

IMiS[®] /wScan
Manual

Version 1.7.2110

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1 INTRODUCTION

1.1 About manual

This IMiS®/wScan manual describes the functionalities of and working with the IMiS®/wScan application.

1.2 Target audience

It is intended for administrators and application developers with prior technical knowledge who need information about the installation and configuration of the IMiS®/wScan application, its IMiS®/Capture Service core, and integration with third-party applications.

Below is the technical documentation with a detailed description of IMiS®/Capture Service, provided for application developers. Similarly, the user documentation with a detailed description of the settings of the IMiS®/wScan application is provided below for users.

2 GENERAL

IMiS®/wScan is up to date with all contemporary technological, functional and design standards in the field of software for the capture of physical documents. Its design enables fully functional use in a multi-level architecture, with a web browser as the integration point.

Owing to its modular and level design it is highly customizable and usable in various implementation scenarios, either with or without user interaction.

Despite the fact that the capture of physical content can hardly be done without using physical computer components (optical scanner), the use of which has practically been prevented by web browser producer, IMiS®/wScan nevertheless enables the digitization of physical documents by using inherently safe technologies in a purely online solution without the use of plug-ins or similar components.

It enables users to capture contents and digitize them in pure online solutions. It has been made in compliance with the ECMAScript 2016 specification. Despite the rather new JavaScript language specification, browser support is guaranteed sufficiently.

The web service meets the following criteria, conceptually:

- It has been designed with pure JavaScript technology without any additional requirements for e.g. plug-ins or access to the “native” protocols NPAPI, COM, etc. Therefore, it is not based on the technologies that browser makers consider unsuitable (dangerous).
- This simple, intuitive and customizable user interface enables application developers' full flexibility when integrating it into any web applications.
- Integration at a sufficiently low level enables application developers' customization even in the event of technological conflicts with an internally used framework should the application developer be unable to use e.g. constructs of the View level of the application.

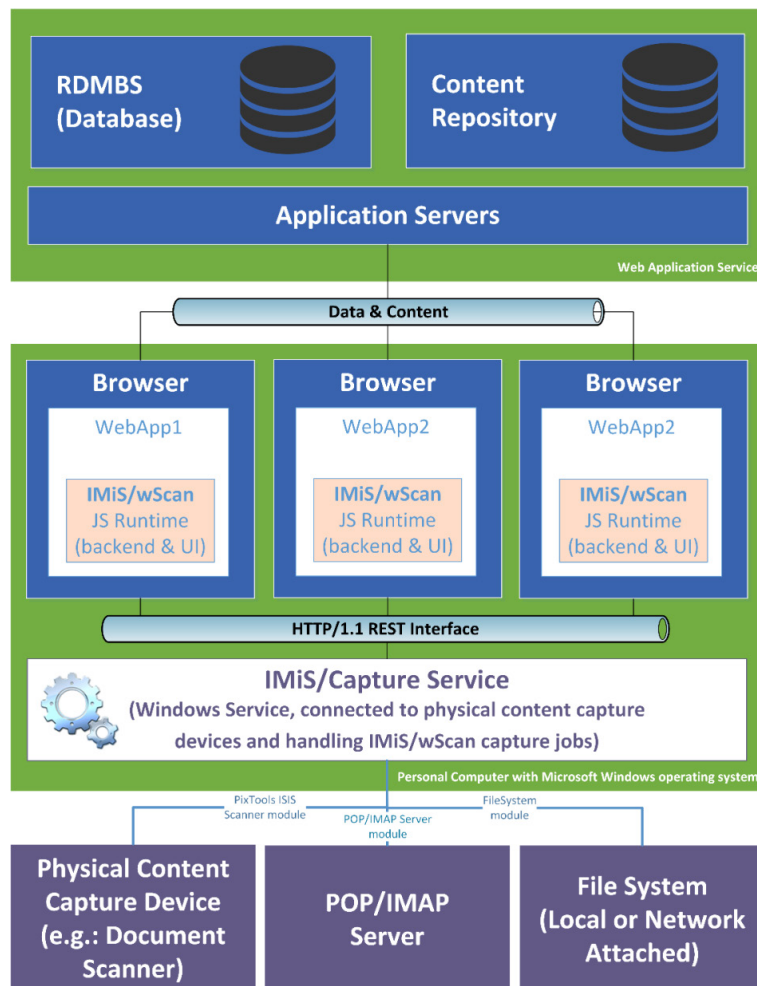


Image 1: Scheme of integrating the product into a multi-level web application

2.1 Architecture

2.1.1 Modular design

IMiS®/Capture Service has a module chain design in which different monolithic building blocks (modules) can be arranged in sequence, depending on the needs of the job. Each module provides a certain functionality (e.g. module for communicating with an optical scanner, module for barcode recognition, module for separating documents, module for merging documents, module for document conversion, module for saving to the archive system, etc.). The modular design enables capture from a different and heterogeneous selection of sources.

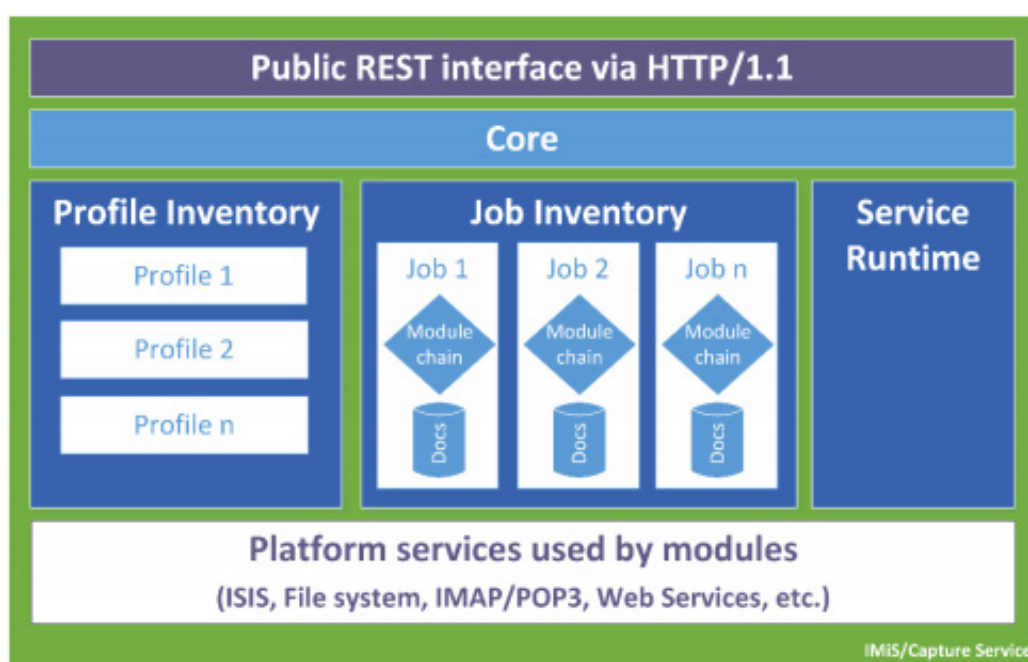


Image 2: Scheme of the IMiS®/Capture Service core service

***Note:** Further development anticipates a gradual introduction of modules for the capture of documents from inboxes via IMAP/POP3 technology, a file system, external sources through various web services, etc.*

The main thing is that this will be a single point of capturing and processing (separating logical documents by barcodes, etc.) for all input documents regardless of the channel used for the capture.

2.1.2 Multi-level architecture

IMiS®/Capture Service is a Windows-compatible backend service for the document capture and control of connected ISIS-compatible optical scanners. These functions make use of the Captiva PixTools technology (<http://documentum.opentext.com/captiva-oem/software/pixtools-toolkit/>) in its Microsoft .NET implementation. In order to provide the widest possible range of options for integration into various technologies, this service has been designed without a user interface.

Its functionality is fully utilized via its REST interface. The latter is accessible via .NET web server, build-into the service and is based on Hypertext Transfer Protocol -- HTTP/1.1 technology (<https://www.w3.org/Protocols/rfc2616/rfc2616.html>).

It functionally provides the service of lifecycle management of:

- Capture settings (the so-called Profile Lifecycle), which can be used for capture (a profile is the saved settings of a document capture job).
- Capture jobs (the so-called Job Lifecycle).
- An individual captured document (the so-called Document Lifecycle).

The program interface of the IMiS®/wScan product is simple, intuitive and highly customizable. It enables application developers to fully adapt the functionalities to arbitrary web applications. It has been designed as a multi-level interface with pure JavaScript technology that does not require external JavaScript frameworks (e.g. plug-ins or access to the “native” protocols NPAPI, COM, etc.).

Through integration developers will be able to descend to a sufficiently low level that will enable the necessary customizations. This will come especially in handy when the user will be unable to use e.g. constructs of the View (UI) level of the application due to technological conflicts with an internally used framework.

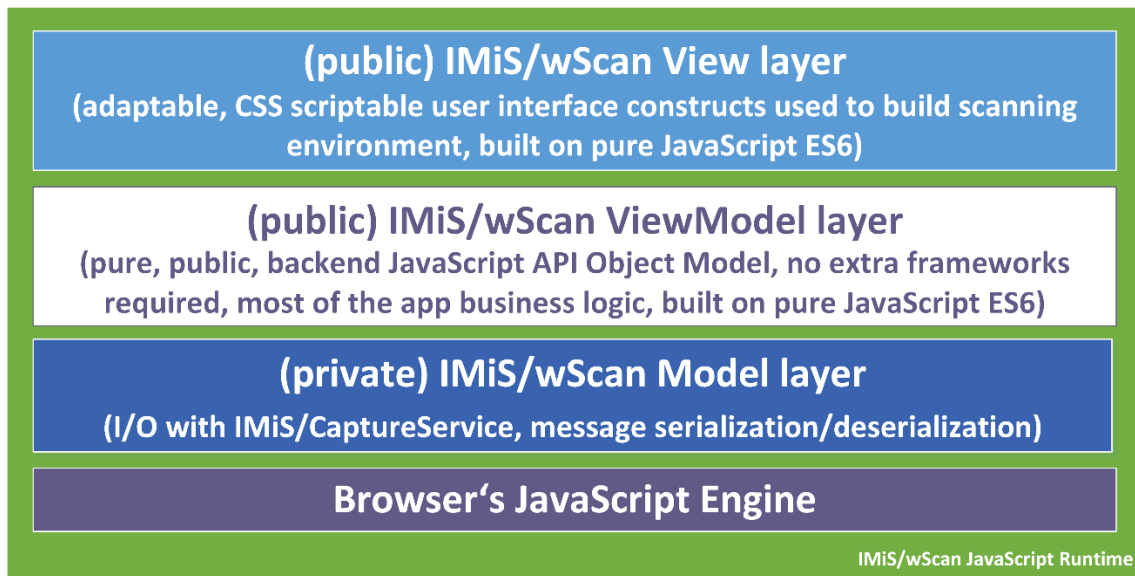


Image 3: Scheme of JavaScript program levels of IMiS®/wScan application

Browser's JavaScript Engine

The Browser's JavaScript Engine is the first and most basic level for communication with physical system components.

Model level

The Model level of the application is a private part of the application and is not intended for points of integration with applications. It connects it with IMiS®/Capture Service via an HTTP link (usually local but can be remote). It provides support to the ViewModel level. It establishes externally an internal (private) object model, in which all service messages have been deserialized and made available to higher levels in the form of JavaScript objects. It also manages the asynchronous triggering of events originating from events on the service level, which higher levels would not be able to detect and respond to. Through this level all data and commands for operations are exchanged with the service part. Even though this level has been declared private, it has an open source code that can be viewed by external developers, especially during the development of the application, when they can track errors to this level as well.

ViewModel level

The ViewModel level of the application is the heart of the application. To higher levels (and optionally to application developers) it exposes a rich and intuitive JavaScript object model with all of the business logic that ensures the consistency of JavaScript objects and the status of the service it is communicating with.

It is an entirely backend level without any user interface constructs. Its objects enable applications to manage IMiS®/Capture Service, manage the lifecycle of captured documents, etc. Its events model enables the coordination and synchronization of events that originate from the IMiS®/wScan application or from IMiS®/Capture Service.

For capture scenarios in which a user interface is not wanted or needed, the level has been designed to be used without a user interface in a way that does not limit its range of functionalities. These are the more exceptional events enabled by the architecture.

View level

The View level of the application, as the last of the set, comprises a selection of user interface constructs that round off the application for the capture and digitization of physical documents.

It is connected with the ViewModel level. It enables application developers' easy and customizable integration of constructs into the application without possessing exact knowledge of the events and objects that enable the construct its function. The basic appearance of constructs can be customized via their object model (properties) or via CSS styles, with which the developer can customize the details of constructs to the requests and requirements of applications.

Similarly, to the other levels, this level has been built without requiring any additional JavaScript frameworks (e.g. AngularJS, etc.), which is why its integration does not cause conflicts with applications.

Constructs of the View model are conceptually and functionally independent of one another; however, for consistency purposes, the displayed information is interconnected via a network of events, which are forwarded from/to the ViewModel level. These make sure they are consistent as regards their content and status (example of displaying scanning progress).

The events of creating new pages in a document originate from the document capture service. The creation of each page must be propagated as an event to the visual controls. The latter are connected to the ViewModel level via the events model; the ViewModel level is connected to the Model level and the latter is asynchronously connected to the Service level using WebSocket technology (otherwise it would have to execute service requests in intervals to inquire about status). Such an event is propagated from the Service level to the client's Model level; it in turn forwards it to the ViewModel level, which then refreshes all the visual constructs that are subscribed to such an event. These constructs are programmed to call such a new page from the service and add it to the displayed list of pages.

2.2 Security

The basic installation does not foresee encryption of the web traffic of the REST interface, because traffic takes place locally via the local network interface "localhost", which means that protection is generally not required. Customization of the settings is possible but requires in-depth knowledge and correct user rights settings. By default the content capture service IMiS®/Capture Service listens on the network interface "localhost" (127.0.0.1 or ::1) on port 5000/tcp, which enables local communication with the IMiS®/wScan application. Additional user authentication is therefore not required.

Every access to the IMiS®/Capture Service must contain a special character string (a security key), which must be recorded in the IMiS®/Capture Service settings. A user with administrator authorization can enter the security key or create it via the IMiS®/wScan administrator module.

Access to the IMiS®/Capture Service is protected with the C.O.R.S. standard (https://en.wikipedia.org/wiki/Cross-origin_resource_sharing), which prevents Web browsers from accessing web domain services that are not specified in the IMiS®/Capture Service. The Web browser will prevent access to the local IMiS®/Capture Service to any application on a different web domain, unless this domain is allowed in the IMiS®/Capture Service. The user with administrative authorization can enter all the allowed web domains via the IMiS®/wScan administrator module.

A user logged in a Windows operating system can access services supported by IMiS®/Capture Service via the IMiS®/wScan application.

IMiS®/Capture Service runs in the system user context (SYSTEM account), which enables the user greater access to the operating system resources than a regular user with limited rights (restricted user). Certain resources are also available to a regular user only via IMiS®/Capture Service and the IMiS®/wScan application.

All IMiS®/Capture Service settings are stored in the Windows Registry or in a file system, which cannot be accessed by a user without administrator rights. The same applies to user-defined scanning profiles. Profile settings can be modified only with the IMiS®/wScan application or with the administrator module of IMiS®/Capture Service.

A user with administrator authorization can modify them outside of these two products but has to have proper knowledge of modifying the Windows Registry. For more information see chapter [Additional administrator settings](#).

2.3 Functionalities

- Capture of contents and control of connected ISIS-compatible optical scanners with the option of separating contents by page count and barcode-based.
- Capture of contents via various web browsers (e.g. Google Chrome, Mozilla Firefox, Microsoft Edge). A dedicated scanning application is therefore not required.
- The IMiS®/wScan application can be integrated into existing web applications.
- The entire capture of content and its processing is executed in the IMiS®/Capture Service backend service, which is based on Microsoft .NET technology.
- IMiS®/Capture Service contains modules for the capture and processing of content (barcode recognition, capture of metadata, etc.).
- IMiS®/Capture Service has been designed modularly, with each module responsible for its own phase of the capture or processing of content. This enables easy and quick upgrading with additional modules. By updating the profile, you can create your own module execution sequence.

- The IMiS®/wScan application has been designed in a JavaScript language without the use of additional technologies that browser makers consider unsuitable or dangerous (e.g. ActiveX plug-ins or access to “native” protocols NPAPI, COM, etc.).
- IMiS®/wScan libraries enable flexibility, customization, and an easy and quick development of your own web solutions using a JavaScript language.

2.3.1 Module for the capture of content from an optical scanner

IMiS®/Capture Service can capture content from all scanners supporting the ISIS industrial standard. This standard enables a wide range of functionalities and is supported by most scanner makers.

Standard scanner settings can be modified through the IMiS®/wScan application:

- Scanner selection.
- Scanning mode.
- Scanning resolution.
- Size of scanned page.

Additional settings that are specific to an individual scanner cannot be set through the IMiS®/wScan application, but only through the administrator module of IMiS®/Capture Service. For more information see chapter [Additional administrator settings](#).

2.3.2 Module for saving content

IMiS®/Capture Service enables the saving of content to a file system.

Various file formats are available:

- BMP
- GIF
- TIFF
- JPEG
- PCX
- PDF/A
- PNG.

For each save format you can set the color and compression supported by the selected file format.

2.3.3 Module for barcode recognition

IMiS®/Capture Service enables the recognition of the following barcodes:

- 1D barcodes:
Addon 2, Addon5, Australian Post, BDC Matrix, Codabar, Code-25 Datalogic, Code-25 IATA, Code-25 Industrial, Code-25 Interleaved, Code-25 Invert, Code-25 Matrix, Code-32, Code-39, Code-93, EAN-13, EAN-8, Intelligent Mail, Postnet, Royal Post, Type-128, UCC-128, UPC-A, UPC-E,
- 2D barcodes:
AZTEC, Data Matrix, PDF-417, QR Code.

2.4 Application integration

The IMiS®/wScan application consists of three modules:

- **IMiS®/Capture Service:** a backend Windows service that executes the capture and processing of various contents.
- **imis.scan.js:** Javascript library that enables communication with IMiS®/Capture Service.
- **imis.scan.ui.js:** utility JavaScript library for displaying the already created visual components.

Each of the above-mentioned modules can be used for integration with another application.

2.4.1 Integration of IMiS®/Capture Service

Direct integration with IMiS®/Capture Service based on RESTful technology is not covered by this manual.

2.4.2 Integration of imis.scan.js library

The “imis.scan.js” library manages the exchange of data in JSON format with IMiS®/Capture Service using RESTful technology.

Through it, a developer of applications in the JavaScript language can configure profiles or capture content (e.g. scan). It enables the detection of events during scanning, the reading of jobs, documents and pages. This library also serves as a basis for making your own web solutions. It does not need any other JavaScript libraries to work.

The developer must obtain a unique security key that is recorded in the IMiS®/Capture Service.

For obtaining a security key see chapter [Security settings](#).

```
<!DOCTYPE html>
<html>
<head>
  <title>imis.scan.js</title>
  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto" />
  <link rel="stylesheet" href="sample.css" />
</head>
<body class="sample">
  <h1>Sample</h1>
  <p>This example demonstrates reading scan profiles. Profiles are displayed in list.</p>

  <div>Profiles:</div>
  <ol id="profiles"></ol>
  <div id="error"></div>

  <script src="../imis.scan.js"></script>
  <script>
    window.addEventListener('load', function () {
      try {
        // Profiles ordered list
        var ol = document.getElementById("profiles");

        // Create a scan object
        var scan = new imis.scan.Scan();

        // Read profiles
        scan.getProfiles({
          success: function (profiles) {
            for (var i = 0; i < profiles.length; i++) {
              // Add profile to ordered list
              var li = document.createElement("li");
              li.innerHTML = profiles[i].name;
              ol.appendChild(li);
            }
          },
          error: function (error) {
            // Show error
            document.getElementById("error").innerHTML = error;
          }
        });
      } catch (e) {
        // Show error
        document.getElementById("error").innerHTML = e;
      }
    });
  </script>
</body>
</html>
```

Image 4: Example of using imis.scan.js library to read profiles

2.4.3 Integration of imis.scan.ui.js library

The “imis.scan.ui.js” library is intended for quicker and simpler development of your own solutions. It contains some of the most commonly used visual components (for executing, stopping and continuing jobs, selecting and setting profile properties, displaying job progress, displaying the selected page and its properties, and displaying all captured pages). A web application developer can easily build these components into the application and create a useful user interface without advanced knowledge of the HTML or CSS languages. All components come with specific settings, which can be used to change their appearance. All they need to operate is the imis.scan.js library and a unique security key, which is recorded in the IMiS®/Capture Service.

For obtaining a security key see chapter [Security settings](#).

```
<div id="imis-progress"></div>
<div class="main" id="main">
  <div id="thumbnails">Thumbnails</div>
</div>
<script src="imis.scan.js"></script>
<script src="imis.scan.ui.js"></script>
</script>
window.addEventListener('load', function () {

  // Set scan version to title attribute
  document.getElementById("title").setAttribute("title", imis.scan.ui.version);

  try {
    const scan = new imis.scan.ui.Scan({
      //url: "http://example.com",
      thumbnails: new imis.scan.ui.Thumbnails({
        id: "thumbnails",
        //darkMode: false,
        orientation: "horizontal",
        thumbnail: {
          height: 200, // thumbnail height
          title: false
        },
        gallery: true,
        contextMenu: {
          enabled: false
        }
      })
    })
  }
```

Image 5: Example of using imis.scan.ui.js library to set the appearance of the Thumbnails component

2.5 Versions

Product version labeling is based on a scheme that includes the following:

- Three separate numerical identifiers (MAJOR, MINOR, RELEASE).
- An identifier of the 32-bit or 64-bit installation platform (PLATFORM).

The following is an example of a scheme:

IMiS.wScan.MAJOR.MINOR.RELEASE.PLATFORM.msi

The example of IMiS®/wScan installation package name:

IMiS.wScan.1.7.2110.x64.msi

The scheme consists of the name of the IMiS®/wScan module and the following elements:

- **MAJOR:** The identifier in the MAJOR position signifies the main/major version of the product. It is arbitrary and changes with regards to the volume of the changes and functionalities introduced. The identifier in this position changes the least.
In the event that it is changed, it signifies a major difference in the product compared to the previously issued version (with a lower MAJOR version).
This identifier has a range of values from 1-n; it is continuous and can only increase.
- **MINOR:** This identifier indicates a minor version of the product. It changes more frequently than the main version in terms of changes to the system, features and fixes. A change in the minor version represents smaller changes and fixes in the framework of the same product generation (indicated by the main or major version). The range of values is from 1 to n. This number is not continuous. It resets to its base value (1) with each new MAJOR version.

- **RELEASE:** This identifier represents the time component of the product release in accordance with the YYMM scheme.
MM indicates the month of the release (range of values from 01 to 12), and YY indicates the last two digits of the year.

Example: The RELEASE identifier for a product released in October of 2021 will read 2110.

- **PLATFORM:** Indicates the operating systems on which this application can be used.
The 32-bit version can run on a 32-bit Windows operating system, and on a 64-bit one.
The 64-bit version can run only on a 64-bit Windows operating system.

2.6 New functionalities in this version

We have implemented the following new functionalities and improvements to the previous certified version 1.6.2010 of the IMiS®/wScan module:

New functionalities:

- Introduction of the values Profile.separator and Module.separator [wScan].
- Implementation of blank page separation settings [wScan].
- Implementation of blank page separation [CaptureService].
- Checking the uniqueness of profile names [CaptureService].

Improvements:

- Displaying a scanner status notification [wScan].
- Moving the barcode recognition settings to the barcode separator settings [wScan].
- Improved theme [wScan].
- Improved mechanism for sharing the scanner between applications [CaptureService].
- Enabling the OK button in the Settings dialog after closing the scanner dialog [CaptureService].
- Opening the Settings dialog by double-clicking on the icon [CaptureService].

3 SCANNING DOCUMENTS

3.1 Methods of Scanning Documents

Scanning is the converting of documents in paper form into a digital data file for the purpose of viewing and saving to storage media. Paper documents can be captured using specialized scanners, multifunction devices or digital cameras.

A scanner is still the most suitable for capturing larger quantities of paper documents.

It can be connected locally or via a computer network.

Based on our experience in scanning, it is recommended that you connect the scanner locally.

3.2 Connecting a Scanner

In order to successfully convert paper documents into digital form, you need software in addition to hardware (scanner and computer).

In order for various scanners and the IMiS®/Scan software product to successfully scan paper documents, you must take into account the preset protocols or standards for connecting and transferring digital contents. The best-known standards are ISIS, TWAIN and WIA.

ISIS (Image and Scanner Interface Specification)

ISIS is an industrial scanner interface. It was developed by Pixel Translations in 1990. Today this standard is owned by the OpenText Corporation, which sees to its development and use. Any scanner manufacturer may develop its own ISIS drivers, but must obtain a certificate of compatibility with the ISIS standard from OpenText Corp. In doing so, it must pay a license fee to OpenText. In general, all production scanners use ISIS drivers.

TWAIN (Tool Without An Important Name)

TWAIN is a free scanning application programming interface. It was the first standard to enable the connecting of software to various scanners. The development of this standard is overseen by a consortium of large scanner manufacturers called TWAIN Working Group.

A downside to this standard is that the user interface is integrated into the TWAIN driver, which makes it harder to implement the driver. Another problem is the long waiting periods for innovations. Generally speaking, low-cost scanners use only the TWAIN driver.

WIA (Windows Imaging Architecture)

WIA is a driver and API, developed by Microsoft. It only works on the Windows operating system. The entire development of the driver is tied to Microsoft's objectives and does not really take into the account the demands of scanner developers.

3.3 Scanning Resolution and Quality

Scanning works on the principle of detecting light reflected off paper or picture.

The entire surface of the sheet is divided into small pixels. Each pixel is determined by its position, brightness level and color (color scanning). Resolution is the number of pixels per unit of length.

It is usually written down as number of dots per inch (**dpi**).

A document which is divided into more pixels has better resolution and consequently its conversion into digital form is of higher quality. The scanning resolution is conditioned by the scanner technology. Scanners support a resolution from 100 to 1600 dpi. For the needs of archiving a non-image document, a resolution of **300 dpi** is sufficient.

Scanning with a resolution of under 200 dpi may result in unreadable conversion of archived documents. Scanning with more than 300 dpi is sensible if the original text on paper is of poorer quality or when you wish to convert an image of a document into digital form with very high resolution.

3.4 File Compression and Size

When scanning, a dot on paper is being copied to a digital memory unit.

