalPassport_SK_TYPE3	IssuedBy	The authority that issued the document	
	IssuedBy_MRZ	The authority that issued the document from MRZ	
	IssuedBy_EN	The authority that issued the document in English	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	

Scheme	Field	Field description	Comments
	PlaceOfBirth_EN	Document holder's place of birth in English	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	FirstName_EN	Document holder's first name in English	
	MRZ	Full contents of the machine-readable zone	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	

Scheme	Field	Field description	Comments
	LastName_EN	Document holder's last name in English	
	DocumentType_MRZ	Document type from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Nationality_EN	Nationality of the document holder in English	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_SY	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry_MRZ	Document expiry date from MRZ	

Scheme	Field	Field description	Comments
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex_MRZ	Document holder's sex from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	
InternationalPassport_TJ_TYPE1 InternationalPassport_TJ_TYPE2	IssuedBy	The authority that issued the document	In the InternationalPassport_TJ_TYPE1 only
	IssuedBy_EN	The authority that issued the document in English	
	DateOfBirth	Document holder's birth date	

Scheme	Field	Field description	Comments
	DateOfBirth_MRZ	Document holder's birth date from MRZ	
	PlaceOfBirth	Document holder's place of birth	In the InternationalPassport_T J_TYPE1 only
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	In the InternationalPassport_T J_TYPE1 only
	Sex_EN	Document holder's sex in English	In the InternationalPassport_T J_TYPE2 only
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	
	Nationality	Document holder's nationality	
	Nationality_EN	Nationality of the document holder in English	In the InternationalPassport_T J_TYPE2 only
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	MiddleName	Document holder's middle name	In the InternationalPassport_T J_TYPE2 only
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	
InternationalPassport_TR_TYPE1	IssuedBy	The authority that issued the document	

Scheme	Field	Field description	Comments
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName	Document holder's first name	

Scheme	Field	Field description	Comments
	Nationality	Document holder's nationality	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	LastName	Document holder's last name	
InternationalPassport_UA_TYPE1 InternationalPassport_UA_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	In the InternationalPassport_UA_TYPE1 only
	PlaceOfBirth	Document holder's place of birth	
	PlaceOfBirth_EN	Document holder's place of birth in English	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	In the InternationalPassport_UA_TYPE1 only
	FirstName_MRZ	Document holder's first name from MRZ	In the InternationalPassport_UA_TYPE1 only

Scheme	Field	Field description	Comments
			A_TYPE1 only
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	In the InternationalPassport_U A_TYPE1 only
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	In the InternationalPassport_U A_TYPE1 only
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	
	Nationality	Document holder's nationality	In the InternationalPassport_U A_TYPE1 only
	Nationality_MRZ	Document holder's nationality from MRZ	In the InternationalPassport_U A_TYPE1 only
	Number	Document number	

Scheme	Field	Field description	Comments
	Number_MRZ	Document number from MRZ	In the InternationalPassport_UA_TYPE1 only
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	
InternationalPassport_UK_TYPE1 InternationalPassport_UK_TYPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	

Scheme	Field	Field description	Comments
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
InternationalPassport_US_TYPE1 InternationalPassport_US_TYPE2	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	In the InternationalPassport_US_TYPE2 only

Scheme	Field	Field description	Comments
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	

Scheme	Field	Field description	Comments
	Optional_MRZ_LINE2	Optional second line of MRZ	In the InternationalPassport_US_TYPE2 only
	LastName	Document holder's last name	
InternationalPassport_UY_TYPE1 InternationalPassport_UY_TYPE2	Address	Document holder's address	In the InternationalPassport_UY_TYPE1 only
	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	Code	Document code	In the InternationalPassport_UY_TYPE1 only
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	

Scheme	Field	Field description	Comments
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Personal code	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	LastName	Document holder's last name	
	DocumentType	Document type	In the InternationalPassport_UY_TYPE1 only

Scheme	Field	Field description	Comments
InternationalPassport_UZ_TYPE1 InternationalPassport_UZ_TYPE2	IssuedBy	The authority that issued the document	In the InternationalPassport_UZ_TYPE1 only
	IssuedBy_EN	The authority that issued the document in English	
	DateOfBirth	Document holder's birth date	
	DateOfBirth_MRZ	Document holder's birth date from MRZ	
	PlaceOfBirth	Document holder's place of birth	In the InternationalPassport_UZ_TYPE1 only
	PlaceOfBirth_EN	Document holder's place of birth in English	
	Nationality	Document holder's nationality	In the InternationalPassport_UZ_TYPE1 only
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	In the InternationalPassport_UZ_TYPE1 only

