# SCANDIT

**Scandit Product Specifications as of Dec 10th, 2025**
**(older versions available at https://ssl.scandit.com/terms-archive)**

# Software Updates

Scandit provides new releases in regular intervals that include performance improvements and maintenance updates for its Software (a Software Component or a Software Application). Performance improvements refer to general improvements to the overall barcode scanning, text recognition or ID scanning performance. Maintenance updates refer to updates to previous releases that address changes in operating systems (OS), relate to new devices or provide bug fixes.

The Software Specifications which apply will depend on the Scandit Software, Editions and Add-ons (if applicable) licensed and are subject to the applicable licensing scope and terms. If the licensed scope and terms are not defined in this version of the specifications, the version of the specifications referenced in the applicable T&Cs will apply.

# Software Components

## Scandit Barcode Scanner SDK Native

The *Barcode Scanner SDK Native* is a software component that can be integrated into (mobile) applications to decode certain 1D and 2D barcodes from camera images. The *Barcode Scanner SDK Native* is available for different operating systems such as Android and iOS and supports a wide variety of smartphones and tablets. The specific operating systems available to a particular Native application using the software component depend on the licensing terms.

All the supported symbologies at the time of ordering are available to a particular Native application with the following exceptions:
- The Order Form mentions specific symbologies
- Symbologies no longer supported by Scandit

The *Barcode Scanner SDK Native* supports barcode scanning at different angles of orientation, pitch and yaw - the respective angles as well as minimum and maximum scan distances depend on the device and camera used, the barcode format, size and print quality and the lighting conditions. The *Barcode Scanner SDK Native* can scan certain damaged and faded barcodes - the exact conditions under which scanning of damaged or faded barcodes is feasible depends on the device used, environmental conditions and the exact damage.

Barcode scanning is always performed on the device and so the barcode scanning speed is not affected by a slow network connection. The *Barcode Scanner SDK Native* returns only a single decodable barcode (1D or 2D) per camera frame in its core edition ("Single Scan" - see below for details) - other editions support returning more than a one barcode per camera frame (see below for details).

The *Barcode Scanner SDK Native* is also available as a plug-in/module for a number of different mobile development frameworks such as Cordova, Xamarin, Capacitor, Flutter and React Native. The API features for each of the mobile development frameworks might differ from the API features offered for native Android and iOS applications.

*Device, OS and Camera Requirements:*

Please see our online documentation at https://docs.scandit.com/system-requirements/ for minimum system requirements.

*Editions Options for the Barcode Scanner SDK Native*

The Barcode Scanner SDK Native is available in various different editions that provide capabilities for different scenarios, for example to scan more barcodes at the same time or to scan combinations of barcode and text.

- Single Scan:
  *Single Scan* allows for the scanning of single barcodes (1D or 2D). It comes with different options to configure the scanner experience.
- SparkScan:
  *SparkScan* allows for the scanning of single barcodes (1D or 2D). It is an out-of-the-box option that includes a pre-built user interface to speed up integration time.
- MatrixScan Batch:

  *MatrixScan Batch* allows for the scanning of multiple barcodes (1D and 2D) in the same camera frame and provides barcode tracking and highlighting across sequential camera frames in the camera preview at a resolution of up to 4K. All tracked barcodes are highlighted in the same, customizable color. The locations of tracked barcodes in screen coordinates are not exposed.
- MatrixScan AR:

  *MatrixScan AR* includes *MatrixScan Batch* as defined above and offers in addition virtual overlays that are anchored at the locations of the tracked barcodes (1D and 2D) in the image. This allows augmented reality applications where users see selected barcodes in the camera preview highlighted, see dynamic information displayed on top of barcodes in the camera preview and users can interact with individual barcodes (and/or virtual overlays) in the camera preview.
- MatrixScan Count:
  *MatrixScan Count* allows for the scanning of multiple barcodes (1D and 2D) in the same camera frame and returns a list of barcodes scanned using an out-of-the-box user interface. All tracked barcodes are highlighted with virtual overlays that are anchored at the locations of the tracked barcodes (1D and 2D) in the camera view. *MatrixScan Count* provides a number of different UI elements that help the user with barcode counting tasks. There is a limited number of configuration options available to customize the user interface.
- MatrixScan Find:
  *MatrixScan Find* is designed to enable the simultaneous scanning of multiple barcodes (1D and 2D), within a single camera frame. The feature includes a pre-built user interface that assists users in locating items by providing virtual overlays that indicate matches or mismatches among the scanned barcodes based on predefined criteria. There is a limited number of configuration options available to customize the user interface.
- MatrixScan Pick:
  *MatrixScan Pick* is designed to enable the simultaneous scanning of multiple barcodes (1D and 2D), within a single camera frame. The feature includes a pre-built user interface, it allows the developers to assign a specific pre-defined state to scanned items

with the corresponding pre-defined AR overlays..   There is a limited number of configuration options available to customize the user interface.

