OCR602 Scan Software User Guide

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Contacts

For technical support, please visit: https://support.hidglobal.com.

What's new

Date	Description	Revision
May 2025	Updates images to show OCR602 product name.	A.1

A complete list of revisions is available in **Revision history**.

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Section 01



1.1 Overview

The OCR602 Scan Software is Windows software for ID Card document readers. The OCR602 Scan Software provides a graphical display that delivers an instant visual snapshot of document data such as MRZ data, RFID data, and face image. More advanced users can take advantage of its powerful programming interface, which allows the software to be integrated into larger systems.

The OCR602 Scan Software can perform:

- Machine Readable Zone (MRZ) capture and display.
- Radio-Frequency Identification (RFID) capture.

You can use the OCR602 Scan Software with the following HID Access-IS™ OCR602 document readers:

• ID card reader OCR602.





2.1 Connect the ID card reader to the host

To begin, connect your document reader directly to a USB port on the host computer. Ensure that the host is running Windows 7.0 or above.

When you connect your document reader to a USB port for the first time, Windows automatically detects the device and installs the required standard Windows drivers, which may take a few minutes. No additional drivers are needed.

2.2 Install the software

Before you install the OCR602 Scan Software, make sure that your computer meets the minimum hardware requirements and is running Windows 7 or above.

Note: You can install the software before or after you connect your document reader to the host computer.

To install the software, follow these steps:

- Get the latest version of the OCR602 Scan Software from the HID Developer Portal (<u>https://developers.hidglobal.com/</u>).
- 2. Extract the contents of the downloaded file to a folder on your computer.
- 3. Choose the x64 (64-bit) or x86 (32-bit) version to install.
- 4. If you choose the x64 version, run the OCR602_Installer-x64-{*version-number*}.msi file. The OCR602 Scan Software Setup dialog box appears.

记 OCR602 (64-bit) Setup	– 🗆 X
HID	Welcome to the OCR602 (64-bit) Setup Wizard
	The Setup Wizard will install OCR602 (64-bit) on your computer. Click Next to continue or Cancel to exit the Setup Wizard.
	Back Next Cancel

5. Click Next to continue and display the License Agreement page.



6. Click Next and choose the installation folder.



7. Click Next then Install to start the installation.



2.2.1 What gets installed and where?

By default, the installer installs all the necessary software, API components, and documentation in the following location:

32-bit version: C:\Program Files (x86)\HID Access IS\OCR602 64-bit version: C:\Program Files\HID Access IS\OCR602

You can access the OCR602 Scan Software, the Software Development Kit (SDK), and documentation under the installed folders:

\HID Access IS\OCR602\SDK\Document Reader Sample Code C#\ \HID Access IS\OCR602\SDK\Document Reader Sample Code C++\

Additionally, a shortcut to the application is added to the Windows Start menu.

2.2.2 Prerequisites

- .NET Framework 4.8
 <u>https://download.visualstudio.microsoft.com/download/pr/2d6bb6b2-226a-4baa-bdec-</u>798822606ff1/8494001c276a4b96804cde7829c04d7f/ndp48-x86-x64-allos-enu.exe
- VC runtime redistributable https://aka.ms/vs/17/release/vc_redist.x86.exe







3.1 Overview

Start the OCR602 application front end (OCR602.exe, in the installation folder).

ID card reading main screen

Picture	Personal Data		Access Control
	Name	Surname	BAC / PACE
	Date of Birth (dd/mm/yy)	Nationality	
	Sex	Valid until (dd/mm/yy)	DG1 000000000000000000000000000000000000
	Document Number	Document Type	Antenna
	Issuer	Optional Data	Front
Configuration	Logs		Reading S
Select ID BOX COM Port & Reader			Read
Select ID BOX COM Port & Reader COM3 - ID BOX \checkmark OCR602 CL reader 324320490000 \checkmark			Read Dete Read Read
Select ID BOX COM Port & Reader COM3 - ID BOX \checkmark OCR602 CL reader 324320490000 \checkmark <u>R</u> ead Document			Read Read
Select ID BOX COM Port & Reader COM3 - ID BOX \checkmark OCR602 CL reader 324320490000 \checkmark <u>Read Document</u> <u>Options</u> See Last Log			Read Read



