ADAPTIVE RECOGNITION

Osmond
User Manual

This manual contains instructions on accessing the web interface, system settings and setup guidelines, as well as usage and maintenance.

RELEASE DATE
25.03.2024

OSMOND

USER MANUAL

Passport Reader Software Package v. 2.1.11.1
Firmware v. 1.8.0011

Document version: 25.03.2024

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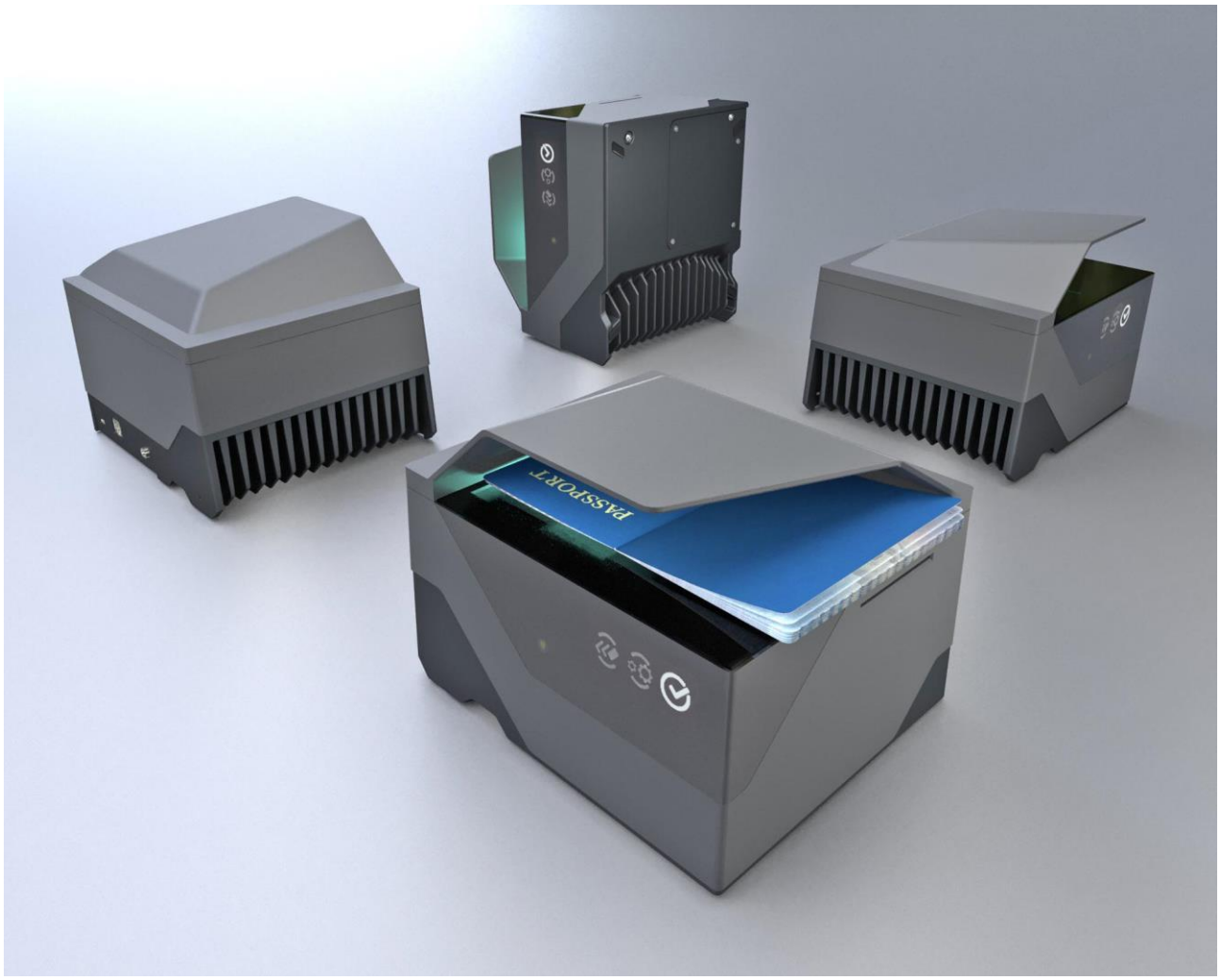
I. INTRODUCTION

The Osmond is a full-page, multi-purpose passport and ID reader that provides automatic, accurate data extraction and verification with the ability to read multiple types of identity documents: **passports, e-passports, ID cards, visas** and **driver licenses**. The printed data is extracted from the entire page (MRZ, VIZ and 1D & 2D bar codes) while digital data is obtained from contactless (RFID) and contact smart chip (optional). The available multiple illumination sources are visible white, IR, UV, OVD and edge light. A special feature of the Osmond device (type N) is that it has a built-in OS (no other installation is needed) which runs a fully functional web server that is accessible virtually with any device once the reader is connected to a network. The recognized documents are processed by the device, no separate PC is needed to process the collected data. In addition, Osmond N model is able to operate in both USB and Network mode. You can easily switch between modes by using a small utility tool called PRDTool.

For more information on the technical specifications of the Osmond device, click on this link to access a comprehensive tech datasheet.



II. DEVICE OVERVIEW

1. PACKAGE CONTENTS

	Passport Reader device	5V output power supply	Power cord (EU)	USB cable (USB3.0)	Ethernet cable	1 pc of glass cleaning wipe	Blind plug
Osmond L*	✓	✓	✓	✓	-	✓	✓
Osmond R**	✓	✓	✓	✓	-	✓	✓
Osmond N***	✓	✓	✓	-	✓	✓	✓

① Osmond Passport Reader

② Power Cord
Schuko CEE 7/7

③ Universal Power Supply
100-240 V AC, 50/60 Hz

④ Glass Cleaner Wet Wipe

⑤ Glass Cleaner Dry Wipe

⑥ USB 3.1 A-C
INCLUDED WITH R AND L MODELS

⑦ Ethernet RJ45
INCLUDED WITH N MODELS

⑧ USB 3.1-C
OPTIONAL WITH ALL MODELS

*Osmond L: USB base model with UV illumination

**Osmond R: USB device with UV illumination and built-in RFID module

***Osmond N: Network device with UV illumination, built-in RFID module and dual operational mode (USB and network mode)

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Note

For more information on the technical parameters and the comparison of the Osmond L, R and N models, click on this link.

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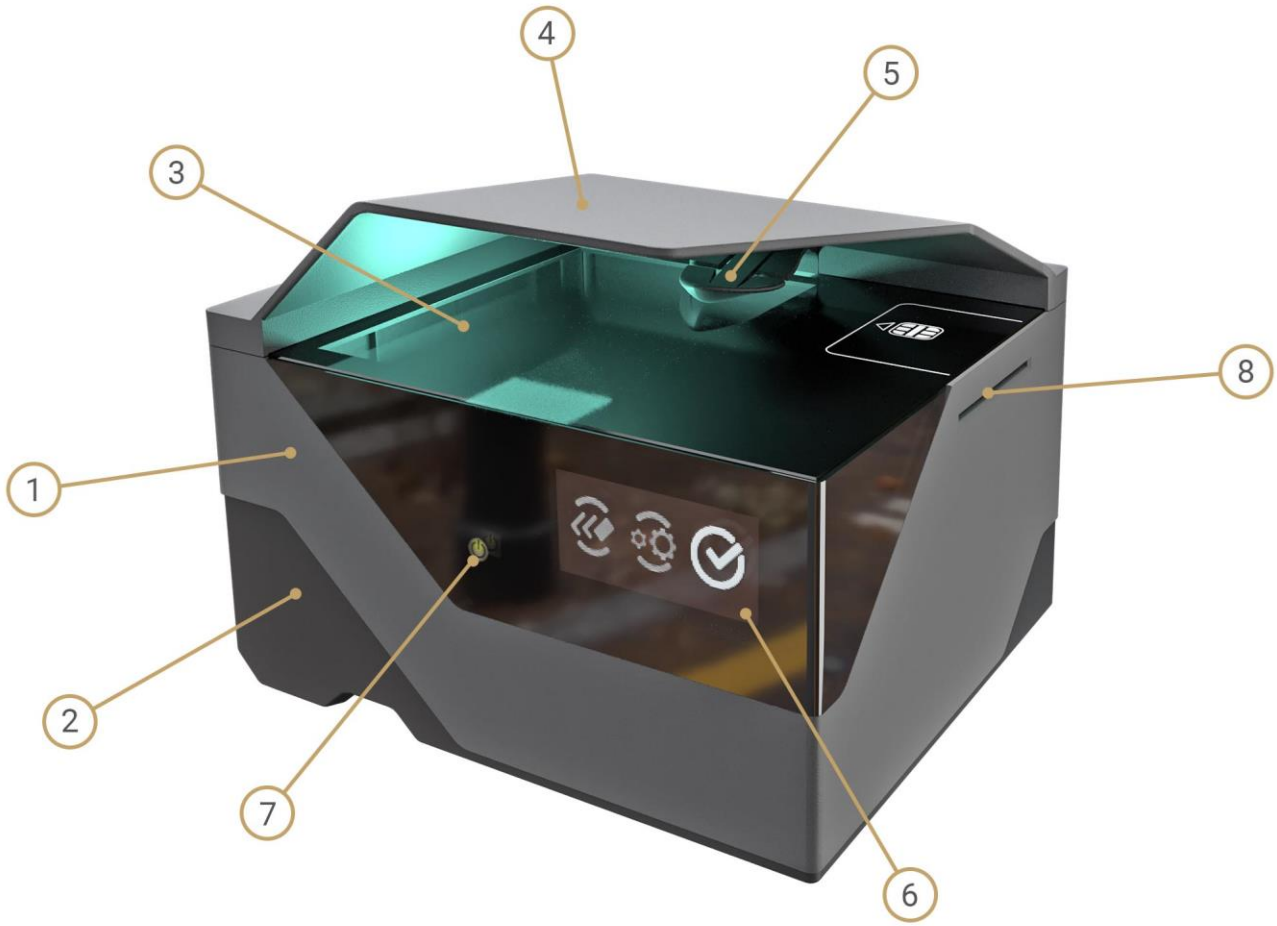
2. PARTS AND COMPONENTS

The device is produced in a **plastic (ABS) housing** (1) and an **aluminum base plate** (2). The **object-plate** (3) is protected from the external light-striking by the **plastic (ABS) shield/cover** (4). The shield has a **document holder** (5) in order to facilitate the placing of the document. The **OLED display** (6), indicating the various phases of the device, and the **On/Off touch button** (7) are installed on the front of the body. Optionally, the device is equipped with a **smart card reader*** (8), located on the side of the device.



Note

*The smart card reading function is not available in network mode as for now.

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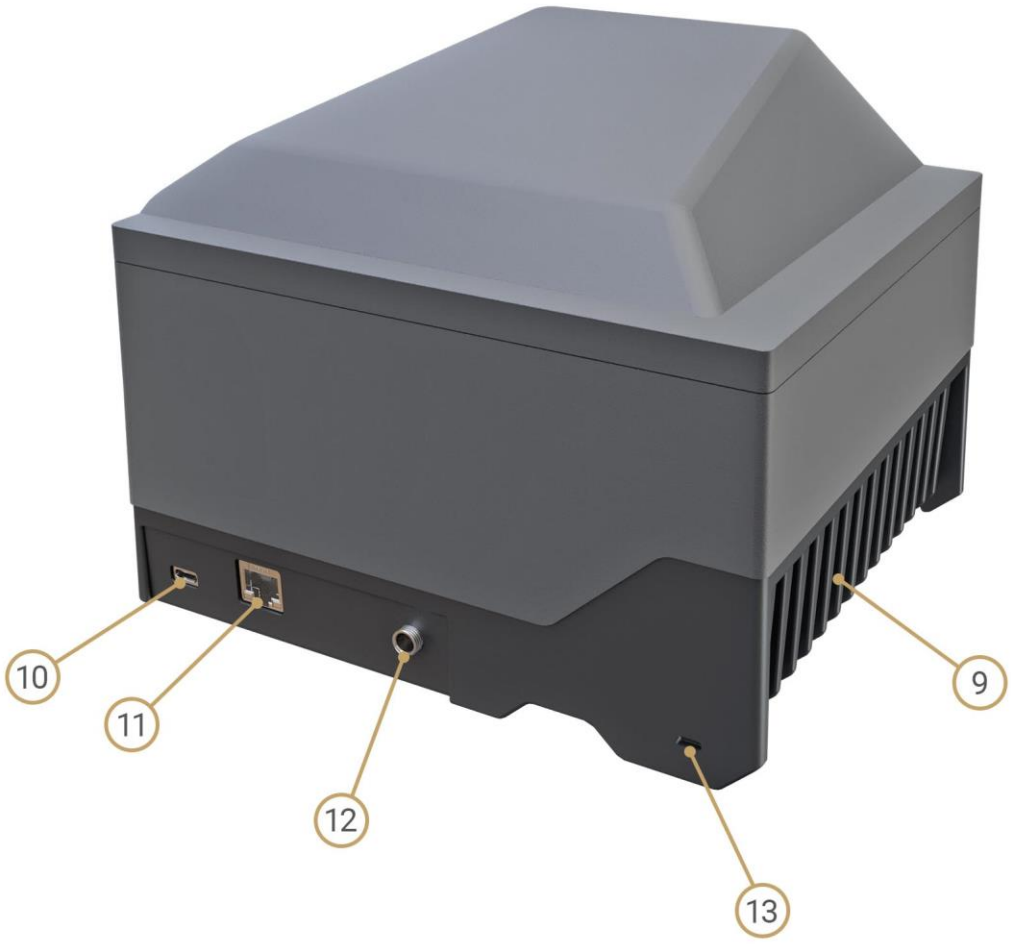
The scanner is designed with an **aluminum heatsink** (9). The **USB socket** (10), the **Ethernet port*** (11), the **power supply socket** (12) and the **Kensington® security slot** (13) are located on the back of the device.



*Ethernet port is only available at **Osmond N** model.

Note

The Osmond device is designed with a removable document holder built in the shield. This feature can be vital in special cases e.g., scanning extremely thick documents which cannot fit to the device due to their size being incompatible with the document holder. In that case, this holder can be removed and replaced with the so called '**blind plug**'. For more information on how to perform the replacement, see Removing the Osmond Document Holder appendix.

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III. HARDWARE SETUP

In this section instructions and recommendations concerning the hardware integration are described, which are the following:

- The device should be on a stable surface, placed horizontally. Do not install the device to an unsteady place. The device has rubber footing, which ensure a solid grip.
- Do not throw or drop the device.
- Avoid bright, alternating lights, which can interfere with image capture. For example, do not illuminate the scanner surface with a lamp, especially when scanning ID-1 size documents.
- Avoid heavy dust in the ambience of the device. The devices are to be used indoors, in an office environment only (SOHO).
- It is recommended to maintain the device in certain intervals. Wipe the dust and grease off the glass with the wipes provided with the reader, see Maintenance appendix with its subchapters.
- The most efficient way to place the documents on the scanning surface is to put the ID in the left corner, and avoid placing the card at an angle close to 45 degrees. For more information, see Correct Document Placement chapter.
- You should avoid wearing rings and nail extensions. Avoid placing grainy documents on the surface of the reader. Pay attention to prevent getting grains of sand or other materials inside the device.

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1. HARDWARE INSTALLATION

Follow the next steps to connect the Osmond USB (L, R) or network (N) device to the PC:

1. Connect the **power supply** to the unit.

Important!

Connect the power supply to the device by completely screwing on to the right the round, dotted part of the power supply closest to the housing.

Note

Only use the power supply that was shipped with the device.

Note

Regardless of the operation mode (USB or network), the **Osmond N** device can be powered via PoE+ switch or PoE+ injector with standard 802.3.at-2009. In this case the maximum distance between the reader and the POE source is 100 m.

Note

If the given PC has an adequate PCI card with PowerDelivery functionality and USB type-C slot, then the **Osmond N** device can be powered via USB regardless of the operation mode (USB or network).

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2. Connect the reader to the PC or to your environment:

- In case of **Osmond R and L (USB devices)**: Connect the device to one of the **USB 2.0 or 3.0 ports** of the PC with the supplied USB cable.

> **Note**
>
> It is strongly recommended to use the USB ports of the motherboard. When connecting the USB cable to the front panel USB port, use shielded cable between the motherboard and the USB panels.

- In case of **Osmond N (network device)**: Connect the device directly to a computer or network switch with an **Ethernet cable**.

> **Note**
>
> For more information on connecting the device directly to the PC with an Ethernet cable, see Direct Ethernet Connection chapter.

3. Turn the device on by **covering the power touch button for 1-2 seconds** with your entire fingertip.

4. After the button led turns **from red to green**, the device starts booting. Please note that the boot sequence may take a few minutes. The status icon displayed on the OLED screen will indicate the current status of the process, see the OLED Display Status Icons chapter for more information on the icons and their descriptions.

> **Note**
>
> If the device is used with a laptop, please make sure that the output voltage of the USB ports is not less than 5V. For this reason, it is highly recommended that you use the laptop on AC power (with the power cord connected).

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IV. SAFETY

Important!

Equipment modifications:

This equipment must be installed and used according with the instructions given in its documentation. This equipment contains no serviceable components. Unauthorized equipment changes or modifications cause warranty to void.

Important!

Only operate the device with the power supply it was shipped with.

Important!

The device should not be operated with its object-plate exposed to direct sunlight.

Important!

Do not look directly into the UV-A and INFRA lights during scanning process. They may cause damage to the eye.

Important!

Do not use abrasive cleaners or solvents when cleaning the device. These may scratch the glass or damage the plastic.

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V. OSMOND R AND L (USB DEVICES)

Osmond R and L models are USB devices that operate as any other ADAPTIVE RECOGNITION passport reader. They can be used with the Full Page Reader or Authentication Checker application as well as our SDK.

Note

For more information on the Full Page Reader or Authentication Checker application, see the Full Page Reader Application or the Authentication Checker Application chapters.

1. SYSTEM REQUIREMENTS

Recommended minimum system requirements:

- Intel Pentium 2 GHz CPU or higher (or equivalent x86 compatible CPU),
- 1 GB RAM or more (depending on application),
- 32 or 64-bit Microsoft Windows 7/8.1/10/Vista operating system or Linux operating system (kernel version 3.2),
- Integrated USB 2.0 port (on motherboard).

Note

The speed of image processing highly depends on the type of hardware used. In general, the shorter recognition time is needed, the more powerful machine you are advised to use.

Note

In case of an authentication engine, the recommended system requirements are the following:

- 64-bit system,
- 4+ GB RAM.

2. SOFTWARE INSTALLATION

Due to the fact that Osmond USB devices operate similar to any other ADAPTIVE RECOGNITION passport reader in order to use it, the ADAPTIVE RECOGNITION driver package is necessary. For Osmond devices, the Passport Reader software package 2.1.10.2 or higher version is required.

The Passport Reader software package is available in the following ways:

- Check the automatic notification email which was sent on the day of the dispatch and use the link to download the latest passport reader software.
- Alternatively, check our portal (https://adaptiverecognition.com/doc/id-scanners-readers/passport-reader-software/#software/) to access our software modules.

The Passport Reader Software Package includes the following components:

- Drivers for Passport Reader devices and AFS510 Fingerprint Scanner devices
- Software Development Kit for C/C++, Visual Basic, Delphi, C#, VB.NET and Java programming languages:
  - Interface files
  - Sample programs
  - Manual in HTML and CHM format
- Full Page Reader Application
- Authentication Checker Application
- Passport Reader utility programs (License Manager, PRDTool)
- NetAPI SDK (from PR Software Package 2.1.11.1)

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2.1. INSTALLATION ON WINDOWS OPERATING SYSTEMS

Important!

Administrator rights are needed for installation.

Important!

Upon installation of the 32-bit version to a 64-bit PC, the 64-bit device drivers are installed automatically. For 32-bit application development on 64-bit PCs, install the 32-bit version of the Passport Reader software as well.

1. Before installing the Passport Reader software, all previous versions of the software must be uninstalled from the system. This process differs depending on the version that is currently installed on the system.
   - For versions 2.1.5-26W or earlier, go to **Start Menu / Programs / GX / UNINSTALL** and run **– FULL UNINSTALL –** as well as **Start menu / Programs / GX / 32 bit version / – FULL UNINSTALL –** if applicable.
   - For versions 2.1.6 or later, go to **Control Panel / Add/Remove Programs** and remove all versions of the Passport Reader software.
2. Once all previous versions of the software have been uninstalled, restart the computer.
3. Next, locate the downloaded software package and run **pr-2.1.x-x86.msi** (in case of 32-bit operating systems) or **pr-2.1.x-x64.msi** (in case of 64-bit operating systems).