In the case of black-and-white copying this unit is 1 bit, while in the case of gray or color copying it can be a byte or bytes. The quantity of color or level of brightness which is captured with a scanner is called color depth.

Greater color depth gives a broader range of various colors and consequently means greater memory usage. The first row in the table below gives an example of how color scanning can use up to 15 MB of memory.

| Barvna globina | Črno/belo (1 bit) | Sivinsko (8 bit) | Barvno (24 bit) |
|-------------------------|-------------------|------------------|-----------------|
| brez | 475 KB | 5 MB | 15 MB |
| CCITT G3 | 85 KB | x | x |
| CCITT G4 T6 | 45 KB | x | x |
| JBIG | 36 KB | x | x |
| JBIG 2bit | x | 84 KB | x |
| JBIG 3bit | x | 165 KB | x |
| JBIG 4bit | x | 420 KB | x |
| Packed bits | 109 KB | 5 MB | 15 MB |
| LZW | 75 KB | 3,2 MB | x |
| ZIP | 56 KB | 3 MB | 9 MB |
| Wang JPEG | x | 315 KB | 363 KB |
| Sekvenčni JPEG | x | 315 KB | 360 KB |
| Progresivni JPEG | x | 310 KB | 334 KB |

Such quantities of obtained digital data may cause problems with the data transfer speed from the scanner to a computer or a lack of space on the storage medium.

For this reason, digital data is compressed. The above table shows which compression methods are suitable for each color depth. Generally speaking, compression methods are divided into "lossless" and "lossy".

Lossless Data Compression

The algorithms of methods in this group look for repeated strings in the digital document and shorten them without losing data. The quality of the scanned document prior to compression remains the same after the data is decompressed. The characteristic methods of this group are G4 T6, LZW and ZIP compressions.

Lossy Data Compression

A characteristic of the algorithm in this group is the removal of unimportant data from scanned documents and assigning similar pixels in the document to a common denominator (e.g.: it changes various shades of a blue sky into a single color for the entire range of blue shades).

Thus, the original digital image is modified and the display quality is reduced.

The decompressed image no longer matches the original. A representative of this group is JPEG compression. Repeated compressing and decompressing of an image may significantly affect the quality of a scanned document.

Black-and-white scanning is sufficient for the majority of documents, which is why we do not recommend scanning in gray or color. The majority of scanners intended for document capture uses advanced methods and filters for graphic processing, which ensures the optimum quality of scanned documents.

We recommend that you use lossless compressions for scanning text documents, and compressions from the JPEG family for image documents. For image documents which must preserve their source file you can likewise use the lossless compression method.

3.5 Recording of Scanned Documents

The recording of scanned documents to a storage medium is executed in preset file formats.

There are different types of file formats; however, not all are suitable for a specific type of document.

In general, file formats are divided into single-page and multi-page. In addition to a digital record of the document, all formats store additional information about the document in their structure.

Single-page formats

are capable of recording only one page to a file. They are used for saving images and are suitable for the further processing of scanned images. The best-known formats in this group are BMP, PNG and JPEG.

BMP (Bitmap File Format)

This file format enables the saving of digital images of random height and width in various resolutions and color depths. This format was developed by Microsoft to be used in its applications and the Windows operating system. The fact is that this format is well documented and patent-free, which is why it is present in all image processing programs. A flaw of this format is that it does not support data compression and therefore the files take up a lot of space on the storage medium. This format is not recommended for saving scanned documents.

JPEG (Joint Photographic Expert Group)

This format was created in 1992 as an ISO standard for describing the procedure of compressing an image into a byte stream. A characteristic of this format is that the compression of the digital image affects the image display quality. The greater the compression level, the smaller the file and, consequently, poorer image quality when decompressed. The JPEG format gave rise to other versions of file formats for image recording: JBIG, JPEG 2000, sequential JPEG and progressive JPEG.

This format is recommended for saving digitized photographs and images which contain many shades of color.

Scanned text documents which contain sharp contrasts between adjacent pixels are not suitable for being saved in this format.

Multi-page formats

Multi-page formats enable the recording of multiple pages into a single file. The best-known representatives are the TIFF and PDF formats.

TIFF (Tagged Image File Format)

This format began to be developed in 1986 for the purpose of standardizing the saving of scanned documents from various scanners. It aimed to provide high functionality of various scanners and simplicity in exchanging scanned documents among various applications. It was designed for use in "desktop publishing". The format's structure enables the recording of various metadata about the document, in addition to the compressed digital document.

The structure of metadata can be preset and known to many applications or merely to those which enable the displaying of said information. The entire file is dissected into identifiers, with each identifier being either a digitally converted document or information about the document (compression method, document size, resolution, color depth etc.). This format is present in all applications that are used for capture.

Since 2009 the format has been owned by Adobe System, which sees to its upgrades and modifications.

PDF (Portable Document Format)

This format began to be developed in 1993 by Adobe System. Its purpose was to create a file format that would be portable between all file systems and applications. It was to represent a universal format for saving all kinds of computer-generated content. It was to be used for saving text products, images in vector or raster graphics and the other audio-video content. The PDF format enables the saving of a document in its entirety.

Since its beginnings, the format has seen many upgrades and modifications. One version of the PDF format has become an ISO standard for the long-term archiving of computer-generated content (PDF/A). The PDF/A format guarantees the same content and appearance in various operating systems and applications.

4 SYSTEM REQUIREMENTS

For successful installation and execution, the IMiS®/wScan application has the following hardware and software requirements.

4.1 Hardware

Practically all computers currently available on the market meet the hardware requirements for running IMiS®/wScan.

Minimum and recommended requirements are listed below.

4.1.1 Minimum requirements

Minimum requirements for IMiS®/wScan:

- Intel Core 2 Duo 2 GHz processor
- 1 GB RAM
- 150 MB of unused hard disk space
- TCP/IP network access (IPv4 or IPv6).

4.1.2 Recommended requirements

Recommended requirements for IMiS®/wScan:

- Intel Core i5 3 GHz processor or faster
- 2 GB RAM or more
- 250 MB of unused hard disk space
- TCP/IP network access (IPv4 or IPv6).

4.2 Software

Requirements for IMiS®/wScan:

- .NET 4.5
- Javascript ECMAScript 6
- Browsers with enabled WebSocket technology and ECMAScript6 standard support:
 - Google Chrome: minimum version 50
 - Mozilla Firefox: minimum version 45
 - Microsoft Edge: minimum version 20.
- Supported operating systems:
 - Windows 10; Windows 8.x and Windows 7 SP1.

5 PRODUCT MANAGEMENT

The IMiS®/wScan application is managed by administrators and/or application developers.

Management includes installation, startup, closing, upgrading and uninstallation.

5.1 Installation

The installation can be performed in an environment that meets at least the minimum installation requirements. IMiS®/wScan installation can be performed with a setup wizard as administrative installation or "silent" installation. In any case, the displayed notifications and dialog boxes are in English.

Warning:

Prior to installation stop the IMiS®/Scan application, because IMiS®/wScan does not work properly if the IMiS®/Scan application is running.

Warning:

Installation of a 64-bit version of IMiS®/wScan will be unsuccessful if the 32-bit version is already installed on the workstation.

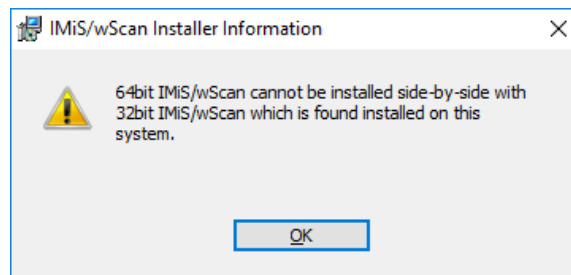


Image 6: Notification of prohibited simultaneous installation of the 64-bit and 32-bit version of IMiS®/wScan

The same applies vice-versa. If the 64-bit version of IMiS®/wScan is already installed on the workstation, installation of a 32-bit version will be unsuccessful.

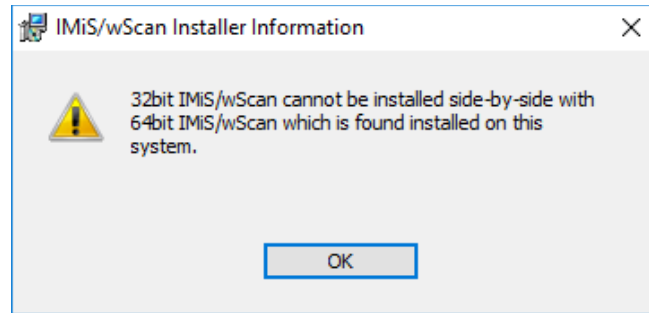


Image 7: Notification of prohibited simultaneous installation of the 32-bit and 64-bit version of IMiS®/wScan

Warning:

Installation of the IMiS®/wScan application on a workstation is not possible if .NET Framework 4.5 has not been installed.

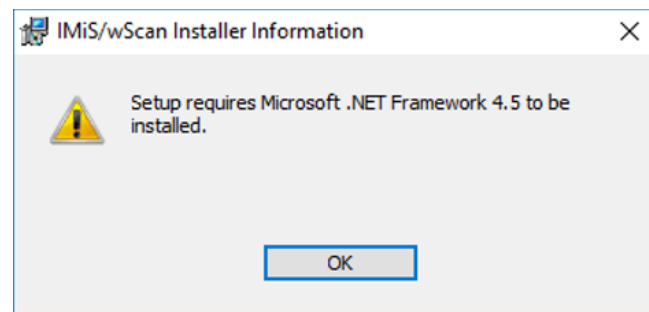


Image 8: Notification of required installation of .NET Framework 4.5

5.1.1 Installation with the Wizard

The user interface of the installation package guides the administrator through the installation procedure.

The administrator installs the IMiS®/wScan application on a workstation in a Windows environment with one or several optical scanners physically connected. This application includes the IMiS®/Capture Service web service and the relevant libraries.

Example of the name of an installation package:

IMiS.wScan.1.7.2110.x64.msi

Installation begins with launching the installation package from the file system. A dialog box appears, informing the administrator that the installation package is preparing for installation.

In the next step read the terms of the license agreement carefully. If you agree with them, select

"I accept the terms in the license agreement" and thus fully accept the license terms.

If you do not agree with the license terms, select "I do not accept terms in the license agreement" and by clicking on the "Cancel" button cancel the installation procedure.

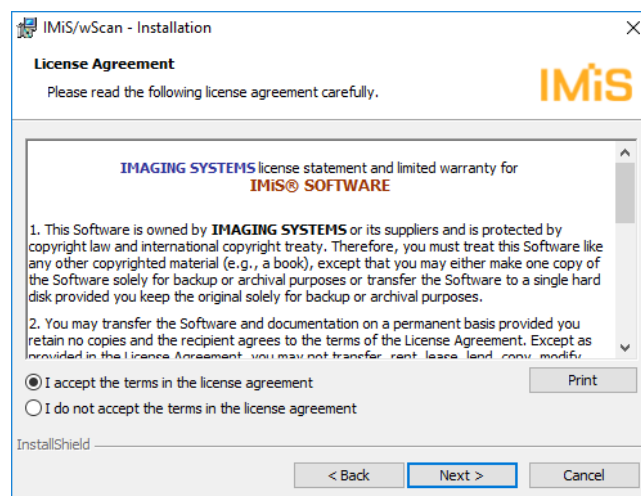


Image 9: Viewing and accepting the license terms

The installation procedure is continued by entering the username into the input field "User Name" and the organization into the input field "Organization". Select whether the application will be installed only for the current user ("Only for me") or for all users on this computer ("Anyone who uses this computer").

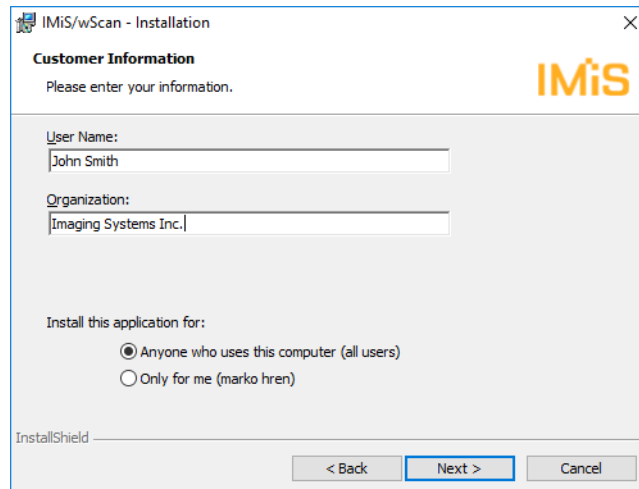


Image 10: Entering data on application user

In the next step select between typical installation ("Typical"), full installation ("Complete") or user-customized installation ("Custom").

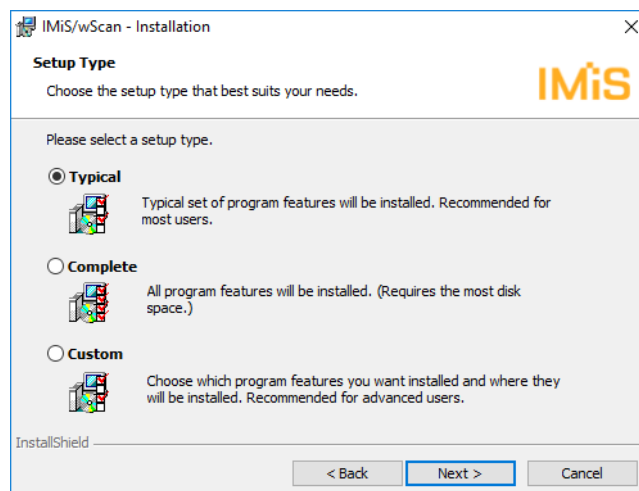


Image 11: Selecting between typical, full or user-customized installation

For all installation types the administrator specifies which shortcuts will be created and which options will be activated during the installation procedure.

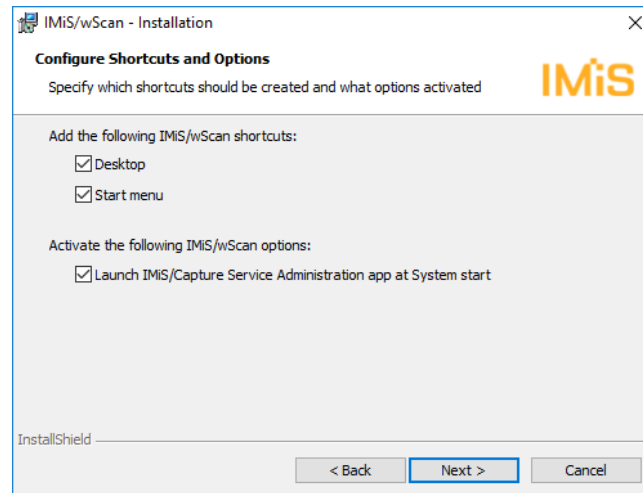


Image 12: Selecting which shortcuts will be created and which options will be activated during installation

If the administrator ticks the choice "Launch IMiS®/Capture Service Administration app at System start", the administration module will launch when the workstation starts.

If you tick the choice "Desktop", shortcuts to the IMiS®/wScan start page and the IMiS®/Capture Service administration module will be installed on the desktop.

If you tick the choice “Start menu”, a shortcut to the IMiS®/wScan start page and the IMiS®/Capture Service administration module will be added to the Start menu.

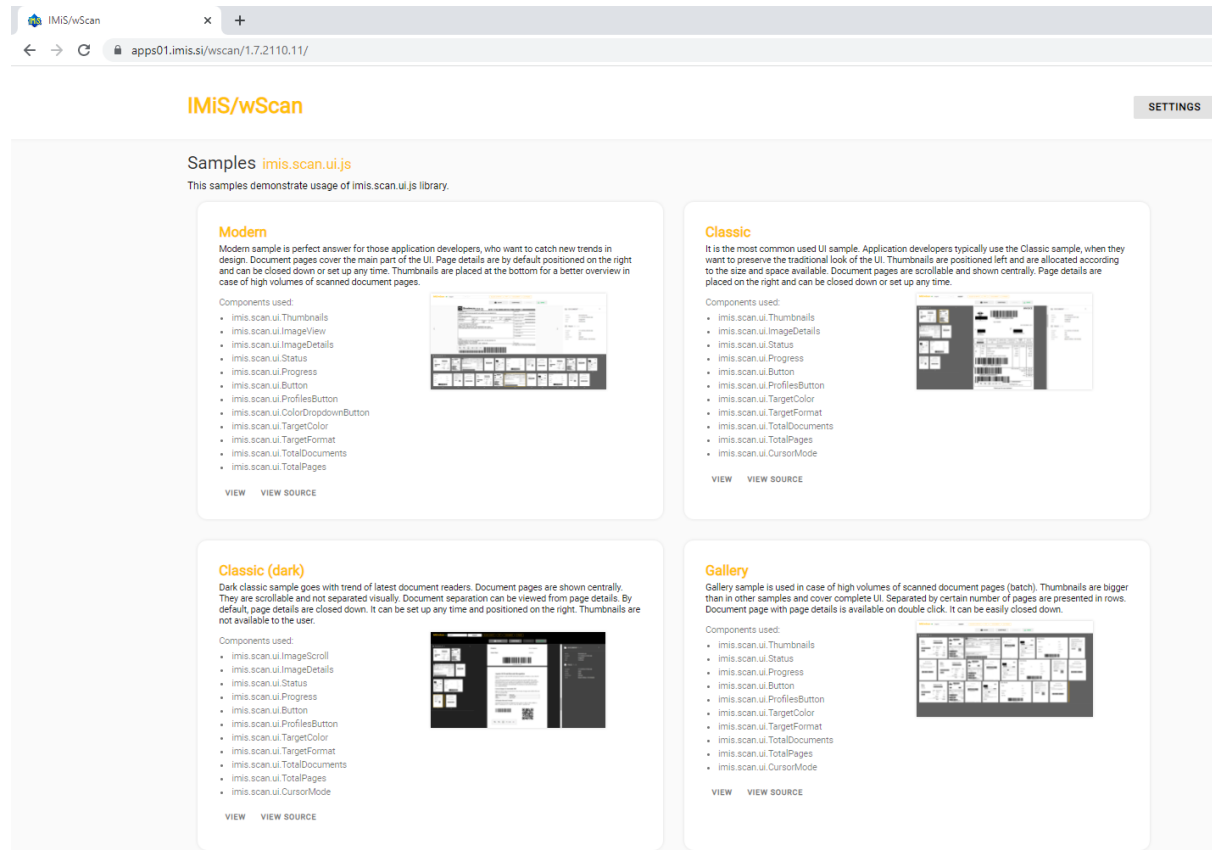


Image 13: Displaying the result of selecting “Start menu”

Typical installation, which is recommended for most users, begins by transferring predefined files to the file system. The administrator confirms the selected installation setting and starts the installation procedure by clicking on the “Install” button.

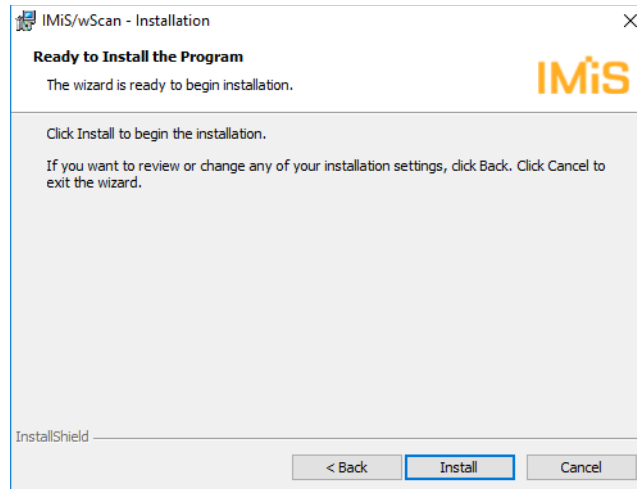


Image 14: Starting the installation procedure

The installation procedure for the IMiS®/wScan software product begins; the progress bar shows information about the transfer of files to the appropriate locations. Installation may take a few tens of seconds, depending on the version of the installation package and computer speed.

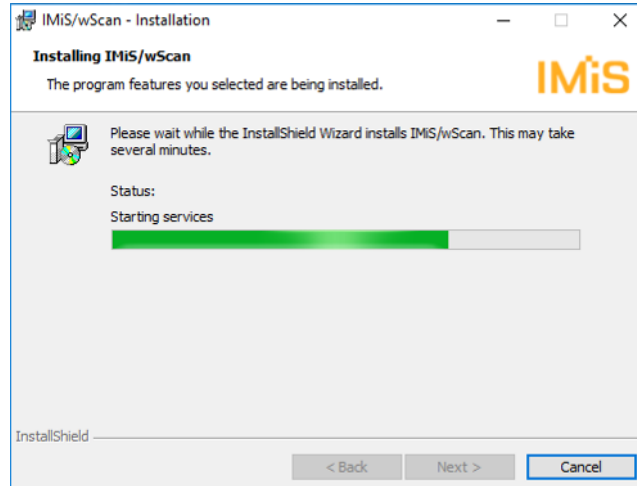


Image 15: Displaying the progress bar during the installation procedure

Installation is complete when the last display box appears, which you close by clicking on the "Finish" button.



Image 16: Notification of completing the installation procedure

The same procedure as for typical installation is carried out during full installation. Full installation will install all of the features from the installation package in the file system, which is why it requires the most disk space.

User-customized installation ("Custom") will install only specific features in the file system. It is intended for advanced users.

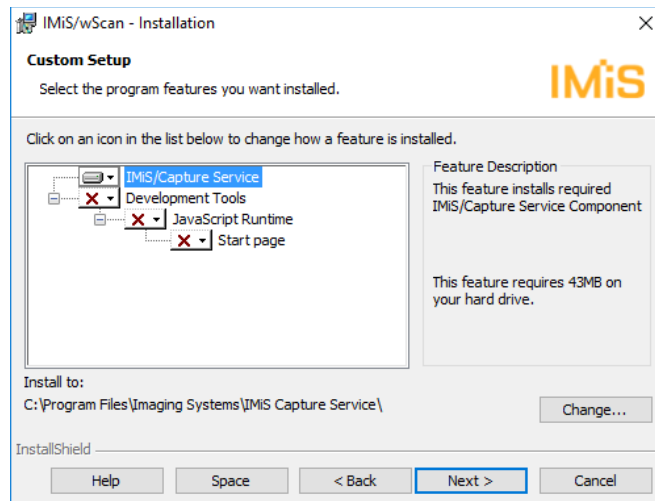


Image 17: Selecting the features of application installation

The administrator confirms the selected installation setting and starts the installation procedure by clicking on the “Install” button. Further steps are the same as for typical and full installation.

5.1.2 Silent installation

The IMiS®/wScan application can also be installed without user control. Installation is performed silently, without displaying the user interface. The installation is executed via the *msiexec.exe* utility program. This tool is a part of the Microsoft installation product and is used for performing various types of maintenance in applications that are installed in the Windows operating system.

For a full list of the supported functions of the *msiexec.exe* program, turn to the Microsoft article collection:

[http://msdn.microsoft.com/en-us/library/windows/desktop/aa367449\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/aa367449(v=vs.85).aspx)

The utility program is executed from the command bar.

For a list of all parameters, turn to the Microsoft website:

[http://msdn.microsoft.com/en-us/library/windows/desktop/aa367988\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/aa367988(v=vs.85).aspx).

Installation may take a few tens of seconds, depending on computer speed.

Example of a command bar for silent installation:

C:\Windows\system32\msiexec.exe /i IMiS.wScan.1.7.2110.x64.msi /qn

Below is a command bar for the silent installation of IMiS®/wScan:

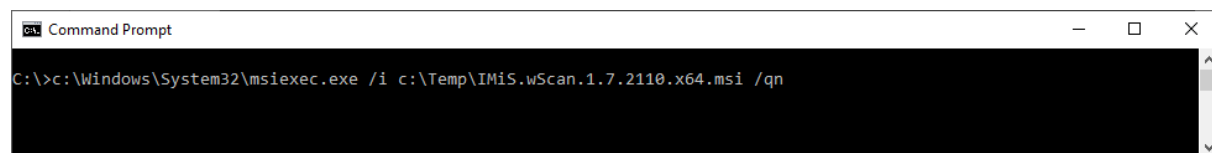


Image 18: Example of a command bar for silent installation in previous version

The table below lists the various silent installation modes:

| Command bar parameters | Description |
|------------------------|--|
| /q, /qn | No user interface. |
| /qn+ | No user interface with a modal window at the end of installation. |
| /qb | Basic user interface with a simple progress bar. The "/gb!" parameter is used to hide the "Cancel" button. |
| /qr | Simplified user interface without a modal window at the end of installation. |
| /qf | A full user interface with all the display boxes, a progress bar and error message at the end of installation. |

Table 1: Silent installation settings

Before launching the installation of the IMiS®/wScan application, you can specify various parameters that are specific to this installation. Add them to the end of the command bar using the syntax:

```
c:\windows\system32\msiexec.exe /i IMiS.wScan.1.7.2110.x64.msi /qn PARAMETER=VALUE
```

The table below describes the supported command bar parameters:

| Parameter | Valid values | Description |
|-------------|------------------|--|
| INSTALLDIR | <directory name> | This parameter contains the default destination folder for installation files (default value = "%PROGRAMFILES%\Imaging Systems\IMiS Capture Service\"). |
| USERNAME | <username> | This parameter contains the username of the user performing the installation (default value is taken from system settings). |
| COMPANYNAME | <company name> | This parameter adds the company name to the installation (default value is taken from system settings). |

| Parameter | Valid values | Description |
|-----------------------|--------------|---|
| SHORTCUT_START | 1 / 0 | This parameter is used to inform the installation process to create a shortcut in the "Programs" menu (Default value is 1). |
| SHORTCUT_DESKTOP | 1 / 0 | This parameter is used to inform the installation process to create a desktop shortcut (Default value is 1). |
| LAUNCH_ADMIN_ON_START | 1 / 0 | This parameter is used to inform the installation process to create the necessary registry records and enable automatic launch of the IMiS®/Capture Service administration module when the workstation starts. (Default value is 1) |
| ADDLOCAL | ALL | Enables the silent installation of all components of the installation package, which is equivalent to selecting "Complete" in the installation with the Wizard. |

Table 2: Supported command bar parameters

5.2 Startup and closing

IMiS®/Capture Service launches automatically when the workstation connected to the optical scanner starts.

Starting and stopping IMiS®/Capture Service is also possible manually by double-clicking on the IMiS®/wScan administration module. After startup the IMiS® icon appears at the bottom of the desktop.