- Smart Label Capture:
  *Smart Label Capture* enables multimodal data capture by simultaneously scanning one or more barcodes (1D and 2D) and capturing text from one unique label in the same camera frame. This allows for capturing complete and accurate data from specific labels that often include barcode and non-barcode information. All tracked barcodes and text are highlighted in different, customizable colors based on predefined criteria.

The advanced scanning capabilities listed above are only available for Android or iOS operating systems. They require sufficient computing resources and camera resolutions to operate properly.

Advanced scanning capabilities are available via tiered, pre-configured packages, called Editions. The following Edition options are available for the Barcode Scanner SDK Native:

| Editions Options Available | Software Components |
|---|---|
| **Core Edition** | Single Scan and SparkScan |
| **Standard Edition** | Includes all software components in Core Edition in addition to the following advanced scanning capabilities: MatrixScan Batch, MatrixScan Find and Smart Label Capture |
| **Advanced Edition** | Includes all software components in Standard Edition in addition to the following advanced scanning capabilities: MatrixScan AR, MatrixScan Pick and MatrixScan Count |

# Scandit ID Scanning SDK Native

The *Scandit ID Scanning SDK Native* is a software component that can be integrated into (mobile) applications to scan and extract information from certain official identity documents. The *Scandit ID Scanning SDK Native* is available for Android and iOS and supports a wide variety of smartphones and tablets. The specific operating systems available to a particular customer depend on the licensing terms.

The *Scandit ID Scanning SDK Native* requires sufficient contrast for successful extraction and the overall accuracy and speed of decoding depends on many factors including light conditions, quality of the print, font, contrast and device capabilities.

*Editions Options for Scandit ID Scanning SDK Native*

Subject to the conditions noted above, the Scandit ID Scanning SDK offers a number of capabilities for scanning and extracting information from and the verification of authenticity of various identity document types:

- Machine Readable Zone (MRZ) Scanning:

  Support scanning of machine readable zones (MRZ) on machine readable travel documents (MRTDs) that are encoded according to the ICAO specification Doc 9303: Machine Readable Travel Documents. Specifically, the machine readable zones on the following types of documents are supported:
  - *Official Passports*, as specified in Doc 9303 Part 4: Specifications for Machine Readable Passports (MRPs) and other TD3 Size MRTDs
  - *ID cards in credit-card format*, as specified in Doc 9303 Part 5: Specifications for TD1 Size Machine Readable Official Travel Documents (MROTDs)
  - *ID cards printed on paper,* as specified in Doc 9303 Part 6: Specifications for TD2 Size Machine Readable Official Travel Documents (MROTDs)
  - *Visa Stickers and Documents,* as specified in Doc 9303 Part 7: Machine Readable Visas
  - *non-standard MRZ formats of selected ID formats,* such as: French national identity card (Laminated version, issued 1994-2021), Swiss driving license in credit-card format (DLC, issued 2003-2023), China Mainland Travel Permit for Hong Kong & Macau Residents, China Mainland Travel Permit for Taiwan Residents, China Exit-Entry Permit for Travelling to and from Hong Kong and Macau (往来港澳通行证), China Exit-Entry Permit for Travelling to and from Taiwan (往来台灣通行证) APEC Business Travel Card (ABTC)

- PDF417 ID Scanning:

  Supports scanning and extracting of information from PDF417 barcodes which follow the *AAMVA Driver License/Identification specification*, including Magstripe encoding in

the US and Canada, as well as the PDF417 Barcode on the United States Uniformed Services Privilege and Identification Card and the the DoD Common Access Card.

This support also provides workarounds for extracting data from certain non-compliant implementations of the AAMVA standards.