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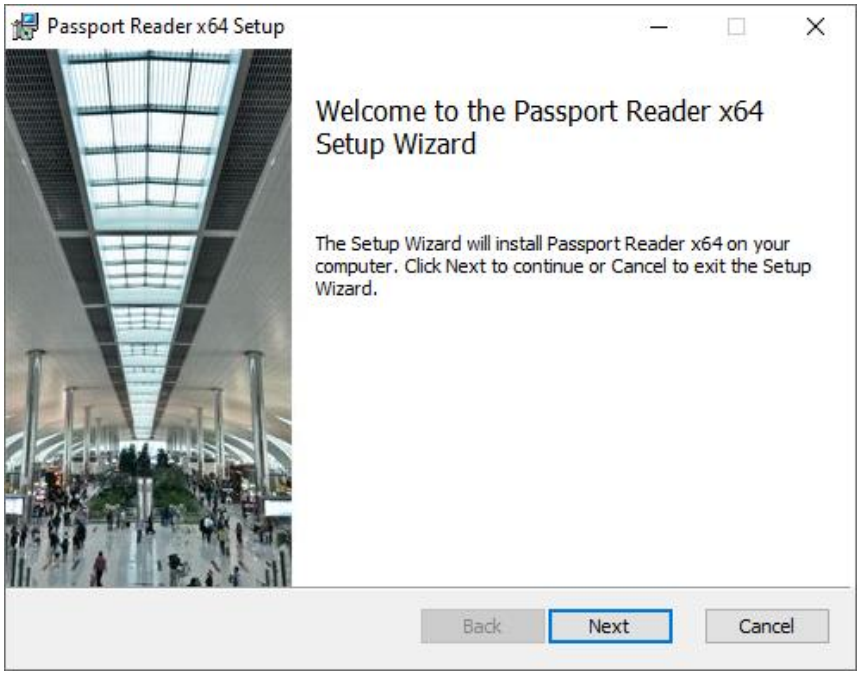
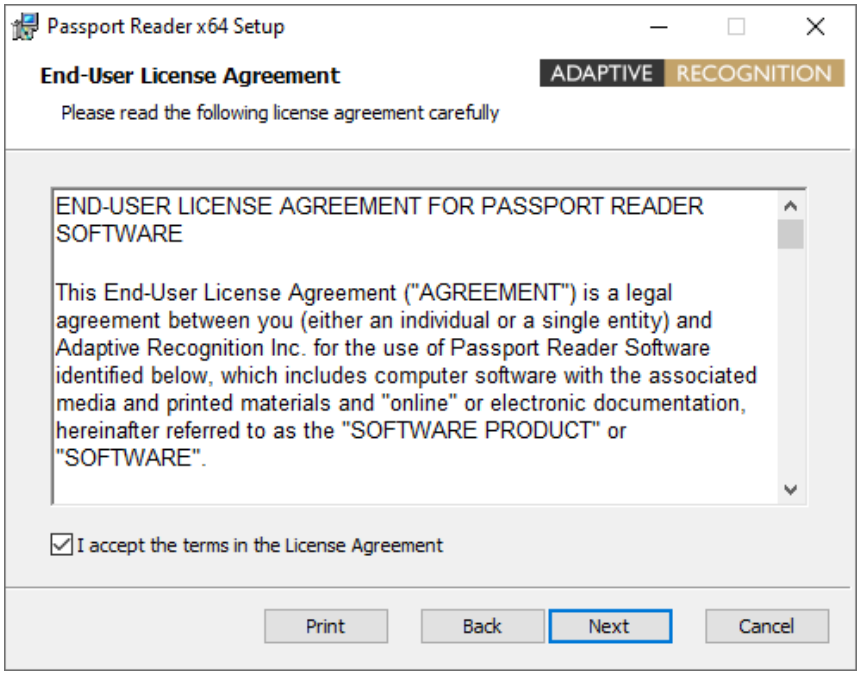
4. The installation starts with the following window:



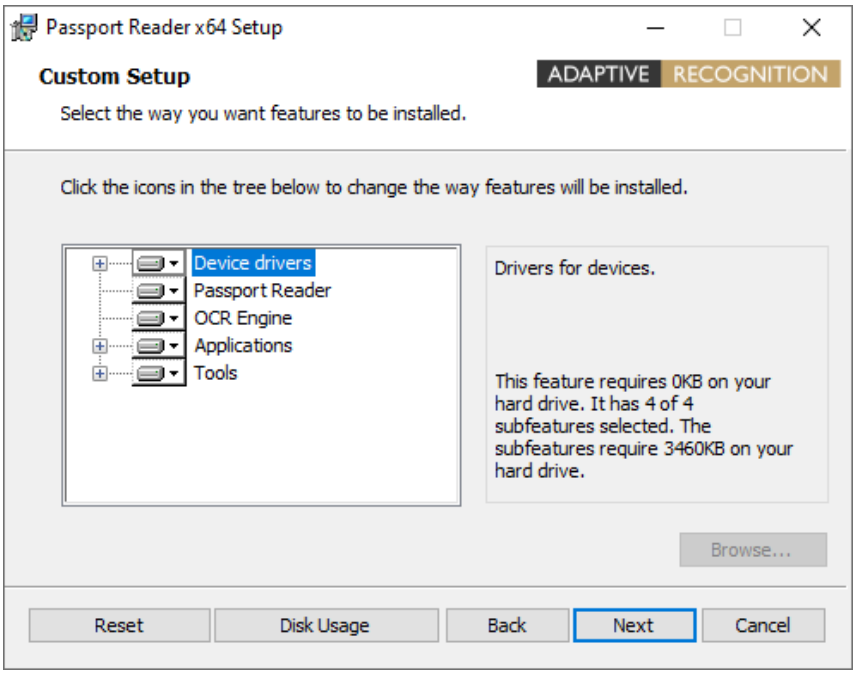
Welcome Page of Passport Reader x64 setup

5. Click [Next] to launch installation.



End-User License Agreement (EULA)

6. Accept the EULA (by ticking the checkbox above) and start the custom installation process by clicking on [Next].



Custom Setup

7. In the **Custom Setup** window, select the modules you wish to install on the PC.
   Installing the **Device Drivers** and the **Passport Reader** modules are necessary for device operation, the installation of all other modules is optional.

> **Note**
>
> SDK and Documentation are available in the "sdk" folder of the PR Software Package.

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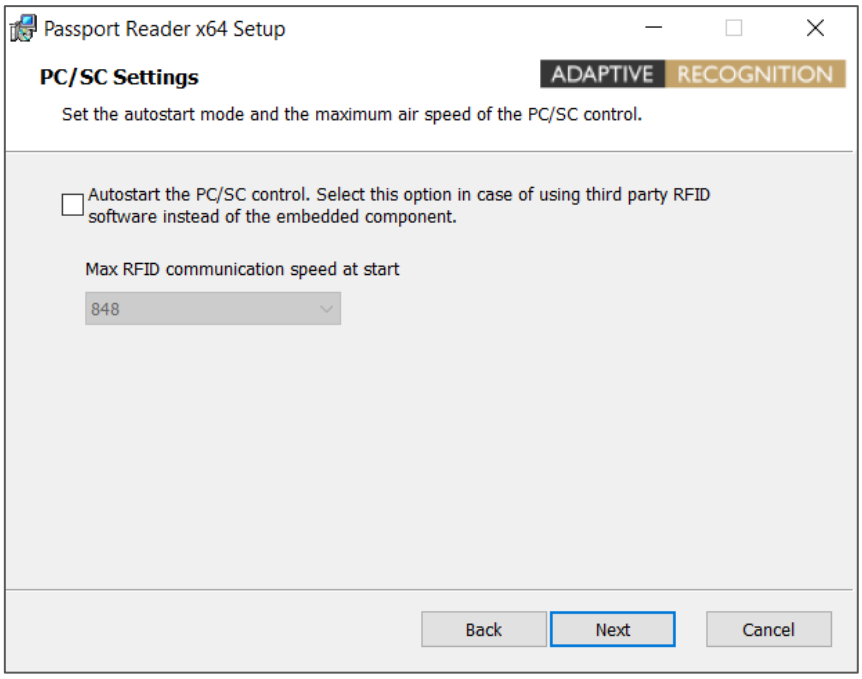
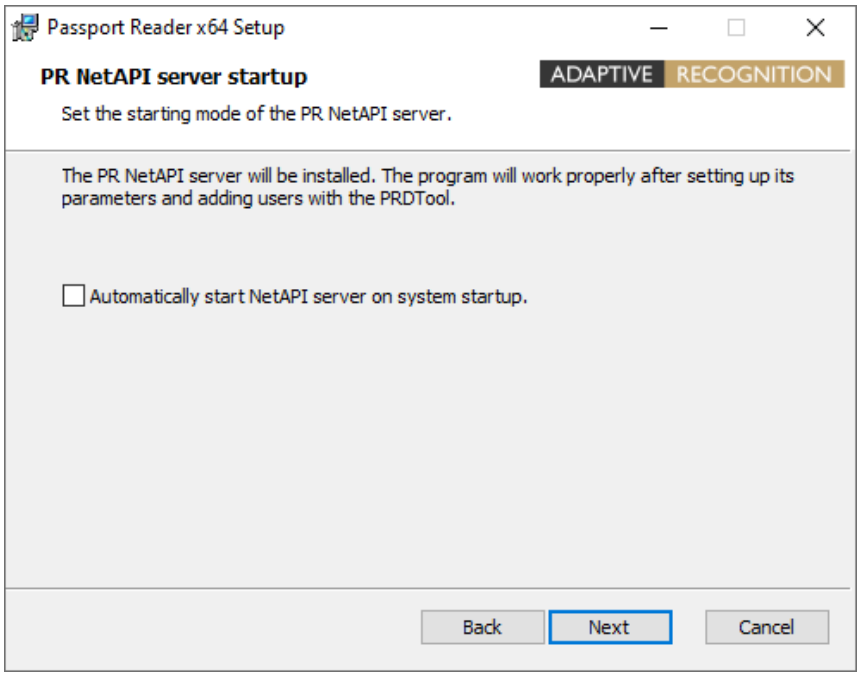


PCSC Settings

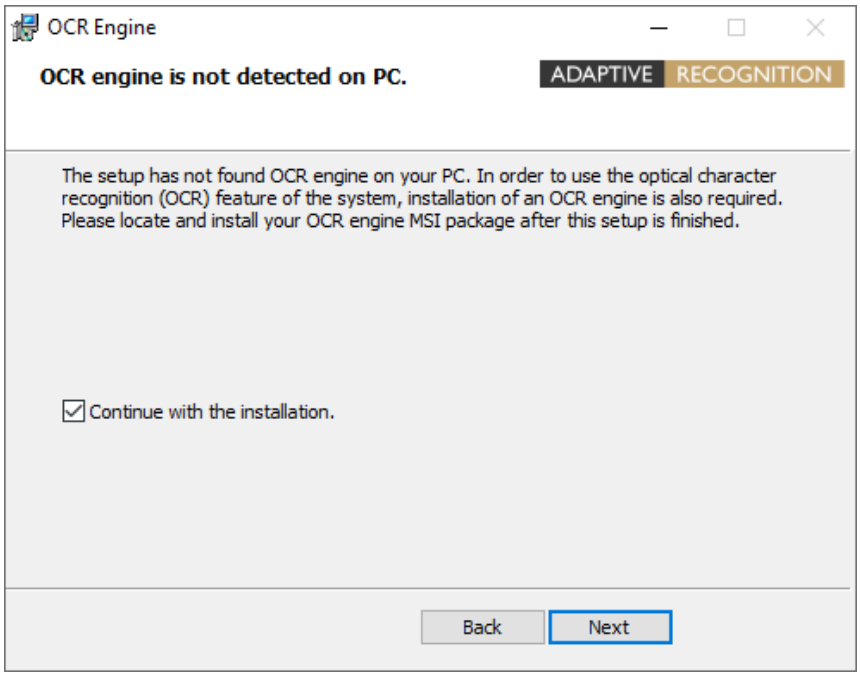
Important!

Please select the Autostart option only if you intend to use your document reader device via the PC/SC interface. This setting can also be modified after the installation is finished. For more information, please see the PC/SC section.



Important!

Please select the **Automatically start NetAPI server on system startup** option only if you intend to use your document reader device in NAI mode. In this mode the device is used with the Passport Reader Network API. This setting can also be modified after the installation is finished. For more information, please see the NetAPI (NAI mode) section.

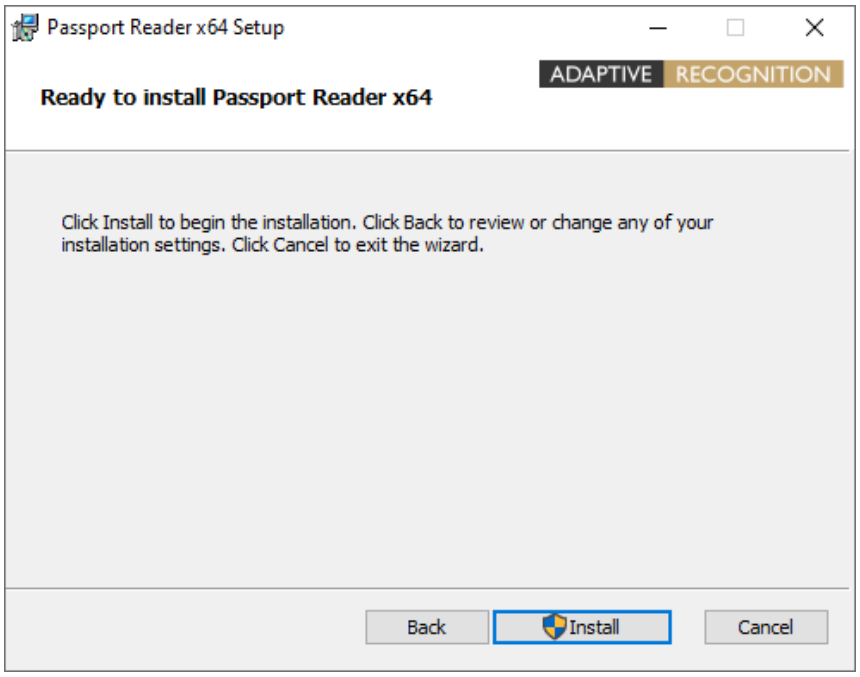


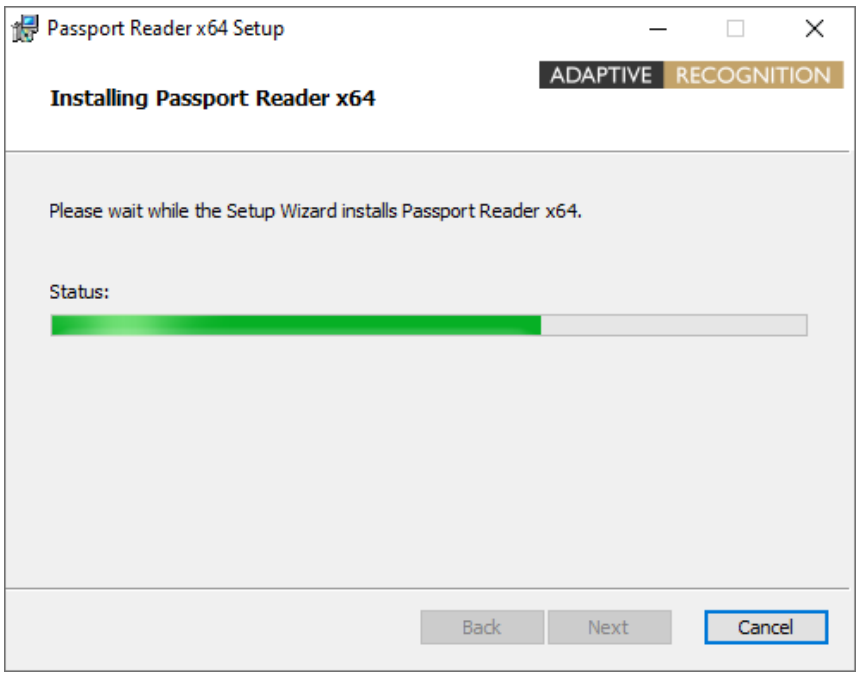
Important!

If the PR Software Package version is **below 2.1.11**, then in order to use the OCR functionality of your document reader device, please also install the **procr-2.0.x.xx.msi** package located in the **win** folder of the Passport Reader install package, after current installation is finished.

In the case of **version 2.1.11**, the OCR engine is embedded to the Passport Reader Software MSI. Therefore, when performing the software installation, the OCR engine is also installed.

8. Clicking on [Install] will begin installation.





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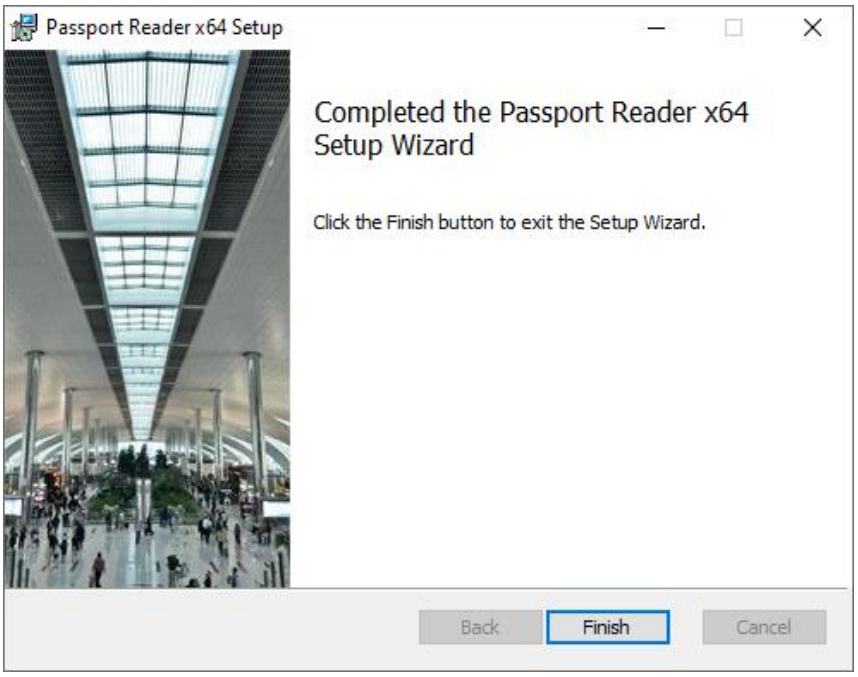
9. Click [Finish] to complete the installation.



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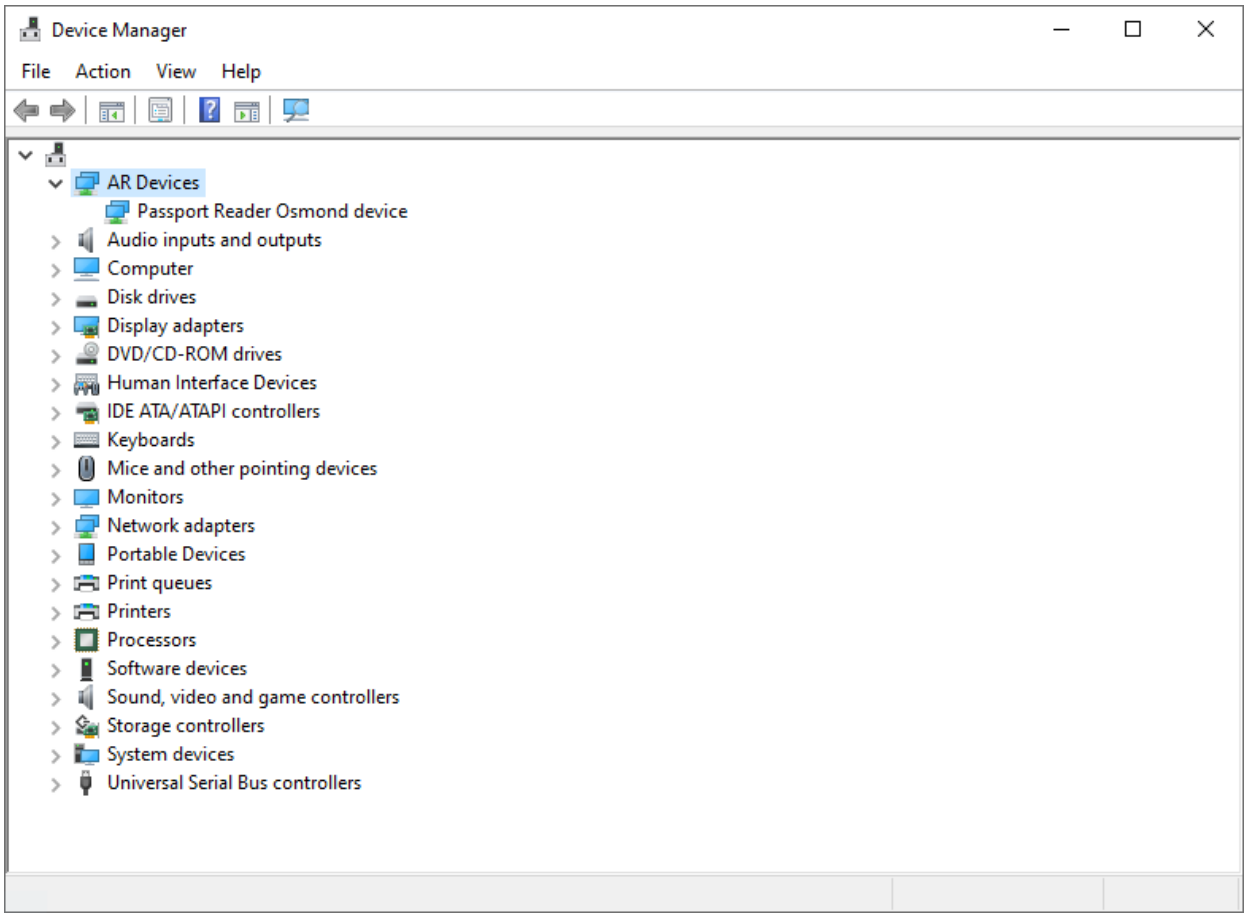
10. After the installation has finished, open the **Device Manager**. If the installation was successful, a group named **AR Devices** together with **Passport Reader Osmond device** (Osmond models) should be listed.



2.2. INSTALLATION ON LINUX OPERATING SYSTEM

Note

Please read through this manual carefully!

The Passport Reader is a travel document reader and analyzer system by AdaptiveRecognition Inc., which bases on the GX system and provides for software developers an easy-to-program interface through its Application Programming Interface.

2.2.1. BEFORE YOU INSTALL THE PACKAGES

The system was built under Ubuntu 16.04 and has been tested on:

- Ubuntu 16.04 LTS
- Ubuntu 20.04 LTS

Note

Please read the license agreement before installing the packages.

For the installation you need "GNU Make", "GNU C/C++" compiler and the corresponding GLIBC. The kernel headers and configuration files must be installed as well.

2.2.2. CONTENTS OF THE INSTALL PACKAGE

GX

`gx-7.2.x-x.tar.gz`	GX system

Passport Reader

`pr-2.1.x-x.tar.gz`	Passport Reader system
`prd-2.1.x-x.tar.gz`	PRDDRV driver for Passport Reader devices
`procr-2.x.x-x.tar.gz`	OCR engine
`fxmcusb-7.x.x-x.tar.gz`	USB Neural Network Controller devices
`licutils-7.x.x-x.tar.gz`	License manager
`pr-fullpagereader-2.x.x-x.tar.gz`	Full Page Reader application
`pr-authenticationchecker-2.x.x-x.tar.gz`	Authentication Checker application
`pr-certificates-x.tar.gz`	German master list certificate collection
`pr-udev-2.x.x-x.tar.gz`	Scripts and udev rules for automatic driver loading

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2.2.3. THE INSTALLATION PROCEDURE

1. Unpack and copy all files into your system:
   - use `_install.sh`

Dependencies:

Please install the following libraries with your distribution package manager or manually (these libraries are apart from services):

- SDL (A library for portable low-level access to a video framebuffer, audio output, mouse, and keyboard)
- SDL ttf (A library that enables using TrueType fonts in your SDL applications)
- SDL net
- SDL gfx (`libSDL-gfx1.2-4` if the `libSDL1.2-5` is available only then make a symbolic link in the `/usr/lib/x86_64-linux-gnu` folder with the following command `ln -s libSDL_gfx.so.15 libSDL_gfx.so.13`)
- SDL image
- FreeType (TrueType font rendering library)
- libpcsclite1
- pcscd
- Qt

GX: none
Passport Reader: GX

2. Compile kernel modules:

- Download a kernel source from https://github.com/torvalds/linux and unpack into `/usr/src` directory.

  If you have an older GX version in the kernel tree, please remove it manually by using the script `_uninstall.sh`.

  You can use the kernel source package of your distribution (e.g., Ubuntu 10.04 → linux-kernel-headers).

- Or make sure that the kernel config files are installed.
  Check the `/lib/modules/$(KERNEL_VERSION)/build` directory.

- Compile the AdaptiveRecognition Inc. drivers:
  Compile the drivers with "make" command in the following order:

  - `/usr/src/gx/kernel/gxsd`
  - `/usr/src/gx/kernel/prddrv`
  - `/usr/src/gx/kernel/fxmc_usb`

Note

If you get a "No rule to make target..." error message by typing "make":
If the output of "uname -i" is "unknown" and your system is either i386 or x86_64:
Make a symbolic link to e.g., `b_prddrv.o` by typing:

```
ln -s b_prddrv.o.x86_64 b_prddrv.o
```

according to your system.

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3. Install new kernel modules:

For PRDDRV:

```
/sbin/insmod /usr/src/gx/kernel/gxsd/gxsd.ko
/sbin/insmod /usr/src/gx/kernel/prddrv/prddrv.ko
```

4. Automatic driver loading is enabled by the pr-udev module.

This module enables the automatic installation of the driver modules upon connecting the reader to the PC. As a result, there is no need to start the driver manually.

Note

If this feature is unnecessary, then the user should remove the `98-ar.rules` from the `/etc/udev/rules.d` directory.

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2.2.4. AFTER INSTALLATION

Once installation is complete, you can find the manual for the GX and PR systems under `/usr/share/doc/gx`. The header files can be found in the SDK, the library files in `/usr/lib64/gx`.

The basic GX library is in `/usr/lib64 (libgxsd.so.7)`. The file containing the property data is `/var/gx/gxsd.dat`.

After the kernel modules were started, you can check the state of the running drivers under `/proc/gx`.