Scheme	Field	Field description	Comments
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	
	Nationality_EN	Document holder's nationality in English	
	Nationality_MRZ	Document holder's nationality from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	In the InternationalPassport_U Z_TYPE1 only

Scheme	Field	Field description	Comments
	MiddleName	Document holder's middle name	In the InternationalPassport_UZ_TYPE1 only
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	
MarriageCertificate_RU_TYPE1	DateOfBirth_1	Birth date of partner 1	
	DateOfBirth_2	Birth date of partner 2	
	PlaceOfBirth_1	Birth place of partner 1	
	PlaceOfBirth_2	Birth place of partner 2	
	FullNumber	Document full number	
	HusbandLastName	Last name of husband	
	DateOfIssue	Document issue date	
	DateOfMarriage	Date of marriage	
	FirstName_1	First name of partner 1	
	FirstName_2	First name of partner 2	
	Number	Document number	
	MiddleName_1	Middle name of partner 1	

Scheme	Field	Field description	Comments
	MiddleName_2	Middle name of partner 2	
	Series	Document series	
	LastName_1	Last name of partner 1	
	LastName_2	Last name of partner 2	
	WifeLastName	Last name of wife	
MigrationCard_RU_TY PE1	DateOfBirth	Document holder's date of birth	
	FirstName	Document holder's first name	
	PersonalCode	Personal code	
	Number	Document number	
	Series	Document series	
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name-EN	
MRZ	Number	Document number	
	DocumentType	Document type	
	DocumentSubtype	Document subtype	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	DateOfBirth	Document holder's date of birth	
	Sex	Document holder's sex	
	Nationality	Nationality of the document holder	
	PersonalNumber	Document holder's personal number	
	IssuingCountry	The country where the document was issued	
	DateOfExpiry	Document expiry date	
	OptionalData	Optional MRZ data	
MRZ_CH_DRIVERLICE NSE MRZ_FR_ID MRZ_MRP MRZ_MRV_A MRZ_MRV_B MRZ_RU_VISA MRZ_TD1 MRZ_TD2	MRZ	Full contents of the MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	MRZ_LINE3	The third line of MRZ	In the MRZ_TD1 and MRZ_CH_DRIVERLICENS E schemes only
	Number_MRZ	Document number from MRZ	

Scheme	Field	Field description	Comments
	DocumentType_MRZ	Document type from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	Sex_MRZ	Document holder's sex from MRZ	
	Nationality_MRZ	Nationality of the document holder from MRZ	Except the MRZ_FR_ID scheme
	DateOfIssue_MRZ	Document issue date from MRZ	In the MRZ_RU_VISA, MRZ_RU_VISA and MRZ_FR_ID schemes
	PersonalCode_MRZ	Document's PersonalCode from MRZ	In the MRZ_RU_VISA scheme only
	IDVisa_MRZ	Visa ID from MRZ	In the MRZ_RU_VISA scheme only
	InvitationNumber_MRZ	Number of invitation from MRZ	In the MRZ_RU_VISA scheme only
	DateOfExpiry_MRZ	Document expiry date from MRZ	Except the MRZ_CH_DRIVERLICENSE and MRZ_RU_PASSPORT schemes

Scheme	Field	Field description	Comments
	IssuedBy_MRZ	Issuer of the document from MRZ	
	OptionalData_MRZ_LI NE1	Optional MRZ line	In the MRZ_CH_DRIVERLICENSE, MRZ_FR_ID, MRZ_RU_VISA and MRZ_TD1 schemes
	OptionalData_MRZ_LI NE2	Optional MRZ line	Except MRZ_FR_ID scheme
	VehicleNumber_MRZ	Vehicle's number from MRZ	In MRZ_CH_DRIVERLICENSE scheme only
MRZ_RU_PASSPORT	DepartmentCode_MRZ	Code of the authority that issued the document from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DocumentType_MRZ	Document type from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the MRZ	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue_MRZ	Document issue date from MRZ	

Scheme	Field	Field description	Comments
	IssuedBy_MRZ	Document's issuer from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	
MRZ_BG_VEHICLEREGISTRATION	MRZ	Full contents of the MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	MRZ_LINE3	The third line of MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry_MRZ	Document's expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue_MRZ	Date of document's issue from MRZ	
	LastName_MRZ	Document holder's last name from MRZ	
	Nationality_MRZ	Nationality from MRZ	
	Number_MRZ	Document number from MRZ	
	DocumentType_MRZ	Document type from MRZ	
	IssuedBy_MRZ	Issuer of the document from	
	VehicleNumber_MRZ	Vehicle license number from MRZ	
	VIN_MRZ	Vehicle identification number (VIN) from MRZ	
	OptionalData_MRZ_LI NE1	Optional MRZ line	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
Passport_BY_TYPE1 Passport_BY_PAGE31_TYPE1 Passport_BY_PAGE31_	Number	Document number	In the Passport_BY_TYPE1 scheme only