- Visual inspection zone (VIZ) Scanning

  Supports scanning and extracting information from the front of the driving license (visual inspection zone) of select European countries that issue driving licenses in accordance with Directive 2006/126/EC, such as:

  - Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Romania, Serbia, Slovenia, Spain, Sweden, UK

  Supports scanning and extracting information from the front (visual inspection zone) of certain driving licenses of North American states, provinces and territories, such as:

  - USA: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming
  - Canada: Alberta, British Columbia, Manitoba, Ontario, Quebec, Saskatchewan

- Mobile Driver License Scanning

  Supports scanning and extracting information from mobile driver licenses and electronic ID cards following the ISO/IEC 18013-5 standard, if:

  - access of data is available for commercial use without additional reader authentication *and*
  - device engagement is done using QR code *and*
  - data retrieval is done using Bluetooth low energy (BLE)

- Barcode Verification

  Supports Verification of the authenticity of a scanned US Driver's License or state ID card based on the print, structure and data of the barcode on the back of the card.

- Data Comparison Verification

  Supports Verification of the authenticity of a scanned US Driver's License or ID card based on a comparison of the data printed on the front of a US driver's license or ID card with the data encoded in the barcode on the back of the card.

- Voided ID Detection

Supports Verification of the validity of a scanned US Driver's License or state ID card based on the detection of common means of document invalidation (perforation, cutting, hole punch)

Availability of specific features might depend on framework and platform. All listed capabilities are available for Android or iOS operating systems. They require sufficient computing resources and camera resolutions to operate properly. We recommend at least a 1080p video camera frame resolution.

ID scanning capabilities are available via tiered, pre-configured packages, called Editions. The following Edition options are available for the ID Scanning SDK Native:

| Editions Options Available | Software Components |
|---|---|
| **ID Scan Core Edition - MRZ** | MRZ Scanning |
| **ID Scan Core Edition - PDF417** | PDF417 ID Scanning |
| **ID Scan Standard Edition** | MRZ Scanning, PDF417 ID Scanning |
| **ID Scan Advanced Edition** | MRZ Scanning, PDF417 ID Scanning, VIZ Scanning |
| **ID Validate** | MRZ Scanning, PDF417 ID Scanning, VIZ Scanning, Barcode Verification, Data Comparison Verification, Voided ID Detection<br><br>Note: Verification accuracy is dependent on various aspects such as state, document issue date and version.<br>The verification of authenticity performed by "ID Validate" does not imply verification of the validity of the credential presented by a person, nor does it verify that the person presenting the credential is the same person whose identity the credential describes. Scandit does not take any responsibility as to the authenticity or validity of the identification documents presented by a person. |

# Scandit Barcode Scanner SDK for the Web

The *Barcode Scanner SDK for the Web* is a software component that can be integrated into (mobile) websites to decode certain 1D and 2D barcodes from camera images. The specific barcode symbologies available to a particular customer depend on the licensing terms.

All the supported symbologies at the time of ordering are available to a particular Native application with the following exceptions:
- The Order Form mentions specific symbologies
- Symbologies no longer supported by Scandit

Based on Javascript and Webassembly, the *Barcode Scanner SDK for the Web* is compatible with most modern browsers (as specified below) and supports a wide variety of smartphones and tablets.

The *Barcode Scanner SDK for the Web* supports barcode scanning at different angles of orientation, pitch and yaw. The respective angles as well as minimum and maximum scan distances depend on a number of factors including the device and camera used, the barcode format and size and the lighting conditions. The *Barcode Scanner SDK for the Web* can scan certain damaged and faded barcodes - the exact conditions under which scanning of damaged or faded barcodes is feasible depends on the device used, environmental conditions and the exact damage.

Once the software component has been successfully downloaded to the device, barcode scanning is always performed on the device and so the barcode scanning speed is not affected by a slow network connection. The *Barcode Scanner SDK for the Web* returns only a single decodable barcode (1D or 2D) per camera frame in its core edition ("Single Scan" - see below for details) - other editions support returning more than a one barcode per camera frame (see below for details).

*Browser and Camera Requirements:*
Please see our online documentation at *https://docs.scandit.com/system-requirements/* for minimum system requirements.

*Editions Options for the Barcode Scanner SDK for the Web*

The Barcode Scanner SDK for the Web is available in various different editions that provides capabilities for different scenarios:

- Single Scan:

  *Single Scan* allows for the scanning of single barcodes (1D or 2D). It comes with different options to configure the scanner experience.

- SparkScan:

  SparkScan allows for the scanning of single barcodes (1D or 2D). It is an out-of-the-box option that includes a pre-built user interface to speed up integration time.