2.2.5. INSTALLATION OF ANOTHER ENGINE

The engine comes in a `.tar.gz` file. Type the following command to start the installation:

```
tar xvfz engine.tar.gz -C /
```

2.2.6. UNINSTALLATION

If you want to uninstall the AdaptiveRecognition Inc. files simply type:

```
_unistall.sh.
```


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3. READER CONFIGURATION

The Passport Reader device can be configured by those programs that are installed with the Passport Reader software package. These programs are the **PRDTool** and the **License Manager** utility programs.

PRDTool is part of the Passport Reader software packages from **version 2.1.9.1 and above**. This program is for querying device information and performing some low-level operations for Passport Reader USB devices, especially for the Osmond device.

License Manager is a license handling application which is designed to upload ADAPTIVE RECOGNITION passport reader license files to a specific document reader device. The application is installed with the Passport Reader software packages from **version 2.1.7. and above**.

For more information and detail on the PRDTool program or the Passport Reader licenses and license handling, see PRDTool or License Management appendices.

4. AUTHENTICATION CHECKER APPLICATION

ADAPTIVE RECOGNITION provides its Authentication Checker application included in the 2.1.9 Passport Reader (PR) software package.

This software offers full-spectrum ID document authentication with a range of security checks and visualization features. After each scanning, the software informs the user about the authenticity of the scanned document in a comprehensive way, with 4 views on one display.

The app works with fixed values to facilitate its use.

It provides:

- images scanned by different illumination sources (white, infra, UV)
- OCR mode to reach MRZ and VIZ data
- optical and RFID authentications as well as comparison of their results

The main emphasis is on the authentications to maximize the result of the examination.

This chapter is going to show you the functions of the app and the methods of the use.

The structure of this section is the following:

- First, the app overview and its accessing will be discussed.
- Next, a closer look will be taken at the Dashboard of the application.
- Finally, the user will be guided through the Sections of the application.

4.1. REQUIREMENTS

- An ADAPTIVE RECOGNITION scanner connected to your PC
- ADAPTIVE RECOGNITION Passport Reader Software version 2.1.10.2 or later
- PC: min. 2GB RAM, full HD display resolution (1920 x 1080)
- OS: 32/64-bit Windows 7/8/8.1/10 or Linux (ask for more information)

4.2. START AUTHENTICATION CHECKER

Windows

After installing ADAPTIVE RECOGNITION software package on your computer, you will be able to open Authentication Checker from **Windows Start menu > Adaptive Recognition > (Passport Reader) > Authentication Checker x86** or **x64** (based on your computer architecture and previous installation).

Linux

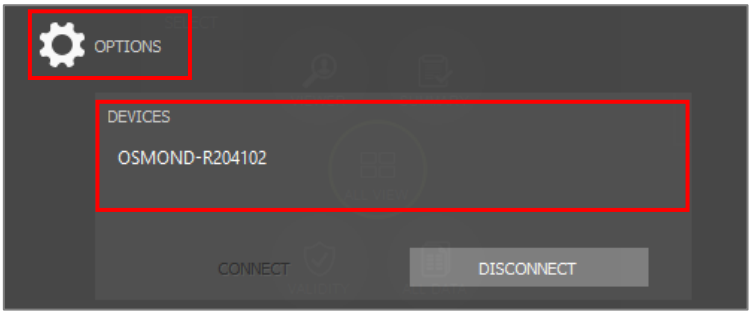
Depending on your distribution, you can open command terminal and insert: **AuthenticationChecker** or use dashboard search bar: **Linux Start menu > Applications > Adaptive Recognition Apps > Authentication Checker 64-bit version** (based on your computer architecture and previous installation).

Adaptive Recognition **America**
Adaptive Recognition **Hungary**
Adaptive Recognition **Nordic**
Adaptive Recognition **Singapore**
REQUESTINFO@ADAPTIVERECOGNITION.COM
WWW.ADAPTIVERECOGNITION.COM

4.3. CONNECTION

In order to scan with any ADAPTIVE RECOGNITION reader device, you have to make sure that there is an available reader connected to your computer and it is turned on.

You can check the DEVICES list in the OPTIONS menu.



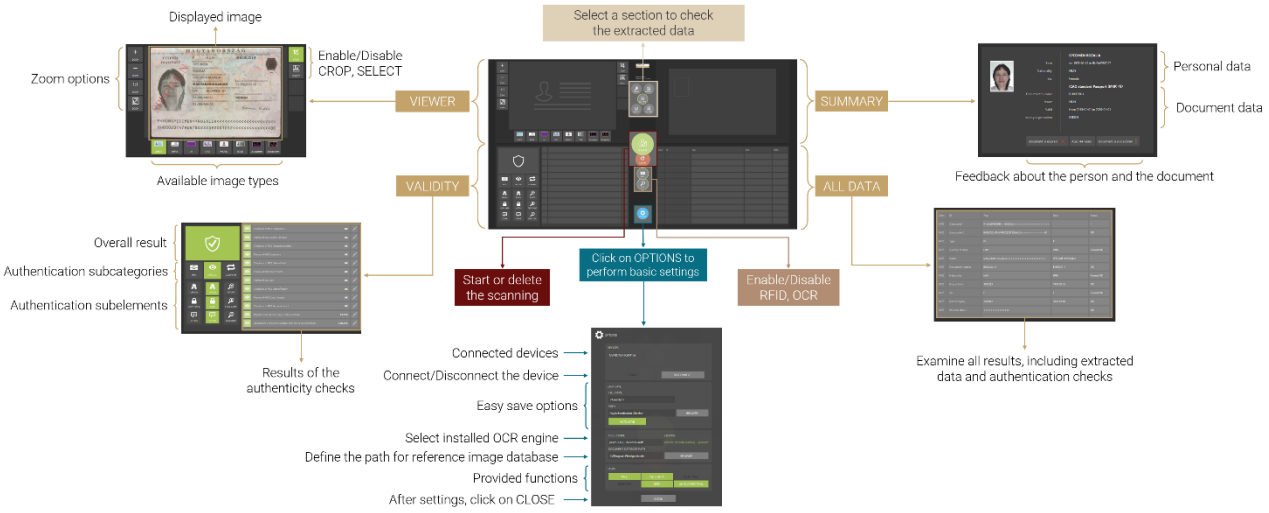
Note

By default, the app is connecting automatically to the document reader.

Note

If the device is connected properly, the SCAN button turns green. If the connection is unsuccessful, the SCAN button remains grey.

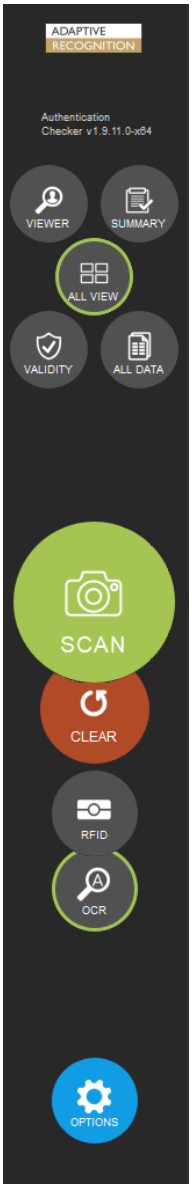
4.4. OVERVIEW



4.5. DASHBOARD

You can direct the operation of the program, change views, start or delete a scanning as well as perform some basic settings.

> **Note**
>
> In ALL VIEW mode the Dashboard is located in the middle of the opened window, while in the selected view (VIEWER, VALIDITY, SUMMARY, ALL DATA) on the right side of the window.



ALL VIEW

Use the ALL VIEW button to check all results (VIEWER, VALIDITY, SUMMARY, ALL DATA) on one display.

VIEWER

Select VIEWER to examine the scanned images under several illuminations on full screen.

VALIDITY

Select VALIDITY to view the results of the authenticity checks, including optical checks, digital data verification and comparison checks on full screen.

SUMMARY

Select SUMMARY to look at the selection of the extracted personal and document data on full screen.

ALL DATA

Select ALL DATA to examine all results, including extracted data and authentication checks on full screen.

SCAN

Click on the [SCAN] button to start the scanning process, if the AUTO DETECTION mode is not selected.

The status signal around the SCAN button indicates the progression of the scanning process.

> **Note**
>
> AUTO DETECTION mode is switched on by default, thereby the scanning will start automatically.

CLEAR

Use the [CLEAR] button to delete the extracted data of the previously scanned document.

RFID

Click on the [RFID] button to enable/disable RFID reading.

> **Note**
>
> The green outline around the button indicates that the function is turned on.

> **Note**
>
> The MRZ reading is part of the OCR, but since it is needed for RFID reading in the most cases of the documents, the RFID and OCR buttons impact the enabling of MRZ reading. To turn on/off MRZ reading separately, click on OPTIONS and enable/disable MRZ by clicking on it at the TASKS.

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OCR

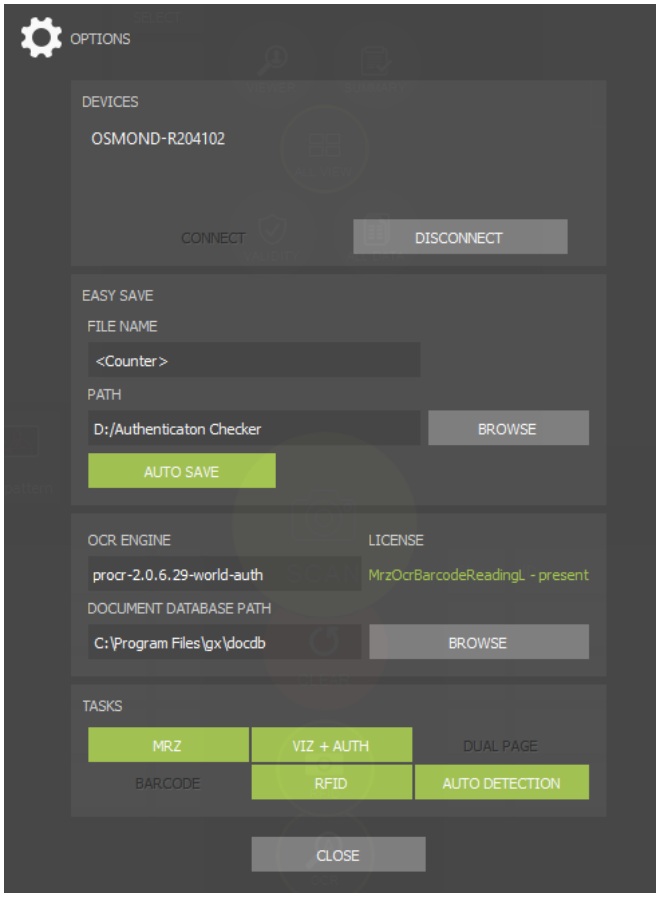
Click on the [OCR] button to enable/disable optical character recognition.

> **Note**
>
> The green outline around the button indicates that the function is turned on.

> **Note**
>
> The MRZ reading is part of the OCR, but since it is needed for RFID reading in the most cases of the documents, the RFID and OCR buttons impact the enabling of MRZ reading. To turn on/off MRZ reading separately, click on OPTIONS and enable/disable MRZ by clicking on it at the TASKS.

OPTIONS

Click on the [OPTIONS] button to perform some fundamental settings, customize the scanning process.



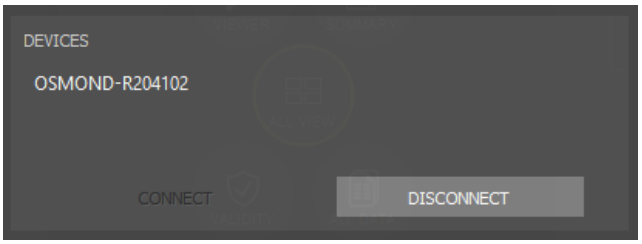
4.5.1. OPTIONS

1. DEVICES

You can see the list of the document scanners connected to your computer.

> **Note**
>
> By opening the app, the device is connected automatically.

> **Note**
>
> You can work with only one device at a time.



2. EASY SAVE

The EASY SAVE can make frequent document saving simpler. Turn AUTOSAVE on and set the FILE NAME and PATH to save the results of all scanning process automatically. After that, the software creates the filename automatically based on the configured template, then saves the .zip to the path specified.

Note

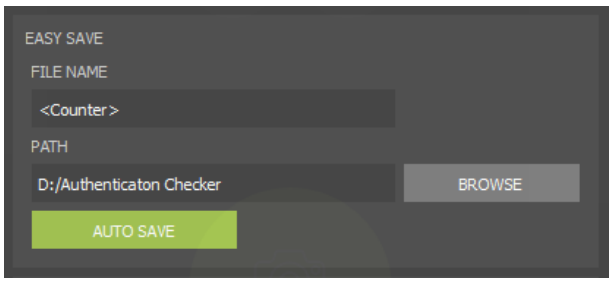
When using EASY SAVE, determine the filename syntax and path before first scanning. This option will save every scanning into the same path.

Important!

If the AUTOSAVE is not turned on, the saving process is skipped.

Note

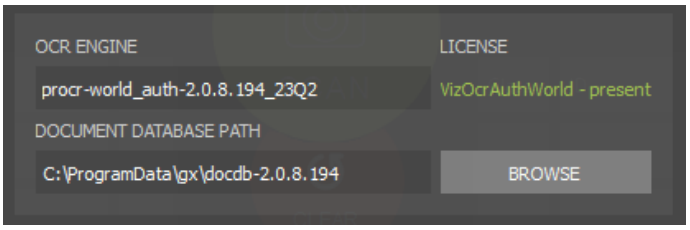
If you want to save encrypted files which can only be decoded in ADAPTIVE RECOGNITION's network, then, when saving the file select .ecz extension.
For more information on encrypted autosave, see the Encrypted Autosave in Authentication Checker chapter.



3. OCR ENGINE

The optical character recognition process of each document is performed by the **OCR ENGINE**. Select between **installed OCR engines on your computer**, if you have several installed engines. A dropdown list shows your available engine(s). With a left-click you can select your appropriate one. After selection, the software displays a status message about the required engine-license and its availability. The **DOCUMENT DATABASE PATH** is set by default as you install VIZ OCR+Auth engine to your computer. The purpose of this function is to allow visual comparison of the authenticated document sections with images stored in a reference database. If the document database is not set or installed, the authentication feature still operates and its results are returned.

> **Note**
>
> The non-default settings of the **OCR ENGINE** and **DOCUMENT DATABASE PATH** are not saved. If you close and reopen the app, the default settings will be valid again.



4. TASKS

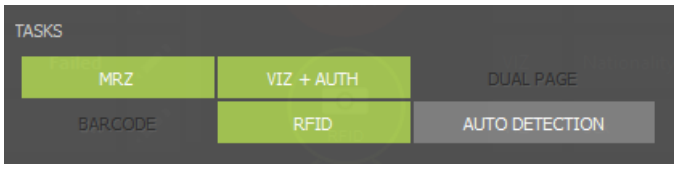
Select between the provided functions: MRZ, VIZ+AUTH, RFID reading and AUTO DETECTION.

MRZ: Select this task to get the data of the Machine Readable Zone.

VIZ+AUTH: Enable this task to read document-specific data and verify the optical authentications from the Visual Inspection Zone of different national documents.

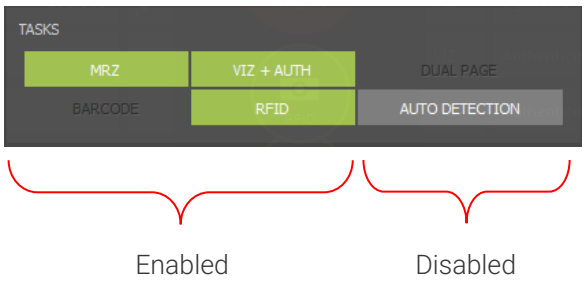
RFID: Choose this task to read the data from the document's built-in RFID chip.

AUTO DETECTION: Enable/Disable the automatic document presence detection mode (motion detection). This feature senses documents placed on the scanner glass surface. Whenever a document is present, the software captures images of the document.



Note

Click on the button of the given task to enable (green background) or disable (grey background) it.



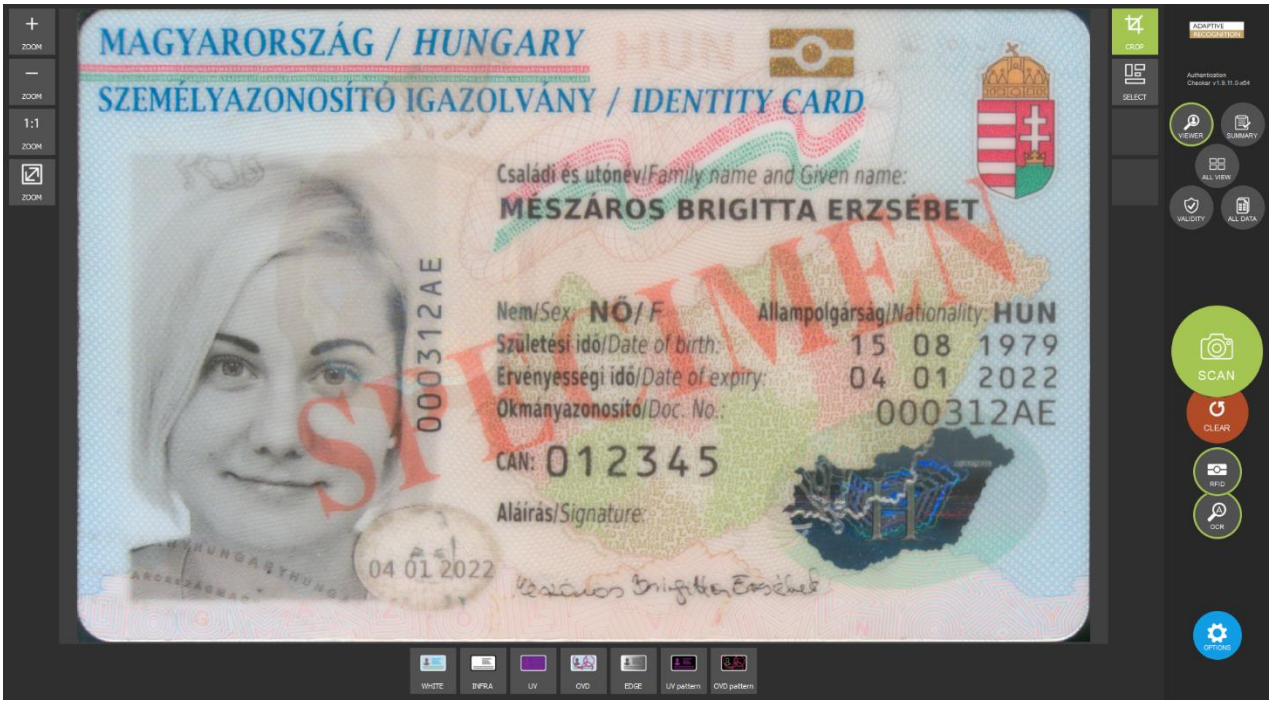
Note

After performing settings, close the window with the [CLOSE] button to start document reading.

4.6. SECTIONS

4.6.1. VIEWER

In the VIEWER section the scanned and/or selected images are displayed. Observe the images under various illuminations, zoom in/out, crop and fit the image to screen as well as perform manual security feature checks.



1. ZOOM OPTIONS

- Zoom in (+)
- Zoom out (-)
- 1:1 Zoom: shows scanned image in actual size
- Fit Zoom: fits scanned image to screen

Note

- You can zoom in by left-clicking inside the image and dragging your mouse over the area you wish to enlarge.
- You can use the scroll to zoom in and out.
- To return to the original (fit) view, double-click in the picture.
- When the image is zoomed in, drag the document with the right mouse button to observe the entire document.

2. CROP

Enable/Disable **CROP** by clicking on the button.

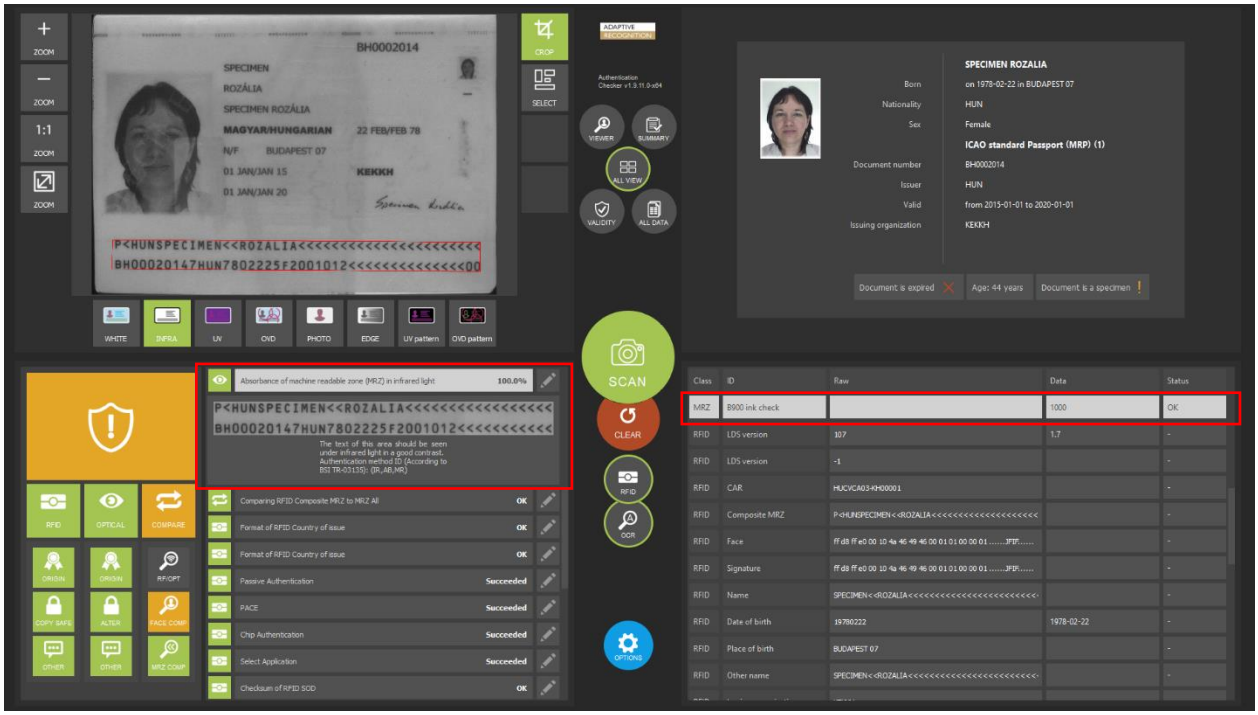
It crops and rotates documents into upright position.

3. SELECT

The **SELECT** function shows you the read authentication and OCR fields.

> **Hint**
>
> If **SELECT** is turned on and the cursor is over the **SELECT** button, at that time the frame of every read field will appear.
>
> If **SELECT** is turned on and the cursor is over the buttons of the different image types, at that time the frames of the read data by the given illumination will appear.

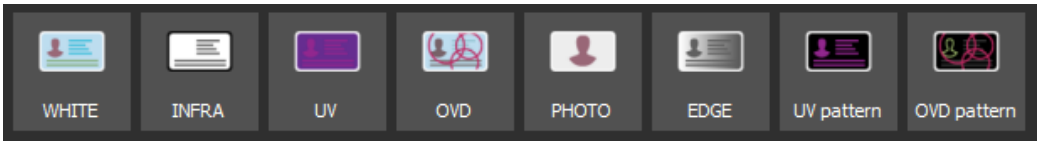
By moving the mouse inside the scanned picture, frames close to the cursor will appear around the read fields. If you click on one of them in **ALL VIEW** mode, in the **VALIDITY** and **ALL DATA** sections the related check(s) to the data in the frame will be highlighted in grey. In these sections you can check the meaning of the given data, how it has been read and the result of the reading.