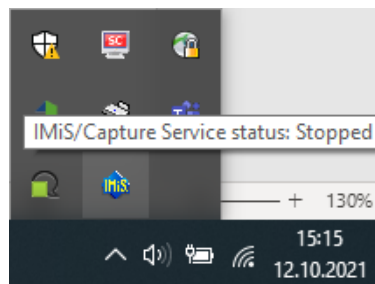


Image 19: Displaying the current status of IMiS®/Capture Service: stopped

By right-clicking on the IMiS® icon, the menu appears. By selecting the option “Start service”, the administrator starts IMiS®/Capture Service.

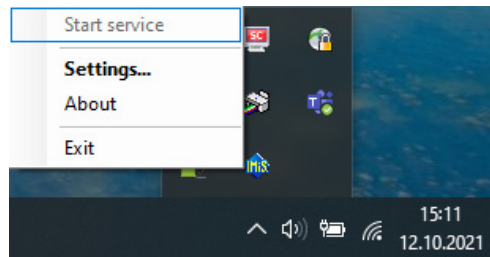


Image 20: Selecting the option to start IMiS®/Capture Service

It takes a few seconds for the service to start, as it initializes properly and checks the suitability of the scanner driver. The current status of the service is visible if you move the mouse over the IMiS® icon.

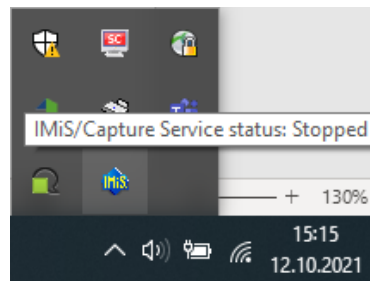


Image 21: Displaying the status of IMiS®/Capture Service: running

The service is stopped by selecting the option “Stop service” in the menu of the IMiS® icon.

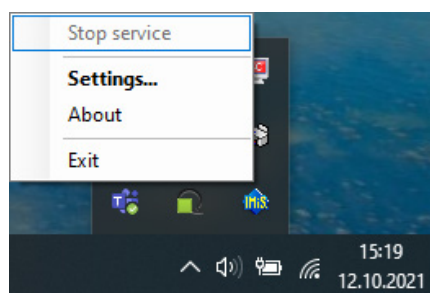


Image 22: Selecting the option to stop IMiS®/Capture Service

If you (the administrator) wish to restart the service, select the option “Restart service” in the menu of the IMiS® icon.

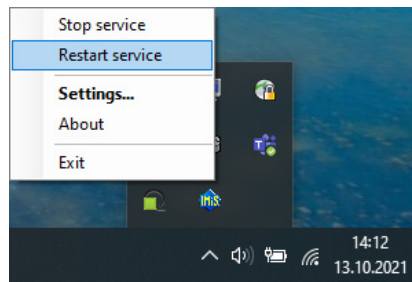


Image 23: Selecting the option to restart IMiS®/Capture Service

***Warning:** The administrator must refresh IMiS®/wScan application in browser (MS Edge, Mozilla Firefox, Google Chrome, ...), after restarting IMiS®/Capture Service.*

5.3 Additional settings

Not all IMiS®/wScan application settings can be implemented via the “imis.scan.js” JavaScript library. The administrator can access additional settings by double-clicking on the IMiS®/wScan administration module. After startup the IMiS® icon appears at the bottom of the desktop. By right-clicking on the IMiS® icon, the menu appears.

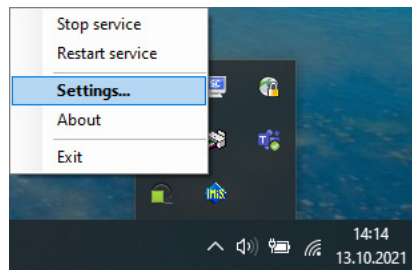


Image 24: Selecting the option to show additional settings

By selecting the option “Settings”, the configuration dialog box appears.

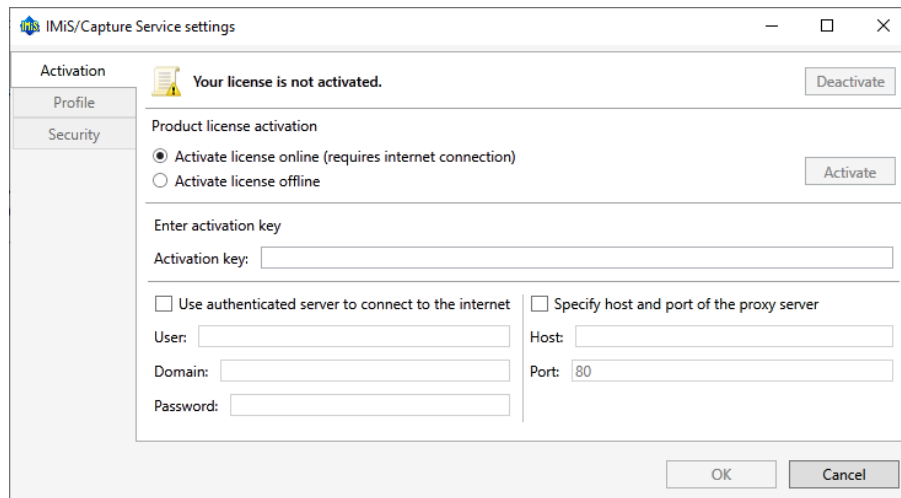


Image 25: Dialog box for setting additional settings

Tabs for product activation, additional settings for profiles and security are available. After choosing each of the tabs, additional settings are displayed. After the settings are set, the user with administrator authorization clicks the “OK” button.

If the profile has been modified and IMiS®/Capture Service has not been started, the additional settings will be saved. They will be used at the next startup of IMiS®/Capture Service.

If IMiS®/Capture Service has been started, a restart of IMiS®/Capture Service is performed.

If the administrator selects the “Cancel” button in the configuration dialog box, the box closes without saving the changes made to the profile.

***Warning:** The administrator must refresh IMiS®/wScan application in browser (MS Edge, Mozilla Firefox, Google Chrome, ...), after restarting IMiS®/Capture Service.*

5.3.1 Product activation

From version 1.6.2010 onward, the IMiS®/Capture Service product requires license activation. When starting the IMiS®/Capture Service Admin application for the first time, the “Activation” tab opens in the IMiS/Capture Service Settings dialog, which provides two license activation modes:

- Online license activation: activation takes place online.
- Offline license activation: activation takes place offline via an alternative path.

When activating the license online, the administrator selects the option “Activate license online”. Online activation requires an internet connection. The manufacturer provides the administrator with a license activation key, which the administrator enters in the “Activation key” field. By clicking on the “Activate” button, the application connects to the web service. In the event of successful activation, the application saves the activation data on the workstation and enables using the product without further license verification.

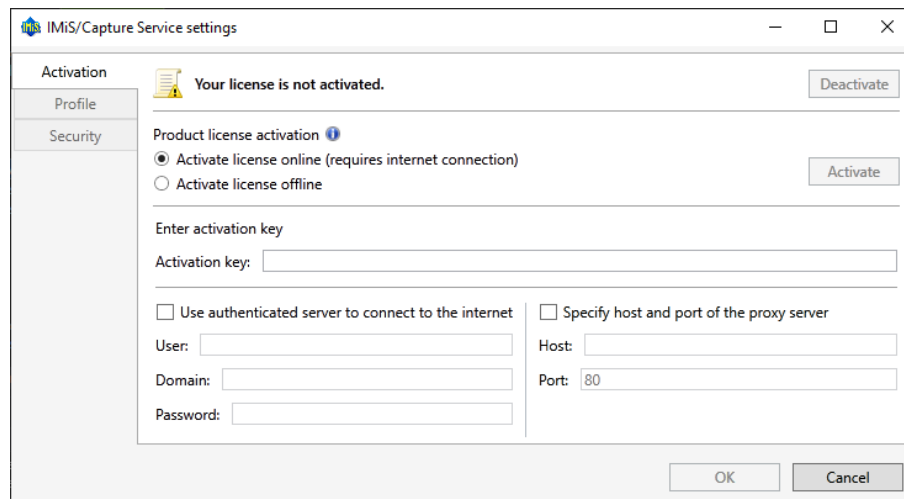


Image 26: Dialog box for the online activation of the IMiS®/Capture Service license

If the online activation requires the use of a proxy server, the administrator can enter the credentials for an authenticated web connection and the data on the proxy server's host.

Activating the option “Use authenticated server to connect to the internet” enables entering the following:

- User: name of the authenticated user.
- Domain: domain of the authenticated server.
- Password: password of the authenticated user.

Activating the option “Specify host and port of the proxy server” enables entering the following:

- Host: host of the proxy server.
- Port: port of the proxy server.

If connecting to the internet is not possible, IMiS®/Capture Service can be activated via an alternative path. In that case, the administrator selects the option “Activate license offline”. The administrator must provide the manufacturer with the computer identifier, which the administrator obtains from the “Computer identifier” field. Based on that, the manufacturer activates the license on behalf of the user and provides the user with the computer key, which the administrator then enters in the “Computer key” field. By clicking on the “Activate” button, the application saves the activation data on the computer and activates the license.

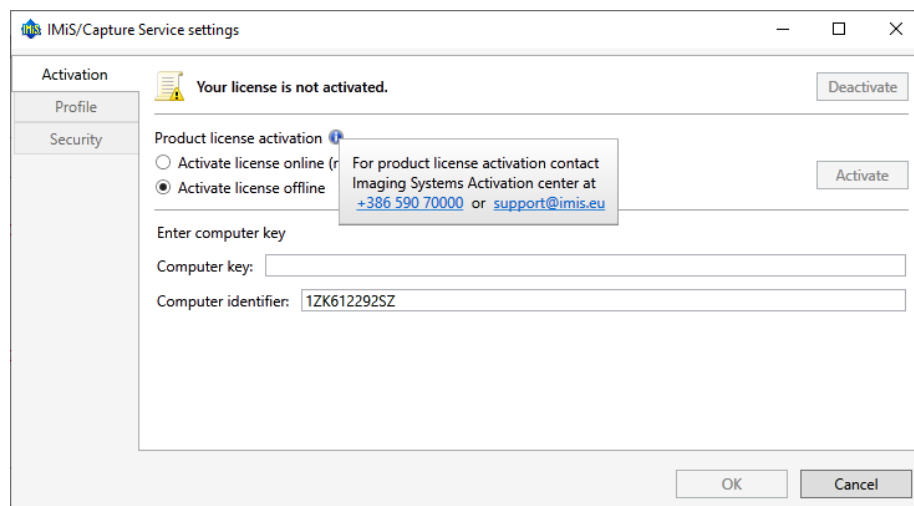


Image 27: Dialog box for the offline activation of the IMiS®/Capture Service license

***Note:** The manufacturer's contact data is accessible via the information icon to the right of the caption "Product license activation". By clicking on the displayed telephone number, the default call program opens with the preset number; by clicking on the displayed email address, the default email application opens with the preset email address of the recipient.*

After successful activation, the top of the "Activation" tab shows the activated license record. License information is accessible via the information icon to the right of the record. It shows the properties of license validity ("Validity") and license features ("Features").

The license validity record can be one of the following:

- Never expires: the activated license is permanent.
- Expires on <date>: valid trial license.
- Expired!: invalid trial license.

Besides the basic document scanning feature, the features of the license in IMiS®/Capture Service from version 1.6.2010 onward also enable batch scanning features (see chapter [Batch scanning features](#)).

The IMiS/Capture Service product license has the following possible features:

- BASIC: document scanning.
- DOCSEP: document separation.
- BAR1DPIX: barcode 1D recognition.
- BAR2DPIX: barcode 2D recognition.

For more information on obtaining a license key for expanding the set of features with batch scanning, send an email to info@imis.si.

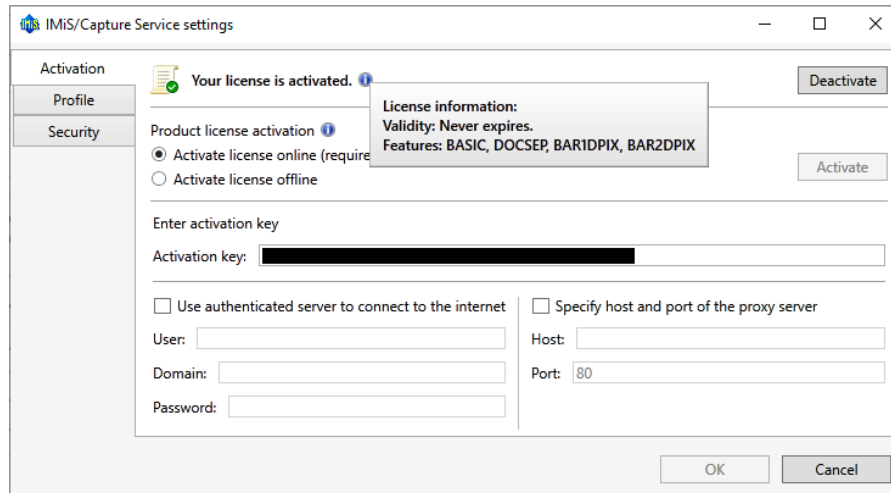


Image 28: Example of an activated IMiS®/Capture Service license

The IMiS®/Capture Service Admin application also enables product deactivation, which is necessary if the hardware is modified, if the computer is replaced, or if the activation key is replaced with one that enables a greater number of product features.

The administrator deactivates the product by clicking on the “Deactivate” button. If an online activation was performed, the application connects to the web service during deactivation, which checks for the existence of an activation key and a computer key, and removes the activation entry; afterwards the application also removes the activation data stored on the computer. If an offline activation was performed, the manufacturer must be given the computer key in order to remove the activation entry, as the deactivation removes only the activation data on the computer.

5.3.2 Additional profile settings

For additional profile settings, the user with administrator authorization selects the “Profiles” tab. Settings are displayed on the right side. In the “Profiles” dropdown menu all the specified profiles are available. Besides the name of the profile, the scanner model is also displayed.

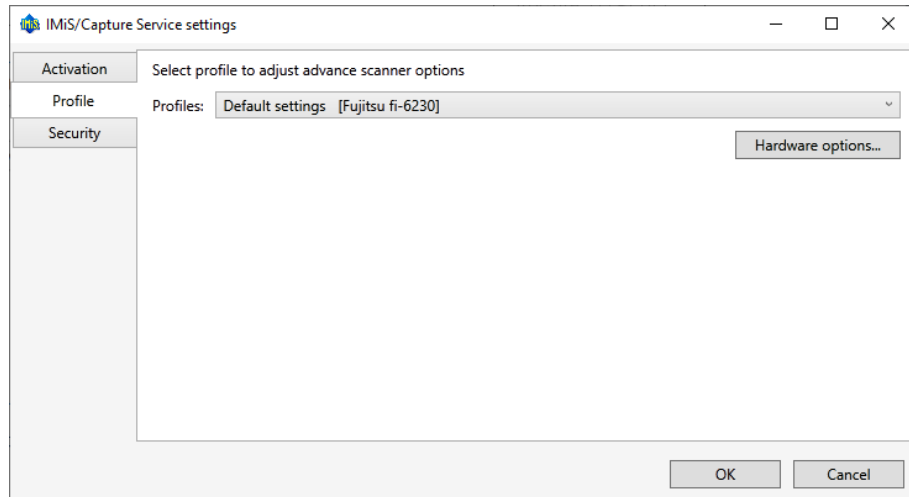


Image 29: Dialog box for profile settings and security settings

The administrator selects the profile in which to set additional scanner settings (e.g. remove empty pages). After selecting the profile, click on the button “Hardware options...”. The scanner’s configuration dialog box appears.

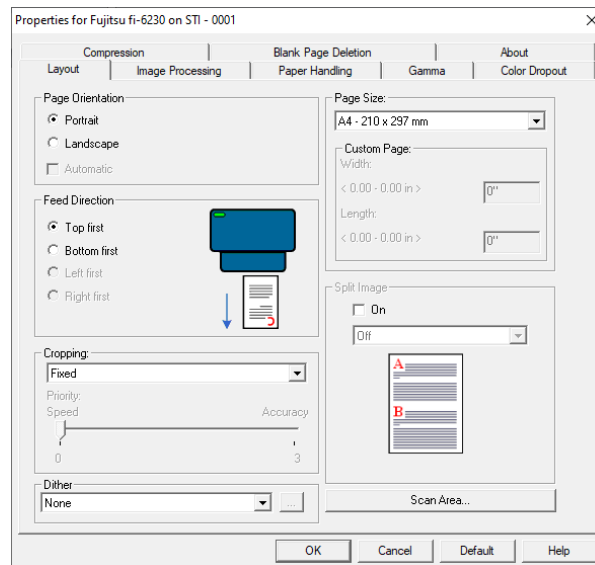


Image 30: Configuration dialog box of Fujitsu driver

***Note:** Scanner makers use different configuration dialog boxes.*

After finishing the settings, click on the “OK” button.

5.3.3 Security settings

A user with administrator authorization selects the “Security” tab.

Security settings that include a field for entering or obtaining a security key and entering the allowed indirect web domains is displayed.

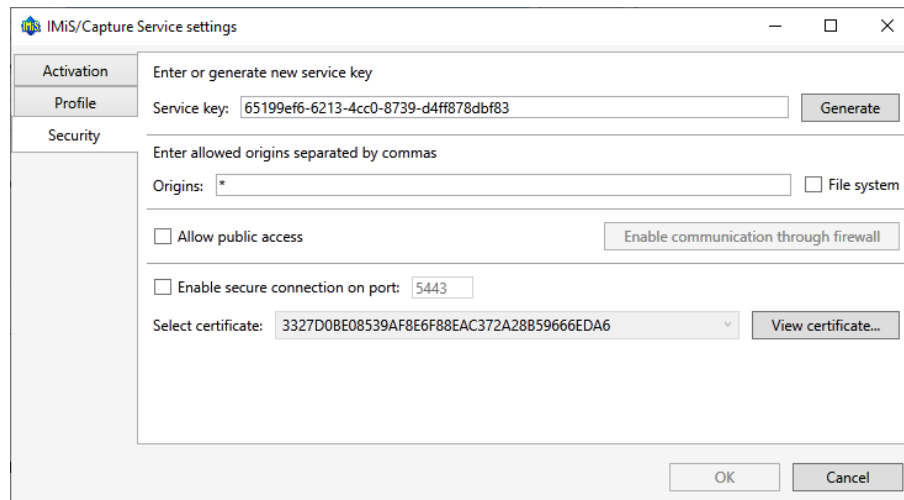


Image 31: Dialog box for security settings

A user with administrator authorization can enter any character string in the “Service key” field or click the “Generate” button to obtain a new unique character string. The developer of the web application enters the security key in his application by forwarding this character string to the **imis.scan.js** javascript library.

For more information see chapter [Integration of imis.scan.js library](#).

The IMiS®/Capture Service will reject all REST requests by web applications that don't contain the same security key as entered in the »Service key« field.

A user with administrator authorization enters all web domains from which the web application can execute REST requests to the IMiS®/Capture Service in the “Origins” field.

Individually entered web domains are separated by commas. If the “Origins” field is empty, only access via the “localhost” local network interface is allowed.

For access from all web domains, the administrator must enter the “ * ” sign (asterisk).
If the web application is executed directly from the file system, a user with administrator authorization must tick the “File system” field.

***Warning:** The administrator must refresh IMiS®/wScan application in browser (MS Edge, Mozilla Firefox, Google Chrome, ...), after restarting IMiS®/Capture Service.*

The user with administrator authorization enables public access to IMiS®/Capture Service by activating the option “Allow public access” and creating the “Inbound Rule” for IMiS®/Capture Service in the Windows Firewall via the “Enable communication through firewall” button.

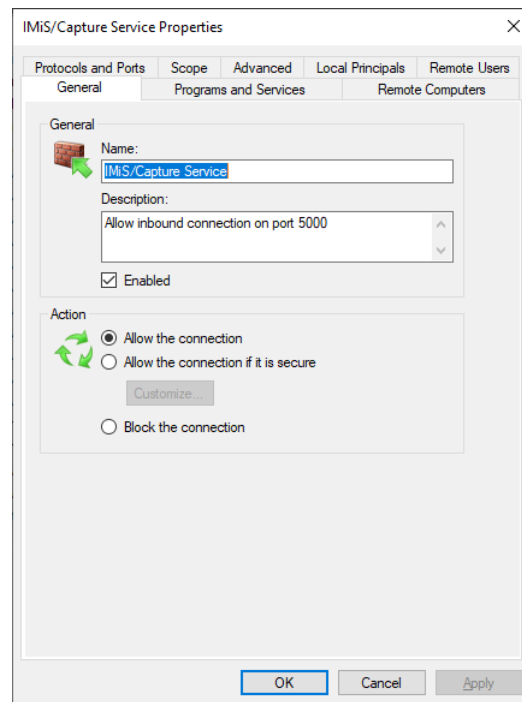


Image 32: Example of an inbound rule in Windows Firewall settings

In the event that the “Inbound Rule” in the Windows Firewall is created successfully, the button will change to “Disable communication through firewall”, which enables the deletion of the existing “Inbound Rule” for IMiS®/Capture Service in the Windows Firewall settings.

The user with administrator authorization enables a secure connection via the HTTPS protocol by activating the option “Enable secure connection on port” and entering the port of the secure connection. In the checkbox “Select certificate”, the user selects the digital certificate that will enable a secure connection.

In addition to selecting among the existing valid digital certificates from the “Trusted Root Certification Authorities” storage assigned to the computer, the user with administrator authorization can specify the digital certificate suitable for a secure connection in two other ways:

- Select from file system: uses a digital certificate selected via a dialog for selecting a digital certificate in the local file system.
- Create new self-signed certificate uses a newly created self-signed digital certificate.

5.3.4 Additional administrator settings

Profiles can also be configured outside of the IMiS®/wScan application. This can be done by a user with administrator rights and knowledge of updating Windows Registry.

All profile settings are written in Windows Registry under the key

HKEY_LOCAL_MACHINE\SOFTWARE\Imaging Systems\IMiS Capture Service in the *profiles* field.

If IMiS®/Capture Service does not have access rights for this key, the settings are saved to the file system in the *profiles.json* file in the *C:\ProgramData\Imaging Systems\IMiS Capture Service* folder.

The profile settings are written in the JSON file format. They can therefore be copied from one computer to another.

5.4 Uninstallation and modification

Installation modification or uninstallation of the IMiS®/wScan application is performed by the administrator on the workstation using the standard Windows application “Add or Remove Programs”. You access the application by clicking on the “Start” button, locating the “Settings” icon and starting “Add or Remove Programs”. From the Apps & features list the administrator selects the IMiS®/wScan application.

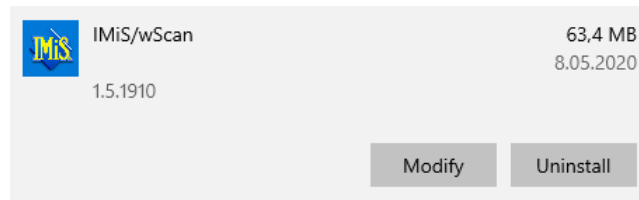


Image 33: Selecting between installation modification and uninstallation of application

5.4.1 Uninstall

By selecting the "Uninstall" option, the administrator begins the procedure of uninstalling the IMiS®/wScan application.

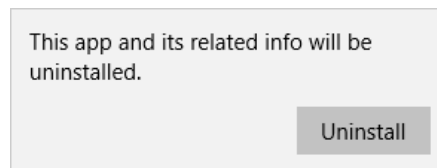


Image 34: Selecting the uninstallation of application

During the uninstallation procedure all files and application settings created by the installation package are removed. The administrator can monitor the progress of the configuration review via a dialog box. By clicking on the "Cancel" button, the review procedure is canceled.

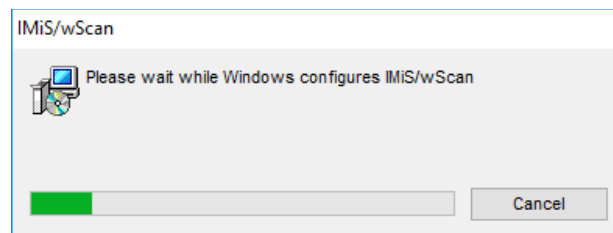


Image 35: Displaying the progress bar of the configuration review

Afterwards the administrator is shown a dialog box for selecting the options: "Modify", "Repair" or "Remove". To remove the installation package, select "Remove". Confirm the selection with the "Next" button.

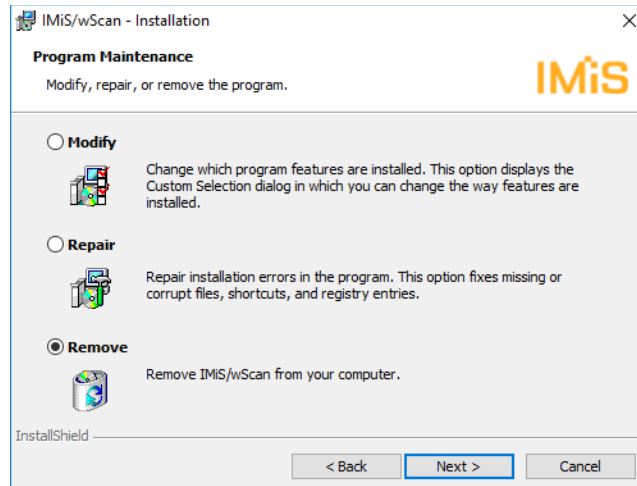


Image 36: Selecting application removal

In the next step confirm the removal by clicking on the “Remove” button.

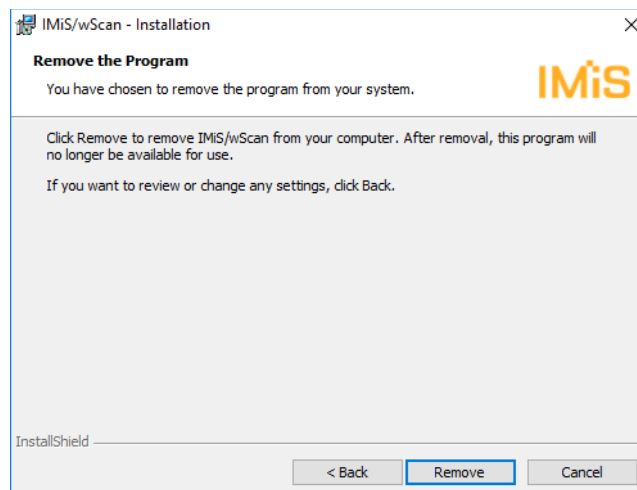


Image 37: Confirming application removal

Uninstallation may take from a few seconds to a few tens of seconds, depending on the version of the installation package and computer speed.