- MatrixScan Batch:

  *MatrixScan Batch* allows for the scanning of multiple barcodes (1D and 2D) in the same camera frame and provides barcode tracking and highlighting across sequential camera frames in the camera preview at a resolution of up to 4K. All tracked barcodes are highlighted in the same, customizable color. The locations of tracked barcodes in screen coordinates are not exposed.

- MatrixScan AR:

  *MatrixScan AR* includes *MatrixScan Batch* as defined above and offers in addition virtual overlays that are anchored at the locations of the tracked barcodes (1D and 2D) in the image. This allows augmented reality applications where users see selected barcodes in the camera preview highlighted, see dynamic information displayed on top of barcodes in the camera preview and users can interact with individual barcodes (and/or virtual overlays) in the camera preview.

- MatrixScan Find:

  MatrixScan Find is designed to enable the simultaneous scanning of multiple barcodes (1D and 2D), within a single camera frame. The feature includes a pre-built user interface that assists users in locating items by providing virtual overlays that indicate matches or mismatches among the scanned barcodes based on predefined criteria. MatrixScan Find incorporates a collection of user interface elements that have limited customization options.

Advanced scanning capabilities are available via tiered, pre-configured packages, called Editions. The following Editions options are available for the Barcode Scanner SDK for the Web:

| Editions Options Available | Software Components |
|---|---|
| **Core Edition** | Single Scan and SparkScan |

| Standard Edition | Includes all software components in Core Edition in addition to the following advanced scanning capabilities: MatrixScan Batch and MatrixScan Find |
|---|---|
| Advanced Edition | Includes all software components in Standard Edition in addition to the following advanced scanning capabilities: MatrixScan AR |

# Scandit ID Scanning SDK for the Web

The *ID Scanning SDK for the Web* is a software component that can be integrated into (mobile) websites to scan and extract information from certain official identity documents with barcodes. Based on Javascript and Webassembly, the *ID Scanning SDK for the Web* is compatible with most modern browsers (as further specified in the section on *Barcode Scanning SDK for the Web*) and supports a wide variety of smartphones and tablets.

The *Scandit ID Scanning SDK for the Web* requires sufficient contrast for successful extraction and the overall accuracy and speed of decoding depends on many factors including light conditions, quality of the print, font, contrast and device capabilities.

Once the software component has been successfully downloaded to the device, ID Scanning is always performed on the device.

*Editions Options for Scandit ID Scanning SDK for the Web*
Subject to the conditions noted above, the Scandit ID Scanning SDK offers a number of capabilities for  scanning and extracting information from and the verification of authenticity of various identity document types:

- Machine Readable Zone (MRZ) Scanning:

  Support scanning of machine readable zones (MRZ) on machine readable travel documents (MRTDs) that are encoded according to the ICAO specification Doc 9303: Machine Readable Travel Documents. Specifically, the machine readable zones on the following types of documents are supported:
  - *Official Passports*, as specified in Doc 9303 Part 4: Specifications for Machine Readable Passports (MRPs) and other TD3 Size MRTDs
  - *ID cards in credit-card format*, as specified in Doc 9303 Part 5: Specifications for TD1 Size Machine Readable Official Travel Documents (MROTDs)
  - *ID cards printed on paper,* as specified in Doc 9303 Part 6: Specifications for TD2 Size Machine Readable Official Travel Documents (MROTDs)
  - *Visa Stickers and Documents,* as specified in Doc 9303 Part 7: Machine Readable Visas
  - *non-standard MRZ formats of selected ID formats,* such as: French national identity card (Laminated version, issued 1994-2021), Swiss driving license in credit-card format (DLC, issued 2003-2023), China Mainland Travel Permit for Hong Kong & Macau Residents, China Mainland Travel Permit for Taiwan Residents, China Exit-Entry Permit for Travelling to and from Hong Kong and Macau (往来港澳通行证), China Exit-Entry Permit for Travelling to and from Taiwan (往来台灣通行证) APEC Business Travel Card (ABTC)

- PDF417 ID Scanning:

  Supports scanning and extracting of information from PDF417 barcodes which follow the *AAMVA Driver License/Identification specification*, including Magstripe encoding in the US and Canada, as well as the PDF417 Barcode on the United States Uniformed Services Privilege and Identification Card and the the DoD Common Access Card.