> **Note**
>
> If you click on the **Dashboard**, the selection will be cancelled.

4. IMAGE TYPES

> **Note**
>
> The number of image types depends on the capabilities of the given scanner.



- WHITE: visible white illumination (with reflection removal)

  Enable/Disable WHITE illumination by right-clicking on its button.

  An image scanned in white light is a simple photo of the document – as it can be seen by the human eye. It is usable for human inspection and for examination of background pattern or face photo.

- INFRA: B900 infrared illumination

  Enable/Disable INFRA illumination by right-clicking on its button.
  In this illumination, the background patterns are not visible, so optical recognition algorithms provide better results.

- UV: ultraviolet (UV-A) illumination

  Enable/Disable UV illumination by right-clicking on its button.
  Images scanned in ultraviolet illumination can be used to check authenticity features (graphics and text printed with special fluorescent ink) which are only visible under UV light. These authenticity features can be observed by viewing the UV image or the UV pattern (clean UV) image. In the case of the latter one, the background is darker so the authenticity features can be seen more clearly.

UV

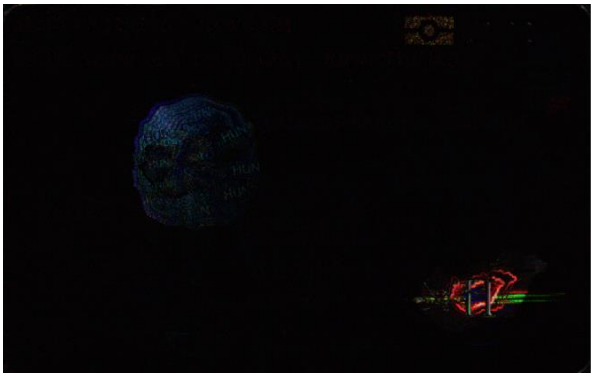
UV pattern

- OVD

  Enable/Disable OVD illumination by right-clicking on its button.

  The Passport Reader system is capable of visualizing and removing simple holograms and most types of OVI patterns. Holograms can be observed by viewing the **OVD** image or the **OVD pattern (clean OVD)** image. In the case of the latter one, just the hologram can be seen from the document.

OVD



OVD pattern

- PHOTO

> **Note**
>
> The **Photo** light is only available for Osmond USB models manufactured from December 2022.

Enable/Disable the **PHOTO** light by right-clicking on its button.

Photo light is optimized for scanning photos with very high image details and color accuracy. **Photo** image is similar to an image scanned in white light with more sharpness and contrast.

Image scanned in White light

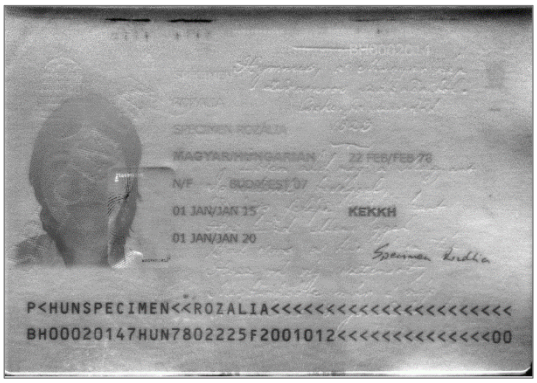
Image scanned in Photo light

> **Note**
>
> Using **Photo** light is increasing processing time. Use only when it is needed.

- EDGE

  Enable/Disable **EDGE** light by right-clicking on its button.

  When using Edge light, the document is illuminated at a flat angle in order to make the protruding objects located on the document cast a shadow.



In the VIEWER section two image types can be examined alternately. Select one of the required image types by clicking on its icon, then click on the other and continue clicking on it as long as it is necessary. Thereby the two selected images will alternate. This way both lights can be observed without diverting the attention of the operator or moving the mouse.

Note

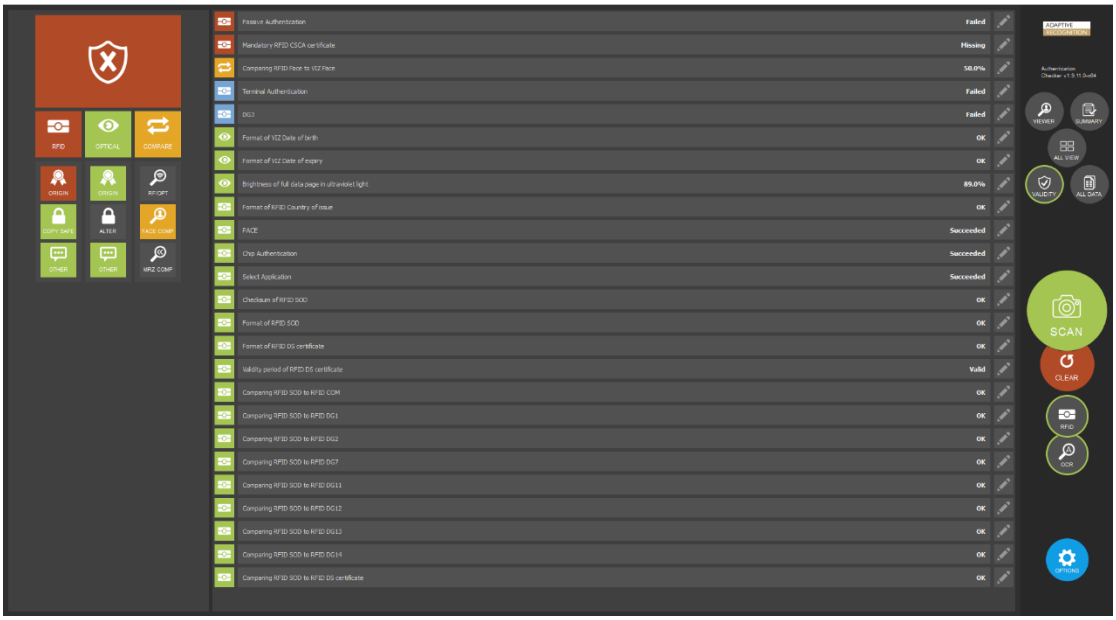
Use the right mouse click to enable/disable the several illuminations of the application. When disabled, the icon is grey. When enabled, the icon is colored.

Note

If you click on the ALL VIEW button, you will get back to the divided view.

4.6.2. VALIDITY

In the VALIDITY section the results of the authenticity checks are displayed, including digital data verification (RFID), optical (OPTICAL) and comparison checks (COMPARE).



1. OVERALL RESULT

		
GENUINE	WARNING	FAILED
This document has been found genuine. See confidence rates in the chart.	Questionable authentication results or reading failures. See details in the chart. Manual inspection is recommended.	Unsatisfactory authentication results or reading failure of key data. In-depth manual inspection is recommended.

Note

If you click on the symbol, you will get the results of every extracted data in the chart.

Note

Some tests are not executed by the Passport Reader System, but by this program. The results of these tests currently do not count into the overall result and do not appear in this panel. They only appear in the SUMMARY section.

2. AUTHENTICATION CATEGORIES

- RFID: authentications in relation to e-documents (performing various access control functions and checking data integrity/genuineness of the chip)
- OPTICAL: security checks of optical security features, including ink, paper material, pattern matching using various illuminations, etc.
- COMPARE: printed vs. digital data comparison checks (including MRZ and face photo)

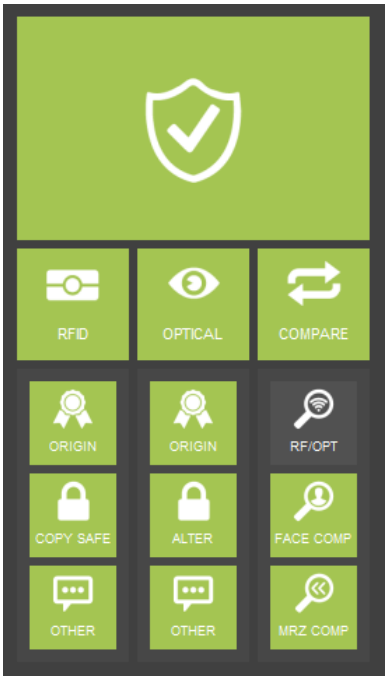
> **Note**
>
> If you click on one of the categories, you will get exclusively its results in the chart.

3. AUTHENTICATION ELEMENTS

Each category has 3 elements:

RFID

- ORIGINALITY: Checks if the data on the RF chip of the electronic document is authentic and unforged
- COPY SAFE: Uncovers cloned RF chips
- OTHER: Checks which do not belong to the previous two elements



OPTICAL

- ORIGINALITY: Checks if the physical document is authentic
- ALTERATION: Checks if the document data has been tampered with
- OTHER: Checks which do not belong to the previous two elements

COMPARE

- RF/OPT: –
- FACE COMPARISON: Compares the VIZ face (the printed face photo on the document) to the RFID face (stored in the chip)
- MRZ COMPARISON: Compares MRZ (on the document) to RFID MRZ (stored in the chip)

> **Note**
>
> If you click on one of the elements, you will get exclusively its results in the chart.

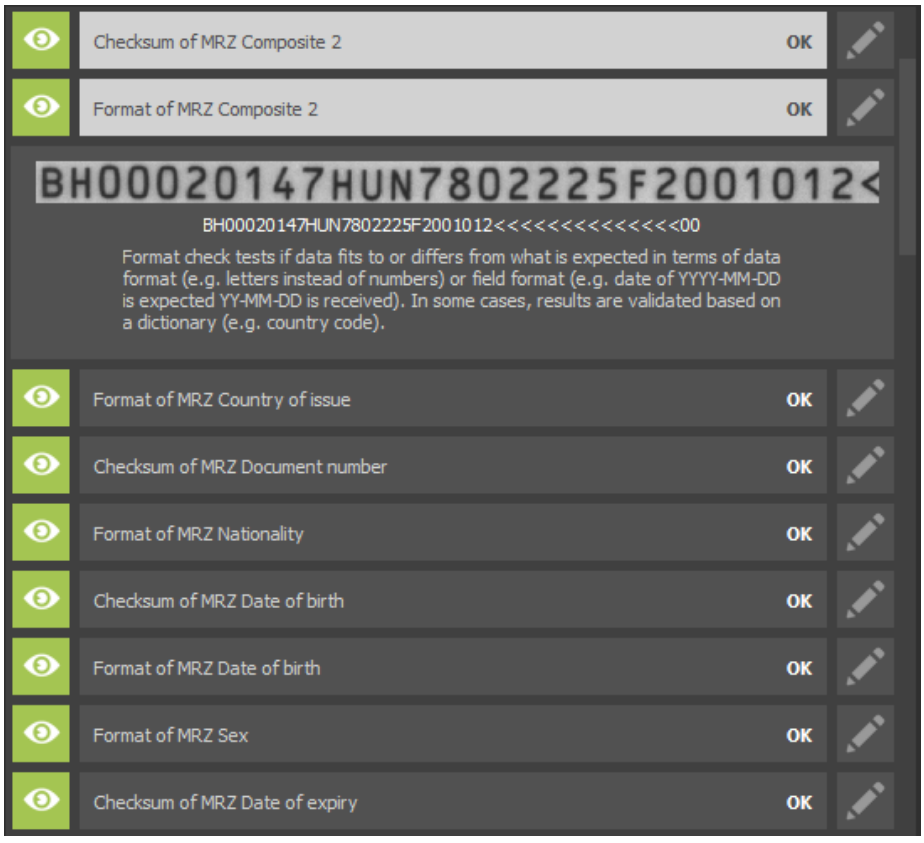
4. THE CHART

In the chart the different checks and their results are displayed. By clicking on a check, a short description about the given check as well as the interpretation of its result, image(s) from the reference database (if the OCR ENGINE and the DOCUMENT DATABASE PATH are set), picture(s) about the given data on the document (optional) and the read data (optional) can be seen.
On the left side of the chart the authentication categories' symbols can be seen, that shows you which category the given check belongs to. The background colors of the symbols indicate the given check's result, except blue, which means test results unrelated to document security. On the right side of the chart the given check's result can be seen.

The display of the results can be filtered by the following:

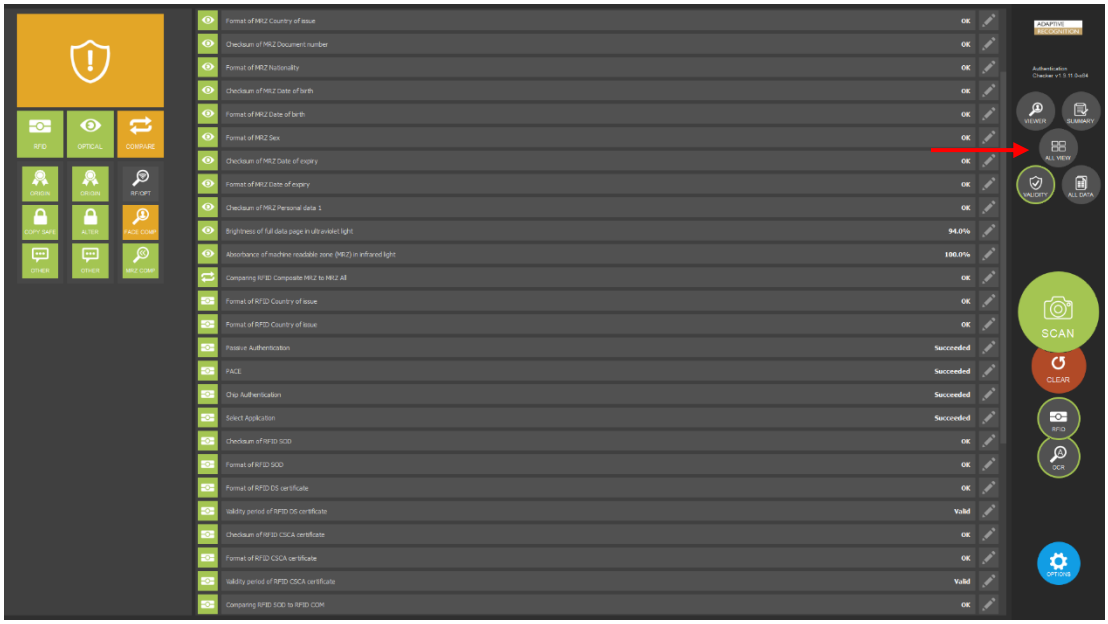
- displays the results of every extracted data (by clicking on the symbol of the overall result)
- displays just the results of a chosen category (by clicking on a category)
- displays just the results of a chosen element (by clicking on an element)

> **Note**
>
> More checks may be highlighted at the same time in the chart, if on the given data can be performed different inspectorial processes.



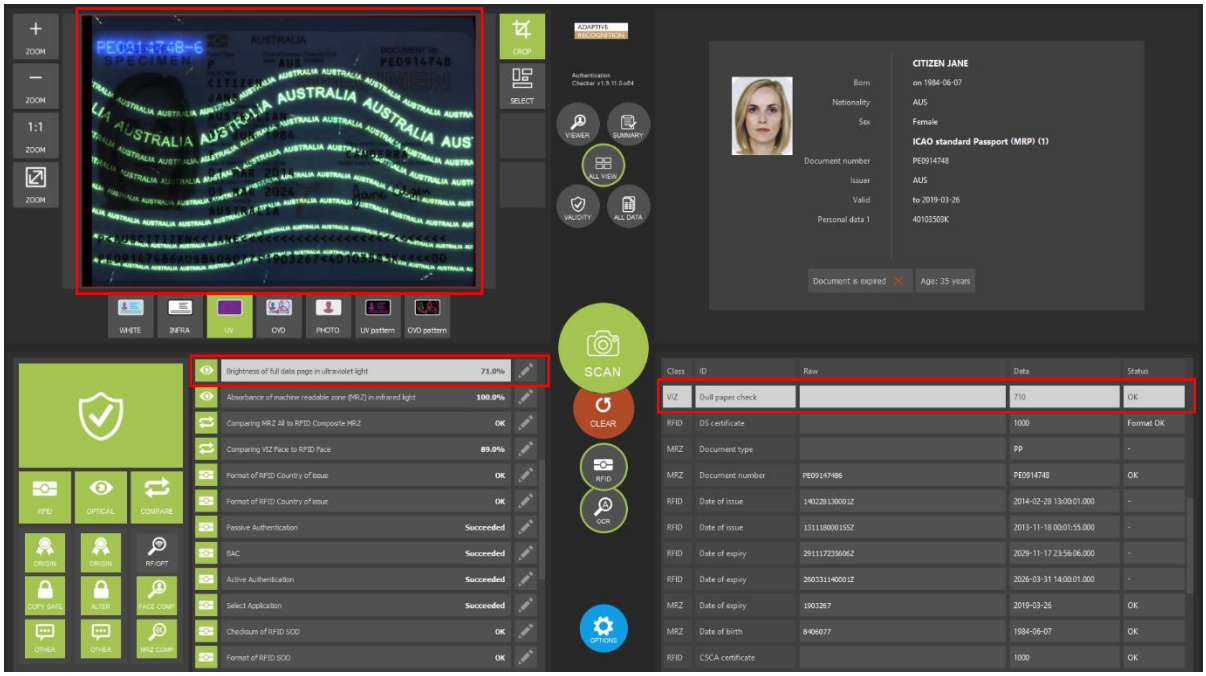
Note

If you click on the ALL VIEW button, you will get back to the divided view.



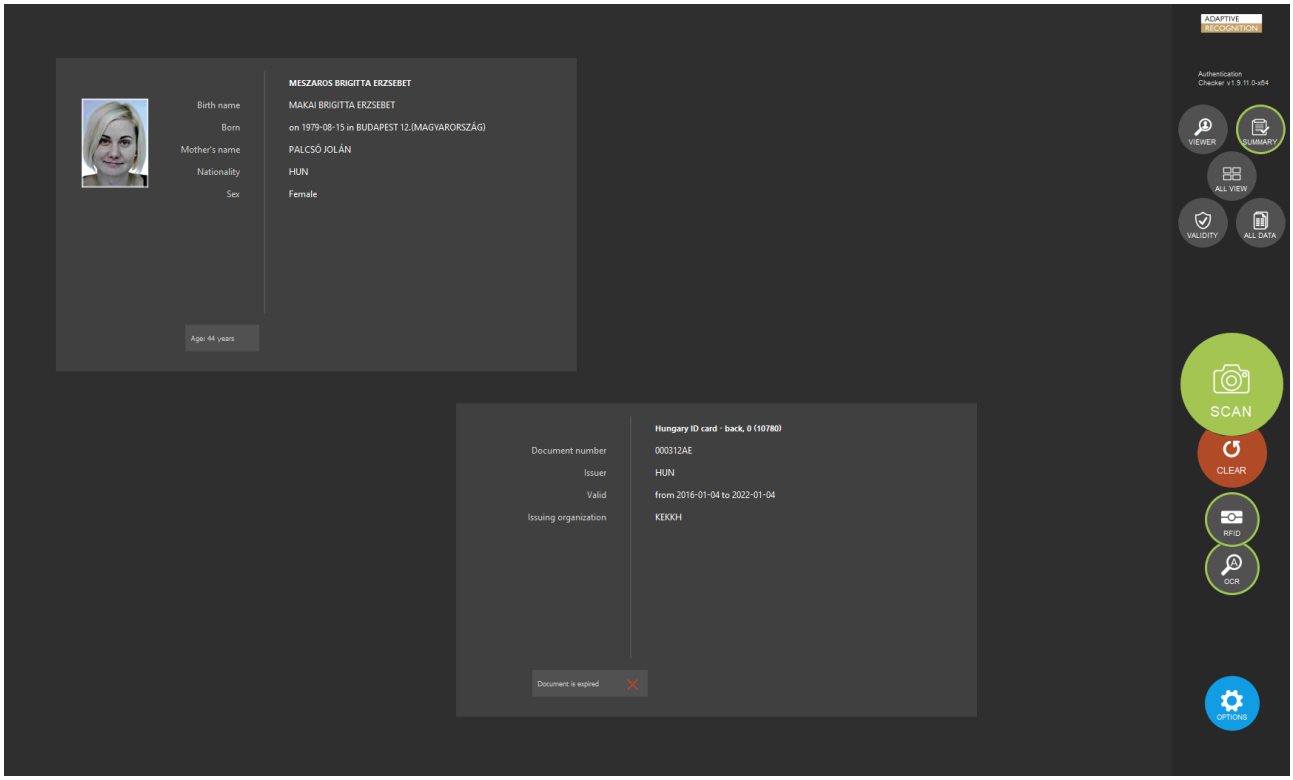
Note

If you click on a certain data in the VALIDITY section in ALL VIEW mode, a red frame will be displayed around the original location of the data in the VIEWER section as well as in the ALL DATA section the related check(s) to the data will be highlighted in grey. To cancel the selection, click on the Dashboard.



4.6.3. SUMMARY

In the SUMMARY section, selection of the essential personal and document data is displayed. The scanned data is displayed in two separate windows depending on the data type (personal or document data).



SUMMARY section summarizes the result of the scanning process.
It displays:

- essential personal information: name, birth name, date of birth, nationality, sex, face photo
- essential document information: document type, document number, document issuer country, document validity, issuing organization
- feedback:
  - document is expired/document is not expired/document with a close expiry date
  - age
  - document is a specimen
  - unknown document

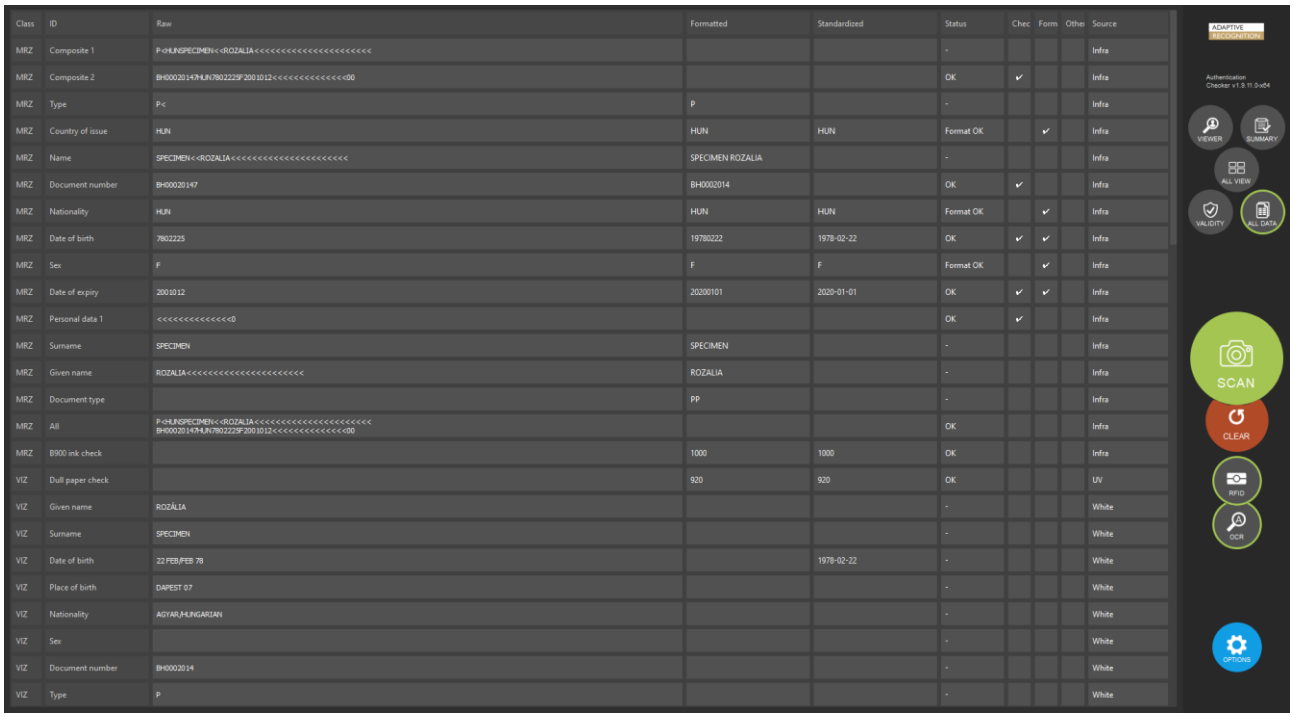
> **Note**
>
> If you click on the ALL VIEW button, you will get back to the divided view.