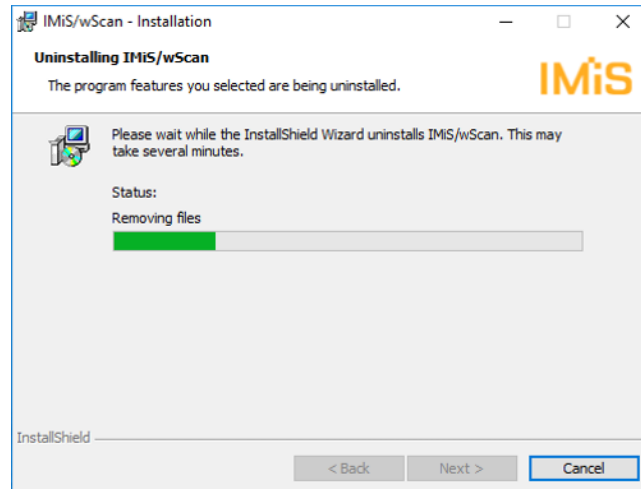


Image 38: Displaying the progress bar during the uninstallation procedure

After finishing uninstalling the application, a dialog box appears, which the administrator closes by clicking on the "Finish" button.

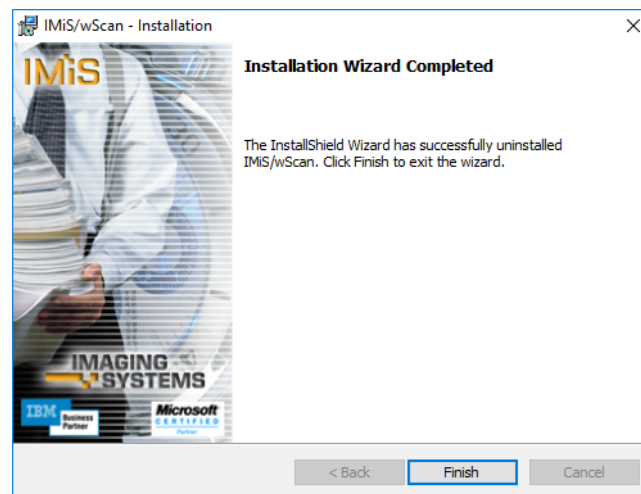


Image 39: Notification of finishing the procedure of uninstalling the installation package

5.4.2 Installation modifications and repairs

The administrator makes modifications and repairs to the installation of the IMiS®/wScan application in a Windows environment via the “Start” button, the “Settings” icon, “Add or Remove Programs”, and an application selected from the Apps & features list.

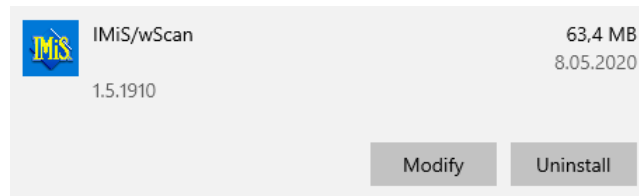


Image 40: Selecting between installation modifications and repairs and removing the installed application

The administrator confirms the selection of installation modifications or repairs by clicking on the “Next” button.

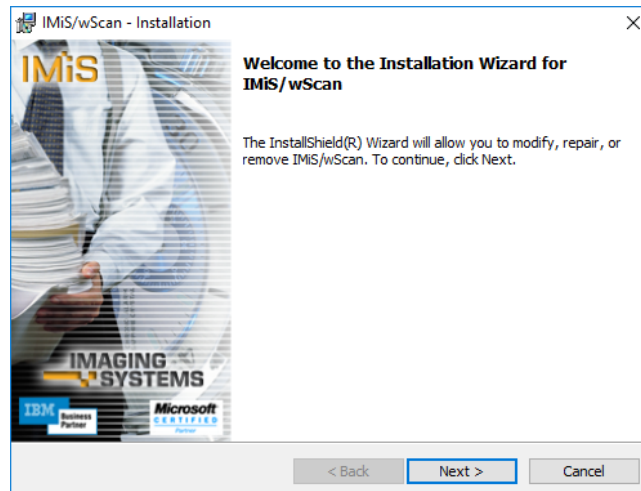


Image 41: Starting the procedure of implementing installation modifications and repairs

5.4.2.1 Installation modifications

The administrator is shown a dialog box in which the option “Modify” has been ticked. Confirm the selection with the “Next” button.

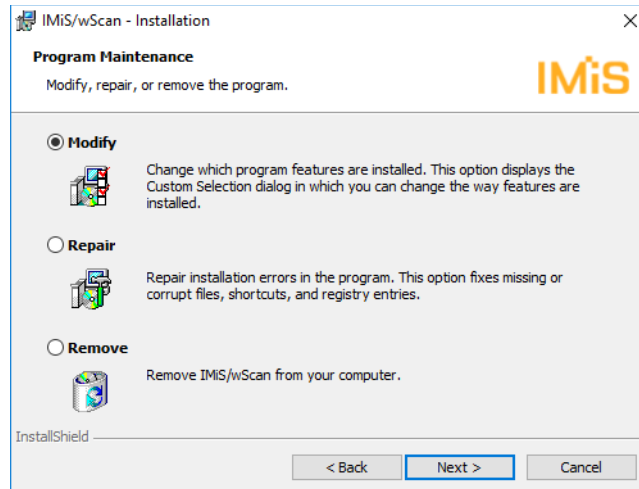


Image 42: Selecting installation modification

By clicking on the icon, the administrator ticks the application features to install.

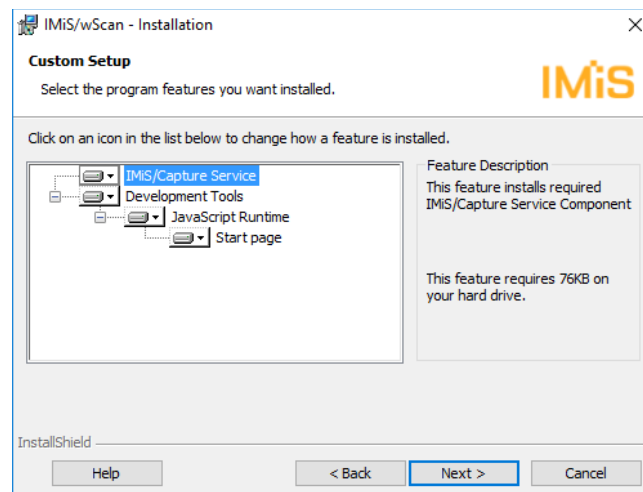


Image 43: Selecting features when modifying installation

By confirming the selection, the administrator starts the installation procedure. Further steps are the same as for typical, full and custom installation.

The procedure finishes with the installation of all required application features.

For more information see chapter [Installation with the Wizard](#).

5.4.2.2 Installation repairs

If installation files, shortcuts or register entries were damaged during the installation of the IMiS®/wScan application or later, the administrator can repair them.

After starting the procedure of making modifications and repairs to the installation, the administrator is shown a dialog box in which the option “Repair” has been ticked. Confirm the selection with the “Next” button.

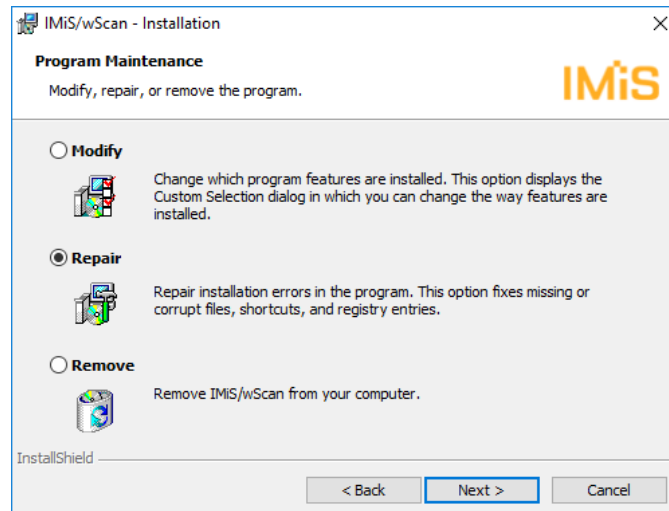


Image 44: Selecting installation repairs

Installation repairs are executed in the next few steps. The procedure finishes with the installation of all required application features and does not require administrator intervention. For more information see chapter [Installation with the Wizard](#).

5.5 Upgrade

When a new IMiS®/wScan version is issued, the new version must be installed on each workstation. This procedure is carried out with the Installation Wizard and matches the procedure for product installation.

During the upgrade procedure the previous version of the product is automatically uninstalled. All user settings are preserved. This is followed by the procedure of installing the new version. For more information see chapter [Installation with the Wizard](#).

6 TECHNICAL DOCUMENTATION

This documentation has been prepared for developers with knowledge of the JavaScript programming language and who are familiar with the concepts of object-oriented programming.

It is divided into `imis.scan.js` and `imis.scan.ui.js`, and examples of using both libraries.

6.1 `imis.scan.js`

The **`imis.scan.js`** JavaScript library manages data exchange with IMiS®/Capture Service.

This library is built on the ECMAScript 6 standard.

This library enables different functionalities:

- Adding, reading, modifying, deleting profiles.
- Adding, reading, executing, stopping jobs.
- Reading and deleting documents.
- Reading, deleting, moving, changing orientation and cropping document pages.
- Reading barcodes on page.
- Reading and deleting redactions on page.
- Reading modules.

6.1.1 `imis.scan.Scan`

This object represents methods for exchanging data with the IMiS®/Capture Service server.

It enables reading, creating, updating and deleting profiles, and reading and creating jobs.

It enables the detection of creating and deleting profiles and of creating jobs.

Before starting the library, the developer must obtain a security key to access the IMiS®/Capture Service. For obtaining a security key see chapter [Security settings](#).

Constructor

| | | |
|-------------------------|--|--|
| imis.scan.Scan(options) | Creates a new object for data exchange and establishes a connection to the IMiS®/Capture Service server. | |
| | Options object: | |
| | url | string Address to IMiS®/Capture Service, the default value is http://localhost:5000 (optional). |
| | apiKey | string Key to access the IMiS®/Capture Service. |
| | reconnect | boolean Specifies whether it attempts to automatically reconnect on unsuccessful connection to IMiS®/Capture Service (optional, default value <i>false</i>). |
| | onConnect | callback Callback on successful connection to IMiS®/Capture Service (optional). callback: function() |
| | onConnectError | callback Callback on unsuccessful connection to IMiS®/Capture Service (optional). callback: function(error: string) |
| | onDisconnect | callback Callback on disconnection to IMiS®/Capture Service (optional). |
| | onError | callback Callback on error (optional). callback: function(error: string) |
| | onReconnect | callback Callback on successful connection (optional). |
| | onReconnecting | callback Callback on successful reconnection (optional). |

Methods

| | |
|---------------------------|--|
| connect() | Establishes a connection to the IMiS®/Capture Service server. |
| onCreateProfile(callback) | <p>Callback on creating a new profile. Callback is triggered if IMiS®/Capture Service detects that a new profile has been created.</p> <p>Parameters:</p> <ul style="list-style-type: none"> - callback: function(profile: imis.scan.Profile) |

Methods (cont.)

| | | | | | | | | | | | |
|---------------------------|---|---|---------|----------|---|---------|----------|---|-------|----------|---|
| onDeleteProfile(callback) | Callback on deleting a profile. Callback is triggered if IMiS®/Capture Service detects that a profile has been deleted. Parameters: - callback: function(id: String) | | | | | | | | | | |
| onCreateJob(callback) | Callback on creating a job. Callback is triggered if IMiS®/Capture Service detects that a job has been created. Parameters: - callback: function(job: imis.scan.Job) | | | | | | | | | | |
| onError(callback) | Callback on error. Parameters: - callback: function(error: string) | | | | | | | | | | |
| getProfile(options) | Returns a profile. Options object: <table border="1"> <tr> <td>id</td><td>string</td><td>Unique profile identifier</td></tr> <tr> <td>success</td><td>callback</td><td>Callback on successful reading of a profile. callback: function(profile: imis.scan.Profile)</td></tr> <tr> <td>error</td><td>callback</td><td>Callback on unsuccessful reading of a profile. callback: function(error: string)</td></tr> </table> | | id | string | Unique profile identifier | success | callback | Callback on successful reading of a profile. callback: function(profile: imis.scan.Profile) | error | callback | Callback on unsuccessful reading of a profile. callback: function(error: string) |
| id | string | Unique profile identifier | | | | | | | | | |
| success | callback | Callback on successful reading of a profile. callback: function(profile: imis.scan.Profile) | | | | | | | | | |
| error | callback | Callback on unsuccessful reading of a profile. callback: function(error: string) | | | | | | | | | |
| getProfiles(options) | Returns a collection of profiles. Options object: <table border="1"> <tr> <td>success</td><td>callback</td><td>Callback on successful reading of a collection of profiles. callback: function(profiles: imis.scan.Profile[])</td></tr> <tr> <td>error</td><td>callback</td><td>Callback on unsuccessful reading of a collection of profiles. callback: function(error: string)</td></tr> </table> | | success | callback | Callback on successful reading of a collection of profiles. callback: function(profiles: imis.scan.Profile[]) | error | callback | Callback on unsuccessful reading of a collection of profiles. callback: function(error: string) | | | |
| success | callback | Callback on successful reading of a collection of profiles. callback: function(profiles: imis.scan.Profile[]) | | | | | | | | | |
| error | callback | Callback on unsuccessful reading of a collection of profiles. callback: function(error: string) | | | | | | | | | |

Methods (cont.)

| | | | |
|------------------------|---|---|--|
| createProfile(options) | Creates a profile. | | |
| | Options object: | | |
| | profile | imis.scan.Profile | New profile. |
| | success | callback | Callback on successful creation of a profile. callback: function(profile: imis.scan.Profile) |
| getJob(options) | error | callback | Callback on unsuccessful creation of a profile. callback: function(error: string) |
| | Returns a job. | | |
| | Options object: | | |
| | id | string | Unique job identifier. |
| getJobs(options) | success | callback | Callback on successful reading of a job. callback: function(job: imis.scan.Job) |
| | error | callback | Callback on unsuccessful reading of a job. callback: function(error: string) |
| | Returns jobs. | | |
| | Options object: | | |
| createJob(options) | success | callback | Callback on successful reading of jobs. callback: function(job: imis.scan.Job[]) |
| | error | callback | Callback on unsuccessful reading of jobs. callback: function(error: string) |
| | Creates a job; after successful creation destroys the last job created. | | |
| | Options object: | | |
| | profile | string or imis.scan.Profile | Unique profile identifier or profile. |
| | success | callback | Callback on successful creation of a job. callback: function(job: imis.scan.Job) |
| | error | callback | Callback on unsuccessful creation of a job. callback: function(error: string) |
| | | | |

Methods (cont.)

| | | | |
|---------------------|---|----------|--|
| getModules(options) | Returns a collection of modules. | | |
| | Options object: | | |
| | success | callback | Callback on successful reading of a collection of modules. callback: function(job: imis.scan.Module[]) |
| | error | callback | Callback on unsuccessful reading of a collection of modules. callback: function(error: string) |
| close() | Closes the scan and terminates the connection to the IMiS®/Capture Service server. After calling this method, the scan object is no longer usable. | | |

6.1.2 imis.scan.Profile

This object represents a profile. It enables the detection of profile modification.

Constructor

| | |
|---------------------|------------------------|
| imis.scan.Profile() | Creates a new profile. |
|---------------------|------------------------|

Methods

| | |
|---|---|
| setModule(module: imis.scan.Module) | Sets the module in the profile. "Save" must be called in order to save. |
| setModules(modules: imis.scan.Module []) | Sets a collection of modules in the profile. A module is removed if the remove property is set to <i>true</i> , if not, it is modified or added. "Save" must be called in order to save. |
| addModule(module: imis.scan.Module) | Adds a new module to the profile. "Save" must be called in order to save. |
| removeModule(module: imis.scan.Module) | Removes a module from the profile. "Save" must be called in order to save. |
| onChange(callback) | <p>Callback on profile modification. Callback is triggered if IMiS®/Capture Service detects that the profile has been modified.</p> <p>Parameters:</p> <ul style="list-style-type: none"> - callback: function(profile: imis.scan.Profile) |

Methods (cont.)

| | |
|---|---|
| save(options) | Saves a profile. Parameters: - options.success: function(profile: imis.scan.Profile) - options.error: function(error: string) |
| delete(options) | Deletes a profile. Parameters: - options.success: function() - options.error: function(error: string) |
| clone() | Returns a copy. |
| equals(profile: imis.scan.Profile) | Returns <i>true</i> if the profiles are equal, if not, it returns <i>false</i> . |

Properties

| | | |
|------------------|--|--|
| id | string | Returns a unique profile identifier. |
| name | string | Returns or sets the profile name. |
| disabled | Boolean | Returns whether the profile has been disabled. |
| disabledMessage | string | Returns the reason for the disabled profile. |
| source | string | Returns or sets the module identifier at the source. |
| target | string | Returns or sets the module identifier at the target. |
| scannerSource | imis.scan.ScannerModule | Returns the scanner module. |
| folderTarget | imis.scan.FolderTargetModule | Returns the target module in charge of saving. |
| barcodeExtractor | imis.scan.BarcodeExtractorModule | Returns the module that recognizes barcodes. |
| changed | Boolean | Returns whether an object has been changed. |
| modules | imis.scan.Module[] | Returns a collection of modules. |
| readOnly | boolean | Returns or sets the read-only profile. |

6.1.3 imis.scan.Job

This object represents a job, enables startup, canceling, detection of modifications to properties and detection of document creation.

Constructor

| | |
|------------------------|-----------------------|
| imis.scan.Job(options) | Creates a new object. |
|------------------------|-----------------------|

Methods

| | | | | | | | | | | | | | | | | |
|-----------------|--|--|----------|--|-----------|----------|--|--------|---------|--|---------|----------|---|-------|----------|---|
| start(options) | <p>Starts a job. The offset defines the identifier in front of which the inserting or overwriting of pages begins.</p> <p>Options object:</p> <table><tr><td>offset</td><td>string</td><td>The identifier in front of which the continuation of a job begins (optional).</td></tr><tr><td>overwrite</td><td>boolean</td><td>Overwriting of new pages, starting from the offset (optional).</td></tr><tr><td>insert</td><td>boolean</td><td>Inserting new pages in front of the offset (optional).</td></tr><tr><td>success</td><td>callback</td><td>Callback on successfully starting a job. callback: function(job: imis.scan.Job)</td></tr><tr><td>error</td><td>callback</td><td>Callback on unsuccessfully starting a job. callback: function(error: string)</td></tr></table> | offset | string | The identifier in front of which the continuation of a job begins (optional). | overwrite | boolean | Overwriting of new pages, starting from the offset (optional). | insert | boolean | Inserting new pages in front of the offset (optional). | success | callback | Callback on successfully starting a job. callback: function(job: imis.scan.Job) | error | callback | Callback on unsuccessfully starting a job. callback: function(error: string) |
| offset | string | The identifier in front of which the continuation of a job begins (optional). | | | | | | | | | | | | | | |
| overwrite | boolean | Overwriting of new pages, starting from the offset (optional). | | | | | | | | | | | | | | |
| insert | boolean | Inserting new pages in front of the offset (optional). | | | | | | | | | | | | | | |
| success | callback | Callback on successfully starting a job. callback: function(job: imis.scan.Job) | | | | | | | | | | | | | | |
| error | callback | Callback on unsuccessfully starting a job. callback: function(error: string) | | | | | | | | | | | | | | |
| cancel(options) | <p>Cancels a job.</p> <p>Options object:</p> <table><tr><td>success</td><td>callback</td><td>Callback on successfully canceling a job. callback: function(job: imis.scan.Job)</td></tr><tr><td>error</td><td>callback</td><td>Callback on unsuccessfully canceling a job. callback: function(error: string)</td></tr></table> | success | callback | Callback on successfully canceling a job. callback: function(job: imis.scan.Job) | error | callback | Callback on unsuccessfully canceling a job. callback: function(error: string) | | | | | | | | | |
| success | callback | Callback on successfully canceling a job. callback: function(job: imis.scan.Job) | | | | | | | | | | | | | | |
| error | callback | Callback on unsuccessfully canceling a job. callback: function(error: string) | | | | | | | | | | | | | | |

Methods (cont.)

| | | | |
|----------------------------|--|----------|--|
| onChange(callback) | Callback on changing a job. Parameters: - callback: function(job: imis.scan.Job) | | |
| onCreateDocument(callback) | Callback on creating a document. Parameters: - callback: function(document: imis.scan.Document) | | |
| getJob(options) | Returns a job. | | |
| | Options object: | | |
| | success | Callback | Callback on successful reading of a job. callback: function(job: imis.scan.Job) |
| getDocuments(options) | error | callback | Callback on unsuccessful reading of a job. callback: function(error: string) |
| | Returns a collection of documents. | | |
| | Options object: | | |
| | success | callback | Callback on successful reading of documents. callback: function(documents: imis.scan.Document[]) |
| | error | callback | Callback on unsuccessful reading of documents. callback: function(error: string) |

Methods (cont.)

| | | | |
|--|---|----------|--|
| getDocument(options) | Returns a document. | | |
| | Options object: | | |
| | success | callback | Callback on successful reading of a document. callback: function(document: imis.scan.Document) |
| | error | callback | Callback on unsuccessful reading of a document. callback: function(error: string) |
| getNextDocument(document: imis.scan.Document) | Returns the next document imis.scan.Document if it exists. | | |
| getPrevDocument(document: imis.scan.Document) | Returns the previous document imis.scan.Document if it exists. | | |
| onError(callback) | Callback on job error. Parameters: - callback: function(error: string) | | |
| destroy() | Destroys a job and all documents. | | |
| download(callback, errorCallback) | Returns the URL to transfer all documents in a task. Parameters: - callback: function(uri: string) - errorCallback: function() | | |
| isCompleted() | Returns whether the task has been completed. | | |
| isCancelled() | Returns whether the task has been cancelled. | | |
| isCreated() | Returns whether the task has been created. | | |
| isInProgress() | Returns whether the task is in progress. | | |
| isPending() | Returns whether the task is pending. | | |
| isError() | Returns whether an error occurred. | | |

Methods (cont.)

| | | |
|------------------------|------------------------------|--|
| addRedactions(options) | Adds redactions on the page. | |
| | Options object: | |
| | success | callback Callback on successful adding of redactions. |
| | error | callback Callback on unsuccessful adding of redactions. |
| | data.regions | AddRedactionElement [] Collection of redactions. |
| | AddRedactionElement object: | |
| | id | string Page identifier. |
| | region.left | number Left offset on page. |
| | region.top | number Top offset on page. |
| | region.height | number Height of redaction. |
| | region.width | number Width of redaction. |

Properties

| | | |
|---------------|---------------------------------------|---|
| id | string | Returns a unique job identifier. |
| index | number | Returns a job index. |
| name | string | Returns a job name. |
| error | string | Returns a job error message. |
| created | string | Returns the date and time of job creation. Format 2018-07-03T09:58:15.9225533+02:00. |
| documentCount | number | Returns the number of documents in a job. |
| pageCount | number | Returns the number of pages in all documents in a job. |
| fileName | string | Returns the name of the task file. |
| documents | imis.scan.Document [] | Returns the collection of documents in a job. |

6.1.4 imis.scan.Document

This object represents a document, enables the detection of creating pages within a document, changes to document properties, reading of pages and deleting a document.

Methods

| | | | | | | | |
|--|--|------------------------------------|----------|----------------------------------|-------|----------|------------------------------------|
| getFirstPage() | Returns the first page imis.scan.Page in a document. | | | | | | |
| getLastPage() | Returns the last page imis.scan.Page in a document. | | | | | | |
| getNextPage(page: imis.scan.Page) | Returns the next page imis.scan.Page in a document. | | | | | | |
| getPrevPage(page: imis.scan.Page) | Returns the previous page imis.scan.Page in a document. | | | | | | |
| onChange(callback) | Callback on changing a document. Returns the same document with changed properties. Parameters: - callback: function(document: imis.scan.Document) | | | | | | |
| onCreatePage(callback) | Callback on creating a page within a document. Returns the new page within a document. Parameters: - callback: function(page: imis.scan.Page) | | | | | | |
| -onDelete(callback) | Callback on deleting a document. Parameters: - callback: function(document: imis.scan.Document) | | | | | | |
| onError(callback) | Callback on document error. Parameters: - callback: function(error: string) | | | | | | |
| destroy() | Destroys a document and document pages. | | | | | | |
| download(callback, errorCallback) | Obtains a link for document transfer. Parameters: - callback: function(uri: string) - errorCallback: function() | | | | | | |
| delete(options) | Deletes a document. Options object: <table><tr><td>success</td><td>callback</td><td>Callback on successful deletion.</td></tr><tr><td>error</td><td>callback</td><td>Callback on unsuccessful deletion.</td></tr></table> | success | callback | Callback on successful deletion. | error | callback | Callback on unsuccessful deletion. |
| success | callback | Callback on successful deletion. | | | | | |
| error | callback | Callback on unsuccessful deletion. | | | | | |

Properties

| | | |
|------------|----------------------------------|---|
| id | String | Returns a unique document identifier. |
| name | String | Returns a document name. |
| mime | String | Returns the type of document content. |
| pageCount | Number | Returns the number of pages in a document. |
| created | String | Returns the date and time of creation. Format: 2018-07-03T09:56:26.4618227+02:00 |
| length | Number | Returns the size of the document in bytes. |
| filename | String | Returns the name of the task file. |
| previousId | string | Returns the identifier of the previous document. |
| pages | imis.scan.Page[] | Returns the collection of pages on a document. |

6.1.5 imis.scan.Page

This object represents a page, enables the detection of changes to properties, reading a page preview, reading a page in basic size, deleting, moving, changing orientation, cropping, reading and deleting redactions.