  This support also provides workarounds for extracting data from certain non-compliant implementations of the AAMVA standards.

- Visual inspection zone (VIZ) Scanning

  Supports scanning and extracting information from the front of the driving license (visual inspection zone) of select European countries that issue driving licenses in accordance with Directive 2006/126/EC, such as:

    - Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Romania, Serbia, Slovenia, Spain, Sweden, UK

  Supports scanning and extracting information from the front (visual inspection zone) of certain driving licenses of North American states, provinces and territories, such as:

    - USA: Alabama, Alaska, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming
    - Canada: Alberta, British Columbia, Manitoba, Ontario, Quebec, Saskatchewan

- Barcode Verification

  Supports Verification of the authenticity of a scanned US Driver's License or state ID card based on the print, structure and data of the barcode on the back of the card.

- Data Comparison Verification

  Supports Verification of the authenticity of a scanned US Driver's License or ID card based on a comparison of the data printed on the front of a US driver's license or ID card with the data encoded in the barcode on the back of the card.

- Voided ID Detection

  Supports Verification of the validity of a scanned US Driver's License or state ID card based on the detection of common means of document invalidation (perforation, cutting, hole punch)

Availability of specific features might depend on framework and platform. All listed capabilities are available for Android or iOS operating systems. They require sufficient computing resources and camera resolutions to operate properly. We recommend at least a 1080p video camera frame resolution.

ID scanning capabilities are available via tiered, pre-configured packages, called Editions. The following Edition options are available for the ID Scanning SDK Native:

| Editions Options Available | Software Components |
|---|---|
| **ID Scan Core Edition - MRZ** | MRZ Scanning |
| **ID Scan Core Edition - PDF417** | PDF417 ID Scanning |
| **ID Scan Standard Edition** | MRZ Scanning, PDF417 ID Scanning |
| **ID Scan Advanced Edition** | MRZ Scanning, PDF417 ID Scanning, VIZ Scanning |
| **ID Validate** | MRZ Scanning, PDF417 ID Scanning, VIZ Scanning, Barcode Verification, Data Comparison Verification, Voided ID Detection<br><br>Note: Verification accuracy is dependent on various aspects such as state, document issue date and version.<br>The verification of authenticity performed by "ID Validate" does not imply verification of the validity of the credential presented by a person, nor does it verify that the person presenting the credential is the same person whose identity the credential describes. Scandit does not take any responsibility as to the authenticity or validity of the identification documents presented by a person. |

# Scandit ID Scanning ID Bolt

ID Bolt is a cloud-based Software Component that provides an ID scanning workflow built on top of the *Scandit ID Scanning SDK for the Web (*ID Scanning Component). ID Bolt can be integrated into customers' websites and integrates the ID Scanning Component as a hosted service that does not require updates of customer websites for supporting new documents, improving scan performance or user experience.

Once the ID Scanning Component has been successfully downloaded to the device (by the user's browser), ID scanning is always performed on the user's device for improved responsiveness and privacy.

As part of ID Bolt, scanning of an ID can be performed on other devices than the device that initiated the ID scan process ("Device Handover"). In this case, scan data will be transmitted through Scandit's servers, this data is end-to-end encrypted and  Scandit does not store any scan data transmitted this way.

**Supported Environments:** As the *Scandit ID Scanning SDK for the Web, ID Bolt* requires sufficient contrast for successful extraction and the overall accuracy and speed of decoding depends on many factors including light conditions, quality of the print, font, contrast and device capabilities.

*Supported Documents:* Subject to the conditions noted above, ID Bolt supports scanning and extracting information from various identity document types with the same licensing options as *Scandit ID Scanning SDK for the Web offers*: ID Scan Core Edition - MRZ, ID Scan Core Edition - PDF417, ID Scan Standard Edition, ID Scan Advanced Edition, ID Validate Edition with the respective document coverage and feature support.

**Browser and Camera Requirements:** ID Bolt runs on all devices and browsers supported by the  *Scandit ID Scanning SDK for the Web.* Please see our online documentation at https://docs.scandit.com/data-capture-sdk/web/requirements.html for minimum system requirements.

**Supported Deployment Scenarios:** Due to the conditions noted above, ID Bolt is intended to be used in scenarios where manual data entry is a feasible fallback for a subset of user transactions and users typically have an option to cancel the scanning process to enter data manually.