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	MiddleName	Document holder's middle name	Except the Passport_BY_TYPE1 scheme
	PersonalCode	Document's personal code	
	IssuedBy	Document's issuer	
	IssuedBy_RU	Document's issuer in Russian language	In the Passport_BY_PAGE31_TYPE2 scheme only
	Sex	Document holder's sex	In the Passport_BY_TYPE1 scheme only
	DateOfBirth	Document holder's date of birth	
	PlaceOfBirth	Document holder's place of birth	
	PlaceOfBirth_RU	Document holder's place of birth in Russian language	Except the Passport_BY_TYPE1 scheme
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	

Scheme	Field	Field description	Comments
	Nationality	Nationality of the document holder from MRZ	In the Passport_BY_TYPE1 scheme only
	MRZ	Full contents of the machine-readable zone	In the Passport_BY_TYPE1 scheme only
	Number_MRZ	Document number from MRZ	In the Passport_BY_TYPE1 scheme only
	LastName_MRZ	Document holder's last name from MRZ	In the Passport_BY_TYPE1 scheme only
	FirstName_MRZ	Document holder's first name from MRZ	In the Passport_BY_TYPE1 scheme only
	Sex_MRZ	Document holder's sex from MRZ	In the Passport_BY_TYPE1 scheme only
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	In the Passport_BY_TYPE1 scheme only
	DateOfExpiry_MRZ	Document expiry date from MRZ	In the Passport_BY_TYPE1 scheme only
	OptionalData_MRZ_LI NE2	MRZ optional line	In the Passport_BY_TYPE1 scheme only
Passport_RU	Series	Document series	
	Number	Document number	

Scheme	Field	Field description	Comments
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	MiddleName	Document holder's patronymic name	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's date of birth	
	PlaceOfBirth	Document holder's place of birth	
	IssuedBy	The authority that issued the document	
	DepartmentCode	The code of the authority that issued the document	
	DateOfIssue	Document issue date	
	MRZ	Full contents of the machine-readable zone	
	DateOfBirth_MRZ	Date of birth from MRZ	
	DateOfIssue_MRZ	Date of issue from MRZ	
	DepartmentCode_MRZ	Department code from MRZ	

Scheme	Field	Field description	Comments
	Sex_MRZ	Document holder's sex from MRZ	
	Series_MRZ	Series from MRZ	
	FirstName_MRZ	First name from MRZ	
	MiddleName_MRZ	Middle name from MRZ	
	LastName_MRZ	Last name from MRZ	
	Number_MRZ	Number from MRZ	
PassportCard_US_TYP E1 PassportCard_US_TYP E2	DateOfBirth	Document holder's date of birth	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	
	Sex	Document holder's sex	
	DateOfIssue	Document issue date	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Number	Document number	
	LastName	Document holder's last name	

Scheme	Field	Field description	Comments
ResidencePermit_AT_T YPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateAndPlaceOfBirth	Document holder's date and place of birth	
	DVRNumber	Document DVR Number	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	DateOfIssue	Document issue date	
	PlaceOfIssue	Place of issue	
	LastName_MRZ	Document holder's last name from MRZ	

Scheme	Field	Field description	Comments
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	MRZ_LINE3	The third line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	OtherInfo	Other Info about document holder	
	Comments	Comments	
	Number	Number	
	LastName	Document holder's last name	
	TypeOfPermit	Type of permit	
ResidenceLicense_BR_TYPE1	CPF	Document holder's number	

Scheme	Field	Field description	Comments
	Registration_No_Creci	CRECI registration number	
	DateOfSubscription_No_Creci	CRECI registration number's date of Issue	
	DateOfBirth	Document holder's date of birth	
	Filiation_LINE1	Filiation first line	
	Filiation_LINE2	Filiation second line	
	Nationality	Document holder's nationality	
	FirstName	Document holder's first name	
	Number	Document number	
	Validity	Document expiry date	
ResidencePermit_CZ_T YPE1 ResidencePermit_CZ_T YPE2 ResidencePermit_CZ_T YPE3	IssuedBy	Authority that issued the document	Except the ResidencePermit_CZ_TY PE2 scheme
	DateOfBirth	Document holder's birth date	Except the ResidencePermit_CZ_TY PE3 scheme
	DateOfBirth_MRZ	Date of birth from MRZ	Except the ResidencePermit_CZ_TY PE2 scheme
	PlaceOfBirth	Document holder's birth place	Except the ResidencePermit_CZ_TY PE3 scheme