Driving license card reading main screen

■ OCR602 v4.9.0 RC6 - □ ×					
eID/ePP IDL					
Picture	Personal Data		Access Control		
	Family Name	Given Names			
	Birth Date	Issuing Date			
	Expiry Date	Issuing Country	PA DG1 DD000000000 DG16		
	Licence Number	Categories			
	Issuing Authority				
Configuration	Logs		Reading State		
Select ID BOX COM Port & Reader			Detect MRZ		
COM3 - ID BOX \sim			Read MRZ		
OCR602 CL reader 324320490000			Detect Chip		
Read Document			Read Chip		
Options					
See Last <u>L</u> og					
FW OCR 2.74.40 NNA 2.1 S/N 32432049 P/N 28770114 Driver CTL Microsoft OCR602CHIPSET CTL 20.06.07 P0070					

Options screen

	ng Options		Access control options Password type
Select Data	agroup Content 0 Card Access	Supported Yes	Auto (PACE) BAC/BAPY Ast every unite BAC/BAP BAC/BAP MRZ defa OPACE CAN 123:
	1 minu Dala 2 Encoded Finer 3 Encoded Finer(s) 4 Encoded Finer(s) 5 Displayed Portrait 6 Reserved 7 Displayed Signature or Usual Mark 8 Data Feature(s) 9 Structure Feature(s) 11 Additional Personal Detail(s) 12 Additional Document Detail(s) 13 Optional Detail(s) 14 E&P Childic Key Info 15 AA Public Key Info 16 Person(s) to notify	Yes Yes Yes No No No Partially Partially Yes Yes Yes No	Reading Options Passive Authentication Active Authentication (if DG15 present) Chip Authentication (if DG14 present) Terminal Authentication (if Chip Auth is active) Additional options Auto detect Enable Log Enter MR2 manually Save in CSV file Find anterna during read Open file CSV path: LDocuments IOCCR8021
ificates for Pi	assive Authentication		APDU Selection Automatic
ificates for Pa	assive Authentication CSCA:		APOU Selection Automatic Provise
ficates for Pi	CSCA:		APDU Selection Automatic Provse Browse
ficates for Pr	CSCA:		APDU Selection Automatic Browse Browse
ficates for Pi	CSCA:		APDU Selection Automatic Browse Browse Browse
ficates for Pi	CSCA:		APOU Selection Automatic

ataGroup)	Reading Opt	ions	
BAC	BAP		
Select	Datagroup	Content	Supported
\checkmark	1	Mandatory text data elements	Yes
	2	Optional licence holder details	No
	3	Optional issuing authority details	No
\checkmark	4	Optional portrait image	Yes
	5	Optional signature / usual mark image	Yes
\checkmark	6	Optional facial, fingerprint, iris and other biomet	Yes
	7	Optional facial, fingerprint, iris and other biomet	No
	8	Optional facial, fingerprint, iris and other biomet	No
	9	Optional facial, fingerprint, iris and other biomet	No
	10	Reserved	No
	11	Otpional domestic data	No
	12	Non-match alert	No
	13	Active Authentication	Yes
	14	Extended Access Protection	Yes

3.2 MRZ processing options page

The MRZ processing **Options** page provides settings to manage the reading and authentication of Machine-Readable Zone (MRZ) data from identity documents.

3.2.1 Sections and features

DataGroup Reading Options

This section lets you select specific data groups to read from documents.