Methods

| | | | |
|--------------------------|---|----------|--|
| getThumbnailUri(options) | Obtains the link to the page preview URI in the image/png format. | | |
| | Options object: | | |
| | height | Number | Height of page preview. |
| | width | Number | Width of page preview. |
| | success | Callback | Call when connection was successful. Parameters: - callback: function(uri: string) |
| | error | Callback | Call when connection failed. Parameters: - callback: function() |

Methods (cont.)

| | | | | | | | | | | |
|-----------------------------------|--|--|---------------------|--|---------|----------|---|-------|-------------------------|---|
| getImage(callback, errorCallback) | Obtains the link to the page URI in the image/png format. Parameters: - callback: function(uri: string) - errorCallback: function() | | | | | | | | | |
| onChange(callback) | Callback on changing a page. Returns the page with changed properties. Parameters: - callback: function(page: imis.scan.Page) | | | | | | | | | |
| onMove(callback) | Callback on moving a page. Returns the new document in which the page is located. Parameters: - callback: function(document: imis.scan.Document) | | | | | | | | | |
| onDelete(callback) | Callback on deleting a page. Parameters: - callback: function() | | | | | | | | | |
| removeRedaction(options) | Deletes a redaction. Options object: <table><tr><td>redaction</td><td>imis.scan.Redaction</td><td>Redaction.</td></tr><tr><td>success</td><td>callback</td><td>Callback on successful deletion of a redaction.</td></tr><tr><td>error</td><td>callback(error: string)</td><td>Callback on unsuccessful deletion of a redaction.</td></tr></table> | redaction | imis.scan.Redaction | Redaction. | success | callback | Callback on successful deletion of a redaction. | error | callback(error: string) | Callback on unsuccessful deletion of a redaction. |
| redaction | imis.scan.Redaction | Redaction. | | | | | | | | |
| success | callback | Callback on successful deletion of a redaction. | | | | | | | | |
| error | callback(error: string) | Callback on unsuccessful deletion of a redaction. | | | | | | | | |
| rotate(options) | Changes the page orientation. Options object: <table><tr><td>orientation</td><td>number</td><td>Sets a new orientation. The set of values: -270, -180, -90, 0, 90, 180, 270.</td></tr><tr><td>success</td><td>callback</td><td>Callback on successful change of orientation.</td></tr><tr><td>error</td><td>callback(error: string)</td><td>Callback on unsuccessful change of orientation.</td></tr></table> | orientation | number | Sets a new orientation. The set of values: -270, -180, -90, 0, 90, 180, 270. | success | callback | Callback on successful change of orientation. | error | callback(error: string) | Callback on unsuccessful change of orientation. |
| orientation | number | Sets a new orientation. The set of values: -270, -180, -90, 0, 90, 180, 270. | | | | | | | | |
| success | callback | Callback on successful change of orientation. | | | | | | | | |
| error | callback(error: string) | Callback on unsuccessful change of orientation. | | | | | | | | |

Methods (cont.)

| | | | | | | | | | | | | | | | | | | | | |
|---------------|--|--|--------|--------|--|---------|----------|------------------------------|-------|----------|--------------------------------|--------|--------|-----------------|---------|----------|--|-------|-------------------------|--|
| move(options) | <p>Moves a page. The offset defines the identifier of the page in front of which the page is being moved or the identifier of the document if you are inserting a page at the end of the document.</p> <p>Options object:</p> <table> <tr> <td>offset</td><td>string</td><td>Defines the identifier of the page in front of which the page is being moved or the identifier of the document if you are inserting a page at the end of the document.</td></tr> <tr> <td>success</td><td>callback</td><td>Callback on successful move.</td></tr> <tr> <td>error</td><td>callback</td><td>Callback on unsuccessful move.</td></tr> </table> | | offset | string | Defines the identifier of the page in front of which the page is being moved or the identifier of the document if you are inserting a page at the end of the document. | success | callback | Callback on successful move. | error | callback | Callback on unsuccessful move. | | | | | | | | | |
| offset | string | Defines the identifier of the page in front of which the page is being moved or the identifier of the document if you are inserting a page at the end of the document. | | | | | | | | | | | | | | | | | | |
| success | callback | Callback on successful move. | | | | | | | | | | | | | | | | | | |
| error | callback | Callback on unsuccessful move. | | | | | | | | | | | | | | | | | | |
| crop(options) | <p>Crops a page.</p> <p>Options object:</p> <table> <tr> <td>left</td><td>number</td><td>Left offset on page.</td></tr> <tr> <td>top</td><td>number</td><td>Top offset on page.</td></tr> <tr> <td>width</td><td>number</td><td>Width of page.</td></tr> <tr> <td>height</td><td>number</td><td>Height of page.</td></tr> <tr> <td>success</td><td>callback</td><td>Callback on successful cropping of a page.</td></tr> <tr> <td>error</td><td>callback(error: string)</td><td>Callback on unsuccessful cropping of a page.</td></tr> </table> | | left | number | Left offset on page. | top | number | Top offset on page. | width | number | Width of page. | height | number | Height of page. | success | callback | Callback on successful cropping of a page. | error | callback(error: string) | Callback on unsuccessful cropping of a page. |
| left | number | Left offset on page. | | | | | | | | | | | | | | | | | | |
| top | number | Top offset on page. | | | | | | | | | | | | | | | | | | |
| width | number | Width of page. | | | | | | | | | | | | | | | | | | |
| height | number | Height of page. | | | | | | | | | | | | | | | | | | |
| success | callback | Callback on successful cropping of a page. | | | | | | | | | | | | | | | | | | |
| error | callback(error: string) | Callback on unsuccessful cropping of a page. | | | | | | | | | | | | | | | | | | |
| isLandscape() | Returns <i>true</i> if the page is landscape, if not, it returns <i>false</i> . | | | | | | | | | | | | | | | | | | | |
| isPortrait() | Returns <i>true</i> if the page is portrait, if not, it returns <i>false</i> . | | | | | | | | | | | | | | | | | | | |
| destroy() | Destroys the page and all the obtained links to the page. | | | | | | | | | | | | | | | | | | | |

Properties

| | | |
|-------------|---------------------------------------|---|
| id | string | Returns a unique page identifier. |
| width | number | Returns the page width. |
| height | number | Returns the page height. |
| xresolution | number | Returns the horizontal page resolution in DPI. |
| yresolution | number | Returns the vertical page resolution in DPI. |
| barcodes | imis.scan.Barcode[] | Returns the collection of barcodes on the page. |
| colorFormat | imis.scan.ColorFormat | Returns the page color format. |
| previousId | string | Returns the identifier of the previous page. |
| created | string - DateTime | Returns the date and time of page creation. |

Properties (cont.)

| | | |
|------------|---------------------------------------|---|
| redactions | imis.scan.Redaction[] | Returns the collection of redactions on page. |
|------------|---------------------------------------|---|

6.1.6 imis.scan.Barcode

This object represents the properties of the barcode on a page.

Properties

| | | |
|--------|--------|---|
| height | number | Returns the barcode height. |
| width | number | Returns the barcode width. |
| text | string | Returns the recognized barcode content. |
| point1 | number | Returns the top left point of the barcode. |
| point2 | number | Returns the top right point of the barcode. |
| point3 | number | Returns the bottom right point of the barcode. |
| point4 | number | Returns the bottom left point of the barcode. |
| posX | number | Returns the horizontal offset of the barcode on the page. |
| posY | number | Returns the vertical offset of the barcode on the page. |
| type | string | Returns the barcode type. |

6.1.7 imis.scan.Redaction

This object represents the properties of the redaction on a page. It is used to hide specific parts of a document. The redaction is drawn over the area which the user wants to hide. After saving, the redacted content is no longer visible. The redaction can be deleted only before saving the job or document.

Properties

| | | |
|--------|--------|----------------------------------|
| id | string | Redaction identifier. |
| width | number | Returns the redaction width. |
| height | number | Returns the redaction height. |
| left | number | Returns the left offset on page. |
| top | number | Returns the top offset on page. |

6.1.8 imis.scan.Module

This object represents the basis of the module, from which different modules have been derived.

Methods

| | |
|---------|-----------------|
| clone() | Returns a copy. |
|---------|-----------------|

Properties

| | | |
|--------|----------|--|
| id | string | Returns a unique module identifier. |
| sendTo | string[] | Returns or sets a collection of module identifiers, to which the module sends data. |
| type | string | Returns the module type. Set of values: - Scanner_source - Barcode_extractor - Folder_target. |
| remove | boolean | Returns or sets the value that determines whether the module will be removed; applies only when calling the setModules method on imis.scan.Profile . |

6.1.9 imis.scan.ScannerModule

This object represents the scanner module, which enables the reading and changing of scanner settings.

This class has been derived from [imis.scan.Module](#).

Properties

| | | |
|---------------|---|---|
| driverName | string | Returns or sets the driver name. |
| scannerModel | string | Returns the scanner model. |
| scannerValues | imis.scan.ScannerValue [] | Returns a collection of all connected scanners. |
| paperSize | string | Returns or sets the paper size. |
| paperSizes | string[] | Returns the collection of paper sizes for the selected driver (driverName). |
| resolution | number | Returns or sets the scanning resolution. |

Properties (cont.)

| | | |
|--------------|---|--|
| resolutions | number[] | Returns a collection of scanning resolutions for the selected driver (driverName). |
| colorFormat | imis.scan.ColorFormat | Returns or sets the scanning color. |
| colorFormats | imis.scan.ColorFormat[] | Returns a collection of scanning colors for the selected driver (driverName). |
| duplex | boolean | Returns or sets whether duplex scanning is enabled. |

6.1.10 imis.scan.FolderTargetModule

This object represents the target module, which enables the setting of properties of saving files to the file system, with the option of setting the directory, file format, color and compression.

This class has been derived from [imis.scan.Module](#).

Properties

| | | |
|--------------|---|--|
| folder | string | Returns or sets the path to the directory. |
| fileRoot | string | Returns or sets the file name. |
| fileFormat | string | Returns or sets the file format. |
| fileFormats | string[] | <p>Returns a set of file formats.</p> <p>Set of values:</p> <ul style="list-style-type: none"> - BMP - GIF - TIFF - JPEG - PCX - PDF/A - PNG. |
| colorFormat | imis.scan.ColorFormat | Returns or sets the color format. |
| colorFormats | imis.scan.ColorFormat[] | Returns a collection of color formats; this collection is connected to the file format (fileFormat). |
| compression | string | Returns or sets the compression. |
| compressions | string[] | Returns a collection of compressions; this collection is connected to the color format (colorFormat) and file format. |

6.1.11 imis.scan.BarcodeExtractorModule

This object represents the module which enables the detection of barcodes on an individual page. This class has been derived from [imis.scan.Module](#).

Properties

| | | |
|-------------|----------|--|
| types | string[] | Returns or sets a collection of barcode types for recognition. |
| typesValues | string[] | <p>Returns a collection of barcode types.</p> <p>Set of values:</p> <ul style="list-style-type: none"> - addon2 - addon5 - australianpost - aztec - bcdmatrix - codabar - code25_datalogic - code25_iaata - code25_industrial - code25_interleaved - code25_invert - code25_matrix - code32 - code39 - code93 - datamatrix - ean13 - ean8 - intelligentmail - pdf417 - postnet - qrcode - royalpost - type128 - ucc128 - upc_a - upc_e. |
| orientation | string | Returns or sets the option of barcode orientation. |

Properties (cont.)

| | | |
|-------------------|----------|--|
| orientationValues | string[] | <p>Returns a collection of barcode orientations.</p> <p>Set of values:</p> <ul style="list-style-type: none"> - horizontal: Detection of horizontal barcodes. - vertical: Detection of vertical barcodes. - both: Detection of horizontal or vertical barcodes. - horizontalverticaldiagonal: Detection of horizontal, vertical or 45° barcodes. |
| mode | string | Returns or sets the barcode detection mode. |
| modeValues | string[] | <p>Returns a collection of barcode detection modes.</p> <p>Set of values:</p> <ul style="list-style-type: none"> - normal: Normal mode, faster than enhanced. - enhanced: Improved mode, enables better detection; detection is slower. |

6.1.12 imis.scan.BlankPageDetectorModule

This object represents the module which enables the detection of blank pages.

This class has been derived from [imis.scan.Module](#).

6.1.13 imis.scan.PageCountSeparatorModule

This object represents the module which enables separating documents by page count.

This class has been derived from [imis.scan.Module](#).

Properties

| | | |
|-----------|--------|---|
| pageCount | Number | Returns or sets the number of pages for separating documents by page count. |
|-----------|--------|---|

6.1.14 imis.scan.BarcodeSeparatorModule

This object represents the module which enables barcode-based separation of documents.

This class has been derived from [imis.scan.Module](#).

Properties

| | | |
|--------------|-----------------------------|---|
| barcodes | imis.scan.BarcodePattern [] | Returns or sets a collection of imis.scan.BarcodePattern objects. |
| actionValues | string[] | Returns a collection of actions in the barcode-based separation of documents. |

6.1.15 imis.scan.BlankPageSeparatorModule

This object represents the module which enables blank page separation of documents.

This class has been derived from [imis.scan.Module](#).

6.1.16 imis.scan.ScannerValue

This object represents scanner properties.

Properties

| | | |
|--------------|--|--------------------------------------|
| driverName | string | Returns the driver name. |
| scannerModel | string | Returns the scanner model. |
| colorFormats | imis.scan.ColorFormat [] | Returns a collection of colors. |
| paperSizes | string[] | Returns a collection of paper sizes. |
| resolutions | number[] | Returns a collection of resolutions. |

6.1.17 imis.scan.ColorFormat

This object represents the properties of the color format.

Properties

| | | |
|--------------|----------|---|
| colorMode | string | Returns the image color type. Set of values: - blackwhite: Black-and-white image; - grayscale: A grayscale image; - color: A color image. |
| colorDepth | number | Returns the image color depth. |
| photometric | string | Returns the mode of reading image data. |
| compressions | string[] | Returns a collection of compressions; this collection exists only when reading the properties of colorFormats on imis.scan.FolderTargetModule . |

6.1.18 imis.scan.BarcodePattern

This object represents the properties of the barcode separator.

Properties

| | | |
|-------------------|---------|---|
| value | String | Returns or sets the barcode value in the barcode-based separation. Set of values: - empty value: the separator is any recognized barcode. - non-empty value: "Regular expression" for searching for the barcode which represents the separator. |
| action | String | Returns an action in the barcode-based separation of documents. Set of values: - separate: the page with the recognized barcode begins a new document. - separateanddeletepage: the page with the recognized barcode is deleted and the next page begins a new document. |
| separate | boolean | Returns or sets whether the action equals "separate". |
| separateAndDelete | boolean | Returns or sets whether the action equals "separateanddeletepage". |

6.2 imis.scan.ui.js

This library enables easy use of components, which can be used for displaying scanning.

The displaying of components is managed by the main component [imis.scan.ui.Scan](#), where we specify all of the components we will be using.

The imis.scan.js library is required for it to work.

The library Material Icons is used for displaying icons (more at: <https://material.io/tools/icons>).

6.2.1 imis.scan.ui.Scan

This object represents the main component, which manages the displaying of various components. When creating this component, the components are initialized. Enables reading profiles and setting the selected profile.

Constructor

| | |
|--|--|
| imis.scan.ui.Scan(options: ScanOptions) | Creates a new object and components are initialized. |
|--|--|

Methods

| | |
|-----------------------------|---|
| show(callback) | Establishes a connection to the IMiS®/Capture Service server and data is loaded into the components. Parameters: - callback: Callback on successful establishment of a connection to the server (optional). |
| getProfiles(callback) | Returns all profiles. Parameters: - callback: The callback on successful reading of profiles returns imis.scan.Profile[] |
| getSelectedProfile() | Returns the selected profile imis.scan.Profile . |
| setSelectedProfile(profile) | Sets the selected profile imis.scan.Profile . |

Properties

| | | |
|-----|-------------------------------|--------------|
| job | imis.scan.Job | Current job. |
|-----|-------------------------------|--------------|

6.2.1.1 ScanOptions

This object represents the [imis.scan.ui.Scan](#) settings options.

Properties

| | | |
|---------------|--|---|
| url | string | Address to IMiS®/Capture Service. The default value is http://localhost:5000 (optional). |
| apiKey | string | Key to access the IMiS®/Capture Service. |
| notifications | boolean | Displaying notifications in a browser; the default value is true (optional). |
| language | string | Language settings (optional). If the language has not been defined, the language specified in the browser is set as default. Set of values: <div> en English sl Slovene </div> |
| thumbnails | imis.scan.ui.Thumbnails or ThumbnailsOptions | Displaying documents and pages (optional). |
| settings | imis.scan.ui.Settings or SettingOptions | The settings of all profiles (optional). |
| imageView | imis.scan.ui.ImageView or ImageviewOptions | Displaying a selected page (optional). |
| images | imis.scan.ui.ImageScroll or ImageScrollOptions | Displaying all pages (optional). |
| status | imis.scan.ui.Status or StatusOptions | Displaying status (optional). |
| imageDetails | imis.scan.ui.ImageDetails or ImageDetailsOptions | Details of a selected page (optional). |
| progress | imis.scan.ui.Progress or ProgressOptions | Displaying job status (optional). |

| | | |
|-----------------|---|---|
| buttons | <u>UIScanButtonsOptions</u> | Buttons settings. |
| useLocalStorage | boolean | Specifies the use of saving settings (currently selected profile) to the browser; if the value is set to false, the saved settings are deleted; the default value is true (optional). |
| reconnect | boolean | Specifies whether reconnection is attempted on termination of the connection to the IMiS®/Capture Service; if the connection is successful, the page reloads (optional, default value false). |
| targetColor | imis.scan.ui.TargetColor ali TargetColorOptions | Shows the color for saving (optional). |
| targetFormat | imis.scan.ui.TargetFormat ali TargetFormatOptions | Shows the format for saving (optional). |
| totalDocuments | imis.scan.ui.TotalDocuments ali TotalDocumentsOptions | Shows the number of documents in a job (optional). |
| totalPages | imis.scan.ui.TotalPages ali TotalPagesOptions | Shows the number of pages in a job (optional). |

6.2.1.2 ScanButtonsOptions

This object represents the settings options for buttons.

Properties

| | | |
|----------|--|--|
| scan | imis.scan.ui.Button or ButtonOptions | The button for starting a scan. If the profile has been disabled and an error exists, it is shown in the popup notification that appears when placing the cursor on the element. |
| continue | imis.scan.ui.Button or ButtonOptions | The button for continuing the scan (optional). |
| cancel | imis.scan.ui.Button or ButtonOptions | The button for canceling the scan (optional). |

| | | |
|------------|--|--|
| download | imis.scan.ui.Button or ButtonOptions | The button for downloading all scanned documents (optional). |
| color | imis.scan.ui.ColorDropDownButton or ColorDropDownOptions | The list of possible colors if a scanner is available; changes are saved only temporarily for each job started (optional). |
| profiles | imis.scan.ui.ProfilesButton or ProfilesButtonOptions | A collection of profiles and the option of temporarily editing the selected profile; changes are saved only for each job started (optional). |
| cursorMode | imis.scan.ui.CursorMode or CursorModeOptions | Button for selecting the insert or add mode (optional). The default mode is adding to the end. |

6.2.2 imis.scan.ui.Button

This object represents the button component, which represents the basic component that can be used to control the start, continuation, cancellation and download of a job.



Image 45: Button component

Constructor

| | |
|------------------------------|--|
| imis.scan.ui.Button(options) | Creates a new button. Parameters: - options: ButtonOptions |
|------------------------------|--|

Methods

| | |
|----------------|-----------------------------------|
| disable() | Disable button. |
| enable() | Enable button. |
| showProgress() | Shows progress within the button. |
| hideProgress() | Hides progress within the button. |

Properties

| | | |
|-----|-----------------------------------|-----------------------------|
| app | imis.scan.ui.Scan | Returns the main component. |
|-----|-----------------------------------|-----------------------------|

6.2.2.1 ButtonOptions

This object defines the properties that can be set on the button.

| | | |
|-----------------|-------------|---|
| id | string | Unique identifier of an element in an HTML document as the id attribute. |
| element | HTMLElement | Element in HTML document (optional). |
| text | string | Button text (optional). |
| tooltip | string | Contents of the popup notification below the button (optional). |
| darkMode | boolean | Dark display mode (optional, default value <i>false</i>). |
| color | string | Color of button text (optional). |
| backgroundColor | string | Color of button background (optional). |
| fontSize | string | Size of button text (optional). |
| width | string | Minimum button width (optional). |
| height | string | Button height (optional). |
| onClick | callback | Callback on clicking on the button (optional). Parameters: - callback: function() |
| icon | string | The icon displayed on the left side of the button; the icon is of the Material Icons type (optional). |
| customStyle | boolean | Specifies whether the external appearance of the button has been defined. Only the functionalities connected to the job work (optional, default value <i>false</i>). |

6.2.3 imis.scan.ui.ColorDropDownButton

This object represents the component for selecting the color of scanning. This value only affects the job which will be started by pressing the scan button. This component will display values if a scanner module exists in the selected profile and if it has color selection values.

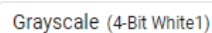


Image 46: Component for selecting the color of scanning

Constructor

| | |
|---|--|
| imis.scan.ui.ColorDropDownButton(options) | <p>Creates a new dropdown menu for selecting the color of scanning.</p> <p>Parameters:</p> <ul style="list-style-type: none"> - options: ColorDropDownOptions |
|---|--|

6.2.3.1 ColorDropDownOptions

This object defines the properties that can be set on the component for selecting the scanning color.

| | | |
|---------|-------------|--|
| id | string | Unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |

6.2.4 imis.scan.ui.ProfilesButton

This object represents the component for selecting the profile and changing the settings of the scanning profile. Changes to the profile will be applied only at the start of each new job.

The selected profile will be saved to the browser (Local Storage), if saving has been enabled.

The image shows a dialog box titled 'ProfilesButton' with three tabs: 'Source', 'Target', and 'Separator'. The 'Source' tab is selected. It contains the following settings:

- Scanner: PaperStream_IP fi-7160
- Paper size: Scanner's Maximum
- Resolution: 300
- Color: Black & White (1-Bit White0)
- Duplex: ☒

At the bottom right, there are 'OK' and 'CANCEL' buttons.

Image 47: Component for selecting the profile and changing the settings of the scanning profile

Constructor

| | |
|--------------------------------------|--|
| imis.scan.ui.ProfilesButton(options) | <p>Creates a new dropdown menu for selecting the profile with the option of changing the settings for a new job.</p> <p>Parameters:</p> <ul style="list-style-type: none"> - options: ProfilesButtonOptions |
|--------------------------------------|--|

6.2.4.1 ProfilesButtonOptions

This object defines the properties that can be set on the component for selecting the profile and temporarily changing the settings.

| | | |
|---------|-------------|--|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |
| color | string | Color of the titles of profile modules. |

6.2.5 imis.scan.ui.ImageDetails

This object represents the component for displaying information about the currently selected page. It shows the recognized barcodes if a barcode recognition module exists. By placing the cursor on the barcode, the latter is tagged in the component which shows the full-size page. It also shows the redactions, which can be removed by selecting the Remove action.

For it to work, the component [imis.scan.ui.ImageView](#) or [imis.scan.ui.ImageScroll](#) in [imis.scan.ui.Scan](#) must be used.

| | |
|-----------------|------------------------------|
| Document | 1 / 1 |
| Name | Document_1 |
| Created | 16. 10. 2017 15:35:54 |
| Type | image/tiff |
| Size | 699.53 KB |
| Page | 1 / 18 |
| Width | 2480 |
| Height | 3507 |
| Resolution | 300 dpi |
| Color | Black & White (1-Bit White0) |
| BARCODE | |
| Text | 123456789012 |
| Type | Type-128 |
| Position | (935, 829) |
| BARCODE | |
| Text | ABCxyz#\$\$%15z |
| Type | Type-128 |
| Position | (773, 2626) |

Image 48: Component for displaying information about the currently selected page

Constructor

| | |
|------------------------------------|---|
| imis.scan.ui.ImageDetails(options) | <p>Creates a component for displaying details of the selected page.</p> <p>Parameters:</p> <ul style="list-style-type: none"> - options: ImageDetailsOptions |
|------------------------------------|---|

6.2.5.1 ImageDetailsOptions

This object defines the properties that can be set on the component for showing information on the currently selected page.

| | | |
|------------|-------------|---|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |
| color | string | Color of the page property. |
| closed | boolean | Specifies whether the component is hidden (optional, default value false). |
| close | boolean | Specifies whether the close button is shown (optional, default value true). |
| darkMode | boolean | Dark display mode (optional, default value false). |
| onClose | callback | Callback on clicking on the close button (optional). |
| background | string | Background color (optional). |

6.2.6 imis.scan.ui.ImageView

This object represents the component for displaying the currently selected page.

This component enables changing the size (zooming in/zooming out or showing the whole page), moving to the next or previous page, changing the orientation, deleting a page, adding redactions, cropping a page.

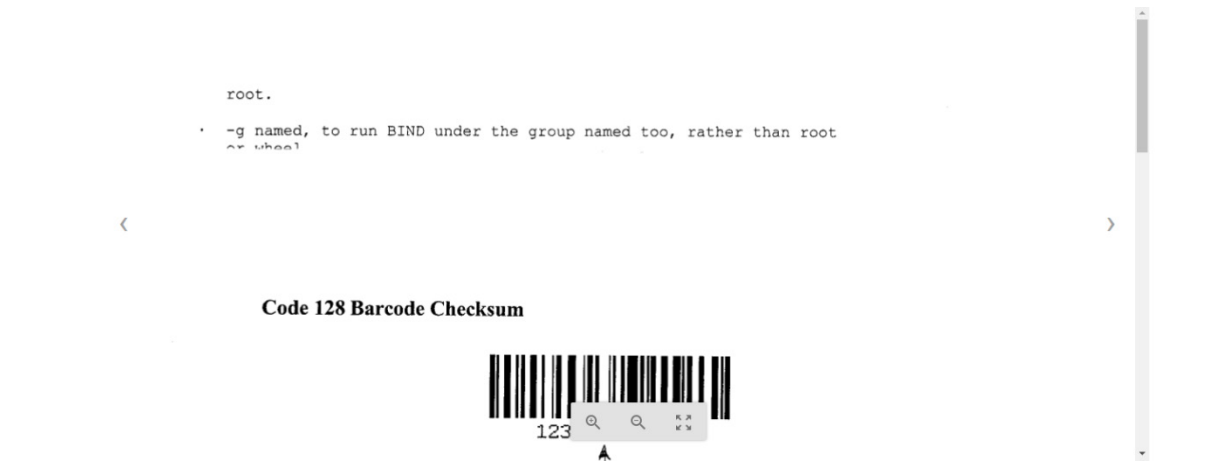


Image 49: Component for displaying the currently selected page

Constructor

| | |
|--|--|
| <code>imis.scan.ui.ImageView(options)</code> | Creates a component for displaying the selected page. Parameters: - options: <code>ImageViewOptions</code> |
|--|--|

6.2.6.1 ImageViewOptions

| | | |
|-------------------------------|-------------|---|
| <code>action.crop</code> | boolean | Specifies whether cropping is enabled (optional, default value <i>true</i>). |
| <code>action.delete</code> | boolean | Specifies whether deleting is enabled (optional, default value <i>true</i>). |
| <code>action.redaction</code> | boolean | Specifies whether the adding of redactions is enabled (optional, default value <i>true</i>). |
| <code>action.rotate</code> | boolean | Specifies whether the changing of orientations is enabled (optional, default value <i>true</i>). |
| <code>background</code> | string | Background color (optional). |
| <code>fitToSize</code> | boolean | Specifies whether each newly selected image is automatically adjusted to the size of the element (optional, default value <i>false</i>). |
| <code>id</code> | string | Unique identifier of an element in an HTML document as the id attribute. |
| <code>element</code> | HTMLElement | Element in HTML document (optional). |

| | | |
|----------------------|----------|--|
| onPropertiesSelected | callback | Callback on selecting properties in the context menu (optional). callback: function() |
|----------------------|----------|--|

6.2.7 imis.scan.ui.ImageScroll

This object represents the component for displaying a collection of pages. This component enables changing the size (zooming in/zooming out or showing the whole page), moving to the next or previous page, changing the orientation, deleting a page, adding redactions, cropping a page.