# Scandit Parser Library

The Scandit Parser Library is an Add-on to the *Barcode Scanner SDK Native*, the *Barcode Scanner SDK for the Web and Scandit Express* that can be used to further process scanned data for validation and to decode raw data into certain structured output data formats. The Scandit Parser is currently available in the following different options:

- *GS1 AI Parser Option:* The GS1 AI parser validates and decodes data in GS1 AI strings typically encoded on GS1 barcodes. It supports version 19.0 of the GS1 Application Identifier (AI) definition standard and validates and decodes all specified application identifiers.
- GS1 Digital Link: The parser supports version 1.4.1 of the GS1 Digital Link standard for uncompressed URIs as described in the "GS1 Digital Link Standard: URI Syntax".
- *HIBC (Health Industry Bar Code) Option:* The parser library supports the ANSI HIBC 2.5 supplier labeling standard used in the medical industry.
- *Swiss QR Option:* The ISO 20022 standard defines how payment information is encoded in a specific type of QR codes, called Swiss QR codes. The parser supports the 1.0, 2.0 and the 2.1 versions of the Swiss QR ISO 20022 standard and decodes all fields specified in these versions.
- *VIN Parser Option:* The Scandit VIN Parser decodes all fields encoded in the Vehicle Identification Number (VIN). Both the informal North America standard and ISO 3779 used in the European Union are supported.
- *IATA-BCBP Parser Option:* The IATA-BCBP parser supports up to version 8 of the International AirTransport Association Bar Coded Boarding Pass (IATA-BCBP) standard. The latest IATA-BCBP specifications can be obtained from International Air Transport Association.

# Software Applications

## Scandit Enterprise Browser

The *Enterprise Browser* is a software application that combines a web browser with a camera-based barcode scanner to add barcode scanning (1D and 2D) as a source of data input to mobile web pages and web applications.

The *Enterprise Browser* can be configured via a web-based configuration interface (no-code integration). There is also a Javascript API available for customization via Javascript. The *Enterprise Browser* is available for Android and iOS and supports a wide variety of smartphones and tablets. The specific operating systems available to a particular customer depend on the licensing scope and terms.

All the supported symbologies at the time of ordering are available to a the Enterprise Browser with the following exceptions:
- The Order Form mentions specific symbologies
- Symbologies no longer supported by Scandit

The *Enterprise Browser* supports barcode scanning at different angles of orientation, pitch and yaw. The respective angles as well as minimum and maximum scan distances depend both on the device and camera used, the barcode format and size and the lighting conditions. The *Enterprise Browser* can scan damaged and faded barcodes. The exact conditions under which scanning of damaged or faded barcodes is feasible depends on the device used, environmental conditions and the exact damage.

Barcode scanning is always performed on the device and so the barcode scanning speed is not affected by a slow network connection. The *Enterprise Browser* returns only a single barcode (1D or 2D) per camera frame.

*Device and OS Requirements:*

The web-based configuration interface of the *Enterprise Browser* can run on any make of computer with an internet connection and the following browsers:

- Google Chrome™, most recent stable version
- Mozilla® Firefox®, most recent stable version
- Apple® Safari®, most recent stable versions on OS X
- Microsoft® Internet Explorer® or Microsoft® Edge®, most recent stable version

For all browsers, you must enable JavaScript, cookies, and TLS 1.2 or later

To use the *Enterprise Browser* Android app, the following requirements have to be met:

- Android phone or tablet running OS 5.0 (Lollipop) or higher

- Recommended camera: minimum 720p. Autofocus and fixed-focus

- Intermittent internet connection over 3G or Wifi with connectivity to scandit.com to synchronize configurations.

To use the *Enterprise Browser* iOS app, the following requirements have to be met:

- An iPhone, iPad or iPod Touch running iOS 10 or later.

- Recommended camera: minimum 720p. Autofocus and fixed-focus

- Intermittent internet connection over 3G or Wifi with connectivity to scandit.com to synchronize configurations.

*Editions Options for the Scandit Enterprise Browser*

Scandit offers a number of advanced scanning capabilities that extend the functionality of the Scandit Enterprise Browser.

- MatrixScan Batch:

  *MatrixScan Batch* allows for the scanning of multiple barcodes (1D and 2D) in the same camera frame and provides barcode tracking and highlighting across sequential camera frames in the camera preview at a resolution of up to 4K. All tracked barcodes are highlighted in the same, customizable color. The locations of tracked barcodes in screen coordinates are not exposed.