- BAC/BAP: Select between Basic Access Control (BAC) or Basic Access Protection (BAP) based on your document's security type.
- DataGroup | Content
 - Card Access: Information about card access security (auto-selected).
 - MRZ Data: Reads Machine Readable Zone information.
 - Encoded Face: Reads the encoded facial data.
 - Encoded Finger(s): Reads encoded fingerprint data (if available).
 - · Mandatory Text Data Elements: Essential text information from the document.
 - Optional Signature/Usual Mark Image: Reads the signature or usual mark image if available.
 - · Active Authentication: Actively validates the chip authenticity.
 - Extended Access Protection (EAC): This is an enhanced security feature providing additional protection.
 - Additional groups: Optionally select other available groups, such as additional biometric data, personal details, or public keys.

Access control options

Defines how the application accesses data on secured documents:

- Auto (PACE/BAC/BAP): Automatically selects the appropriate authentication method.
- BAC/BAP: Explicitly selects BAC or BAP authentication.
- PACE: Password Authenticated Connection Establishment.

Password type

Specifies how the document password is provided:

- Ask every time: Prompts for password entry on each read.
- MRZ: Uses the MRZ data as the password.
- CAN: Uses the Card Access Number (default CAN is configurable).

Reading options

Allows further security checks:

- Passive Authentication: Validates the authenticity of the data using stored certificates.
- · Active Authentication: Performs active validation if supported by the document.
- Chip Authentication: Validates chip security (DG14 must be present).
- Terminal Authentication: Validates the terminal with a certificate (if the chip supports this).

Additional options

Extra configurations for ease of use and troubleshooting:

- Auto detect: Automatically detects document types.
- Enter MRZ manually: Allows manual entry of MRZ if automated reading fails.
- Find antenna during read: Helps in positioning the document correctly for reading.
- Enable Log: Enables logging of read operations for debugging purposes.
- Save in CSV file: Saves read data to a CSV file for record-keeping. Click **Open file** to choose the storage location.

Card Configuration

• APDU Selection: Selects how APDU commands are handled (default: Automatic).

Certificates for Passive and Terminal Authentication

If authentication options are selected, this area lets you provide the necessary certificates:

- CSCA: Country Signing Certificate Authority certificate for Passive Authentication.
- External DS: Optional external Document Signer certificate.
- Terminal Authentication certificates: Provide a CIV/CA link, DV, IS, and IS Private Key if Terminal Authentication is active.

3.2.2 How to Use

- 1. Select the desired data groups.
- 2. Set access control and authentication preferences.
- 3. Configure additional settings based on your reading and logging requirements.
- 4. Click **OK** to save your configuration or **Cancel** to discard the changes.

3.3 MRZ processing main screen

The main screen provides key functionalities and information required to read and authenticate identity documents using the OCR602 software.

르 OCR602 v4.9.0 RC6			-	
eID/ePP IDL				
Picture	Personal Data		Access Control	
	Name MOHAMED Date of Birth (dd/mm/yy) 30/09/85 Sex M Document Number CARD0003 Issuer UTO	Surname HADDAD Nationality UTO Valid until (dd/mm/yy) 29/01/26 Document Type I I Optional Data HID	BAC / PACE EAC CA TA PA DG1 DG1 DG1 DG1 CG AA Antenna Front Back	
Configuration Select ID BOX COM Port & Reader COM3 - ID BOX ~ OCR602 CL reader 324320490000 ~ <u>R</u> ead Document <u>Options</u> See Last Log	Logs DG1 Read. Scanner MRZ & DG1 MR Reading DG2 DG2 Read (Speed: 155 DG2 Read. Disconnected. <	Z match .37 kbps, Size: 32025 by	tes, Time: 1649 .	Reading State Detect MRZ Read MRZ Detect Chip Read Chip
FW OCR 2.74.40 NNA 2.1 S/N 32432049 P/N 28770114 Driver CTL Microsoft OCR602CHIPSET CTL 20.06.07 P0070	I < UT 8509 HADD	0CARD0003<1HID 303M2601294UT0 AD< <m0hamed<<<< td=""><td><global<<<< <<<<<<<5 <<<<<<<<</global<<<< </td><td></td></m0hamed<<<<>	<global<<<< <<<<<<<5 <<<<<<<<</global<<<< 	

3.3.1 How to use

- 1. Select your reader configuration and document type.
- 2. Choose appropriate access control and antenna settings.
- 3. Click **Read Document** to start.
- 4. Monitor the Logs and Reading State areas for process details and results.