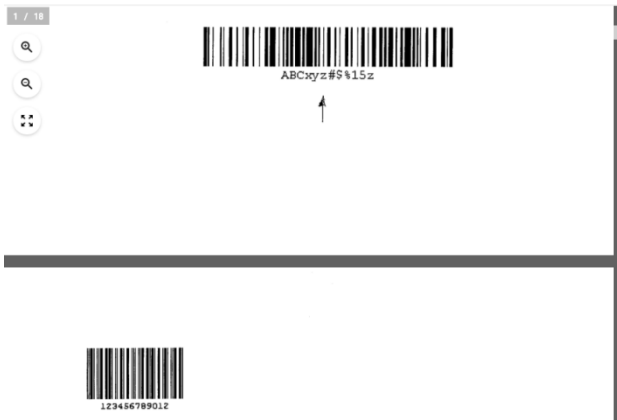


Image 50: Component for displaying a collection of pages

Constructor

| | |
|-----------------------------------|---|
| imis.scan.ui.ImageScroll(options) | Creates a component for displaying a collection of pages. Parameters: - options: ImageScrollOptions |
|-----------------------------------|---|

6.2.7.1 ImageScrollOptions

| | | |
|----------------------------------|-------------|--|
| action.crop | boolean | Specifies whether cropping is enabled (optional, default value <i>true</i>). |
| action.delete | boolean | Specifies whether deleting is enabled (optional, default value <i>true</i>). |
| action.redaction | boolean | Specifies whether the adding of redactions is enabled (optional, default value <i>true</i>). |
| action.rotate | boolean | Specifies whether the changing of orientations is enabled (optional, default value <i>true</i>). |
| background | string | Background color (optional). |
| contextMenu.enabled | boolean | Specifies whether a context menu for an individual page has been enabled (optional). |
| contextMenu.onPropertiesSelected | callback | Callback on selecting properties in the context menu (optional). callback: function() |
| controls | boolean | Shows controls for zooming in, zooming out, adjusting the image to the screen, the add redactions mode and the crop mode (optional, default value <i>true</i>). |
| darkMode | boolean | Dark display mode (optional, default value <i>false</i>). |
| element | HTMLElement | Element in HTML document (optional). |
| focusNewPage | boolean | When adding a new page, it is shown in focus (optional, default value <i>true</i>). |
| id | string | Unique identifier of an element in an HTML document as the id attribute. |

6.2.8 imis.scan.ui.Progress

This object represents the component for showing the progress of the current job.

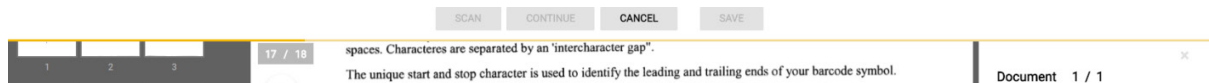


Image 51: Component for showing the progress of the current job

Constructor

| | |
|--------------------------------|---|
| imis.scan.ui.Progress(options) | Creates a component for showing the progress of the current job. Parameters: - options: ProgressOptions |
|--------------------------------|---|

6.2.8.1 ProgressOptions

This object defines the properties that can be set on the component for showing the progress of the job.

| | | |
|----------|-------------|--|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |
| darkMode | boolean | Dark display mode (optional, default value <i>false</i>). |
| color | string | Component color while executing the job (optional). |

6.2.9 imis.scan.ui.Status

This object represents the component for displaying the status, which specifies whether a connection with IMiS®/Capture Service has been established.



Image 52: Component for displaying the status

Constructor

| | |
|------------------------------|---|
| imis.scan.ui.Status(options) | Creates a component for displaying the status. Parameters: - options: StatusOptions |
|------------------------------|---|

6.2.9.1 StatusOptions

This object defines the properties that can be set on the component for showing the status.

| | | |
|---------|-------------|--|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |

6.2.10 imis.scan.ui.Thumbnails

This object represents the component for showing documents and pages. This component enables adjusting the size of individual page previews, orientation of a collection of documents, or the gallery mode, which shows the page and details in a dialog. With the context menu you can move an individual page, change the orientation of an individual page, delete an individual page, or show details. This component enables the moving of an individual page. With the cursor you can set the position of subsequent scanning, where the add or overwrite mode is defined in the component [imis.scan.ui.CursorMode](#).

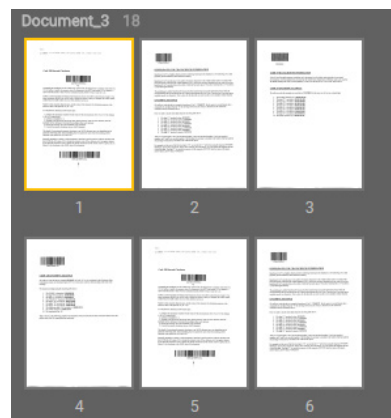


Image 53: Component for showing documents

Constructor

| | |
|----------------------------------|---|
| imis.scan.ui.Thumbnails(options) | <p>Creates a component for showing the page as a preview.</p> <p>Parameters:</p> <ul style="list-style-type: none"> - options: ThumbnailsOptions |
|----------------------------------|---|

6.2.10.1 ThumbnailsOptions

| | | |
|------------------------------|-------------|--|
| backgroundColor | string | Background color (optional). |
| cursor.enabled | boolean | Specifies whether the cursor for adding or overwriting pages is enabled (optional, default value <i>false</i>). |
| cursor.color | string | Color of cursor background (optional). |
| darkMode | boolean | Dark display mode (optional, default value <i>false</i>). |
| document.action.delete | boolean | Specifies whether deletion of a document is enabled (optional, default value <i>true</i>). |
| document.contextMenu.enabled | boolean | Specifies whether the context menu for an individual document is enabled (optional, default value <i>true</i>). |
| document.color | string | Color of the document title (optional). |
| document.icon | string | Documents icon, possible set of icons from Material Icons. |
| document.iconColor | string | Color of the document icon (optional). |
| document.separatorColor | string | Color of the document tag (optional). |
| element | HTMLElement | Element in HTML document (optional). |
| focusNewPage | boolean | When adding a new page, it is shown in focus (optional, default value <i>true</i>). |
| gallery.enabled | boolean | The gallery mode; enables double-clicking on an individual page, which opens a dialog with the zoomed-in page and details (optional, default value <i>false</i>). |
| gallery.fitToSize | boolean | Specifies whether the pages adjust to the dialog size (optional, default value <i>false</i>). |
| gallery.action.crop | boolean | Specifies whether cropping is enabled in a dialog (optional, default value <i>true</i>). |
| gallery.action.delete | boolean | Specifies whether deleting a page is enabled in a dialog (optional, default value <i>true</i>). |
| gallery.action.redaction | boolean | Specifies whether the adding of redactions is enabled in a dialog (optional, default value <i>true</i>). |

| | | |
|--|----------|--|
| gallery.action.rotate | boolean | Specifies whether the changing of page orientation is enabled in a dialog (optional, default value <i>true</i>). |
| gallery.contextMenu.enabled | boolean | Specifies whether the context menu is enabled for an individual page in the dialog (optional, default value <i>true</i>). |
| id | string | Unique identifier of an element in an HTML document. |
| orientation | string | Orientation of a collection of documents. Set of values: - horizontal; - vertical. Default value <i>horizontal</i> (optional). |
| thumbnail.action.delete | boolean | Specifies whether deleting a page is enabled (optional, default value <i>true</i>). |
| thumbnail.action.move | boolean | Specifies whether the moving of a page is enabled (optional, default value <i>true</i>). |
| thumbnail.action.rotate | boolean | Specifies whether the changing of page orientation is enabled (optional, default value <i>true</i>). |
| thumbnail.contextMenu.enabled | boolean | Specifies whether the context menu is enabled for an individual page (optional, default value <i>true</i>). |
| thumbnail.contextMenu.onPropertiesSelected | callback | Callback on selecting properties in the context menu (optional). callback: function() |
| thumbnail.selectedColor | string | Color of the line of the selected page (optional). |
| thumbnail.textColor | string | Color of the text of the sequential page number (optional). |
| thumbnail.width | number | Page width (optional). |
| thumbnail.height | number | Page height (optional, default value 150). |
| thumbnail.title | boolean | Specifies whether the page title is shown (optional, default value <i>true</i>). |
| thumbnail.titleColor | string | Color of the page title (optional). |

6.2.11 imis.scan.ui.Settings

This object represents the component for setting profiles. This component enables showing, adding, changing, deleting or locking profiles.

The screenshot displays the 'IMiS/wScan SETTINGS' window. It features a header with the title and a green status indicator. Below the header, there are two tabs: 'Default settings' (active) and 'NEW PROFILE'. To the right of the tabs are three buttons: 'SAVE', 'LOCK', and 'DELETE'. The main content area is divided into three columns: 'Source', 'Target', and 'Separator'. Under the 'Source' column, there are five input fields: 'Scanner' (set to 'Demo Driver'), 'Paper size' (set to 'None'), 'Resolution' (set to '300'), 'Color' (set to 'Black & White (1-Bit White0)'), and 'Duplex' (checkbox). At the bottom right of the window, there are three buttons: 'BATCH SCAN', 'SCAN', and a version number '1.7.2110.13'.

Image 54: Component for setting profiles

Constructor

| | |
|--------------------------------|---|
| imis.scan.ui.Settings(options) | Creates and displays a new component for showing the settings. Parameters: - options: SettingsOptions |
|--------------------------------|---|

6.2.11.1 SettingsOptions

This object defines the properties that can be set on the component for setting profiles.

| | | |
|---------|-------------|--|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |

6.2.12 imis.scan.ui.AlertDialog

This object represents the component for displaying a dialog. This component enables setting the title and text and detecting whether a user has confirmed or canceled a dialog.

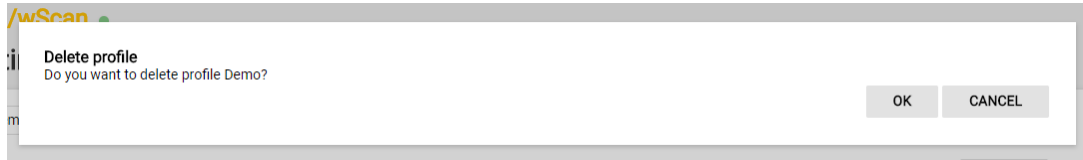


Image 55: Component for displaying a dialog

Constructor

| | |
|-----------------------------------|--|
| imis.scan.ui.AlertDialog(options) | Creates and displays a new dialog. Parameters: - options: AlertDialogOptions |
|-----------------------------------|--|

6.2.12.1 AlertDialogOptions

This object defines the properties that can be set on the component for showing the dialog.

| | | |
|--------|----------|---|
| title | string | Dialog title. |
| text | string | Dialog content. |
| ok | callback | Callback on pressing the OK button. callback: function() |
| cancel | callback | Callback on pressing the cancel button. callback: function() |

6.2.13 imis.scan.ui.TargetColor

This object represents the component for showing the currently selected color for saving the job. This component enables setting the color.

Constructor

| | |
|-----------------------------------|---|
| imis.scan.ui.TargetColor(options) | Creates and displays a component if values exist. Parameters: - options: TargetColorOptions |
|-----------------------------------|---|

6.2.13.1 TargetColorOptions

This object defines the properties that can be set on the component for showing the color for saving.

| | | |
|---------|-------------|--|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |
| color | string | Component color (optional). |

6.2.14 imis.scan.ui.TargetFormat

This object represents the component for showing the currently selected format for saving the job. This component enables setting the color.

Constructor

| | |
|------------------------------------|--|
| imis.scan.ui.TargetFormat(options) | Creates and displays a component if values exist. Parameters: - options: TargetFormatOptions |
|------------------------------------|--|

6.2.14.1 TargetFormatOptions

This object defines the properties that can be set on the component for showing the format for saving.

| | | |
|---------|-------------|--|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |
| color | string | Component color (optional). |

6.2.15 imis.scan.ui.TotalDocuments

This object represents the component for showing the number of documents in the current job. This component enables setting the color.

Constructor

| | |
|--------------------------------------|--|
| imis.scan.ui.TotalDocuments(options) | Creates and displays a component if values exist. Parameters: - options: TotalDocumentsOptions |
|--------------------------------------|--|

6.2.15.1 TotalDocumentsOptions

This object defines the properties that can be set on the component for showing the number of documents.

| | | |
|---------|-------------|--|
| Id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |
| Color | string | Component color (optional). |

6.2.16 imis.scan.ui.TotalPages

This object represents the component for showing the number of pages in the current job. This component enables setting the color.

Constructor

| | |
|----------------------------------|--|
| imis.scan.ui.TotalPages(options) | Creates and displays a component if values exist. Parameters: - options: TotalPagesOptions |
|----------------------------------|--|

6.2.16.1 TotalPagesOptions

This object defines the properties that can be set on the component for showing the number of pages.

| | | |
|---------|-------------|--|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |
| color | string | Component color (optional). |

6.2.17 imis.scan.ui.CursorMode

This object represents the component for selecting the mode of adding or overwriting new pages in the current job.

Constructor

| | |
|----------------------------------|--|
| imis.scan.ui.CursorMode(options) | Creates and displays a component. Parameters: - options: CursorModeOptions |
|----------------------------------|--|

6.2.17.1 CursorModeOptions

This object defines the properties that can be set on the component for display.

| | | |
|---------|-------------|--|
| id | string | The unique identifier of an element in an HTML document. |
| element | HTMLElement | Element in HTML document (optional). |

6.3 Examples of use imis.scan.js

These examples show the use of the “imis.scan.js” library. Developers can easily learn to use the library with the help of these prepared examples. Examples of reading profiles, modifying a profile, starting a job and deleting a job are shown. These examples can be accessed from the start page if they were turned on during installation and are executable.

6.3.1 Reading profiles

An example of reading profiles shows the basic use of the library. If reading is successful, a collection of profiles will appear in the feature with the 'profiles' identifier; if an error occurs, it will be visible in the feature with the 'error' identifier. When the page has finished loading, a scan object will be created, which will be used to read all the profiles. If they were read successfully, they will appear on a list, if not, an error will appear.

```
<!DOCTYPE html>
<html>
<head>
  <title>imis.scan.js</title>
  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto" />
  <link rel="stylesheet" href="sample.css" />
</head>
<body class="sample">
  <h1>Sample</h1>
  <p>This example demonstrates reading scan profiles.</p>

  <div>Profiles:</div>
  <ol id="profiles"></ol>
  <div id="error"></div>

  <script src="../imis.scan.js"></script>
  <script>
    window.addEventListener('load', function () {
      try {
        // Profiles ordered list
        var ol = document.getElementById("profiles");

        // Create a scan object
        var scan = new imis.scan.Scan(
          apiKey = API KEY);

        // Read profiles
        scan.getProfiles({
          success: function (profiles) {
            for (var i = 0; i < profiles.length; i++) {
              // Add profile to ordered list
              var li = document.createElement("li");
              li.innerHTML = profiles[i].name;
              ol.appendChild(li);
            }
          },
          error: function (error) {
            // Show error
            document.getElementById("error").innerHTML = error;
          }
        });
      } catch (e) {
        // Show error
        document.getElementById("error").innerHTML = e;
      }
    });
  </script>
</body>
</html>
```

6.3.2 Changing a profile

An example of changing the profile name shows the basis for changing profile properties.

A collection of all profiles is loaded to the 'select' feature with the 'profiles' identifier, where you select the current profile to be changed. Clicking on the 'button' feature with the 'btn-update' identifier initiates a profile update and updates the collection of profiles. When the page has finished loading, a scan object will be created, which will be used to read all the profiles.

If they were read successfully, they will appear on a list and the name of the selected profile will be loaded to the input field, if not, an error will appear.

When changing the profile in the drop-down menu, the input field will be updated with the profile name. When pressing the Update button, the new profile name will be saved to the profile and this change will be saved to the server; if saved successfully, the list of profiles will be updated, if not, an error will appear.

```
<!DOCTYPE html>
<html>
<head>
  <title>imis.scan.js</title>
  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto" />
  <link rel="stylesheet" href="sample.css" />
</head>
<body class="sample">
  <h1>Sample</h1>
  <p>This example demonstrates updating profile name.</p>

  <h2>Update profile</h2>
  Select profile <select id="profiles"></select>

  <h3>Edit</h3>
  Profile name <input id="profile-name" type="text" placeholder="Profile name" />
  <button id="btn-update">Update</button>
  <div id="error"></div>

  <script src="../imis.scan.js"></script>
  <script>
    window.addEventListener('load', function () {
      var profilesList = [], // Profiles list
          selectedProfile = null, // Selected profile
          profilesSelectUI = document.getElementById("profiles"), // Profiles drop-down list
          profileNameUI = document.getElementById("profile-name"); // Selected profile name
input text

      try {
        // Create a scan object
        var scan = new imis.scan.Scan(
          apiKey = API KEY);

        // Load profiles to drop-down list
        var load = function () {
          scan.getProfiles({
            success: function (profiles) {
              profilesList = profiles;
              // Clear options
              profilesSelectUI.innerHTML = "";

```

```

        for (var i = 0; i < profiles.length; i++) {
            // Add profile option
            const profile = profiles[i];
            var option = document.createElement("option");
            option.value = profile.id;
            option.text = profile.name;
            if (null === selectedProfile)
                selectedProfile = profile;
            option.selected = profile.equals(selectedProfile)
            profilesSelectUI.add(option);
        }

        // Update selected profile name text input
        if (null !== selectedProfile)
            profileNameUI.value = selectedProfile.name;
    },
    error: function (error) {
        // Show error
        document.getElementById("error").innerHTML = error;
    }
});

// Call load
load();

// Selected profile change listener
profilesSelectUI.addEventListener("change", function () {
    // Update selected profile
    selectedProfile = null;
    var selectedValue = profilesSelectUI.options[profilesSelectUI.selectedIndex].value;
    for (var i = 0; i < profilesList.length; i++) {
        if (profilesList[i].id === selectedValue) {
            selectedProfile = profilesList[i];
            break;
        }
    }

    // Update selected profile name text input
    if (null !== selectedProfile)
        profileNameUI.value = selectedProfile.name;
});

// Update button click listener
document.getElementById("btn-update").addEventListener("click", function () {
    if (null == selectedProfile || null === profileNameUI.value || "" ===
profileNameUI.value ||
        selectedProfile.name === profileNameUI.value)
        return;

    // Update profile name
    selectedProfile.name = profileNameUI.value;

    // Save profile
    scan.updateProfile({
        profile: selectedProfile,
        success: function (profile) {
            // Load profiles
            load();
        },
        error: function (error) {
            // Show error
            document.getElementById("error").innerHTML = error;
        }
    });
});

```

```

    } catch (e) {
      // Show error
      document.getElementById("error").innerHTML = e;
    }
  });
</script>
</body>
</html>

```

6.3.3 Starting a job

An example of starting a job; shows job management and displays the scanning result.

A collection of all profiles is loaded to the 'select' feature with the 'profiles' identifier, where you select the current profile to create and start a job. Clicking on the 'button' feature with the 'btn-start' identifier initiates the creation and start of a job.

Status is shown in the feature with the 'job-progress' identifier. The entire job can be downloaded by clicking on the feature with the 'job-download' identifier, after the job has been finished.

```

<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8" />
  <title>imis.scan.js</title>
  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto" />
  <link rel="stylesheet" href="sample.css" />
</head>
<body class="sample">
  <h1>Sample</h1>
  <p>This example demonstrates starting job and displaying documents and pages.</p>

  <h2>Start Job</h2>
  <select id="profiles"></select>
  <button id="btn-start">Start</button>
  <br /><br />

  <div>Status: <span id="job-progress">None</span></div>
  <div id="error"></div>
  <a id="job-download" href="#">Download</a>
  <br /><br />

  <div><b>Documents</b></div>
  <div id="job">None</div>

  <script src="../imis.scan.js"></script>
  <script>
    window.addEventListener('load', function () {
      var profilesList = [], // Profiles list
          profilesSelectUI = document.getElementById("profiles"), // Profiles drop-down list
          jobUI = document.getElementById("job"); // Job documents

      try {
        // Create a scan object
        var scan = new imis.scan.Scan(
          apiKey = API_KEY);

```

```

// Get profiles
scan.getProfiles({
  success: function (profiles) {
    profilesList = profiles;
    // Clear options
    profilesSelectUI.innerHTML = "";

    for (var i = 0; i < profiles.length; i++) {
      // Add profile option
      const profile = profiles[i];
      var option = document.createElement("option");
      option.value = profile.id;
      option.text = profile.name;
      profilesSelectUI.add(option);
    }
  },
  error: function (error) {
    console.error("getProfiles: " + error);
  }
});

// Start job button click listener
document.getElementById("btn-start").addEventListener("click", function () {
  // Clear download link
  document.getElementById("job-download").setAttribute("href", "#");

  // Find selected profile
  var selectedValue = profilesSelectUI.options[profilesSelectUI.selectedIndex].value;
  var profile = null;
  for (var i = 0; i < profilesList.length; i++) {
    if (profilesList[i].id === selectedValue) {
      profile = profilesList[i];
      break;
    }
  }
  if (null == profile)
    return;

  // Create job
  scan.createJob({
    profile: profile.id,
    success: function (job) { // Job successfully created

      // Clear job documents
      jobUI.innerHTML = "";

      // Start job
      job.start({
        success: function () { // Job successfully started
          // Update job progress
          document.getElementById("job-progress").innerHTML =
            imis.scan.JobStatus.toString[job.status];

          // Job changed callback
          job.onChange(function (job) {
            // Update job progress
            document.getElementById("job-progress").innerHTML =
              imis.scan.JobStatus.toString[job.status];
            if (imis.scan.JobStatus.COMPLETED === job.status)
              document.getElementById("job-download").setAttribute("href",
                job.download);
          });

          // Document created callback
          job.onCreateDocument(function (newDocument) {
            const documentElement = document.createElement("div");
            documentElement.style.marginBottom = "55px";
          });
        }
      });
    }
  });

```



```

        // Document name
        const documentName = document.createElement("div");
        documentName.style.fontWeight = "bold";
        documentName.style.fontSize = "16px";
        documentName.innerHTML = newDocument.name + " [" + newDocument.pageCount +
    "]]";

        documentElement.appendChild(documentName);
        jobUI.appendChild(documentElement);

        // On create page callback
        newDocument.onCreatePage(function (page) {
            const pageElement = document.createElement("div");
            pageElement.style.display = "inline-block";

            // Page image
            const img = document.createElement("img");
            img.setAttribute("src", page.getThumbnailUri({ height: 150 }));
            pageElement.appendChild(img);

            // Page index
            const pageIndex = document.createElement("div");
            pageIndex.innerHTML = "Page " + page.index;
            pageElement.appendChild(pageIndex);

            documentElement.appendChild(pageElement);
        });

        // Document change callback
        newDocument.onChange(function (changedDocument) {
            documentName.innerHTML = changedDocument.name + " [" +
changedDocument.pageCount + "]]";
        });
    },
    error: function (error) {
        // Show error
        document.getElementById("error").innerHTML = error;
    }
});
},
error: function (error) {
    // Show error
    document.getElementById("error").innerHTML = error;
}
});
} catch (e) {
    // Show error
    document.getElementById("error").innerHTML = e;
}
});
</script>
</body>
</html>

```

6.3.4 Deleting a profile

An example of deleting a profile shows the basic use of the library. If read successfully, the collection of profiles will appear in the drop-down menu, where you can select the profile for deletion. The profile will be deleted by clicking on the delete button and confirming the deletion dialog. This example deletes a profile saved on the server.

```

<!DOCTYPE html>
<html>
<head>
  <title>imis.scan.js</title>
  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto" />
  <link rel="stylesheet" href="sample.css" />
</head>
<body class="sample">
  <h1>Sample</h1>
  <p>This example demonstrates deleting profile.</p>

  <h2>Delete profile</h2>
  <select id="profiles"></select>
  <button id="btn-delete">Delete</button>
  <div id="error"></div>

  <script src="../imis.scan.js"></script>
  <script>
window.addEventListener('load', function () {
  var profilesList = [], // Profiles list
      profilesSelectUI = document.getElementById("profiles"); // Profiles drop-down list

  try {
    // Create a scan object
    var scan = new imis.scan.Scan(
      apiKey = API_KEY);

    // Load profiles to drop-down list
    var load = function () {
      scan.getProfiles({
        success: function (profiles) {
          profilesList = profiles;
          // Clear options
          profilesSelectUI.innerHTML = "";

          for (var i = 0; i < profiles.length; i++) {
            // Add profile option
            const profile = profiles[i];
            var option = document.createElement("option");
            option.value = profile.id;
            option.text = profile.name;
            profilesSelectUI.add(option);
          }
        },
        error: function (error) {
          // Show error
          document.getElementById("error").innerHTML = error;
        }
      });
    };

    // Call load
    load();

    document.getElementById("btn-delete").addEventListener("click", function () {
      // Find selected profile
      var selectedValue = profilesSelectUI.options[profilesSelectUI.selectedIndex].value;
      var profile = null;
      for (var i = 0; i < profilesList.length; i++) {
        if (profilesList[i].id === selectedValue) {
          profile = profilesList[i];
          break;
        }
      }
      if (null == profile)
        return;
    });
  }
});
  </script>

```

```

// Show confirmation dialog
if (confirm("Do you want to delete profile '" + profile.name + "'?")) {
    // Delete profile
    scan.deleteProfile({
        profile: profile,
        success: function () {
            // Load profiles
            load();
        },
        error: function (error) {
            // Show error
            document.getElementById("error").innerHTML = error;
        }
    });
}
});
} catch (e) {
    // Show error
    document.getElementById("error").innerHTML = e;
}
});
</script>
</body>
</html>

```

6.4 Examples of use imis.scan.ui.js

These examples show the use of the “imis.scan.ui.js” library. Developers can easily learn to use the library with the help of these prepared examples. It shows examples of classic, modern, classic dark and gallery sample. These examples use different components with a specific position on the page. The developers can create a customized page layout from individual components.