4.6.4. ALL DATA

The ALL DATA section displays all available data retrieved from the document.

Note

More details (e.g., more columns) can be found in the ALL DATA panel than in the ALL VIEW mode.



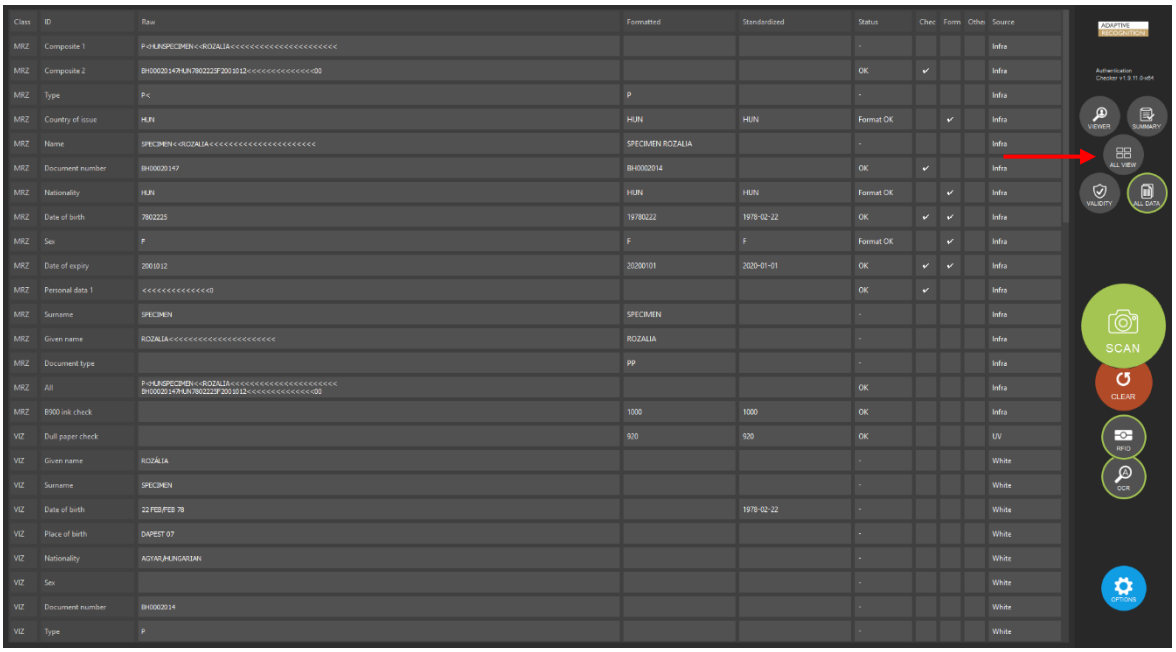
Class	ID	Raw	Formatted	Standardized	Status	Chec	Form	Other	Source
MRZ	Composite 1	P<HUNSPECIMEN<<ROZALIA<<<<<<<<<<<<<<<<<<<<			-				Infra
MRZ	Composite 2	BH00020147HUN7802225F2001012<<<<<<<<<<<<<<00			OK	✔			Infra
MRZ	Type	P<	P		-				Infra
MRZ	Country of issue	HUN	HUN	HUN	Format OK		✔		Infra
MRZ	Name	SPECIMEN<<ROZALIA<<<<<<<<<<<<<<<<<<<<	SPECIMEN ROZALIA		-				Infra
MRZ	Document number	BH00020147	BH0002014		OK	✔			Infra
MRZ	Nationality	HUN	HUN	HUN	Format OK		✔		Infra
MRZ	Date of birth	7802225	19780222	1978-02-22	OK	✔	✔		Infra
MRZ	Sex	F	F	F	Format OK		✔		Infra
MRZ	Date of expiry	2001012	20200101	2020-01-01	OK	✔	✔		Infra
MRZ	Personal data 1	<<<<<<<<<<<<<0			OK	✔			Infra
MRZ	Surname	SPECIMEN	SPECIMEN		-				Infra
MRZ	Given name	ROZALIA<<<<<<<<<<<<<<<<<<<<	ROZALIA		-				Infra
MRZ	Document type		PP		-				Infra
MRZ	All	P<HUNSPECIMEN<<ROZALIA<<<<<<<<<<<<<<<<<<<< BH00020147HUN7802225F2001012<<<<<<<<<<<<<<00			OK				Infra
MRZ	B900 ink check		1000	1000	OK				Infra
VIZ	Dull paper check		920	920	OK				UV
VIZ	Given name	ROZÁLIA			-				White
VIZ	Surname	SPECIMEN			-				White
VIZ	Date of birth	22 FEB/FEB 78		1978-02-22	-				White
VIZ	Place of birth	DAPEST 07			-				White
VIZ	Nationality	AGYAR/HUNGARIAN			-				White
VIZ	Sex				-				White
VIZ	Document number	BH0002014			-				White
VIZ	Type	P			-				White

Note

If you click on the header of the columns, the data order will be reversed as well as the aspect of the order can be modified because the app categorizes the related ones.

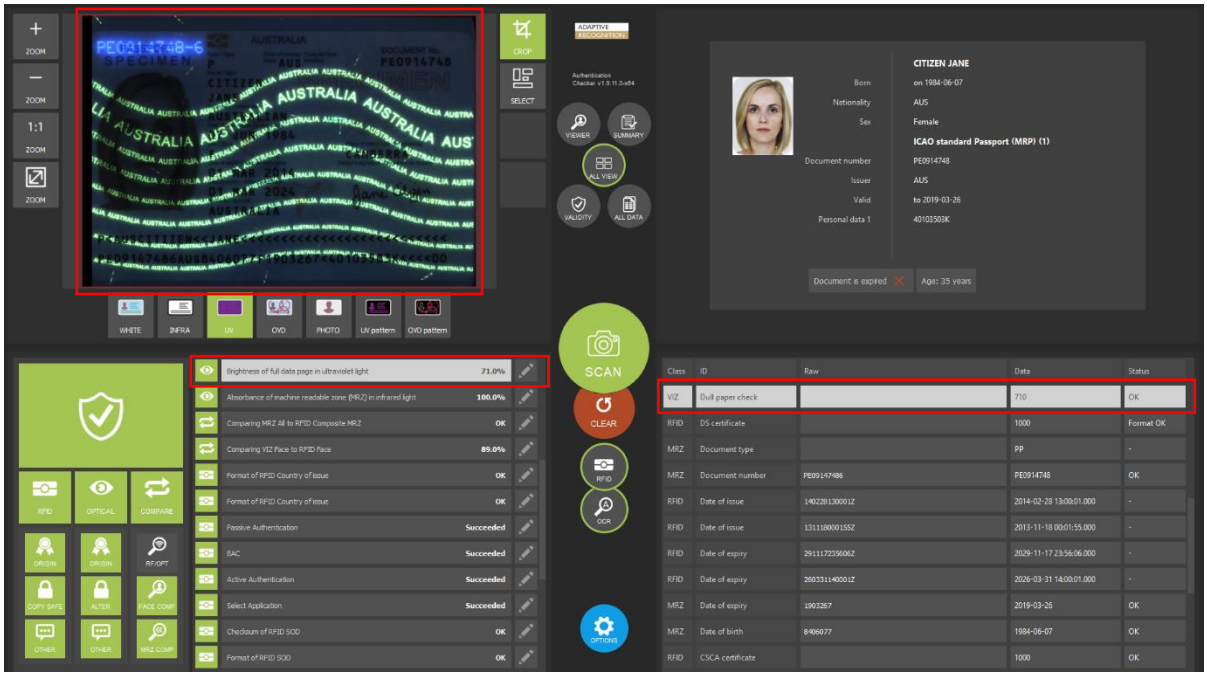
Note

If you click on the **ALL VIEW** button, you will get back to the divided view.



Note

If you click on a certain data in the **ALL DATA** section in **ALL VIEW** mode, a red frame will be displayed around the original location of the data in the **VIEWER** section as well as in the **VALIDITY** section the related check(s) to the data will be highlighted in grey. To cancel the selection, click on the **Dashboard**.



4.7. CERTIFICATES

For successful authentication, the reader needs digital certificates from the document issuer authorities. This software contains these certificates for currently used passports, but in order to support the latest documents, the certificates should be updated from time to time.

Hint

The Passport Reader software package is implemented with German Master List that includes CSCA certificates of hundreds of documents.

You may download and use the latest version of this master list from https://www.bsi.bund.de/SharedDocs/Downloads/DE/BSI/ElekAusweise/CSCA/GermanMasterList.html

5. FULL PAGE READER APPLICATION

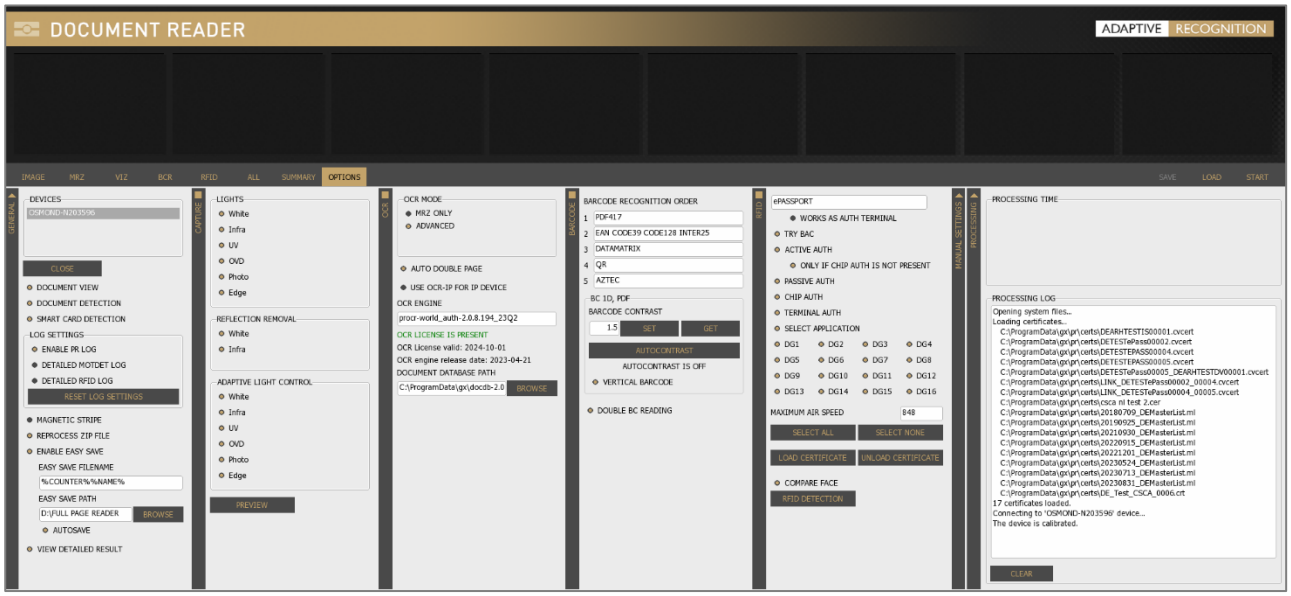
ADAPTIVE RECOGNITION provides its Full Page Reader (FPR) application included in the Passport Reader (PR) software package. Full Page Reader application is able to fully exploit the ADAPTIVE RECOGNITION document reader devices' capabilities on user level.

It provides:

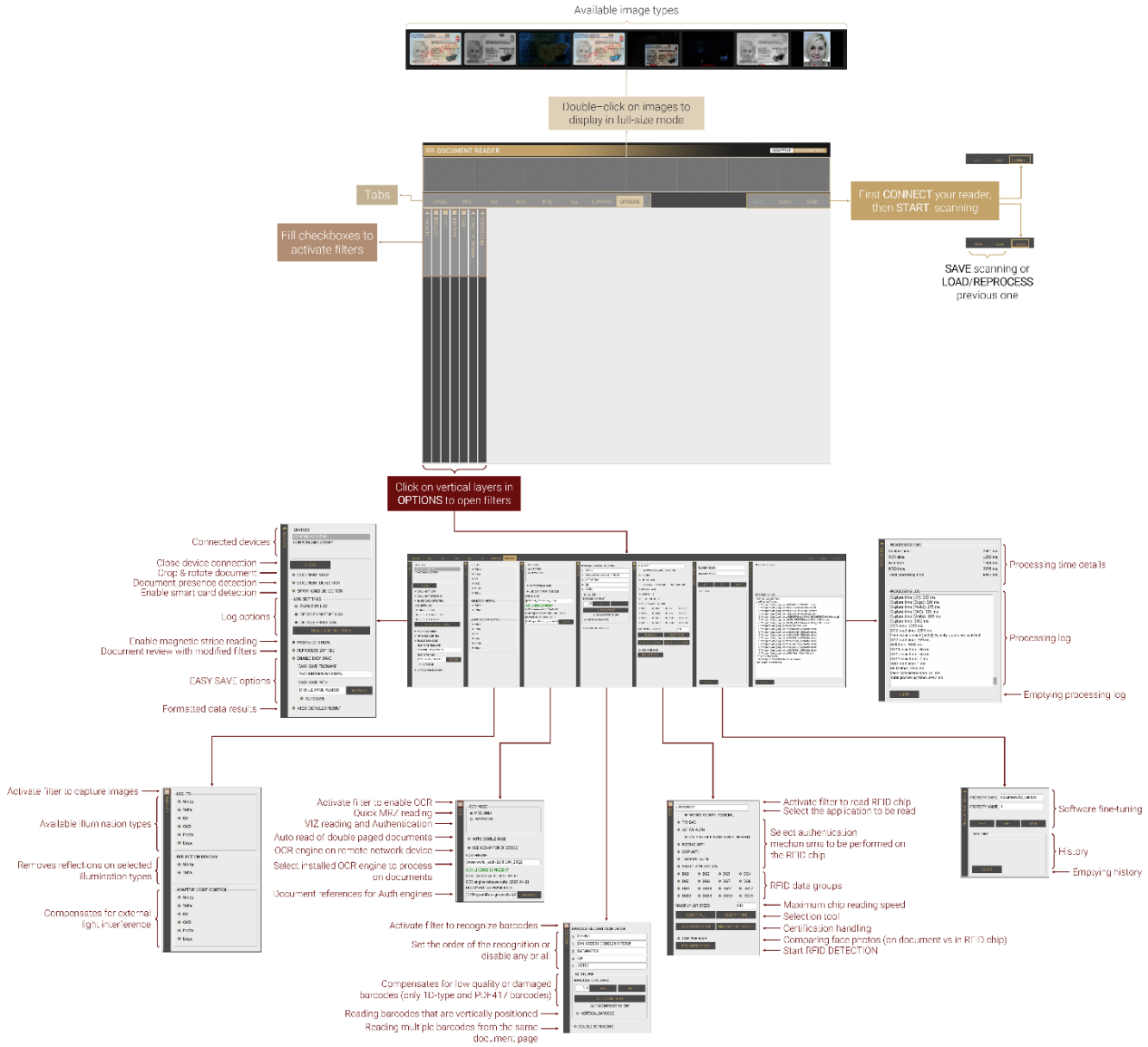
- images scanned by different illumination sources (white, infra, UV)
- OCR mode to reach MRZ, VIZ data and read different barcode types
- optical and RFID authentications

This chapter is going to show you the functions of the app and the methods of the use.
The structure of this section is the following:

- First, the device overview and its accessing will be discussed.
- Next, a closer look will be taken at the tabs of the application.
- Then, the user will be guided through the settings of the Options tab menu.
- Finally, a list of frequently asked questions is expounded.



5.1. OVERVIEW


Available image types
Double-click on images to display in full-size mode
Tabs
Fill checkboxes to activate filters
First CONNECT your reader, then START scanning
SAVE scanning or LOAD/REPROCESS previous one
Click on vertical layers in OPTIONS to open filters
Connected devices
Close device connection
Drag & rotate document
Document presence detection
Enable smart card detection
Log options
Enable magnetic stripe reading
Document review with modified filters
EASY SAVE options
Formatted data results
Processing time details
Processing log
Emptying processing log
Activate filter to capture images
Available illumination types
Removes reflections on selected illumination types
Compensates for external light interference
Activate filter to enable OCR
Quick MRZ reading
VIZ reading and Authentication
Auto read of double paged documents
OCR engine on remote network device
Select installed OCR engine to process on documents
Document references for Auth engines
Activate filter to recognize barcodes
Set the order of the recognition or disable any or all
Compensates for low quality or damaged barcodes (only 1D-type and PDF417 barcodes)
Reading barcodes that are vertically positioned
Reading multiple barcodes from the same document page
Activate filter to read RFID chip
Select the application to be read
Select authentication mechanisms to be performed on the RFID chip
RFID data groups
Maximum chip reading speed
Selection tool
Certification handling
Comparing face photos (on document vs in RFID chip)
Start RFID DETECTION
Software fine-tuning
History
Emptying history

5.2. REQUIREMENTS

- ADAPTIVE RECOGNITION ID/Passport Reader device(s) connected to the PC
- PC: minimum 2 GHz CPU and 1GB RAM
- OS: 32/64-bit Windows XP/Vista/7/8/8.1/10 or Linux (ask for more information)

5.3. START FULL PAGE READER

- Windows

  After installing ADAPTIVE RECOGNITION software package on your computer, you will be able to open Full Page Reader from **Windows Start menu > Adaptive Recognition > (Passport Reader) > Full Page Reader x86 or x64** (based on your computer architecture and previous installation).

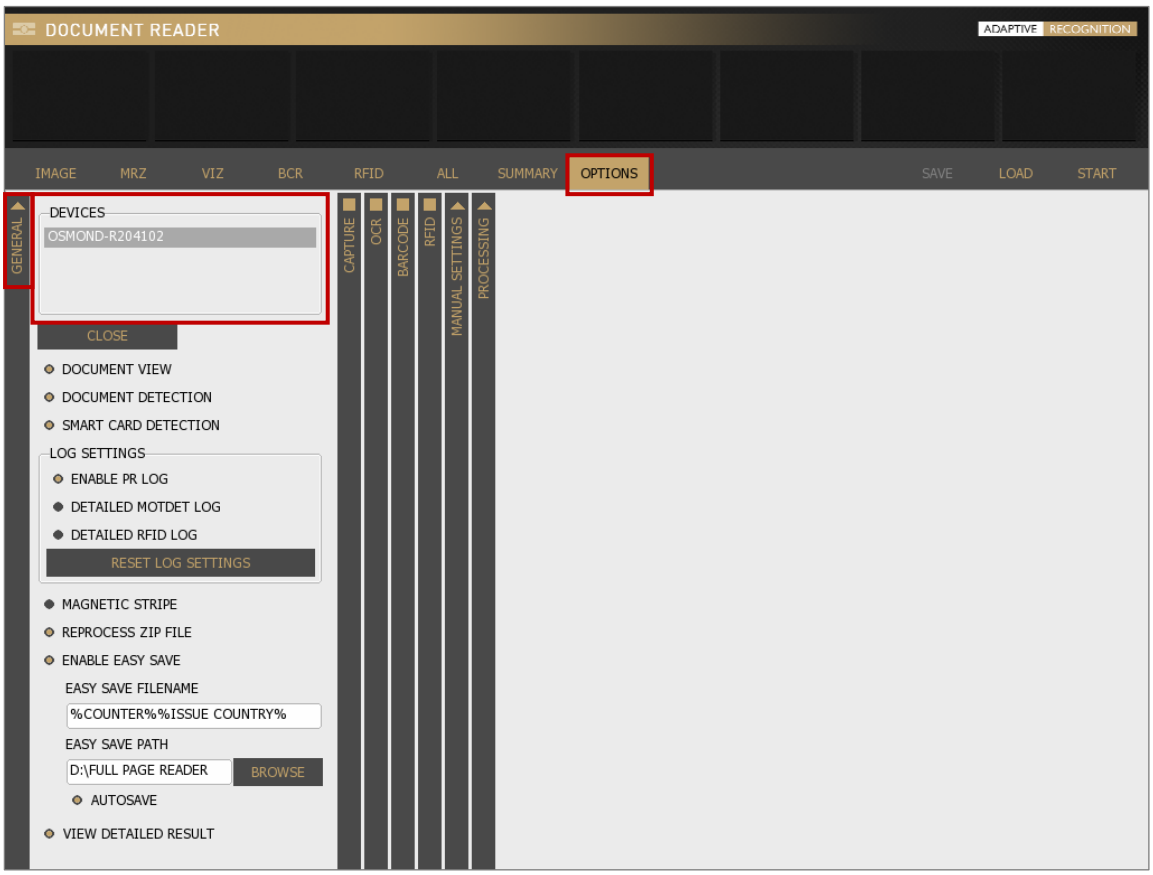
- Linux

  Depending on your distribution, you can open command terminal and insert: **FullPageReader** or use dashboard search bar: **Linux Start menu > Applications > Adaptive Recognition Apps > Full Page Reader 64-bit version** (based on your computer architecture and previous installation).

Adaptive Recognition **America**
Adaptive Recognition **Hungary**
Adaptive Recognition **Nordic**
Adaptive Recognition **Singapore**
REQUESTINFO@ADAPTIVERECOGNITION.COM
WWW.ADAPTIVERECOGNITION.COM

5.4. CONNECTION

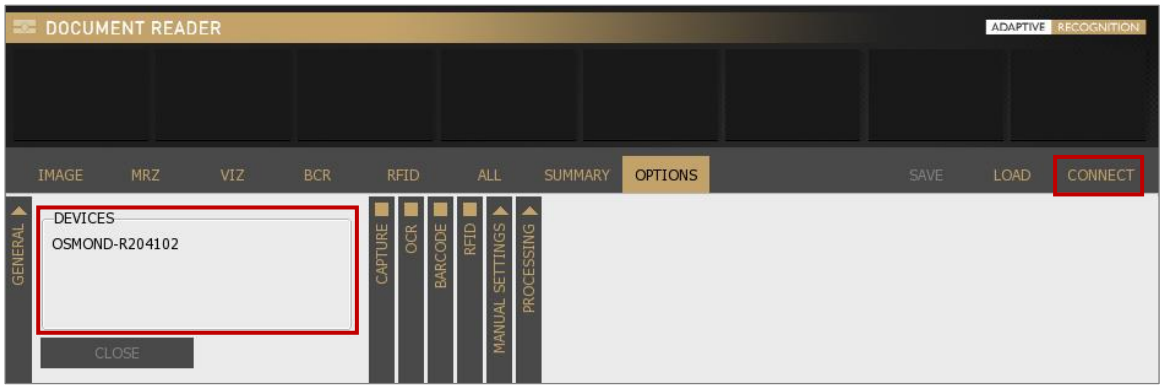
In order to scan with any ADAPTIVE RECOGNITION reader device, you have to make sure that there is an available reader connected to your computer and it is turned on. You can check the DEVICES list in the OPTIONS tab at GENERAL layer.