Scheme	Field	Field description	Comments
	DateOfExpiry	Expiry date of the document	Except the ResidencePermit_CZ_TY PE2 scheme
	DateOfExpiry_MRZ	Date of expiry from MRZ	Except the ResidencePermit_CZ_TY PE2 scheme
	FirstName_MRZ	First name from MRZ	Except the ResidencePermit_CZ_TY PE2 scheme
	FirstName_EX	First name in English language	In the ResidencePermit_CZ_TY PE2 scheme only
	MRZ	Full contents of the MRZ	Except the ResidencePermit_CZ_TY PE2 scheme
	Sex	Document holder's sex	Except the ResidencePermit_CZ_TY PE3 scheme
	Sex_MRZ	Sex from MRZ	Except the ResidencePermit_CZ_TY PE2 scheme
	PersonalCode	Personal code	In the ResidencePermit_CZ_TY PE1 scheme only
	PersonalNumber	Personal number	In the ResidencePermit_CZ_TY PE2 scheme only
	DateOfIssue	Date of issue	Except the ResidencePermit_CZ_TY PE2 scheme

Scheme	Field	Field description	Comments
	DateAndPlaceOfIssue	Date and place of issue	In the ResidencePermit_CZ_TY PE1 scheme only
	LastName_MRZ	Last name from MRZ	Except the ResidencePermit_CZ_TY PE2 scheme
	MRZ_LINE1	The first line of MRZ	In the ResidencePermit_CZ_TY PE1 scheme only
	MRZ_LINE2	The second line of MRZ	In the ResidencePermit_CZ_TY PE1 scheme only
	MRZ_LINE3	The third line of MRZ	In the ResidencePermit_CZ_TY PE1 scheme only
	FirstName	Document holder's first name	
	Nationality	Document holder's nationality	Except the ResidencePermit_CZ_TY PE3 scheme
	Nationality_MRZ	Nationality from MRZ	In the ResidencePermit_CZ_TY PE1 scheme only
	Number	Number	
	Number_MRZ	Number from MRZ	Except the ResidencePermit_CZ_TY PE2 scheme
	OptionalData_MRZ_LI NE2	The second optional line from MRZ	Except the ResidencePermit_CZ_TY PE2 scheme

Scheme	Field	Field description	Comments
	Comments	Comments	Except the ResidencePermit_CZ_TY PE2 scheme
	LastName	Document holder's last name	Except the ResidencePermit_CZ_TY PE3 scheme
	DocumentType	Type of the document	Except the ResidencePermit_CZ_TY PE2 scheme
ResidencePermit_DE_TYPE1	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	ChipNumber	Number of contactless chip	built into the card
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	EyeColor	Document holder's eyes color	
	FirstName_MRZ	Document holder's first name from MRZ	

Scheme	Field	Field description	Comments
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	Height	Document holder's height	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	MRZ_LINE3	The third line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Notation	Document notation	
	Number	Document number	

Scheme	Field	Field description	Comments
	Number_MRZ	Document number from MRZ	
	PlaceOfIssue	Place of issue	
	Residence	Document holder's residence	
	TypeOfResidence	Type of residence	
	LastName	Document holder's last name	
ResidencePermit_ES_T YPE1 ResidencePermit_ES_T YPE2	Number	Document number	
	NIENumber	NIE number	
	FullName	Document holder's full name	
	DateOfBirth	Document holder's date of birth	In the ResidencePermit_ES_TY PE2 only
	DateOfExpiry	Document's expiry date	In the ResidencePermit_ES_TY PE1 only
	DateOfIssue	Date of issue	In the ResidencePermit_ES_TY PE1 only
	PlaceOfIssue	Place of issue	In the ResidencePermit_ES_TY PE1 only
	TypeOfPermission	The type of permission	In the ResidencePermit_ES_TY

Scheme	Field	Field description	Comments
			PE1 only
	Nationality	Nationality of the document holder	In the ResidencePermit_ES_TY PE2 only
	Address	Document holder's address	
	Address_LINE2	Second line of the document holder's address	
	DateOfRegistration	Date of resident registration	In the ResidencePermit_ES_TY PE2 only
	ProvinceOfIssue	Province of issue	
	PlaceOfIssue	Place of issue	
ResidencePermit_RU_T YPE1 ResidencePermit_RU_T YPE2	IssuedBy	The authority that issued the document	Except ResidencePermit_RU_TY PE2
	DateOfBirth	Document holder's date of birth	Except ResidencePermit_RU_TY PE2
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	Except ResidencePermit_RU_TY PE2
	DateOfExpiry	Document expiry date	Except ResidencePermit_RU_TY PE2