These examples can be accessed from the start page if they were turned on during installation.

6.4.1 Classic sample

Classic sample is the most commonly used user interface example. Application developers choose it when they want to preserve the traditional appearance of the user interface. The thumbnails of document pages are located on the left side of the user interface. They are sorted by available space and thumbnail size (portrait, landscape). Document pages are shown in the center.

The user navigates between pages with the slider. Page details are sorted on the right and can be easily closed or reopened by selecting the menu on an individual page.

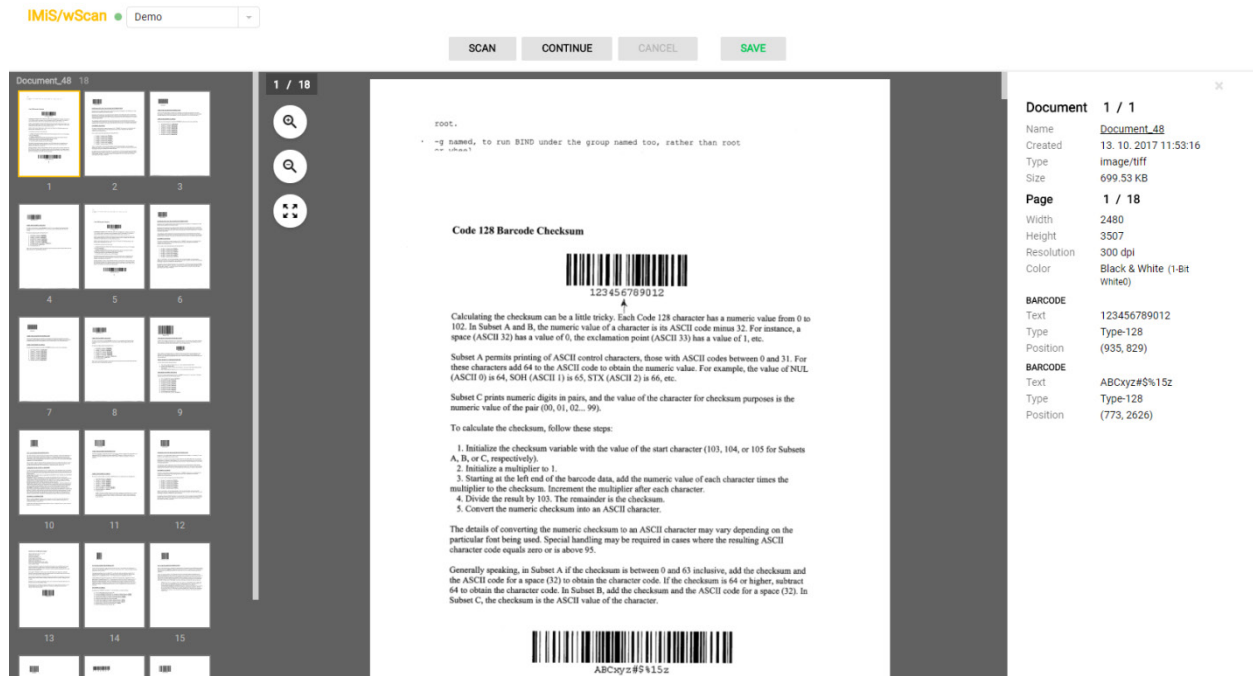


Image 56: Example of using the classic sample of a user interface display

In the classic sample, the following components are used:

- imis.scan.ui.Thumbnails
- imis.scan.ui.ImageDetails
- imis.scan.ui.Status
- imis.scan.ui.Progress
- imis.scan.ui.Button
- imis.scan.ui.ProfilesButton

6.4.1.1 classic.html

```
<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8" />
  <title>IMiS/wScan Classic</title>
  <link rel="shortcut icon" type="image/png" href="img/favicon.png" />
  <link rel="stylesheet" href="imis.scan.ui.css" />
  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto" />
  <link rel="stylesheet" href="style/classic.css" />
</head>
```

```

<body>
  <div class="imis-scan-app">
    <nav id="nav-top">
      <div id="title" class="title"><a href="/">IMiS/wScan</a><div id="scan-
status"></div></div>
      <div id="imis-profile"></div>
    </nav>
    <nav id="nav" style="width: 500px; margin:auto;">
      <div id="scan-btn">Scan</div>
      <div id="continue-btn">Continue</div>
      <div id="cancel-btn">Cancel</div>
      <div id="download-btn">Save</div>
    </nav>
    <div id="imis-progress"></div>
    <div class="main" id="main">
      <div id="thumbnails" class="main-left">Thumbnails</div>
      <div id="images" class="main-center"></div>
      <div id="image-details" class="main-right">Details</div>
    </div>
  </div>
  <script src="imis.scan.js"></script>
  <script src="imis.scan.ui.js"></script>
</script>
window.addEventListener('load', function () {

  // Set scan version to title attribute
  document.getElementById("title").setAttribute("title", imis.scan.ui.version);

  // Create image details object
  const imageDetailsUI = new imis.scan.ui.ImageDetails({
    id: "image-details",
    onClose: function () {
      // Hide details
      imageDetailsUI.hide();
      // Resize images
      document.getElementById("images").setAttribute("style", "flex: 1");
    }
  });
  try {
    // Create a scan object
    var scan = new imis.scan.ui.Scan({
      //url: "http://example.com",
      apiKey = API_KEY,
      thumbnails: new imis.scan.ui.Thumbnails({
        id: "thumbnails",
        orientation: "vertical",
        thumbnail: {
          width: 80, // Thumbnail width
          title: true
        },
      },
      contextMenu: {
        enabled: true,
        properties: true,
        onPropertiesSelected: function () {
          // Show details
          imageDetailsUI.show();
          // Reset images style
          document.getElementById("images").setAttribute("style", "");
        }
      }
    });
  },
});

```

```

    imageDetails: imageDetailsUI,
    status: new imis.scan.ui.Status({ id: "scan-status" }),
    progress: new imis.scan.ui.Progress({ id: "imis-progress" }),
    images: new imis.scan.ui.ImageScroll({
      id: "images",
      controls: true,
      pageIndex: true,
      contextMenu: {
        onPropertiesSelected: function () {
          // Show details
          imageDetailsUI.show();
          // Reset images style
          document.getElementById("images").setAttribute("style", "");
        }
      }
    }),
    buttons: {
      scan: new imis.scan.ui.Button({ id: "scan-btn" }),
      profiles: new imis.scan.ui.ProfilesButton({ id: "imis-profile" }),
      download: new imis.scan.ui.Button({ id: "download-btn" }),
      cancel: new imis.scan.ui.Button({ id: "cancel-btn" }),
      continue: new imis.scan.ui.Button({ id: "continue-btn" })
    },
    onError: function (message) {
      // Show dialog with error message
      new imis.scan.ui.AlertDialog({ title: "Error", text: message });
    }
  });
  scan.show();
  refreshLayoutHeight();
} catch (e) {
  console.error(e);
}
});

// Resizes height of main element
function refreshLayoutHeight() {
  var titleHeight = document.getElementById("nav-top").offsetHeight;
  var navHeight = document.getElementById("nav").offsetHeight +
    document.getElementById("imis-progress").offsetHeight;
  var mainHeight = (window.innerHeight - titleHeight - navHeight);
  document.getElementById("main").style.height = mainHeight + "px";
}

// Resize event listener
window.addEventListener('resize', function (event) {
  refreshLayoutHeight();
});
</script>
</body>
</html>

```

6.4.1.2 classic.css

```
body {
  margin: 0;
  background: #fff;
  height: 100%;
  width: 100%;
  font-family: 'Roboto', sans-serif;
}

a {
  text-decoration: none;
  color: inherit;
}

.title {
  background: #fff;
  color: #FFC107;
  font-size: 20px;
  padding-top: 15px;
  font-weight: bold;
}

nav {
  margin: 0;
  position: relative;
  padding-bottom: 10px;
  padding-left: 25px;
  padding-right: 25px;
  background: #fff;
}

nav > div {
  display: inline-block;
  margin-right: 2px;
}

.main {
  background: #EEEEEE;
  display: flex;
  height: 500px;
  position: relative;
  box-shadow: 0 0 2px 2px rgba(0,0,0,0.075);
  z-index: 1000;
}

.main-left,
.main-right {
  flex: 0.25;
}

.main-center {
  flex: 0.50;
}

#download-btn {
  margin-left: 25px;
}
```

6.4.2 Modern sample

Modern sample is suitable for application developers that keep up with the more recent trends in user interface appearance. Document pages take up most of the user interface. By default, page details are located on the right. A user can easily close or reopen them by selecting the menu on an individual page. For greater transparency the thumbnails of document pages are sorted at the bottom, which is especially suitable for larger volumes of scanned documents.

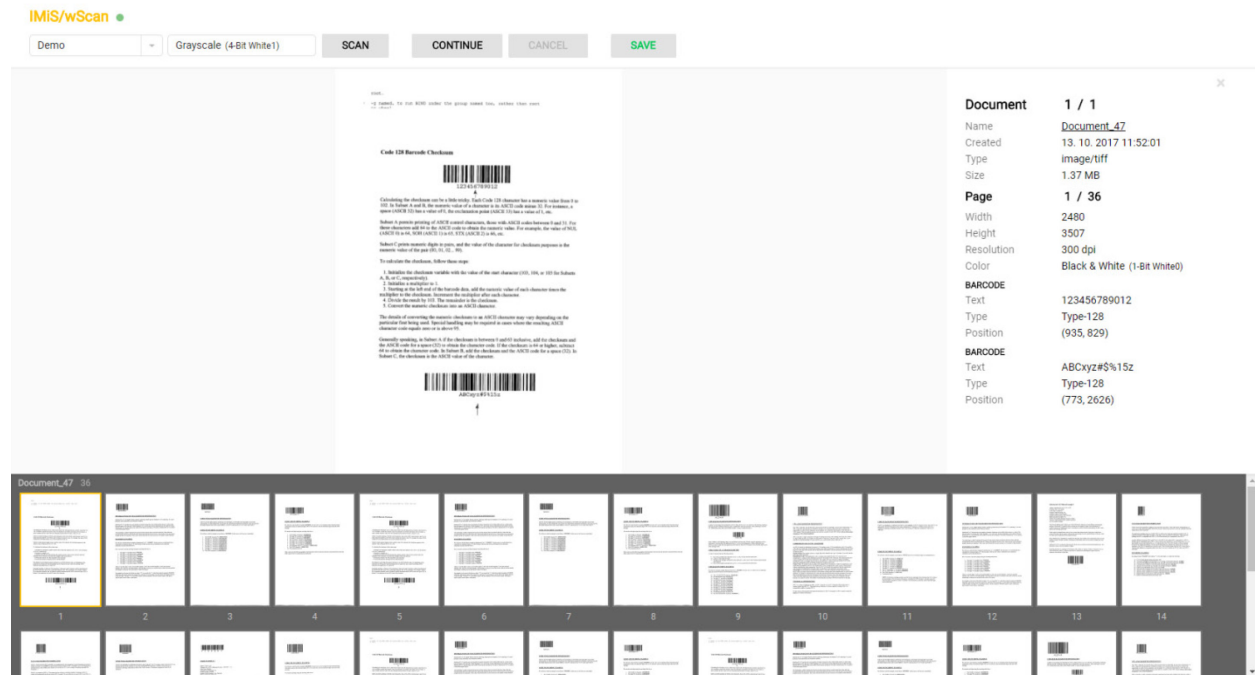


Image 57: Example of using the modern sample of a user interface display

In the modern sample, the following components are used:

- `imis.scan.ui.Thumbnails`
- `imis.scan.ui.ImageView`
- `imis.scan.ui.ImageDetails`
- `imis.scan.ui.Status`
- `imis.scan.ui.Progress`
- `imis.scan.ui.Button`
- `imis.scan.ui.ProfilesButton`
- `imis.scan.ui.ColorDropDownButton`

6.4.2.1 modern.html

```

<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8" />
  <title>IMiS/wScan Modern</title>
  <link rel="shortcut icon" type="image/png" href="img/favicon.png" />
  <link rel="stylesheet" href="imis.scan.ui.css" />
  <link href="https://fonts.googleapis.com/css?family=Roboto" rel="stylesheet">
  <link rel="stylesheet" href="style/modern.css" />
</head>
<body>
  <nav id="nav-top">
    <div id="title" class="title"><a href="/">IMiS/wScan</a><div id="scan-status"></div></div>
  </nav>
  <nav id="nav">
    <div id="imis-profile"></div>
    <div id="imis-profile-color"></div>
    <div id="scan-btn"></div>
    <div id="continue-btn" style="margin-left:25px;"></div>
    <div id="cancel-btn"></div>
    <div id="download-btn"></div>
  </nav>
  <div id="imis-progress"></div>
  <div class="main" id="main">
    <div id="image-view" class="main-center"></div>
    <div id="image-details" class="main-right"></div>
  </div>
  <div id="thumbnails"></div>
  <script src="imis.scan.js"></script>
  <script src="imis.scan.ui.js"></script>
<script>
  window.addEventListener('load', function () {

    //imis.scan.ui.Resource.lang = "si";

    document.getElementById("title").setAttribute("title", imis.scan.ui.version);

    try {
      var scan = new imis.scan.ui.Scan({
        //url: "http://beno:5000",
        //url: "https://beno:5443",
        //url: "http://localhost:5000",
        //notifications: false,
        //useLocalStorage: false,
        apiKey = API_KEY,
        thumbnails: new imis.scan.ui.Thumbnails({
          id: "thumbnails",
          //backgroundColor: "#f5f5f5",
          //color: "#0f0",
          //focusNewPage: false,
          //orientation: "horizontal",
          thumbnail: {
            //width: 25,
            //height: 250,
            //title: false
            //titleColor: "#00f"
          },
        },
        contextMenu: {
          enabled: true,
          onPropertiesSelected: function() {
            document.getElementById("image-details").style.display = null;
            document.getElementById("image-view").style.width = null;
          }
        }
      });
    },
  });

```

```

    imageView: new imis.scan.ui.ImageView({
        id: "image-view",
        onPropertiesSelected: function () {
            document.getElementById("image-details").style.display = null;
            document.getElementById("image-view").style.width = null;
        }
    }),
    imageDetails: new imis.scan.ui.ImageDetails({
        id: "image-details",
        //background: "#000",
        //color: "#0f0",
        onClose: function () {
            document.getElementById("image-details").style.display = "none";
            document.getElementById("image-view").style.width = "100%";
        }
    }),
    status: new imis.scan.ui.Status({ id: "scan-status" }),
    progress: new imis.scan.ui.Progress({ id: "imis-progress" }),
    buttons: {
        scan: new imis.scan.ui.Button({ id: "scan-btn" }),
        profiles: new imis.scan.ui.ProfilesButton({ id: "imis-profile" }),
        download: new imis.scan.ui.Button({ id: "download-btn" }),
        cancel: new imis.scan.ui.Button({ id: "cancel-btn" }),
        continue: new imis.scan.ui.Button({ id: "continue-btn" }),
        color: new imis.scan.ui.ColorDropDownButton({ id: "imis-profile-color" })
    },
    onError: function (message) {
        new imis.scan.ui.AlertDialog({ title: "Error", text: message });
    }
});
scan.show();
refreshLayoutHeight();
} catch (e) {
    console.error(e);
    // Display error dialog
    new imis.scan.ui.AlertDialog({title: "Error", text: e});
}
});

// Resize main and thumbnails height
function refreshLayoutHeight() {
    var navHeight = document.getElementById("nav-top").offsetHeight +
        document.getElementById("nav").offsetHeight + document.getElementById("imis-
progress").offsetHeight;
    var thumbnailsHeight = window.innerHeight * 0.30; // 30% of window size
    // Main height
    document.getElementById("main").style.height = (window.innerHeight - navHeight -
thumbnailsHeight) + "px";
    // Thumbnails height
    document.getElementById("thumbnails").style.height = thumbnailsHeight + "px";
}

// Window resize event
window.addEventListener('resize', function (event) {
    console.log("resize");
    refreshLayoutHeight();
});
</script>
</body>
</html>

```

6.4.2.2 modern.css

```
body {
  margin: 0;
  background: #fff;
  height: 100%;
  width: 100%;
  font-family: 'Roboto', sans-serif;
}

a {
  text-decoration: none;
  color: inherit;
}

.title {
  background: #fff;
  color: #FFC107;
  font-size: 20px;
  padding-top: 15px;
  font-weight: bold;
}

nav {
  margin: 0;
  position: relative;
  padding-bottom: 10px;
  padding-left: 25px;
  padding-right: 25px;
  background: #fff;
}

nav > div {
  display: inline-block;
  margin-right: 2px;
}

.main {
  background: #EEEEEE;
  overflow: hidden;
  height: 500px;
  position: relative;
  box-shadow: 0 0 2px 2px rgba(0,0,0,0.075);
  z-index: 1000;
}

.main-left {
}

.main-center {
  float: left;
  width: 75%;
}

.main-right {
  float: left;
  width: 25%;
}

#download-btn {
  margin-left: 25px;
}

.imis-status {
  display: inline-block;
  margin-left: 10px;
}
```

6.4.3 Classic dark sample

Classic dark sample follows the latest trends of important document viewers. Document pages are shown in the center. The user navigates between pages with the slider. Documents are not visually separated from one another. It is clear from the page details to which documents the pages belong. By default, page details are not displayed. The user opens them by selecting the menu on an individual page. They are shown on the right side of the user interface. Thumbnails of document pages are not available.

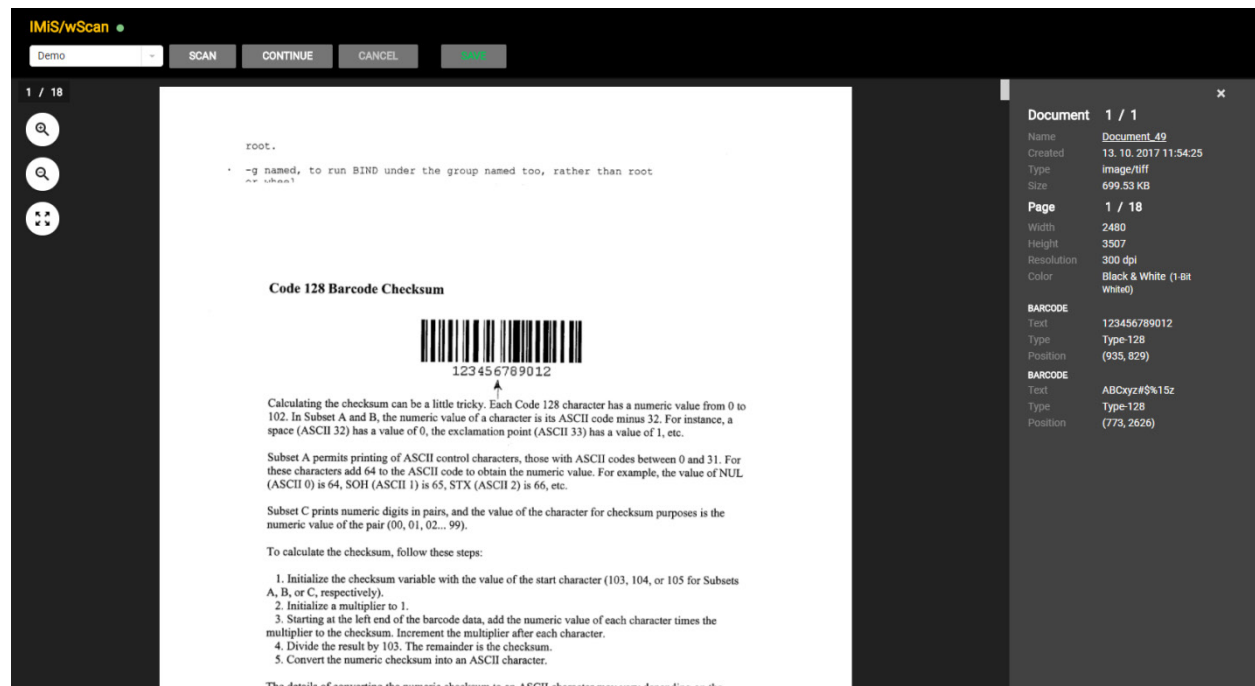


Image 58: Example of using the classic (dark) sample of a user interface display

In the classic (dark) sample, the following components are used:

- imis.scan.ui.ImageScroll
- imis.scan.ui.ImageDetails
- imis.scan.ui.Status
- imis.scan.ui.Progress
- imis.scan.ui.Button
- imis.scan.ui.ProfilesButton

6.4.3.1 classic_dark.html

```

<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8" />
  <title>IMiS/wScan Classic (dark)</title>
  <link rel="shortcut icon" type="image/png" href="img/favicon.png" />
  <link rel="stylesheet" href="imis.scan.ui.css" />
  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto" />
  <link rel="stylesheet" href="style/classic.dark.css" />
</head>
<body>
  <nav id="nav-top">
    <div id="title" class="title"><a href="/">IMiS/wScan</a><div id="scan-status"></div></div>
  </nav>
  <nav id="nav">
    <div id="imis-profile"></div>
    <div id="scan-btn">Scan</div>
    <div id="continue-btn">Continue</div>
    <div id="cancel-btn">Cancel</div>
    <div id="download-btn">Save</div>
  </nav>
  <div id="imis-progress"></div>
  <div class="main" id="main">
    <div id="images" class="main-center"></div>
    <div id="image-details" class="main-right">Details</div>
  </div>
  <script src="imis.scan.js"></script>
  <script src="imis.scan.ui.js"></script>
</script>
  window.addEventListener('load', function () {

    // Set scan version to title attribute
    document.getElementById("title").setAttribute("title", imis.scan.ui.version);

    // Create image details object
    var imageDetailsUI = new imis.scan.ui.ImageDetails({
      id: "image-details",
      closed: true,
      darkMode: true,
      onClose: function () {
        // Hide details
        imageDetailsUI.hide();
        // Resize images
        document.getElementById("images").style.flex = 1;
      }
    });

    // Resize images
    document.getElementById("images").style.flex = 1;
  });

```

```

try {
  var scan = new imis.scan.ui.Scan({
    //url: "http://example.com",
    apiKey = API_KEY,
    imageDetails: imageDetailsUI,
    status: new imis.scan.ui.Status({ id: "scan-status" }),
    progress: new imis.scan.ui.Progress({ id: "imis-progress", darkMode: true }),
    images: new imis.scan.ui.ImageScroll({
      id: "images",
      //background: "#f5f5f5",
      darkMode: true,
      focusNewPage: false,
      contextMenu: {
        enabled: true,
        onPropertiesSelected: function () {
          imageDetailsUI.show();
          document.getElementById("images").style.flex = undefined;
        }
      }
    })
  }),
  buttons: {
    scan: new imis.scan.ui.Button({ id: "scan-btn", darkMode: true }),
    profiles: new imis.scan.ui.ProfilesButton({ id: "imis-profile" }),
    download: new imis.scan.ui.Button({ id: "download-btn", darkMode: true }),
    cancel: new imis.scan.ui.Button({ id: "cancel-btn", darkMode: true }),
    continue: new imis.scan.ui.Button({ id: "continue-btn", darkMode: true })
  },
  onError: function (message) {
    // Show dialog with error message
    new imis.scan.ui.AlertDialog({ title: "Error", text: message });
  }
});
scan.show();
refreshLayoutHeight();
} catch (e) {
  console.error(e);
}
});

// Resizes height of main element
function refreshLayoutHeight() {
  var titleHeight = document.getElementById("nav-top").offsetHeight;
  var navHeight = document.getElementById("nav").offsetHeight +
document.getElementById("imis-progress").offsetHeight;
  var mainHeight = (window.innerHeight - titleHeight - navHeight);
  document.getElementById("main").style.height = mainHeight + "px";
}

// Resize event listener
window.addEventListener('resize', function (event) {
  console.log("resize");
  refreshLayoutHeight();
});
</script>
</body>
</html>

```

6.4.3.2 classic.dark.css

```
body {
  margin: 0;
  background: #fff;
  height: 100%;
  width: 100%;
  font-family: 'Roboto', sans-serif;
}
a {
  text-decoration: none;
  color: inherit;
}

.title {
  color: #FFC107;
  font-size: 20px;
  padding-top: 15px;
  font-weight: bold;
}

nav {
  margin: 0;
  position: relative;
  padding-bottom: 10px;
  padding-left: 25px;
  padding-right: 25px;
  background: #000;
}

nav > div {
  display: inline-block;
  margin-right: 2px;
}

.main {
  background: #EEEEEE;
  display: flex;
  height: 500px;
  position: relative;
  box-shadow: 0 0 2px 2px rgba(255,255,255,0.1);
  z-index: 1000;
}

.main-center {
  flex: 0.75;
}

.main-right {
  flex: 0.25;
}

#download-btn {
  margin-left: 25px;
}
```

6.4.4 Gallery sample

Gallery sample is suitable for displaying larger volumes of scanned documents or for batch scanning. Thumbnails of document pages are bigger and more visible than in the other samples. They are displayed in rows across the entire user interface. Documents are separated based on the number of pages specified in the settings. Page details appear to the user by double-clicking on an individual page.