Note

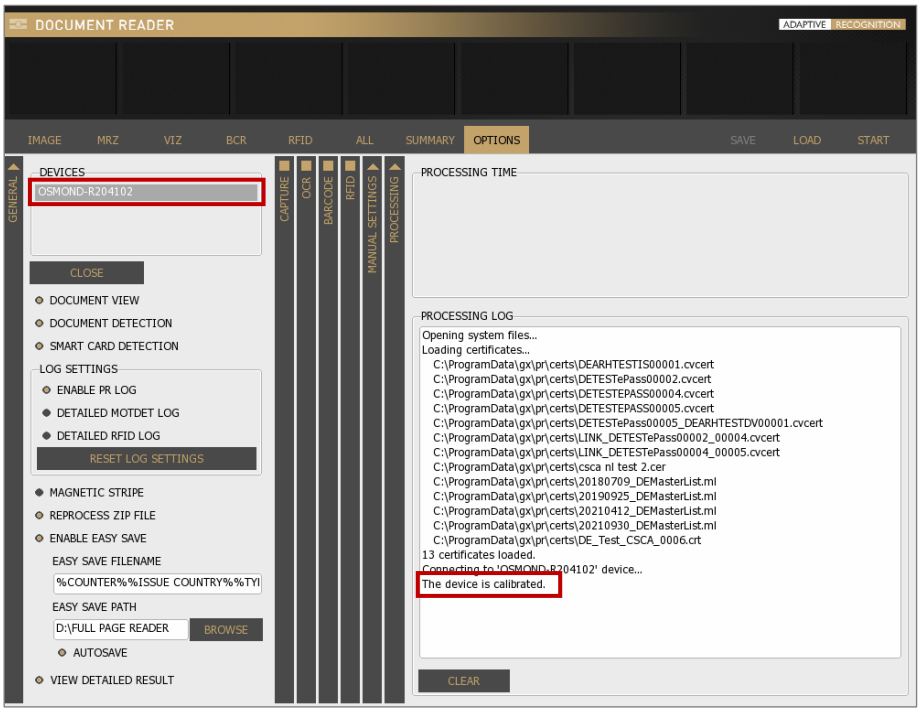
If a device is connected to the computer, but it is not displayed in the DEVICES list, then try to change the USB port and/or USB cable. If the issue is not resolved after these changes, reinstall the Passport Reader Software Package as admin. For more information on the installation process, see Software Installation chapter.

Connect your device by clicking on [CONNECT] or clicking on the selected reader in the DEVICES list.



Readers hold a factory default calibration file. Reading this file from the device for the first time may take some time, which consequently slows down the system startup. In order to save time, the file is automatically copied to the local file system on the first attempt of using the device to speed up communication. In this case "Reading calibration file..." message appears in the PROCESSING LOG field.

If your reader is displayed in the DEVICES list highlighted in grey and in the PROCESSING LOG field you get the "The device is calibrated." message, your reader is connected and ready to use.



Note

The Product Name contains the following information: the device name, configuration (components) and serial number (without 1st digit).

E.g., OSMOND-R204102

5.5. TABS

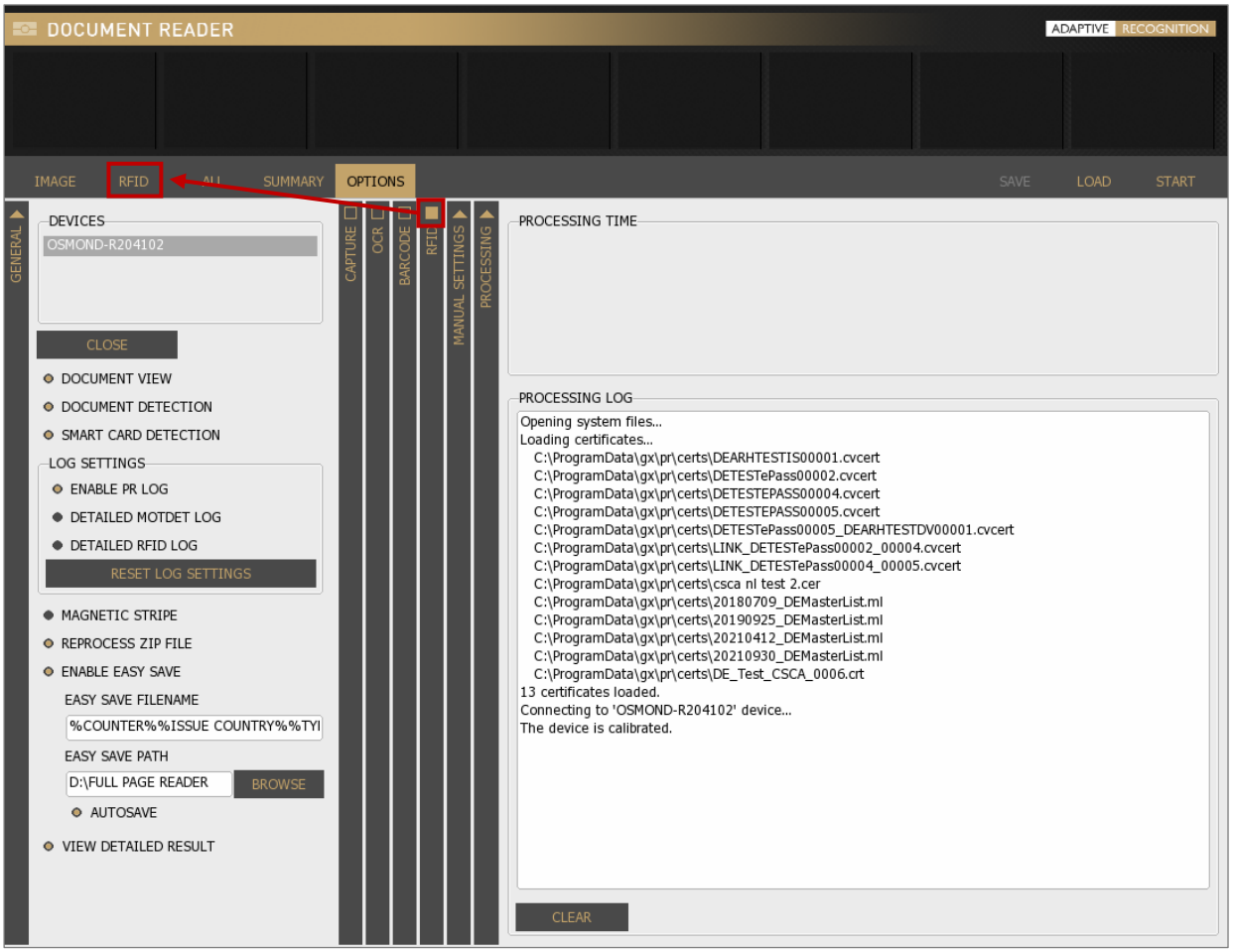
Enable/Disable any of the checkboxes on vertical layers (columns) in the **OPTIONS** tab. These checkboxes switch on/off software functions like image capturing, OCR, barcode and RFID reading. By switching on functions, you will make visible the corresponding tab menu and related data as well.

Note

These columns can open and close like a vertical accordion menu.

Example

Enable RFID reading by filling in the checkbox on the vertical grey layer in the **OPTIONS** tab. This also enables the **RFID** tab to display RFID data after a successful reading process.

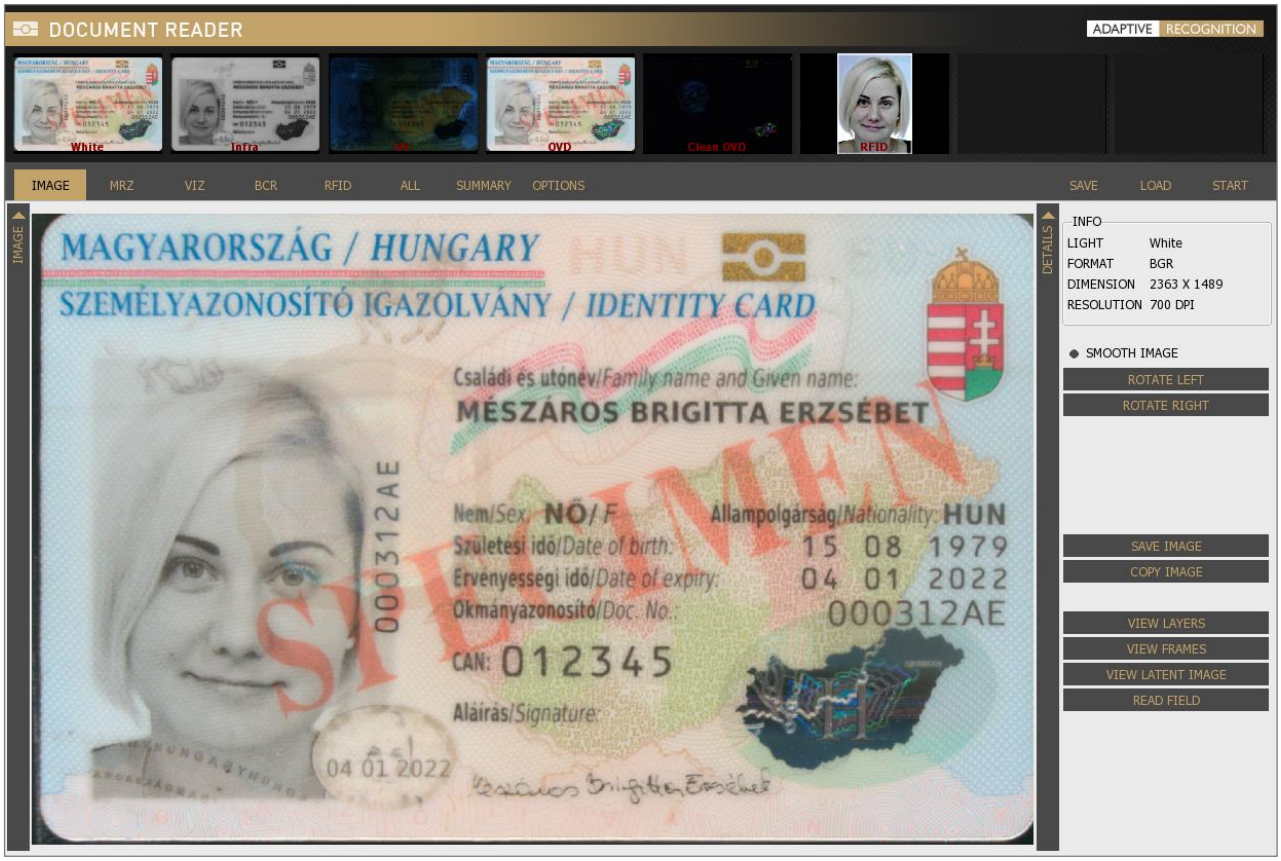


5.5.1. IMAGE

1. IMAGE

On the IMAGE layer, the scanned and/or selected images are displayed. Navigate among images by clicking on the thumbnail view on top or double clicking on the ones at details of the document field. Zoom in by left-clicking inside the image and dragging your mouse over the area you wish to enlarge.

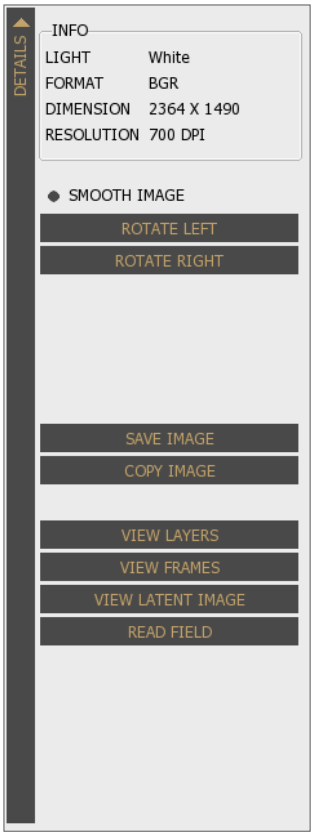
> **Note**
>
> All images (even the ones at details of the document fields) can be zoomed out by double-clicking.



2. DETAILS

INFO

Light or field ID, format, dimension and resolution information about the selected image are displayed.



SMOOTH IMAGE

Use linear filtering for zooming by estimating intermediate points among end points automatically. This results a smooth image to display.

ROTATE LEFT/RIGHT

Rotate the image by pressing **[ROTATE LEFT]** or **[ROTATE RIGTH]** button. You can rotate the image by 90 degrees in one direction with one click.

SAVE IMAGE

Save the scanned image to your system by clicking on the **[SAVE IMAGE]** button.

COPY IMAGE

Copy the selected image to clipboard by clicking on the **[COPY IMAGE]** button.

> **Note**
>
> The **COPY IMAGE** function is available only for Windows OS.

VIEW LAYERS

By selecting between UV (**VIEW UV FLASHLIGHT**) and OVD flashlights (**VIEW OVD FLASHLIGHT**) on the right, you can check the document under these two illumination types separately. If you do not choose from these flashlights, you can grab the corner/edge of a given layer (except for infra) to optically remove each and every layer from the image of the scanned ID document by left-click. Check slider view too by holding-right-click.

> **Note**
>
> After optically removing the UV or OVD layer, the order of the remaining optically removable layers is fix following a natural order.

VIEW FRAMES

This function displays a frame of the selected reading field. MRZ, VIZ, **BARCODE** and **ERROR FRAMES** can be displayed around the original location of the data. Select the frame you wish to display from the available options.

VIEW LATENT IMAGE

Important!

VIEW LATENT IMAGE function works well on high-resolution images (e.g., images scanned by Osmond devices).

It displays the JURA IPI security feature. IPI is encrypted information in the face photo part of the document (passport or ID) that can be made visible either by special lenses or ADAPTIVE RECOGNITION document reader devices.

Note

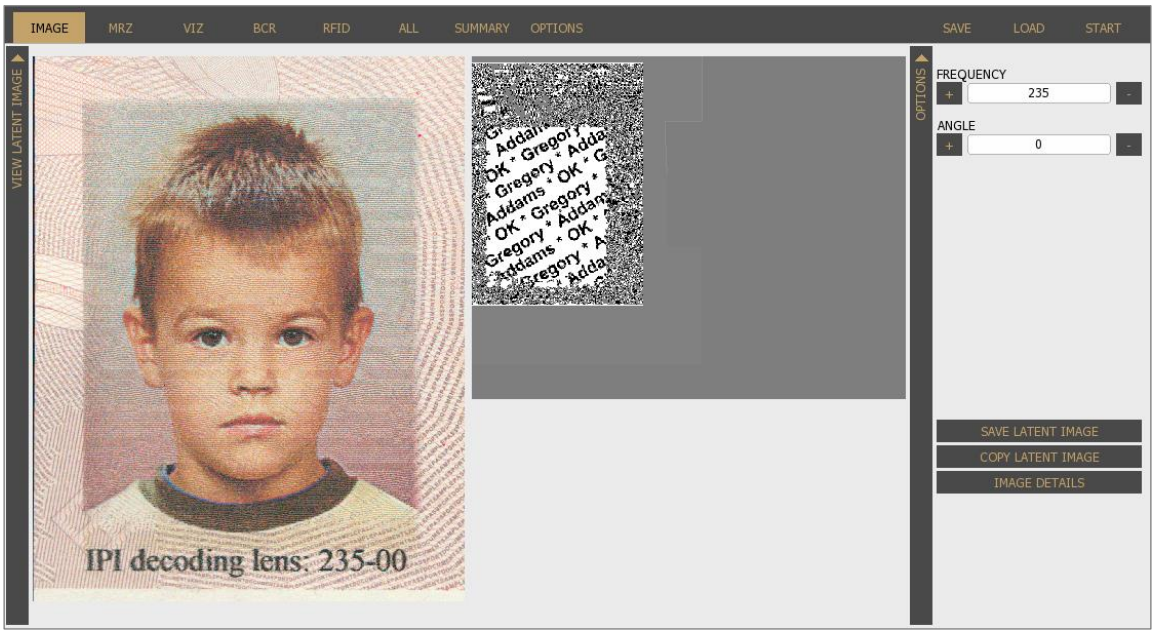
To check the JURA IPI security feature, enable Photo camera on CAPTURE layer in the OPTIONS tab and click on the Photo image from the thumbnail images.

The Photo light is only available for Osmond USB models manufactured from December 2022.

Note

You need to specify the FREQUENCY and ANGLE values to make this security feature visible. These values can vary by documents.

Specify these values by filling out the corresponding fields.



READ FIELD

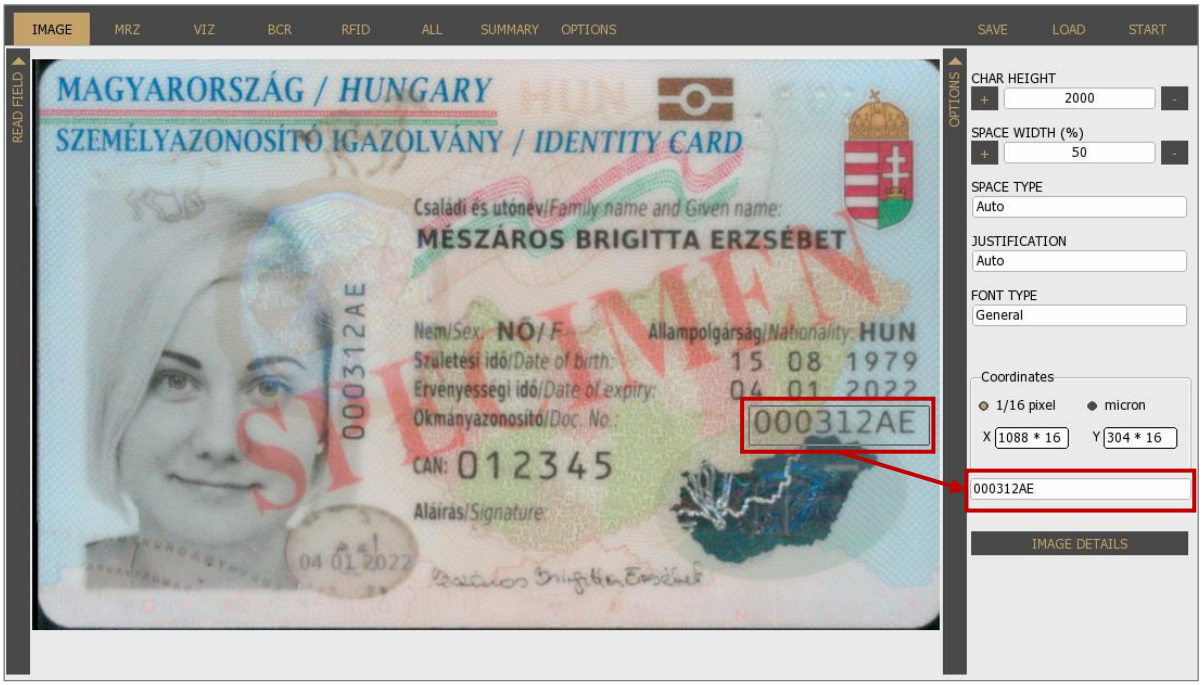
Note

This function is only available with engines 2.0.6.xx.

The **READ FIELD** function is equivalent to manual OCR. It can be used on **White** and **Infrared** image. Draw a rectangle around any text or barcode and its content will be displayed in the field at the bottom-right corner of the window. Adjust height/width properties to optimize recognition rate.

Note

It is suitable for trying out the manual OCR.
This function has limited ability (only recognizes a few fonts).

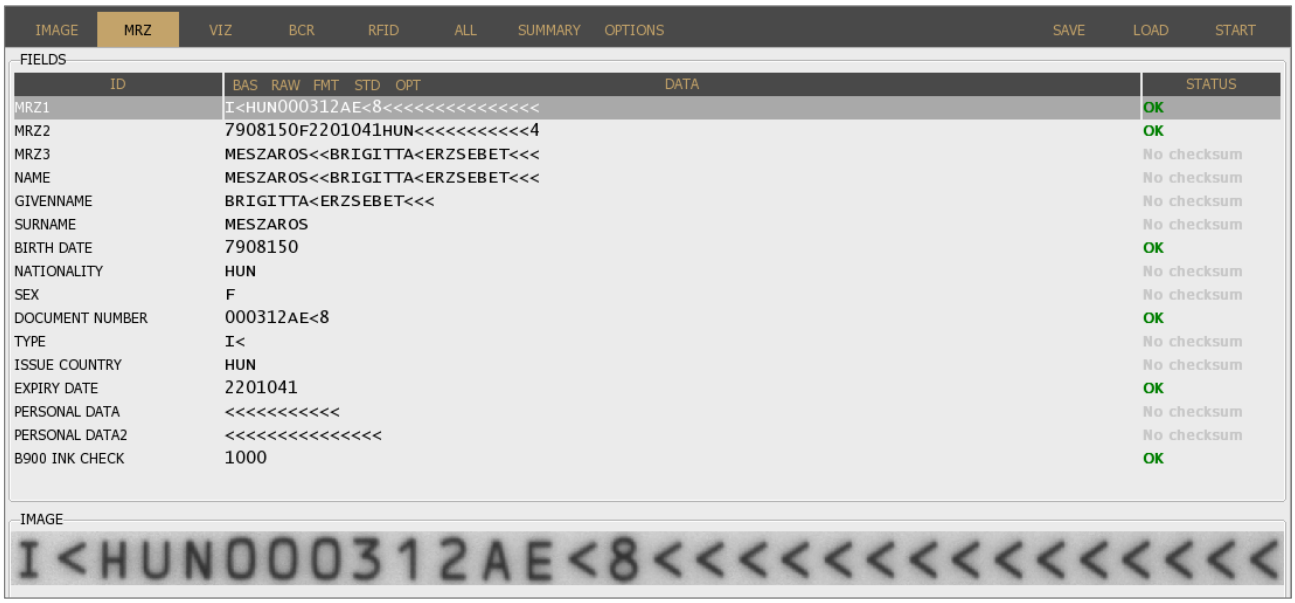


Note

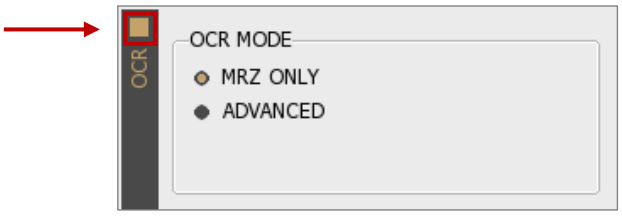
In order to go back to the **DETAILS** layer, please click on the **IMAGE DETAILS** button.

5.5.2. MRZ

Displays processed MRZ data and a photo of each field.