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	Except ResidencePermit_RU_TY PE2
	Sex_MRZ	Document holder's sex from MRZ	
	Hologram	Document hologram	Except ResidencePermit_RU_TY PE2
	DateOfIssue	Document issue date	Except ResidencePermit_RU_TY PE2
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	Except ResidencePermit_RU_TY PE2
	MRZ_LINE2	The second line of MRZ	Except ResidencePermit_RU_TY PE2
	FirstName	Document holder's first name	Except ResidencePermit_RU_TY PE2

Scheme	Field	Field description	Comments
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	Except ResidencePermit_RU_TY PE2
	Number_MRZ	Document number from MRZ	
	MiddleName	Document holder's middle name	Except ResidencePermit_RU_TY PE2
	LastName	Document holder's last name	Except ResidencePermit_RU_TY PE2
ResidencePermit_SI_TY PE1 ResidencePermit_SI_TY PE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	

Scheme	Field	Field description	Comments
	Sex	Document holder's sex	
	Sex_EN	Document holder's sex in English	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Document issue date	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	
	Number_MRZ	Document number from MRZ	
	Position	Document holder's position	
	DocumentType	Document type	
	PlaceOfBirth	Document holder's place of birth	In the ResidencePermit_SI_TYP E2 only

Scheme	Field	Field description	Comments
	MRZ_LINE3	The third line of MRZ	In the ResidencePermit_SI_TYP E2 only
	Nationality	Nationality of the document holder	In the ResidencePermit_SI_TYP E2 only
	OptionalData_MRZ_LI NE2	Optional MRZ line	In the ResidencePermit_SI_TYP E2 only
	Comments	Additional information	In the ResidencePermit_SI_TYP E2 only
	LastName	Document holder's last name	In the ResidencePermit_SI_TYP E2 only
	Type_EN	Document type in English	In the ResidencePermit_SI_TYP E2 only
ResidencePermit_SK_T YPE1 ResidencePermit_SK_T YPE2	IssuedBy	The authority that issued the document	
	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	PlaceOfBirth	Document holder's place of birth	
	DateOfExpiry	Document expiry date	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	PersonalCode	Owner identification number	
	DateOfIssue	Document issue date	
	ReasonOfIssue	Reason of issue	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number	Document number	

Scheme	Field	Field description	Comments
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LI NE2	Optional MRZ line	
	Comments_BACK	Remarks on the back side	
	Comments_FRONT	Remarks on the front side	In the ResidencePermit_SL_TY PE1 only
	LastName	Document holder's last name	
SocialSecurityNumber_RU_TYPE1 SocialSecurityNumber_RU_TYPE2	Number	Document number	
	LastName	Document holder's last name	
	FirstName	Document holder's first name	
	MiddleName	Document holder's patronymic name	
	DateOfBirth	Document holder's date of birth	
	PlaceOfBirth	Document holder's place of birth	In the SocialSecurityNumber_RU_TYPE1 only
VehiclePassport_RU_TY PE1	DateOfIssue	Document issue date	
	Number	Document number	

Scheme	Field	Field description	Comments
	VIN	Vehicle identification number	
VehicleRegistration_AZ_TYPE1	Body	Document body	
	ChassisNumber	Vehicle chassis number	
	EngineCapacity	Vehicle engine capacity	
	EngineNumber	Vehicle engine number	
	YearOfManufacture	Vehicle manufacture year	
	Model	Vehicle model	
	Number	Vehicle number	
	RegistrationNumber	Vehicle registration number	
	DocumentType	Document type	
VehicleRegistration_BY_TYPE1	FirstName_EN	Document holder's first name in English	
	FirstName	Document holder's first name	
	Number	Primary document number	
	MiddleName	Document holder's patronymic name	

Scheme	Field	Field description	Comments
	RegistrationPlate	Vehicle registration plate	
	Series	Document series	
	LastName_EN	Document holder's last name in English	
	LastName	Document holder's last name	
	VIN	Vehicle identification number	
VehicleRegistration_CZ_TYPE1	Address	Document holder's address	
	BusinessName	Document holder's business name	
	Capacity	Vehicle engine capacity	
	Color	Vehicle color	
	CouplingDevice	Vehicle coupling device	
	DateOfFirstRegistration	Date of first registration	
	DateOfRegistration	Date of registration	
	TypeOfFuel	Type of fuel	
	Make	Vehicle make	
	Mass_1	Vehicle mass 1	

Scheme	Field	Field description	Comments
	Mass_2	Vehicle mass 2	
	Mass_3	Vehicle mass 3	
	MaxMass	Vehicle max mass	
	MaxPower_1	Vehicle max power 1	
	MaxPower_2	Vehicle max power 2	
	MaxSpeed	Vehicle max speed	
	Model	Vehicle model	
	Number	Document number	
	Number_EX	Document second number	
	NumberOfSeats	Number of seats	
	NumberOfStandingPlaces	Number of standing places	
	Power	Vehicle engine power	
	Reference	Vehicle reference	
	Comments	Additional information	
	TrailerMass_1	Trailer mass 1	
	TrailerMass_2	Trailer mass 2	
	Transmission	Vehicle transmission	