3.3.2 Screen components

Picture

Displays the photo retrieved from the scanned identity document.

Personal Data

- Name/Surname: Displays the holder's name.
- Date of Birth: Holder's birthdate.
- Nationality: Nationality of the document holder.
- Sex: Holder's gender.
- Valid Until: Expiration date of the document.
- Document Number/Type: Identifier and type of document.
- Issuer: Document issuing authority.
- Optional Data: Any additional optional data.

Access Control

Select the applicable security checks:

- BAC/PACE: Basic Access Control or Password Authenticated Connection Establishment.
- EAC (Extended Access Control):
 - CA (Chip Authentication).
 - TA (Terminal Authentication).
- PA (Passive Authentication).
- AA (Active Authentication).

Antenna

Select antenna position:

Front or Back: Choose the appropriate antenna position for optimal reading.
 Click the C refresh button to reset the antenna selection.

Configuration

- Select ID BOX COM Port & Reader: Choose the correct COM port and reader model for your connected hardware. If there is only one supported device, the software selects the device automatically.
- Read Document: Initiates the reading process.
- Options: Opens the advanced settings.
- See Last Log: View details of the last reading session if file logging is activated.

Logs

Displays operational logs and any errors encountered during reading processes.

Scanner MRZ & DG1 MR	Z match				
Reading DG2					
DG2 Read (Speed: 156	.89 kbps,	Size: 32025	bytes,	Time:	1633 .
DG2 Read.					
Disconnected.					

Personal Data	
Name	Surname
Date of Birth (dd/mm/yy)	Nationality
Sex	Valid until (dd/mm/yy)
Document Number	Document Type
Issuer	Optional Data

Access Control
BAC / PACE EAC CA TA PA
DG1 000000000000000000000000000000000000

Antenna	
Front Back	Ç

Configuration	
Select ID BOX COM Port & Reader	
COM3 - ID BOX	\sim
OCR602 CL reader 324320490000	\sim
Read Document	
Options	
See Last Log	

Reading State

Shows the current status of reading processes:

- **Detect MRZ**: Detecting the MRZ area.
- Read MRZ: Reading MRZ data.
- Detect Chip: Checking chip presence.
- Read Chip: Reading chip data.

MRZ data

Shows the processed MRZ data in reading processes.



I <utocard0003<1hid<global<<<< 8509303M2601294UT0<<<<<<<<<</utocard0003<1hid<global<<<<
H A D D A D << MOH A ME D << << << << <<

Chip data processing

Shows the reading chip process in reading processes.



Bad MRZ data processing

Shows the error if there is bad MRZ data read during the reading processes.



3.4 File locations

If the OCR602 Scan Software is installed in the default folder, then the file locations are as follows.

3.4.1 Base folder

This is the folder where the SDK is installed:

32-bit installation: C:\Program Files (x86)\HID AccessIS\OCR602 64-bit installation: C:\Program Files\HID AccessIS\OCR602

Under the base folder there are two subfolders.

3.4.2 Documentation

This folder holds the SDK documentation.

3.4.3 Console App & SDK

This folder holds all the example applications, with source code, that interface to the DLLs. All the example applications come with a C++ and C# versions. Depending on what you select at installation time, the following applications are available.

• Document reader sample: Shows all the main functionality of MRZ, barcode, and RFID reading.

The sample application demonstrates the main functions in the APIs but is not a comprehensive list of all the available calls.

3.5 Configuration files

As part of the installation, a configuration file is installed. The location of the file is shown below:

```
C:\Users\<username>\Documents\OCR602
```

OCR602.ini is a configuration file for storing the latest updated configuration of the device.

3.6 Supported devices

The following scanner types can be used with the installed software:

• Photo ID reader OCR602.

Revision history

Date	Description	Revision
May 2025	Updates images to show OCR602 product name.	A.1
April 2025	Initial release.	A.0



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