Advanced scanning capabilities are available via tiered, pre-configured packages, called Editions. The following Editions options are available for the Scandit Enterprise Browser:

| Editions Options Available | Software Components |
|---|---|
| **Core Edition** | Scandit Enterprise Browser application |
| **Standard Edition** | Includes all software components in Core Edition in addition to the following advanced scanning capabilities: MatrixScan |

# Scandit Express

*Scandit Express* is an application that can be used to decode certain 1D and 2D barcodes from camera images without any integration or coding required. The application can be accessible as

a software keyboard, allowing barcodes decoded to be injected into any active input field from an existing application. Moreover, by scanning from within the application, decoded barcodes can be copied to the clipboard or exported as a CSV file. *Scandit Express* is available for Android and iOS and supports a wide variety of smartphones and tablets. The specific barcode symbologies and operating systems available to a particular customer depend on the licensing terms.

*Scandit Express* initial configuration is a default one, and the user can decide to configure it differently via a web-based dashboard (no-code integration).

*Scandit Express* supports barcode scanning at different angles of orientation, pitch and yaw. The respective angles as well as minimum and maximum scan distances depend both on the device and camera used, the barcode format, size and print quality, and the lighting conditions. *Scandit Express* can scan certain damaged and faded barcodes - the exact conditions under which scanning of damaged or faded barcodes is feasible depends on the device used, environmental conditions and the exact damage.

Barcode scanning is always performed on the device and so the barcode scanning speed is not affected by a slow network connection. *Scandit Express* returns a single barcode or multiple barcodes.

*Device, OS and Camera Requirements:*

Please see our online documentation at [https://docs.scandit.com/hosted/express/overview/](https://docs.scandit.com/hosted/express/overview/) for minimum system requirements.

The web-based dashboard of *Scandit Express* can run on any computer with an internet connection and the following browsers:
- Google Chrome™, most recent stable version.
- Mozilla® Firefox®, most recent stable version.
- Apple® Safari®, most recent stable versions on OS X.
- Microsoft® Internet Explorer® or Microsoft® Edge®, most recent stable version.

For all browsers, the user must enable JavaScript, cookies, and TLS 1.2 or newer.

*Editions Options for Scandit Express*

Additional features can be offered in *Scandit Express*, which are powered by advanced scanning capabilities of the *Barcode Scanner SDK Native*. They are:

- Batch Scanning Option, powered by MatrixScan
- Find Items, powered by MatrixScan Find
- Inventory Count, powered by MatrixScan Count
- Scan Labels, powered by Smart Label Capture

These additional features are available via tiered, pre-configured packages, called Editions. The following Editions options are available for *Scandit Express*:

| Editions Options Available | Software Components |
|---|---|
| **Core Edition** | Single Scan Barcode mode |
| **Standard Edition** | Includes all software components in Core Edition in addition to enabling the following features of Scandit Express: Multiscan Barcodes mode (powered by MatrixScan), Find Items modes (powered by MatrixScan Find) and Scan Labels modes (powered by Smart Label Capture) |
| **Advanced Edition** | Includes all software components in Standard Edition in addition to enabling the following features of Scandit Express: Inventory Count mode (powered by MatrixScan Count) |

# Shelfview for Retail

# Software Applications

## Scandit ShelfView Mobile

*ShelfView Mobile* is an application designed to capture image and/or barcode data from shelf modules in stores. Depending on the specific licensing scope, such data can include barcodes and pricing information on shelf labels and/or images of products and shelves. Internet connection is required to upload the data captured to Scandit cloud for analysis, and to retrieve saved information about stores, shelf modules and previously captured images. *ShelfView Mobile* is available for Android and iOS and supports a variety of smartphones and tablets. Performance and functionality (including, but not limited to wide angle camera support) will vary depending on device specifications and operating system installed.

*ShelfView Mobile application* captures the following data, depending on the Add-on indicated in the Order Form.

| Add-ons | Data Captured |
|---|---|
| **On-Shelf Availability** | ● Shelf images incl. shelf labels |
| **F[XX]-Price-Label-Compliance** | ● Shelf images incl. shelf labels |
| **Shelf-Label Planogram Compliance** | ● Barcodes from shelf labels and relative positions |

# Scandit ShelfView Stationary Camera Platform

*Scandit ShelfView Stationary Camera Platform* is an embedded software designed to manage shelf image collection from compatible IP cameras via an industrial-grade REST API provided by camera vendors. It provides remote diagnostic and administration capabilities, data collection, storage and upload. It requires an Internet connection for data exchange with Scandit servers, and runs on a Linux-based operating system.