Scheme	Field	Field description	Comments
	DocumentType	Type of document	
	VIN	Vehicle identification number	
VehicleRegistration_GE_TYPE1	Address	Document holder's address	
	Address_EN	Document holder's address in English	
	Capacity	Vehicle engine capacity	
	Color	Vehicle color	
	Color_EN	Vehicle color in English	
	DateOfFirstRegistration	Date of first registration	
	DateOfRegistration	Date of registration	
	EngineNumber	Vehicle engine number	
	TypeOfFuel	Type of fuel	
	TypeOfFuel_EN	Type of fuel in English	
	PersonalCode	Personal code	
	Make	Vehicle make	
	Mass	Vehicle mass	
	MaxMass	Vehicle max mass	

Scheme	Field	Field description	Comments
	MaxPower	Vehicle max power	
	Model	Vehicle model	
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	
	Number	Primary document number	
	NumberOfSeats	Number of seats	
	NumberOfStandingPlaces	Number of standing places	
	Power	Vehicle power	
	RegistrationNumber	Vehicle registration number	
	Comments	Additional information	
	Comments_EN	Additional information in English	
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	
	DocumentType	Type of document	

Scheme	Field	Field description	Comments
	Type_EN	Type of document in English	
	UnladenMass	Vehicle unladen mass	
	VIN	Vehicle identification number	
	YearOfManufacture	Year of manufacture	
VehicleRegistration_K Z_TYPE1	Apartment	Document holder's address	
	Body	Document body	
	Building	Building	
	Category	Vehicle category	
	Chassis	Vehicle chassis	
	City	City	
	Color	Vehicle color	
	District	District	
	Engine	Vehicle engine	
	DateOfIssue	Document issue date	
	MaxWeight	Vehicle max weight	
	Model	Vehicle model	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	FirstName_BACK	Document holder's first name	on the back side
	Note	Additional information	
	Number	Document number	
	Number_BACK	Document number	on the back side
	MiddleName	Document holder's middle name	
	MiddleName_BACK	Document holder's middle name	on the back side
	RegistrationNumber	Vehicle registration number	
	RegionOfResidence	Document holder's region of residence	
	Street	Document holder's street	
	LastName	Document holder's last name	
	LastName_BACK	Document holder's last name	on the back side
	Volume	Engine volume	
	Weight	Vehicle weight	

Scheme	Field	Field description	Comments
	Year	Year of manufacture	
VehicleRegistration_R U_TYPE1 VehicleRegistration_R U_TYPE2	Number	Document number	
	LicensePlate	Vehicle registration number	
	VIN	Vehicle identification number	
VehicleRegistration_S K_TYPE1	Address	Document holder's address	
	IssuedBy	The authority that issued the document	
	BusinessName	Document holder's business name	
	Capacity	Vehicle engine capacity	
	Category	Vehicle category	
	Color	Vehicle color	
	DateOfFirstRegistration	Date of first registration	
	DateOfRegistration	Date of registration	
	DateOfExpiry	Document expiry date	
	TypeOfFuel	Type of fuel	
	Make	Vehicle make	

Scheme	Field	Field description	Comments
	Mass	Vehicle mass	
	MaxMass	Vehicle max mass	
	MaxPower	Vehicle max power	
	MaxSpeed	Vehicle max speed	
	Model	Vehicle model	
	Number_EX	Document second number	
	Number_3	Document third number	
	Number_4	Document forth number	
	NumberOfSeats	Number of seats	
	NumberOfStandingPlaces	Number of standing places	
	Name_EX	Other document's holder name	
	PermissibleMass	Vehicle permissible mass	
	Power	Vehicle engine power	
	RegistrationNumber	Vehicle registration number	
	DocumentType	Type of document	

Scheme	Field	Field description	Comments
	NumberOfType	Identifier of type	
	TypeVariantVersion	Vehicle type	
	VIN	Vehicle identification number	
	VIN_FRONT	Vehicle identification number (only front side)	
VehicleRegistration_S V_TYPE1	ChassisNumber	Vehicle chassis number	
	Color	Vehicle color	
	FirstName	Document holder's first name	
	Nit	ID number	
	Number	Document number	
	VIN	Vehicle identification number	
VehicleRegistration_U A_TYPE1	DateOfFirstRegistration	Date of first registration	
	DateOfRegistration	Date of registration	
	Description	Vehicle description	
	Make	Vehicle make	
	MaxMass	Vehicle max mass	