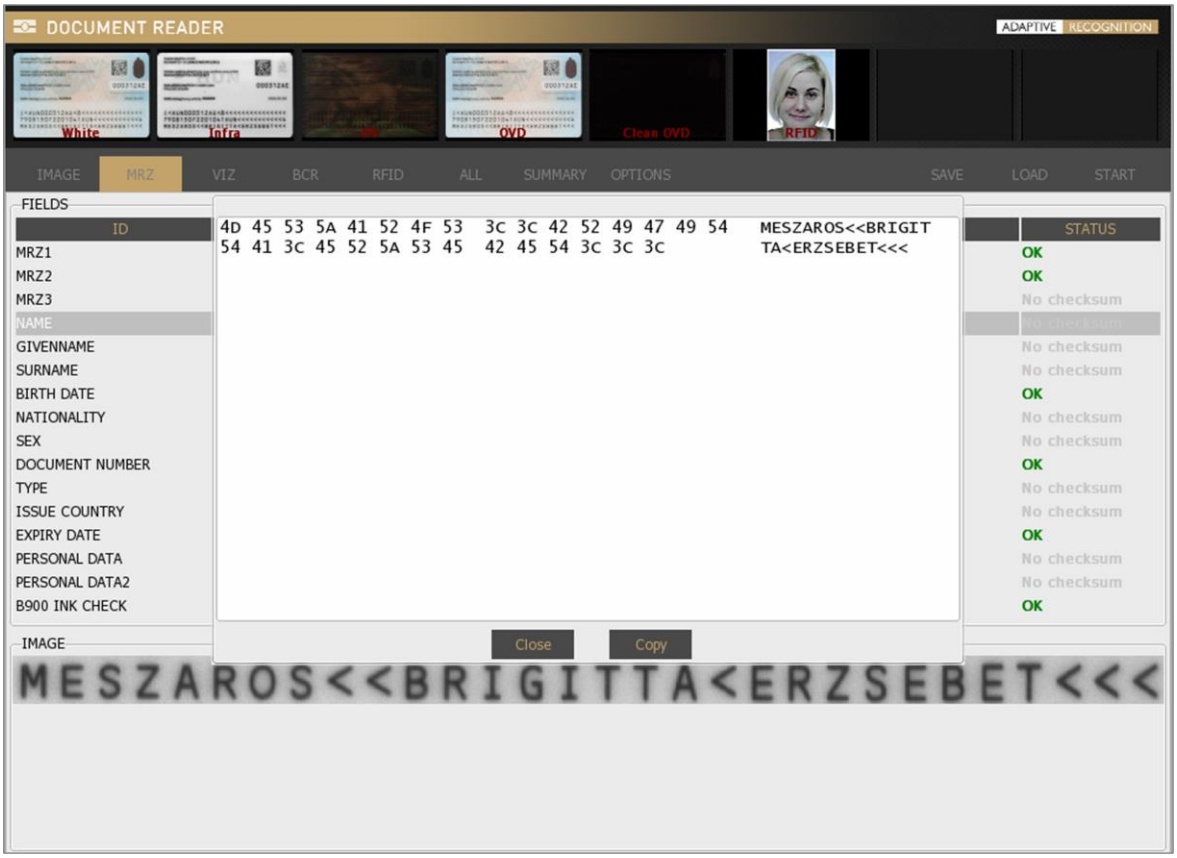


This tabulator option is displayed when OCR checkbox is filled in on the OPTIONS / OCR (vertical) layer and MRZ ONLY or ADVANCED mode is selected.



Note

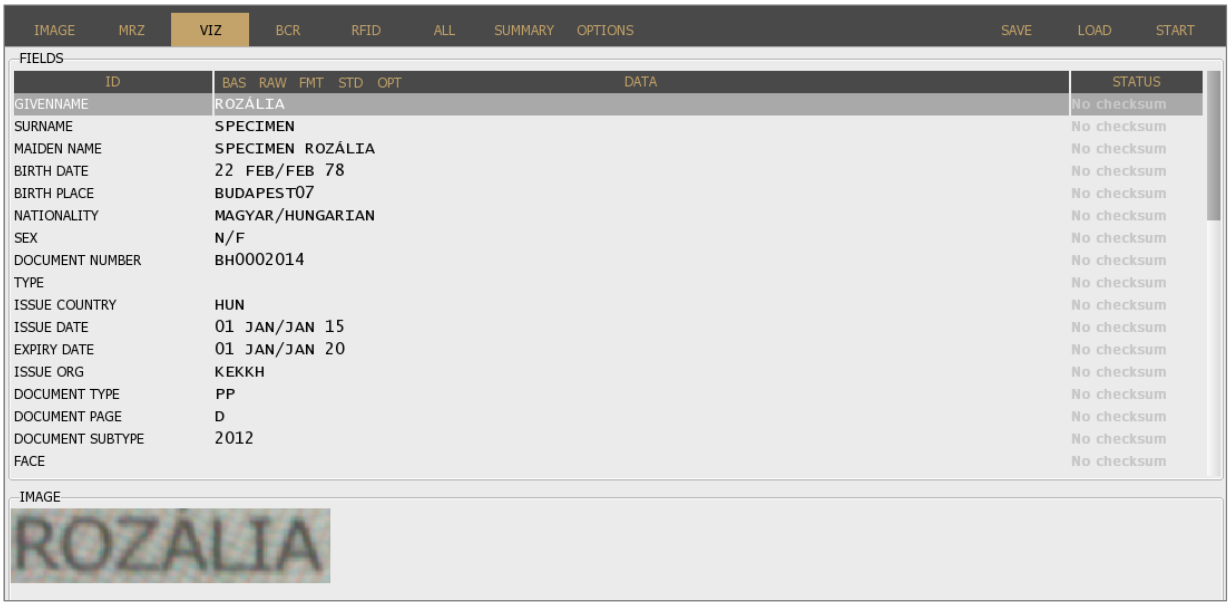
The extracted MRZ data fields can be copied to clipboard. Clipboard copy function can be activated by right clicking on any data line and in the pop-up window clicking on the [Copy] button.



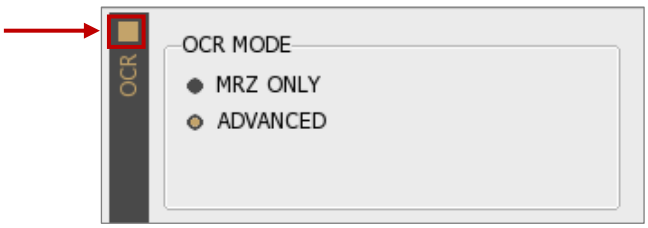
5.5.3. VIZ

Displays processed VIZ data and a photo of each field.

> **Note**
>
> The results of the authentication will be displayed in **VIZ** tab. The VIZ and AUTH results will be displayed only if you have special engine, that supports the scanned document.



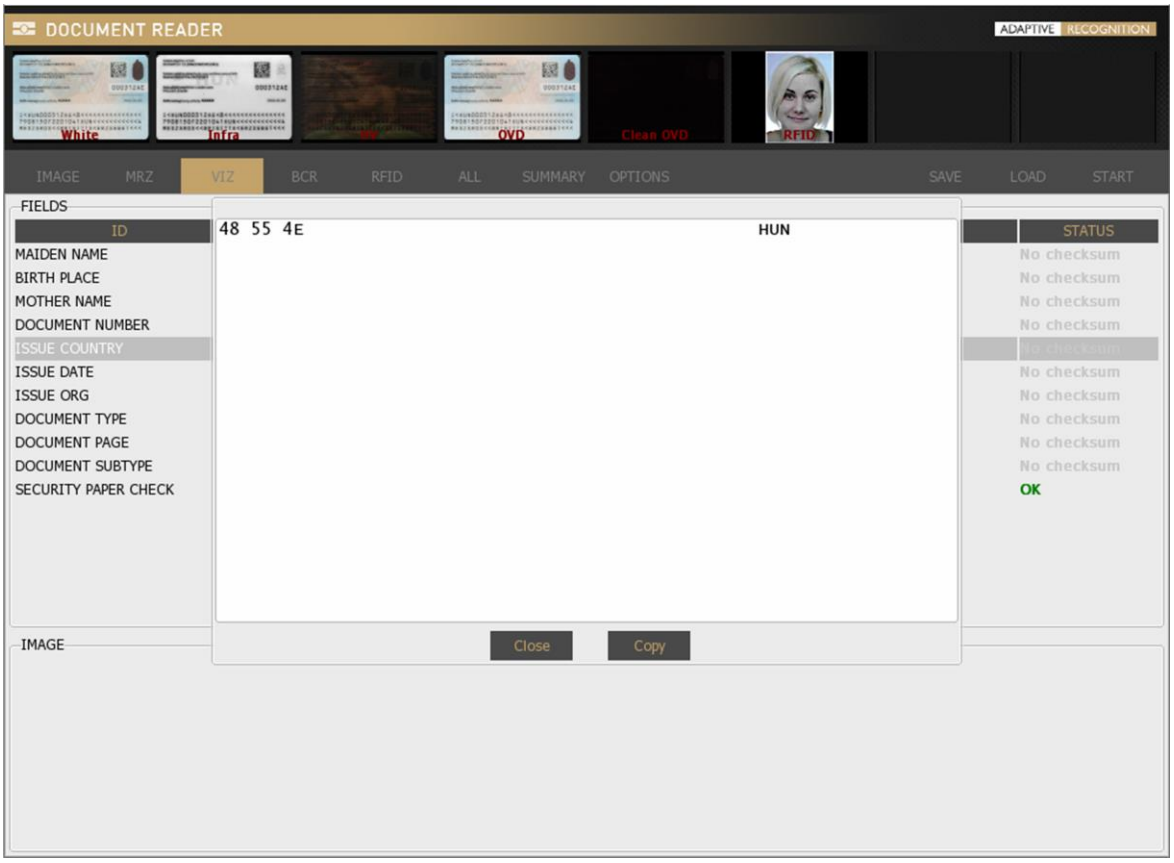
To see this tab, fill in OCR checkbox on the **OPTIONS / OCR** layer and select **ADVANCED** filter therefore MRZ and VIZ tabs are enabled.



Select VIEW DETAILED RESULT filter to review formatted data. Choose format in the header of the **DATA** column.

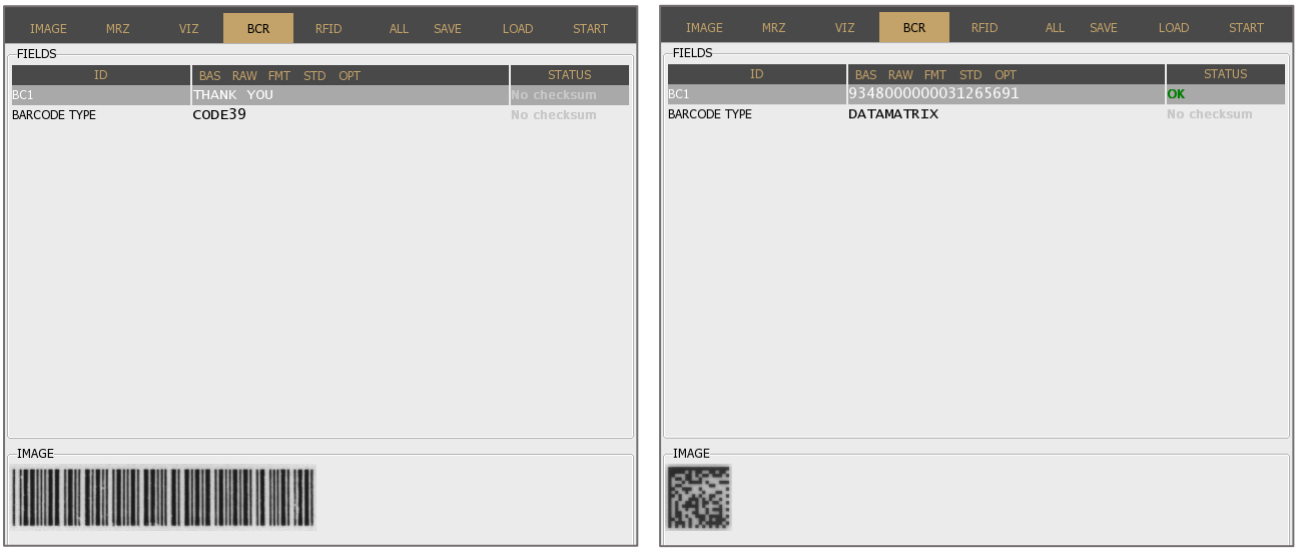
Note

The extracted VIZ data fields can be copied to clipboard. Clipboard copy function can be activated by right clicking on any data line and in the pop-up window clicking on the [Copy] button.

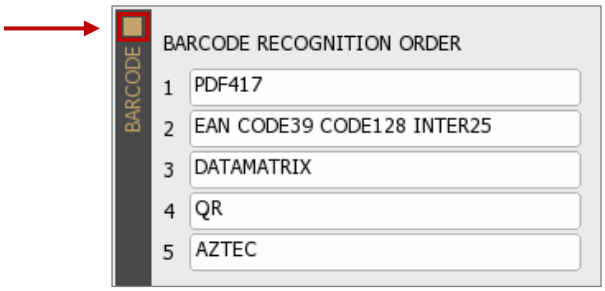


5.5.4. BCR

BCR displays barcode data and a photo of the barcode itself.



To see this option, enable barcode recognition on **OPTIONS / BARCODE** layer by filling in the checkbox on the vertical layer.

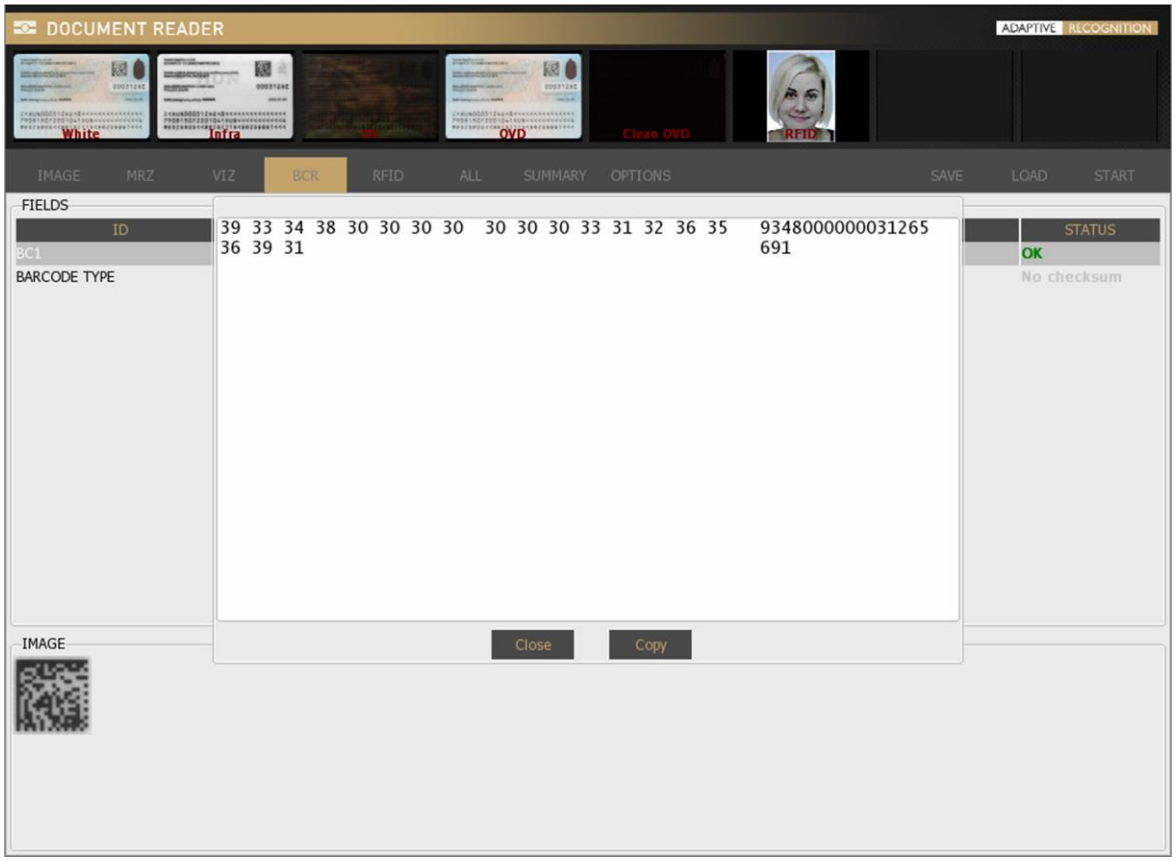


Note

For more information on customizing the barcode settings, see Barcode chapter.

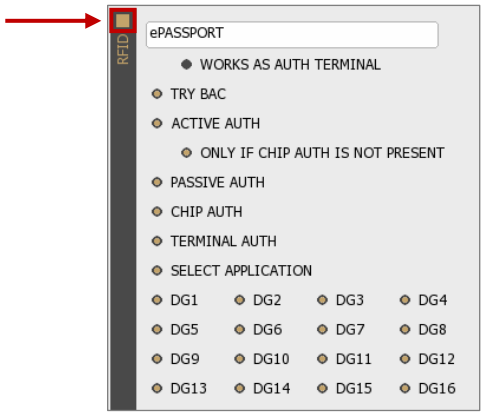
Note

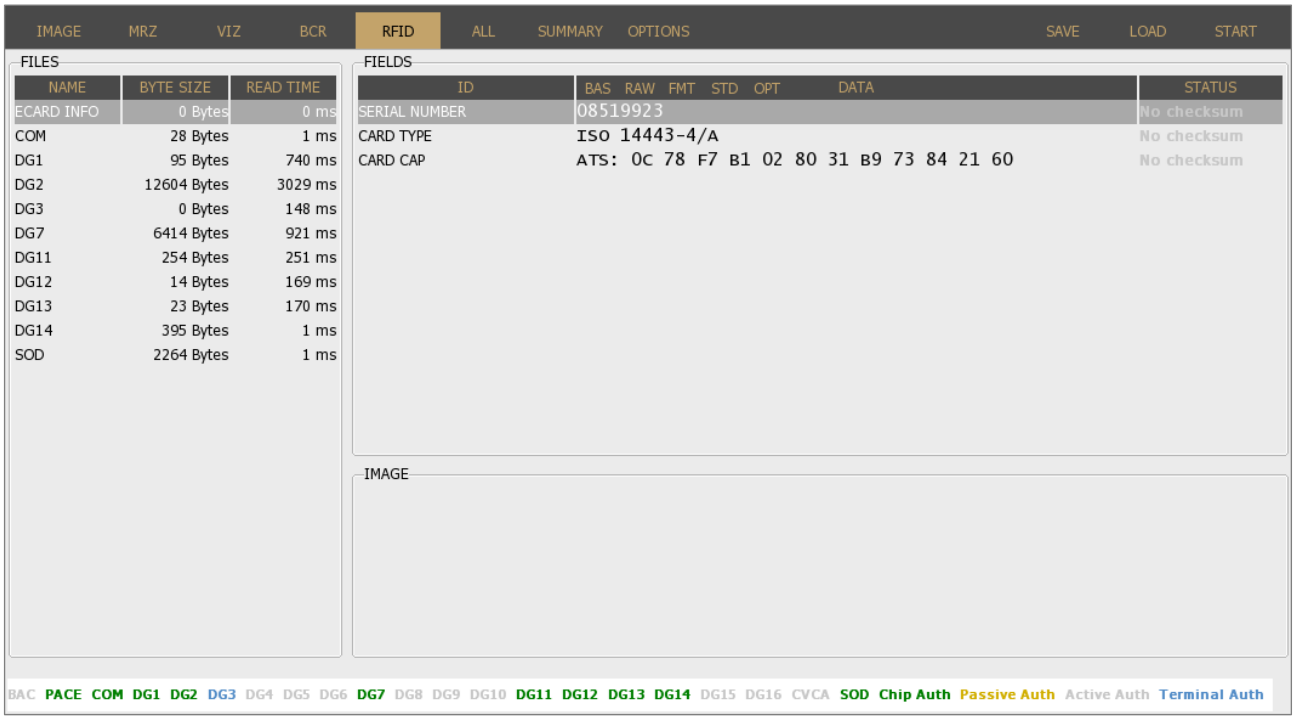
The extracted barcode data fields can be copied to clipboard. Clipboard copy function can be activated by right clicking on any data line and in the pop-up window clicking on the [Copy] button.



5.5.5. RFID

Displays RFID chip data. To see this option, enable RFID reading in **OPTIONS** by filling in the checkbox of the **RFID** vertical layer.



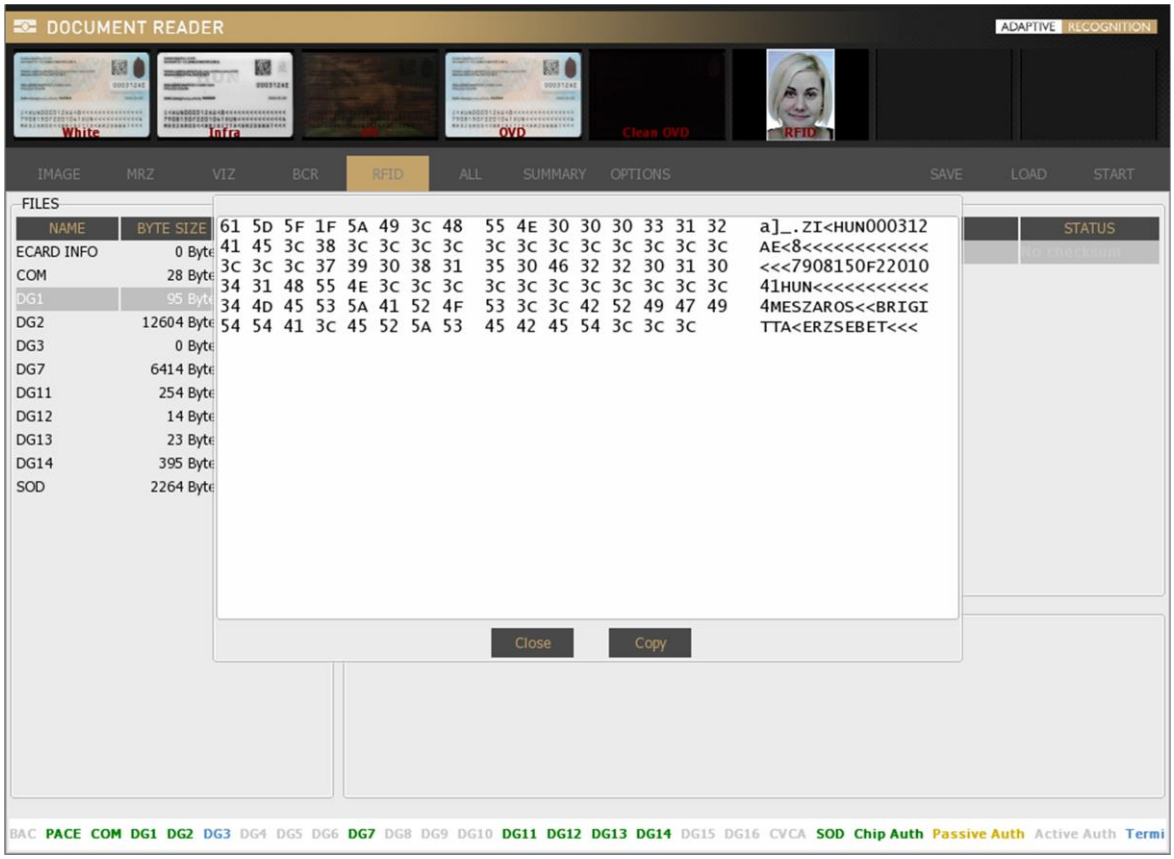


Note

RFID function turns off automatically, if there is no RFID reader module built in the device.

Note

The extracted RFID data fields can be copied to clipboard. Clipboard copy function can be activated by right clicking on any data line and in the pop-up window clicking on the [Copy] button.