Performance and functionality will vary depending on camera model used.

# Scandit ShelfView Dashboard

*ShelfView Dashboard* is a web-based application for reporting the results of analysis of shelf data uploaded to Scandit cloud, taken with Types of Hardware Device indicated in the Order Form. Presented information is derived from product and/or shelf label recognition that relies on elements such as visual characteristics of product packaging, barcodes and prices on shelf labels, location of products on the shelf. The exact information presented depends on the licensing scope. This process does not guarantee perfect accuracy of the reported results and is not immediate but requires a certain turnaround time. The accuracy can be negatively affected by factors including, but not limited to:
- Poor image quality, such as low resolution, blur, overexposure, underexposure, noise;
- Perspective or occlusion impairing visibility of products and shelf labels in analyzed pictures;
- Visual similarity of different products;
- Small font and barcode size on shelf labels;
- Lack of shelf labels.

The turnaround time, understood as the time elapsed between capturing the information with a camera enabled device and the availability of results, varies depending on factors including, but not limited to:
- Bandwidth of the internet connection;
- Number of SKUs in the photo;

*ShelfView Dashboard* provides access to the following types of insights data, depending on the Add-on indicated in the Order Form.

| Add-ons | Insights available |
|---|---|
| **On-Shelf Availability** | <ul><li>On-shelf insight, understood as a list of identified products and their location in the analyzed picture;</li><li>Out-of-shelf insight, listing products present in a reference list of products but not found in the analyzed picture;</li></ul> |
| **F[XX]-Price-Label-Compliance** | <ul><li>Incorrect price insight, listing products for which prices extracted from present shelf labels do not match the prices in a reference product catalog;</li><li>The numerical value provided in [XX] signifies the percentage of PLU* for which the "Incorrect price" property is evaluated. Examples:<ul><li>F100-Price-Label-Compliance → Incorrect price insight will be generated for every (100%) PLU*</li><li>F50-Price-Label-Compliance → For every 100 PLU*, only 50 PLU* will contain the Incorrect price insight</li></ul></li></ul> |
| **Shelf-Label Planogram Compliance** | Planogram Compliance insights are derived from the comparison of the captured product shelf labels layout and their reference layout defined in a tabular format ("the planogram").<ul><li>Found Product insight: The scanned product shelf label is present in the planogram</li><li>Added Product insight: The scanned product shelf label does not belong to the planogram</li><li>Missing Product insight: The product is present in the planogram but its shelf label was not found</li><li>Found rate: Found Products / (Found Products + Missing Products)</li><li>Invader rate: Added Products / (Added Products + Found Products)</li><li>Exact Position Match: The product is in the same position as defined in the planogram</li></ul> |

| | ● 1-Neighbor Match: The product has at least one product next to it in the correct sequence as defined in the planogram |
|---|---|
| | ● 2-Neighbor Match: The 2 products around the product are in the correct sequence as defined in the planogram |
| | ● Planogram Compliance insight is calculated based on the combination of the insights defined above |

\* A product location is an area in a specific shelf in a specific store including all facings of a product including its price label. A product location update is an update of the properties of a product location, such as "in-shelf", "out-of-shelf", "incorrect price" or other information - and the time of when this update was provided. A product location update (**PLU**) is the result of the shelf recognition process triggered by a newly captured image of the shelf.

*ShelfView Dashboard* can run on any computer with an internet connection and the following browsers:
- Google Chrome™, most recent stable version.
- Mozilla® Firefox®, most recent stable version.
- Apple® Safari®, most recent stable versions on OS X.
- Microsoft® Internet Explorer® or Microsoft® Edge®, most recent stable version.

For all browsers, the user must enable JavaScript, cookies, and TLS 1.2 or newer.

# Scandit Cloud API

*Scandit Cloud API* is an online service that can be accessed to automatically retrieve data available in the *ShelfView Dashboard*.

The list of the available endpoints can be found in API's official documentation available at: https://shelf.scandit.com/api/schema/swagger-ui/

# Intent API

*Intent API* is an integration path that enables other Android native applications to access the functionality of *ShelfView Mobile* via the Android Intent API, as documented at:
https://developer.android.com/guide
This integration path is available only for the Android operating system.