Scheme	Field	Field description	Comments
	FirstName	Document holder's first name	
	FirstName_EN	Document holder's first name in English	
	Number	Document number	
	MiddleName	Document holder's middle name	
	RegistrationNumber	Vehicle registration number	
	LastName	Document holder's last name	
	LastName_EN	Document holder's last name in English	
	DocumentType	Document type	
	VIN	Vehicle identification number	
	YearOfManufacture	Year of manufacture	
Visa_CZ_TYPE1	DateOfBirth_MRZ	Date of birth from MRZ	
	Duration	Duration of visa	
	EntriesNumber	Number of entries	
	DateOfEntry	Date of entry	

Scheme	Field	Field description	Comments
	DateOfExpiry_MRZ	Date of expiry from MRZ	
	FirstName_MRZ	First name from MRZ	
	MRZ	Full contents of the MRZ	
	Sex_MRZ	Sex from MRZ	
	DateOfIssue	Date of the document's issue	
	PlaceOfIssue	Place of the document's issue	
	LastName_MRZ	Last name from MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Nationality from MRZ	
	Number	Visa number	
	Number_MRZ	Number from MRZ	
	OptionalData_MRZ_LI NE2	The second optional line from MRZ	
	PassportNumber	Passport number	
	Comments	Comments	
	DocumentType	The type of the document	

Scheme	Field	Field description	Comments
	StayUntilDate	The date until document's holder can stay in the country	
Visa_SK_TYPE1	DateOfBirth_MRZ	Date of birth from MRZ	
	Duration	Duration of visa	
	EntriesNumber	Number of entries	
	DateOfEntry	Date of entry	
	DateOfExpiry_MRZ	Date of expiry from MRZ	
	FirstName_MRZ	First name from MRZ	
	MRZ	Full contents of the MRZ	
	Sex_MRZ	Sex from MRZ	
	DateOfIssue	Date of the document's issue	
	PlaceOfIssue	Place of the document's issue	
	LastName_MRZ	Last name from MRZ	
	FirstName	Document holder's first name	
	Nationality_MRZ	Nationality from MRZ	
	Number	Visa number	

Scheme	Field	Field description	Comments
	Number_MRZ	Number from MRZ	
	OptionalData_MRZ_LI NE2	The second optional line from MRZ	
	PassportNumber	Passport number	
	Comments	Comments	
	DocumentType	The type of the document	
	StayUntilDate	The date until document's holder can stay in the country	
Visa_RU_TYPE1	DocumentType	Type of visa	
	Number	Visa number	
	PassportNumber	Document holder's passport number	
	FullName	Document holder's full name	
	FullName_EN	Document holder's full name in English	
	Sex	Document holder's sex	
	DateOfBirth	Document holder's date of birth	
	Nationality	Nationality of the document holder	

Scheme	Field	Field description	Comments
	InvitationNumber	The number of invitation	
	VisaId	Visa ID	
	FromTo	Duration of stay	
	DateOfIssue	Visa issue date	
	EntryFromDate	Entry from date	
	StayUntilDate	Stay until date	
	Duration	Duration of visa	
	MRZ	Full contents of the machine-readable zone	
	LastName_MRZ	Document holder's last name from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	IDVisa_MRZ	Visa ID from MRZ	

Scheme	Field	Field description	Comments
	InvitationNumber_MRZ	Invitation number from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	Number_MRZ	Number from MRZ	
Visa_US_TYPE1	DateOfBirth	Document holder's date of birth	
	DateOfBirth_MRZ	Document holder's date of birth from MRZ	
	ControlNumber	Document control number	
	DateOfExpiry	Document expiry date	
	DateOfExpiry_MRZ	Document expiry date from MRZ	
	FirstName_MRZ	Document holder's first name from MRZ	
	MRZ	Full contents of the machine-readable zone	
	Sex	Document holder's sex	
	Sex_MRZ	Document holder's sex from MRZ	
	DateOfIssue	Visa issue date	

Scheme	Field	Field description	Comments
	PlaceOfIssue	Place of issue	
	LastName_MRZ	Document holder's last name from MRZ	
	MRZ_LINE1	The first line of MRZ	
	MRZ_LINE2	The second line of MRZ	
	FirstName	Document holder's first name	
	Nationality	Nationality of the document holder	
	Nationality_MRZ	Nationality of the document holder from MRZ	
	Number_MRZ	Document number from MRZ	
	OptionalData_MRZ_LINE2	Optional MRZ line	
	PassportNumber	Passport number	
	LastName	Document holder's last name	
WorkPermit_RU_TYPE1	Activity	Document holder's activity	
	DateOfBirth	Document holder's date of birth	