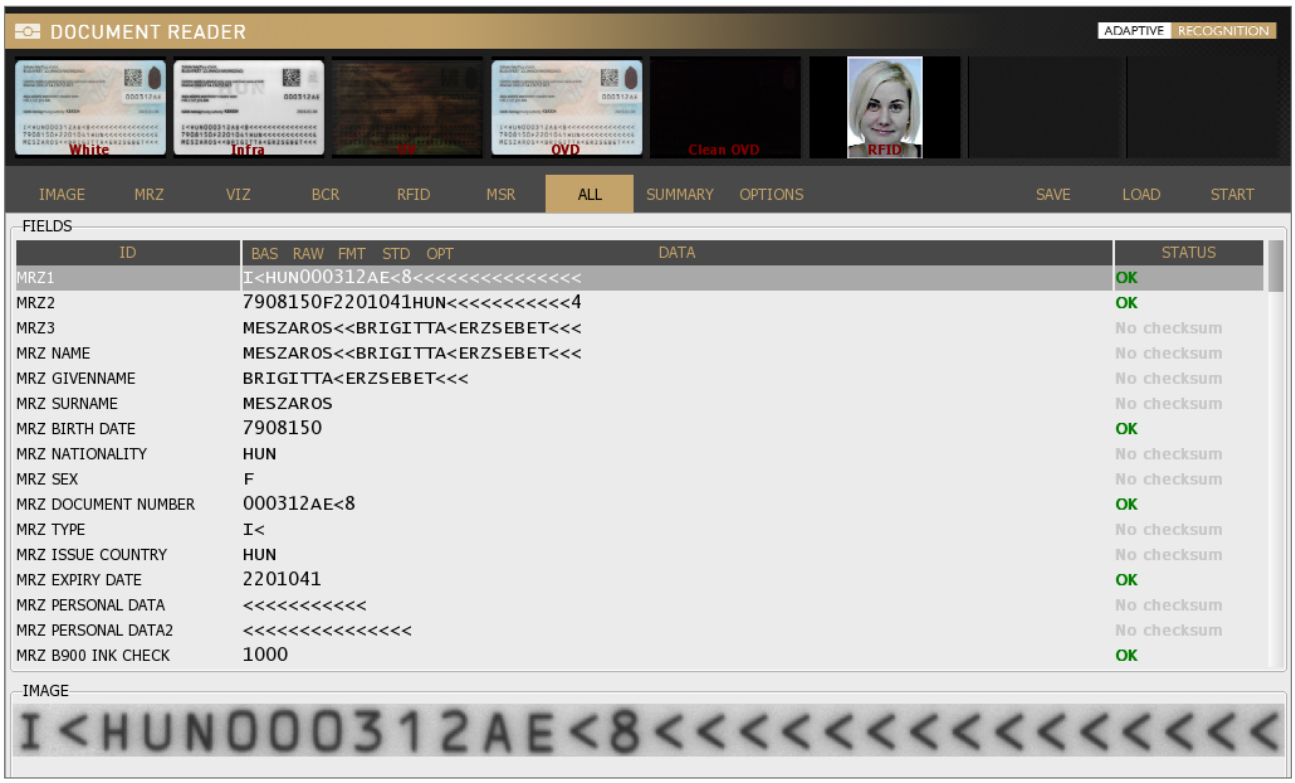


Note

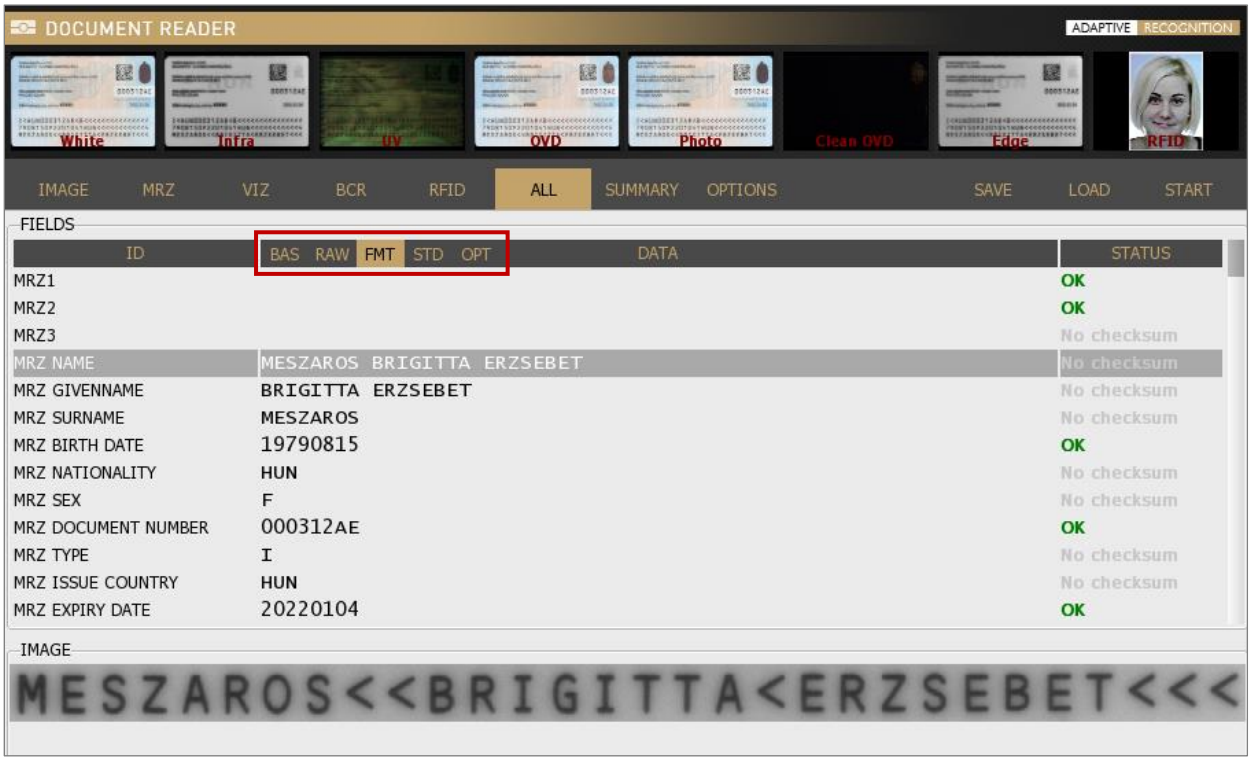
For more information on customizing the settings of the RFID reading, see RFID chapter.

5.5.6. ALL

Displays all available data retrieved from the document.

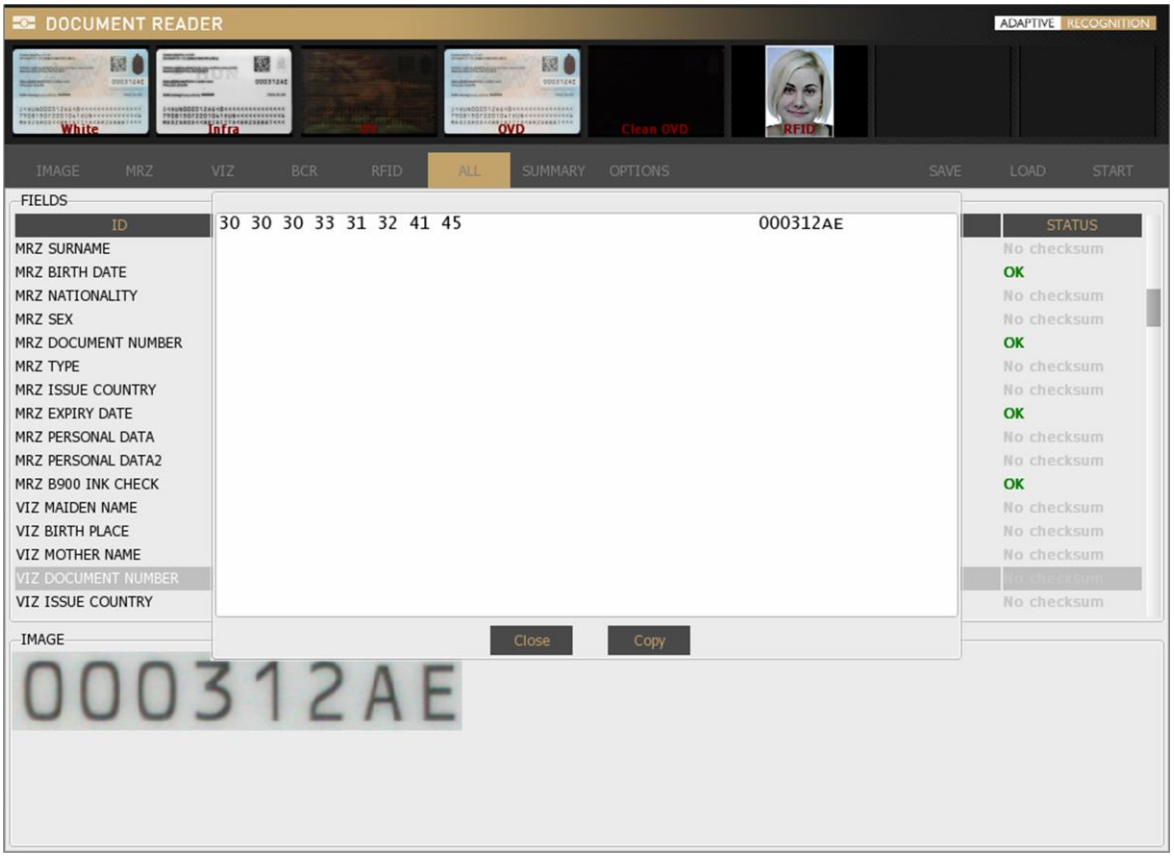


Select VIEW DETAILED RESULT filter to review formatted data. Choose format in the header of the DATA column.



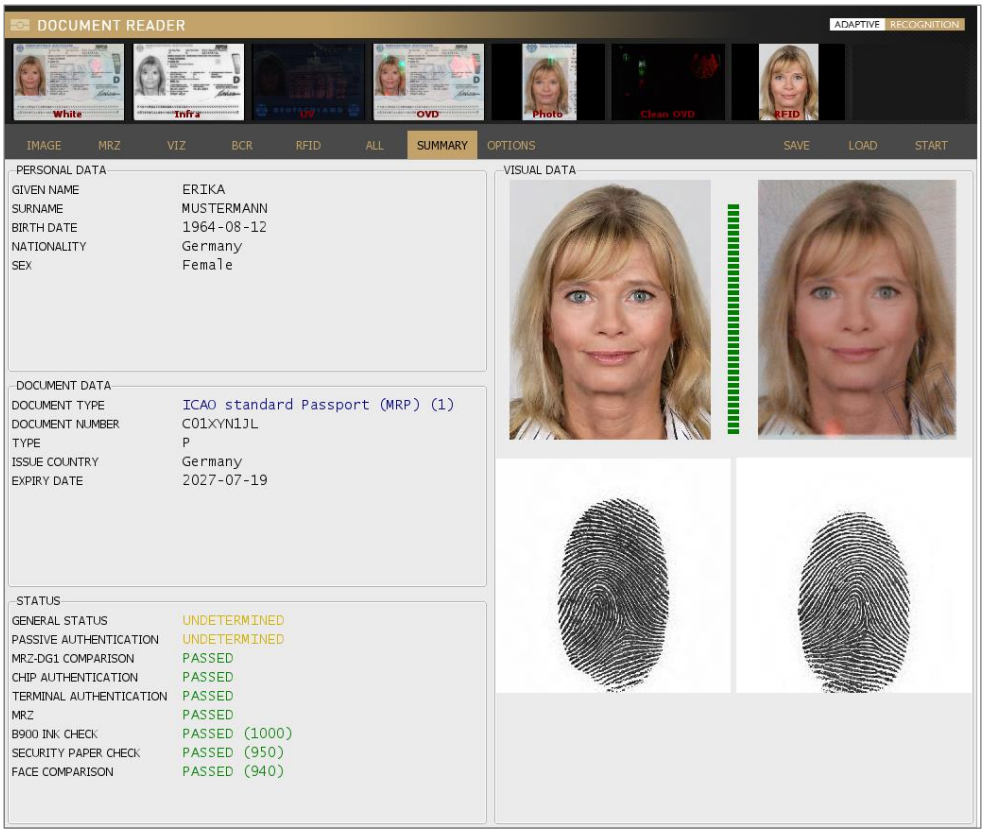
Note

The extracted data fields displayed in the ALL tab can be copied to clipboard. Clipboard copy function can be activated by right clicking on any data line and in the pop-up window clicking on the [Copy] button.



5.5.7. SUMMARY

Brief summary of the personal data, document data and the results of the security crosschecks. Face compare result is also displayed in the SUMMARY tab.



5.5.8. OPTIONS

Customize application properties, lights, logs and much more on the OPTIONS tab. For more details, please check the OPTIONS chapter.

5.5.9. SAVE

After a reading process, you have the option to save the given document. By default, the software compresses all available images and corresponding data into one ZIP, PDF, XML, CSV or ECZ file that can be saved to a custom location.

> **Note**
>
> The application is able to save encrypted ZIP (ECZ) file. Such files can be decrypted if the appropriate private key is available. Not recommended for personal use.
> For more information on encrypted save, see the Encrypted Saving chapter.

5.5.10. LOAD

Load scanned documents, including images illuminated by various light sources, as well as corresponding data.

> **Note**
>
> This functionality is supported only for **.zip files** that have been saved earlier by ADAPTIVE RECOGNITION passport reader software.

5.5.11. CONNECT/START

Use the **[CONNECT]** button to access the selected document reader device or click on **[START]** to begin the scanning process after the device is connected successfully.

> **Note**
>
> When reading contact chip card, click on **[START]** to begin the scanning process.

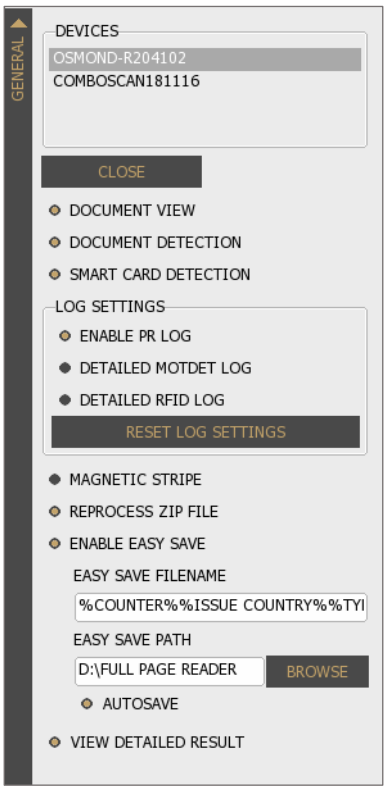
5.6. OPTIONS

5.6.1. GENERAL

DEVICES

OPTIONS > GENERAL > DEVICES

You can see the list of document scanners connected to your computer.



Note

You can work with only one device at a time. Also, you can navigate across devices by clicking on the chosen one.

DOCUMENT VIEW

OPTIONS > GENERAL > DOCUMENT VIEW

It crops and rotates documents into upright position.

Note

Automatic document rotation is performed properly if the **DOCUMENT VIEW** mode and **ADVANCED OCR MODE** are both selected before the starting of the scanning process.

DOCUMENT DETECTION

OPTIONS > GENERAL > DOCUMENT DETECTION

Enable/Disable the automatic document presence detection mode (motion detection). This feature senses documents placed on the scanner glass surface. Whenever a document is present, the software scans images of the document, as configured in OPTIONS / CAPTURE.

SMART CARD DETECTION

OPTIONS > GENERAL > SMART CARD DETECTION

Devices equipped with smart card reader can execute automatic detection of smart cards when they are inserted into the smart card reader by enabling the SMART CARD DETECTION option.

> **Note**
>
> SMART CARD DETECTION is not performed when RFID reading is disabled.

LOG SETTINGS

OPTIONS > GENERAL > LOG SETTINGS

The Full Page Reader application is equipped with a configurable logging feature to support any troubleshooting activities with ADAPTIVE RECOGNITION support team. By enabling different log options, you can include various events of the passport reader software in the log files.

> **Note**
>
> Enabling detailed RFID logging is increasing processing time.

- ENABLE PR LOG: Enable/Disable logging
- DETAILED MOTDET LOG: Enable/Disable detailed logs for motion detection
- DETAILED RFID LOG: Enable/Disable detailed logs for RFID communication

> **Hint**
>
> Your log file is located at:
>
> Windows: `c:\ProgramData\gx\pr\pr.log`
> Linux: `~/tmp/pr.log`

Adaptive Recognition **America**
Adaptive Recognition **Hungary**
Adaptive Recognition **Nordic**
Adaptive Recognition **Singapore**
REQUESTINFO@ADAPTIVERECOGNITION.COM
WWW.ADAPTIVERECOGNITION.COM

REPROCESS ZIP FILE

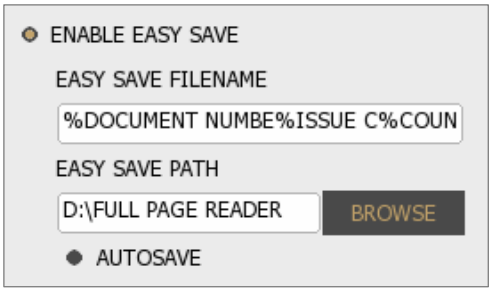
OPTIONS > GENERAL > REPROCESS ZIP FILE

When loading **.zip** files saved earlier, the program either process them again with your current software version (**REPROCESS ZIP FILE** is enabled) or displays the original saved data (**REPROCESS ZIP FILE** is disabled). This option enables to perform OCR process and optical authentications using the current FPR application setup.

ENABLE EASY SAVE

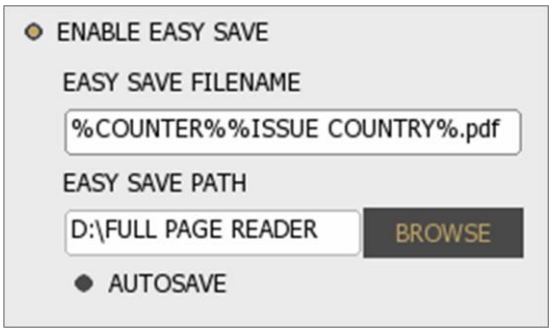
OPTIONS > GENERAL > ENABLE EASY SAVE

The easy save option is designed to make frequent document saving simpler. Just select **ENABLE EASY SAVE**, then set the **filename** and **path**. Afterwards there is no need to browse path and specify filename when saving **.zip** files: the software creates the filename automatically based on the configured template, then saves the .zip to the path specified.



Note

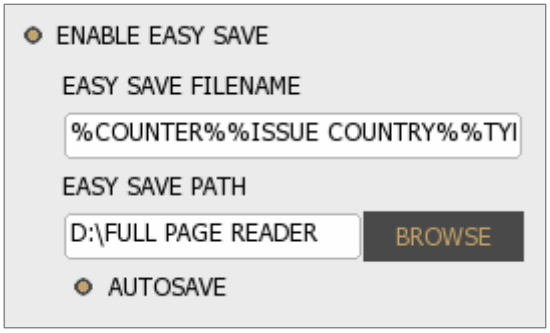
If the **filename** contains the extension, the program saves in the corresponding format (zip, pdf, xml, csv or ecz).



If you turn AUTOSAVE on, results of all scanning process will be saved automatically. By using this option, there is no need to click on the [SAVE] button anytime.

Note

When using easy save, determine the filename syntax and path before first scanning. This option will save every scanning into the same path.



Through easy save the ZIP files cannot only be saved to the local file system, but they can be sent to remote systems through ftp, ftps, http, https, smtp protocols. To use this option, the matching URL must be typed to the path (e.g., ftps://ftp.myserver.com/shares). Afterwards the user settings can be entered by pressing the settings button.

Note

The given password is not saved in the computer, you have to type it after every program launch.

Note

If you want to save encrypted files which can only be decoded in ADAPTIVE RECOGNITION's network, then, when saving the file select .ecz extension.
For more information on encrypted autosave, see the Encrypted Autosave in Full Page Reader chapter.

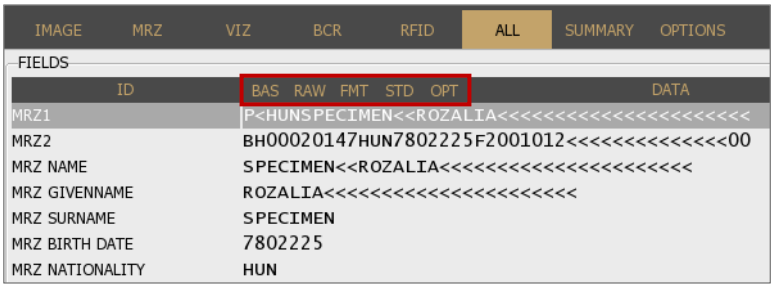
VIEW DETAILED RESULT

OPTIONS > GENERAL > VIEW DETAILED RESULT

Formatted data can be displayed on **MRZ**, **VIZ**, **BCR**, **RFID** and **ALL** tabs.

The following formatting types are available:

- Basic (**BAS**)
- Raw (**RAW**)
- Formatted (**FMT**)
- Standardized (**STD**)
- Optimal (**OPT**)

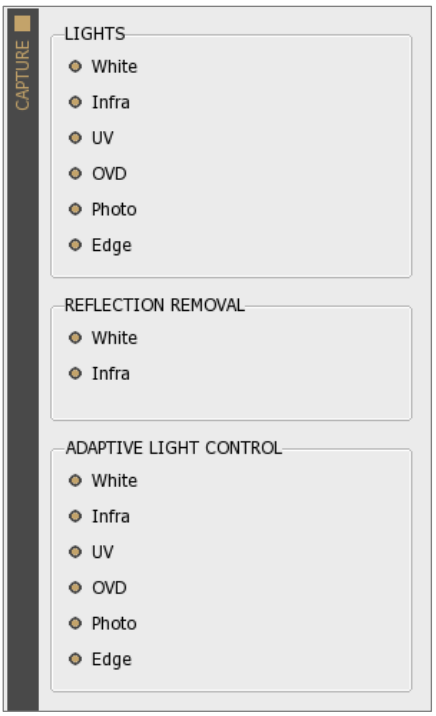


5.6.2. CAPTURE

1. LIGHTS

OPTIONS > CAPTURE > LIGHTS

The available lights can be checked at the **OPTIONS / CAPTURE / LIGHTS.**



- White

OPTIONS > CAPTURE > LIGHTS > WHITE

Enable **White** illumination by filling in the checkbox.

An image scanned in white light is a simple photo of the document – as it can be seen by the human eye. It is usable for human inspection and for examination of background pattern or face photo.

- Infra

OPTIONS > CAPTURE > LIGHTS > INFRA

Enable **Infra** illumination by filling in the checkbox.

The ICAO 9303 document specifies that for reading text and barcodes, images shall be scanned in infrared light (wavelength: 900 nm). In this illumination, the background patterns are not visible, so optical recognition algorithms provide better results.

- UV

OPTIONS > CAPTURE > LIGHTS > UV

Enable **UV** illumination by filling in the checkbox.

Images scanned in ultraviolet illumination can be used to check authenticity features (graphics and text printed with special fluorescent ink) which are only visible under UV light.

- OVD

OPTIONS > CAPTURE > LIGHTS > OVD

Enable **OVD** illumination by filling in the checkbox.

The Passport Reader system is capable of visualizing and removing simple holograms and most types of OVI patterns. Holograms can be observed by viewing the **OVD** image or the **clean OVD** image. In the case of the latter one, just the hologram can be seen from the document.

OVD

Clean OVD

- Photo

OPTIONS > CAPTURE > LIGHTS > PHOTO

> **Note**
>
> The **Photo** light is only available for Osmond USB models manufactured from December 2022.

Enable **Photo** light by filling in the checkbox at **OPTIONS / CAPTURE / LIGHTS.**

Photo light is optimized for scanning photos with very high image details and color accuracy. **Photo** image is similar to an image scanned in white light with more sharpness and contrast.

Image scanned in White light

Image scanned in Photo light

> **Note**
>
> Using **Photo** light is increasing processing time. Use only when it is needed.

- Edge

OPTIONS > CAPTURE > LIGHTS > EDGE LIGHT

Enable **Edge** light by filling in the checkbox at **OPTIONS / CAPTURE / LIGHTS.**

When using **Edge** light, the document is illuminated at a flat angle in order to make the protruding objects located on the document cast a shadow.