Scheme	Field	Field description	Comments
	Nationality	Nationality of the document holder	
	DateOfExpiry	Document expiry date	
	DateOfIssue	Document issue date	
	FirstName	Document holder's first name	
	Number	Document number	
	MiddleName	Document holder's middle name	
	Series	Document series	
	LastName	Document holder's last name	
WorkPermit_SG_TYPE1	DocumentType	Type of permit	
	Number	Primary document number	
	Number_EX	Secondary document number	
	FullName	Document holder's full name	
	Sector	Occupation sector	
	Employer	Employer company name	

Scheme	Field	Field description	Comments
	Occupation	Occupational title	
	DateOfApplication	Work application date	
	DateOfIssue	Document issue date	
	DateOfExpiry	Document expiry date	

Regular Expressions

This section describes the regular expression syntax supported by the ABBYY Mobile Capture SDK engine for capturing custom data fields (see [How to Capture a Custom Data Field](#)).

! **Note:** All matches are always greedy (match as much as possible). The search stops at the first match: if a string contains two or more substrings matching your regular expression, only the first one (closest to the beginning) is matched.

Supported syntax

Pattern	Syntax	Examples and comments
Literal	any character or text, except metacharacters <code>\^\$. ?*\+()\{\}</code>	<p><i>pill</i> matches "pill" in "caterpillar"</p> <p><i>a</i> matches the first "a" in "caterpillar" but not the second (the search stops at the first match)</p> <p>Metacharacters are part of regular expression syntax; to match these literally, you have to escape them with a backslash. If you want to match <i>1+1</i>, the correct expression is <i>1\+1</i> — otherwise "+" has a special meaning.</p>
Any character	<code>.</code> (dot)	<i>s.t</i> matches "sat", "sit" but not "seat"

Pattern	Syntax	Examples and comments
Character set	<code>[]</code>	<i>gr[ae]y</i> matches both "gray" and "grey" but not "greay"
Character range in a set	- (minus)	<i>[0-9]</i> matches a single digit concatenation is allowed: <i>[a-zA-Z0-9]</i> matches an alphanumeric character
Negated character set	<code>[^]</code>	<i>[^0-9]</i> matches anything that is not a digit
Shorthand classes	<code>\s</code> — any whitespace <code>\S</code> — anything that is not a whitespace <code>\d</code> — any digit <code>\D</code> — anything that is not a digit <code>\w</code> — a word character, which includes alphanumerics and punctuation marks <code>\W</code> — a non-word character <code>\R</code> — a new line character or the CR LF sequence <code>\v</code> — a new line character but not the CR LF sequence <code>\V</code> — a non-new line character <code>\h</code> — a horizontal white space character <code>\H</code> — anything except horizontal white space	
Non-printable characters	<code>\n</code> — line feed LF <code>\r</code> — carriage return CR <code>\t</code> — tab character <code>\f</code> — form feed <code>\a</code> — bell character <code>\u0007</code> <code>\e</code> — escape character	
Unicode character	<code>\uFFFF</code> <code>\x{FFFF}</code>	<i>\u20AC</i> or <i>\x{20AC}</i> matches the euro currency sign.

Pattern	Syntax	Examples and comments
Character by its hexadecimal index	\xFF	\xA9 matches the copyright character in the Latin-1 character set
Alternation		<i>abc 123</i> matches either "abc" or "123" <i> word</i> matches either an empty string "" or "word"
Repetitions	+ * ? {n} {n,m} {n} {m}	+ matches once or more times * matches zero or more times ? matches zero times or once (optional match) {n} matches exactly n times {n,m} matches n to m times times {n,} matches n or more times {,m} matches zero or more times up to m Note that all repetitions are greedy (prefer to match as much as possible): <i>c.+r</i> will match "caterpillar", not stopping with "cater". If you want to match up to the first occurrence of a certain character, use its negation: <i>c[^\r].+r</i> will match "cater" in "caterpillar".
Grouping	()	<i>(word)+</i> matches "word", "wordword" and so on

Unsupported syntax

The following regular expression syntax features are not yet supported in ABBYY Mobile Capture SDK:

- Anchors: ^ (beginning of a line), \$ (end of a line), \b (word boundary) and its negation \B, and other.
- Lazy quantifiers such as +? or {n,m}? that prefer to match as few times as possible.
- Concatenation with nested character sets such as [[a-z][0-9]].
- Advanced features such as lookarounds, backreferences, possessive matches, named groups, non-capturing and atomic match groups, evaluation flag settings and other.

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zlib

zlib.h -- interface of the 'zlib' general purpose compression library

version 1.2.3, July 18th, 2005

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