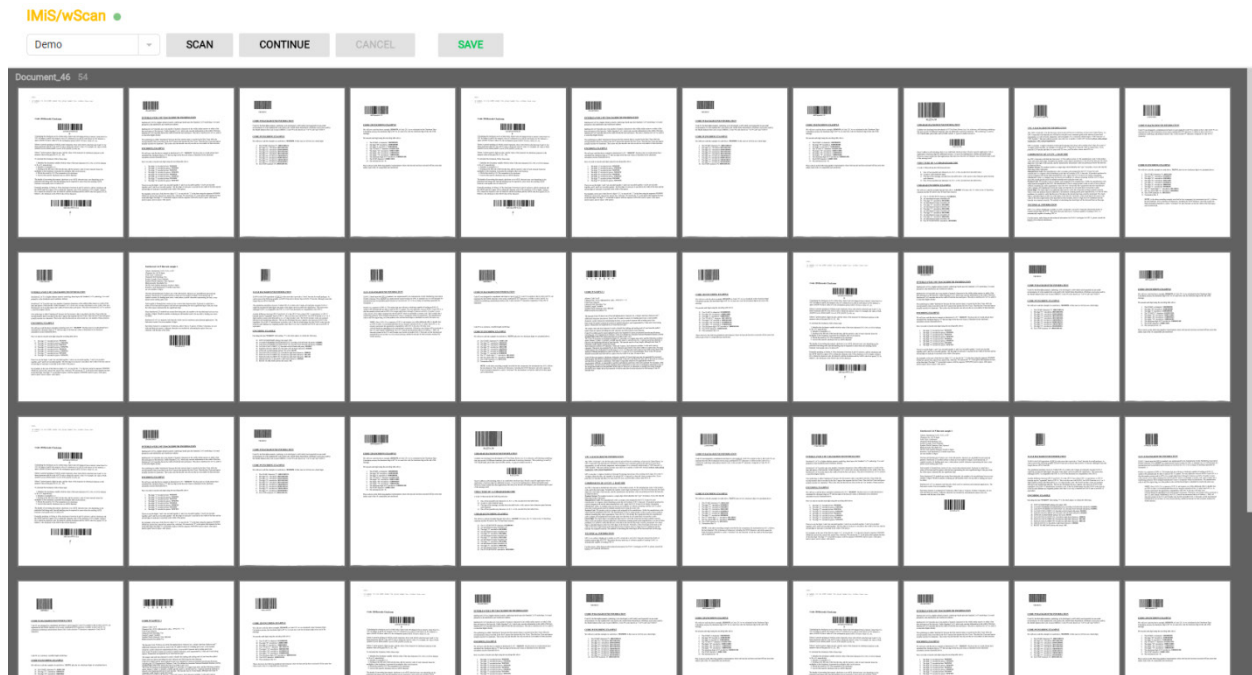


Image 59: Example of using the gallery sample of a user interface display

In the gallery sample, the following components are used:

- `imis.scan.ui.Thumbnails`
- `imis.scan.ui.Status`
- `imis.scan.ui.Progress`
- `imis.scan.ui.Button`
- `imis.scan.ui.ProfilesButton`

6.4.4.1 gallery.html

```

<!DOCTYPE html>
<html>
<head>
  <meta charset="utf-8" />
  <title>IMiS/wScan Gallery</title>
  <link rel="shortcut icon" type="image/png" href="img/favicon.png" />
  <link rel="stylesheet" href="imis.scan.ui.css" />
  <link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Roboto" />
  <link rel="stylesheet" href="style/gallery.css" />
</head>
<body>
  <nav id="nav-top">
    <div id="title" class="title"><a href="/">IMiS/wScan</a><div id="scan-status"></div></div>
  </nav>
  <nav id="nav">
    <div id="imis-profile"></div>
    <div id="scan-btn">Scan</div>
    <div id="continue-btn">Continue</div>
    <div id="cancel-btn">Cancel</div>
    <div id="download-btn">Save</div>
  </nav>
  <div id="imis-progress"></div>
  <div class="main" id="main">
    <div id="thumbnails">Thumbnails</div>
  </div>
  <script src="imis.scan.js"></script>
  <script src="imis.scan.ui.js"></script>
</script>
  window.addEventListener('load', function () {

    // Set scan version to title attribute
    document.getElementById("title").setAttribute("title", imis.scan.ui.version);

    try {
      const scan = new imis.scan.ui.Scan({
        //url: "http://example.com",
        apiKey = API_KEY,
        thumbnails: new imis.scan.ui.Thumbnails({
          id: "thumbnails",
          //darkMode: false,
          orientation: "horizontal",
          thumbnail: {
            height: 200, // thumbnail height
            title: false
          },
          gallery: true,
          contextMenu: {
            enabled: false
          }
        }),
        status: new imis.scan.ui.Status({ id: "scan-status" }),
        progress: new imis.scan.ui.Progress({ id: "imis-progress" }),
        buttons: {
          scan: new imis.scan.ui.Button({ id: "scan-btn" }),
          profiles: new imis.scan.ui.ProfilesButton({ id: "imis-profile" }),
          download: new imis.scan.ui.Button({ id: "download-btn" }),
          cancel: new imis.scan.ui.Button({ id: "cancel-btn" }),
          continue: new imis.scan.ui.Button({ id: "continue-btn" })
        },
        onError: function (message) {
          // Show dialog with error message
          new imis.scan.ui.AlertDialog({ title: "Error", text: message });
        }
      });
      scan.show();
      refreshLayoutHeight();
    } catch (e) {

```

```

        console.error(e);
        // Show dialog with error message
        new imis.scan.ui.AlertDialog({ title: "Error", text: e });
    }
});

// Resizes height of main element
function refreshLayoutHeight() {
    var titleHeight = document.getElementById("nav-top").offsetHeight;
    var navHeight = document.getElementById("nav").offsetHeight +
document.getElementById("imis-progress").offsetHeight;
    document.getElementById("main").style.height = (window.innerHeight - titleHeight -
navHeight) + "px";
}

// Resize event listener
window.addEventListener('resize', function (event) {
    refreshLayoutHeight();
});
</script>
</body>
</html>

```

6.4.4.2 gallery.css

```

body {
    margin: 0;
    background: #fff;
    height: 100%;
    width: 100%;
    font-family: 'Roboto', sans-serif;
}

a {
    text-decoration: none;
    color: inherit;
}

.title {
    background: #fff;
    color: #FFC107;
    font-size: 20px;
    padding-top: 15px;
    font-weight: bold;
}

nav {
    margin: 0;
    position: relative;
    padding-bottom: 10px;
    padding-left: 25px;
    padding-right: 25px;
    background: #fff;
}

nav > div {
    display: inline-block;
    margin-right: 2px;
}

.main {
    position: relative;
    z-index: 1000;
}

#download-btn {
    margin-left: 25px;
}

```

7 USER DOCUMENTATION

The user documentation is intended to facilitate the understanding of the settings and individual features of the IMiS®/wScan application.

IMiS/wScan

SETTINGS

Samples `imis.scan.ui.js`

This samples demonstrate usage of `imis.scan.ui.js` library.

Modern

Modern sample is perfect answer for those application developers, who want to catch new trends in design. Document pages cover the main part of the UI. Page details are by default positioned on the right and can be closed down or set up any time. Thumbnails are placed at the bottom for a better overview in case of high volumes of scanned document pages.

Components used:

- `imis.scan.ui.Thumbnails`
- `imis.scan.ui.ImageView`
- `imis.scan.ui.ImageDetails`
- `imis.scan.ui.Status`
- `imis.scan.ui.Progress`
- `imis.scan.ui.Button`
- `imis.scan.ui.ProfilesButton`
- `imis.scan.ui.ColorDropdownButton`
- `imis.scan.ui.TargetColor`
- `imis.scan.ui.TargetFormat`
- `imis.scan.ui.TotalDocuments`
- `imis.scan.ui.TotalPages`

[VIEW](#) [VIEW SOURCE](#)



Classic

It is the most common used UI sample. Application developers typically use the Classic sample, when they want to preserve the traditional look of the UI. Thumbnails are positioned left and are allocated according to the size and space available. Document pages are scrollable and shown centrally. Page details are placed on the right and can be closed down or set up any time.

Components used:

- `imis.scan.ui.Thumbnails`
- `imis.scan.ui.ImageDetails`
- `imis.scan.ui.Status`
- `imis.scan.ui.Progress`
- `imis.scan.ui.Button`
- `imis.scan.ui.ProfilesButton`
- `imis.scan.ui.TargetColor`
- `imis.scan.ui.TargetFormat`
- `imis.scan.ui.TotalDocuments`
- `imis.scan.ui.TotalPages`
- `imis.scan.ui.CursorMode`

[VIEW](#) [VIEW SOURCE](#)



Classic (dark)

Dark classic sample goes with trend of latest document readers. Document pages are shown centrally. They are scrollable and not separated visually. Document separation can be viewed from page details. By default, page details are closed down. It can be set up any time and positioned on the right. Thumbnails are not available to the user.

Components used:

- `imis.scan.ui.ImageScroll`
- `imis.scan.ui.ImageDetails`
- `imis.scan.ui.Status`
- `imis.scan.ui.Progress`
- `imis.scan.ui.Button`
- `imis.scan.ui.ProfilesButton`
- `imis.scan.ui.TargetColor`
- `imis.scan.ui.TargetFormat`
- `imis.scan.ui.TotalDocuments`
- `imis.scan.ui.TotalPages`
- `imis.scan.ui.CursorMode`

[VIEW](#) [VIEW SOURCE](#)



Gallery

Gallery sample is used in case of high volumes of scanned document pages (batch). Thumbnails are bigger than in other samples and cover complete UI. Separated by certain number of pages are presented in rows. Document page with page details is available on double click. It can be easily closed down.

Components used:

- `imis.scan.ui.Thumbnails`
- `imis.scan.ui.Status`
- `imis.scan.ui.Progress`
- `imis.scan.ui.Button`
- `imis.scan.ui.ProfilesButton`
- `imis.scan.ui.TargetColor`
- `imis.scan.ui.TargetFormat`
- `imis.scan.ui.TotalDocuments`
- `imis.scan.ui.TotalPages`
- `imis.scan.ui.CursorMode`

[VIEW](#) [VIEW SOURCE](#)



Image 60: Homepage of the IMiS®/wScan application

For greater clarity, the documentation has been divided into the following chapters:

- Profile settings.
- Scanning features.
- Batch scanning features.

7.1 Profile settings

The profile settings enable the developer or user to create, display, modify, delete and lock a profile. By selecting the “Settings” button, the user is shown a dialog box displaying the settings.

The following settings are shown at the top:

- Profile name: name of the selected profile.
- New profile: creating a new profile.
For more information see chapter [Profile creation](#).
- Save: saving a profile.
- Lock: locking a profile and disabling profile modification.
- Delete: removing a profile.

If a green tag is shown next to the name “IMiS®/wScan SETTINGS”, the connection to the scanner driver and to the IMiS®/Capture Service is established and working.

The following settings are logically sorted in tabs:

- Source: the scanner and scanning mode.
- Target: the save mode and location.
- Separator*: document separation mode.

Note*: The batch scanning features are available only when the suitable license is activated.

The following information is shown at the bottom:

- type of feature (SCAN, BATCH SCAN)
- application version (e.g. 1.7.2110.10)

IMiS/wScan SETTINGS

Default settings | **NEW PROFILE**

Default settings | SAVE | LOCK | DELETE

Source | Target | Separator

Scanner: Demo Driver

Paper size: None

Resolution: 300

Color: Black & White (1-Bit White0)

Duplex: ☐

BATCH SCAN | SCAN | 1.7.2110.13

Image 61: Profile settings

7.1.1 Profile creation

The user creates a scanning profile by selecting the action "New profile".

A dialog box is shown for setting the profile parameters, which will be applied to the scanning of documents. Besides the profile name, which must be uniquely defined, the user also sets the remaining settings in the tabs. The user saves the new profile by selecting the "Save" button or cancels it with the "Cancel" button.

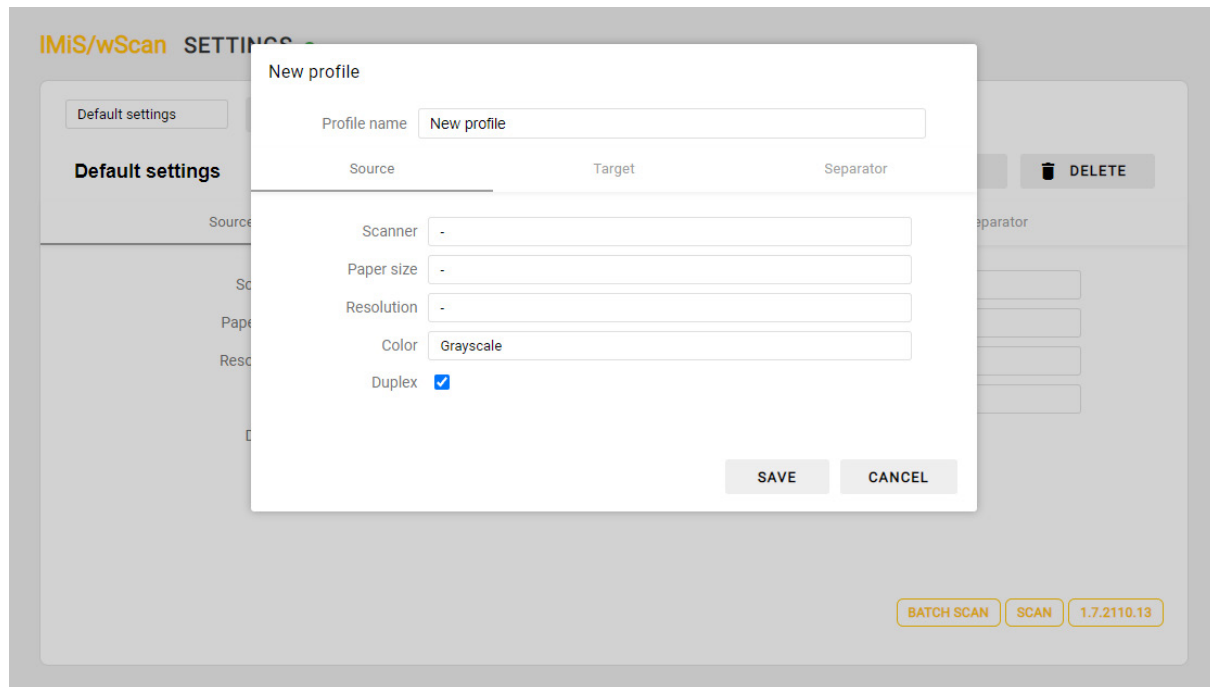


Image 62: Profile creation

7.1.2 Source

In the “Source” section the user specifies the scanner and scanning mode.

The following settings are available:

- **Scanner:** the source for capturing a document (scanner, a file in the file system).
- **Paper size:** the size and format of the scanned document.
- **Resolution:** scanner resolution (only resolutions supported by the selected scanner are shown).
- **Color:** color depth (black & white, grayscale, color).
- **Duplex:** scanning mode (simplex or duplex).

IMiS/wScan SETTINGS

Default settings | **NEW PROFILE**

Default settings | SAVE | LOCK | DELETE

Source | Target | Separator

Scanner: Demo Driver

Paper size: None

Resolution: 300

Color: Black & White (1-Bit White0)

Duplex: ☐

BATCH SCAN | SCAN | 1.7.2110.13

Image 63: Profile source settings

7.1.3 Target

In the “Target” section the user specifies the document save mode and location.

The following settings are available:

- Format: the document format (PDF, TIFF, PNG, BMP, JPEG ...).
- Color: color depth (black & white, grayscale, color).
- Compression: compression methods (CCITT G4, LZW, ZIP, JPEG, ...).
- File name: name of the saved document file.
- Folder: the folder in the file system to which documents are saved.

IMiS/wScan SETTINGS

Default settings | **NEW PROFILE**

SAVE LOCK DELETE

Source Target Separator

Format PDF

Color Auto

Compression -

File name Document

Folder C:\Windows\TEMP\

BATCH SCAN SCAN 1.7.2110.13

Image 64: Setting the profile target

7.1.4 Separator

In the "Separator" section the user specifies the document separation mode by selecting the separator type. This section is shown if the activated license includes the DOCSEP feature (see chapter [Product activation](#)).

The user can define the following values for each separator type:

Disabled

By selecting the value "Disabled", document separation is not executed.

Number of pages.

By selecting the value "Page count", the user defines:

- Page count: the number of scanned pages for each document.

Barcode

By selecting the value "Barcode", the user specifies the barcode types and the recognition mode.

The settings are shown if the activated license includes at least one BAR1DPIX feature which enables the recognition of 1D barcodes, or BAR2DPIX which enables the recognition of 2D barcodes. For more information see chapter [Product activation](#).

The user can specify the following settings:

- Barcode: barcode types for recognition:
 - 1D barcodes: Addon-2, Addon-5, Australian Post, BCD Matrix, Codabar, Code-25 Datalogic, Code-25 IATA, Code-25 Industrial, Code-25 Interleaved, Code-25 Invert, Code-25 Matrix, Code-32, Code-39, Code-93, EAN-13, EAN-8, Intelligent Mail, PostNet, Royal Post, Type-128, UCC-128, UPC-A, UPC-E
 - 2D barcodes: AZTEC, DataMatrix, PDF-417, QR Code.
- Orientation: direction of barcode recognition. Set of values:
 - Horizontal
 - Vertical
 - Horizontal-Vertical
 - Horizontal-Vertical Diagonal.
- Mode: barcode recognition mode. Set of values:
 - Normal
 - Enhanced.
- Value: the barcode value in the case of barcode-based separation. Set of values:
 - Empty value: the separator is any recognized barcode.
 - Non-empty value: "Regular expression" for searching for the barcode which represents the separator.
- Action: the action in the case of barcode-based document separation.
The available actions are:
 - Separate: the page with the recognized barcode begins a new document.
 - Separate and delete: the page with the recognized barcode is deleted and the next page begins a new document.

Blank page

- Blank page: blank page separation of documents.

IMiS/wScan SETTINGS

Default settings | **NEW PROFILE**

Default settings | SAVE | LOCK | DELETE

Source | Target | Separator

Type: Barcode

Barcode:

| | | | | | | |
|----------------|----------------------|-----------------------|------------------|------------------|-----------|---------------------|
| Addon 2 X | Addon 5 X | Australian Post X | AZTEC X | BCD Matrix X | Codabar X | Code-25 Datalogic X |
| Code-25 IATA X | Code-25 Industrial X | Code-25 Interleaved X | Code-25 Invert X | Code-25 Matrix X | | |
| Code-32 X | Code-39 X | Code-93 X | Data Matrix X | EAN-13 X | EAN-8 X | Intelligent Mail X |
| PDF-417 X | Postnet X | QR Code X | Royal Post X | Type-128 X | UCC-128 X | UPC-A X |
| | | | | | | UPC-E X |

Orientation: Horizontal

Mode: Normal

Value: Any barcode

Action: Separate

BATCH SCAN | SCAN | 1.7.2110.13

Image 65: Barcode separator settings

Note: If the user wants to separate documents based on a specific barcode value, they must use special characters, e.g. for a barcode value of 1234567890 the user has to enter ^1234567890\$ in the “Value” field.

The value for selecting the barcode is the “Regular expression”, which in this specific example means that it finds all barcodes containing the string 1234567890, i.e. also those with the string 123456789012.

7.2 Scanning features

The scanning features enable the developer or user to scan, display documents, display document data, and perform basic operations on the scanned documents.

To show the set of scanning features, we have chosen the “Classic sample” user interface which is made up of the following building blocks:

- a command bar showing document information;
- a view of document thumbnails;
- a view of document pages;
- a view of document data.

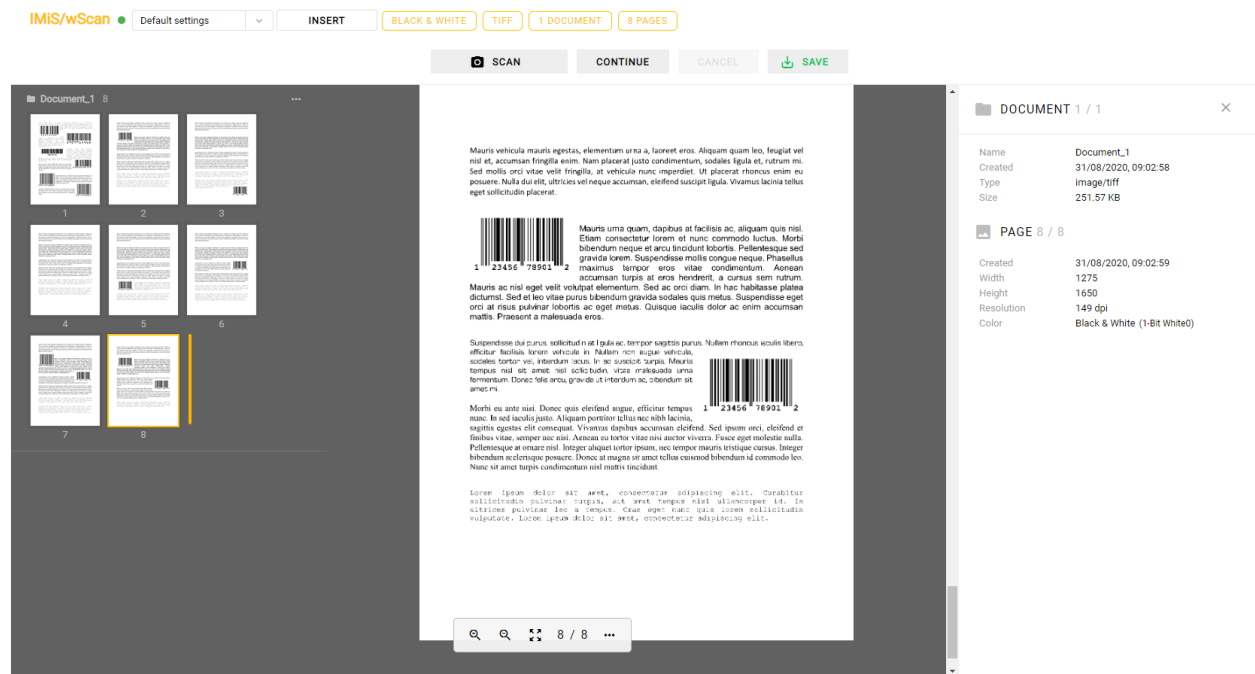


Image 66: User interface in the classic mode

Command bar

In the command bar the user is provided the following document information:

In the top command bar, the user can select the following settings and actions:

- Profile name: the name of the selected profile and the display of settings.
For more information see chapter [Profile settings](#).
- Insert: the mode of inserting document pages (adding, overwriting).
For more information see chapter [Adding document pages](#) and [Overwriting document pages](#).
- Scan: scanning of documents.
- Continue: continued scanning of documents.
- Cancel: canceling scanning during the scanning process.
- Save: saving scanned documents.

In the command bar the user is provided the following document information:

- color depth (black & white, grayscale, color).
- document format (PDF, TIFF, PNG, BMP, JPEG ...).
- number of documents.
- number of pages.



Image 67: A command bar with document information in the classic mode

Document thumbnails

In the left view of the user interface the user is shown the thumbnails of document pages.

This provides the user with a better review of the documents and faster navigation between document pages.



Image 68: Thumbnails of document pages in the classic mode

By right-clicking over the selected document, the user opens a popup menu and performs the following actions:

- Download: downloading the document to a computer or device. The default save format is defined by the value of the “Format” attribute in the “Target” tab.
- Delete: removal of the selected document.
- Properties: document data.

In the view, the documents are visibly separated from each other. The name and number of pages are shown for each document.

By right-clicking over the selected thumbnail of document, the user opens a popup menu and performs the following actions:

- Download: downloading the document pages to a computer or device. The default save format in .PNG.
- Insert before: inserting new document pages before the selected page.
For more information see chapter [Adding document pages](#).
- Insert after: inserting new document pages after the selected page.
For more information see chapter [Adding document pages](#).
- Overwrite before: overwriting new document pages before the selected page.
For more information see chapter [Overwriting document pages](#).
- Overwrite after: overwriting new document pages after the selected page.
For more information see chapter [Overwriting document pages](#).
- Rotate right: rotating the document page to the right.
- Rotate left: rotating the document page to the left.
- Delete: removal of the selected document pages.
- Properties: document pages data.

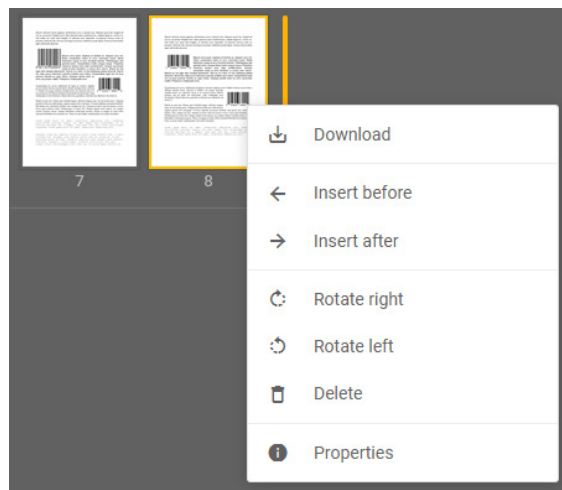


Image 69: Popup menu on the document page in the classic mode

Document pages

In the central view of the user interface the user is shown the document pages.

Besides displaying the sequence number of the displayed page and the total number of document pages, the user can also perform the following actions on the document page:

- Zooming in on the document page.
- Zooming out of the document page.
- Original document size.
- Crop: defining the margin of the document page and removing the white space.
- Reduction: hiding specific parts of the document page.

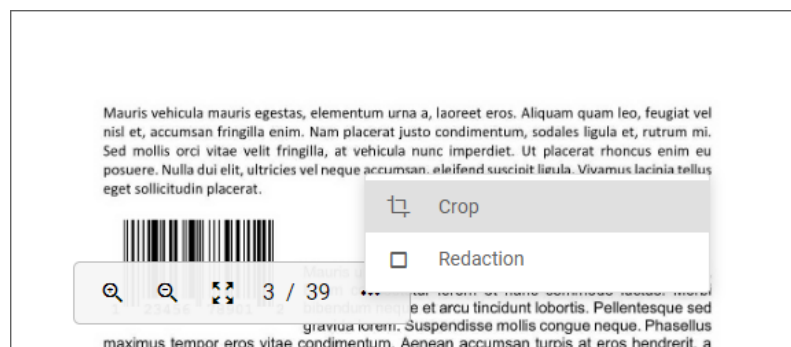


Image 70: Actions on the document page

Document data

In the right view of the user interface the user is shown the document data.

Besides displaying the name and sequence number of the document, the following document data is shown:

- Name: the name of the document.
- Created: the date and time of document creation.
- Type: the document type.
- Size: the document size (in KB / MB).

The following information is provided to the user for the selected document page:

- Created: the date and time of document page creation.
- Width: the width of the document page (in pixels).
- Height: the height of the document page (in pixels).
- Resolution: the resolution of the scanned document page (in dpi).
- Color: color depth (black & white, grayscale, color).

The user can remove the right view by selecting the action “Properties” in the popup menu on the document.

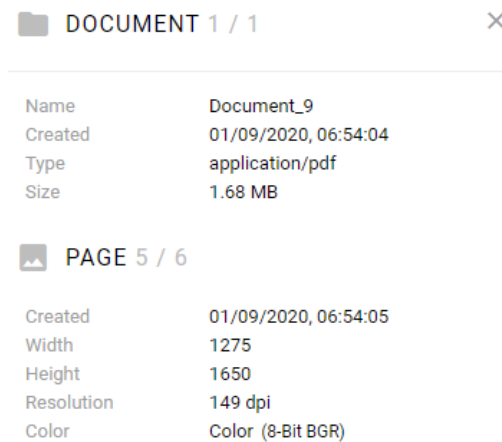


Image 71: Document data

7.2.1 Adding document pages

By selecting the action “Insert” in the command bar and the “Insert before” or “Insert after” action in the popup menu on the selected document page in the left view, the user can add the pages of a new document. By selecting the document page, the user specifies before which page of the existing document or after which page the pages of the new document will be added. After adding the pages, the pages of the existing document after the selected page will be moved down.

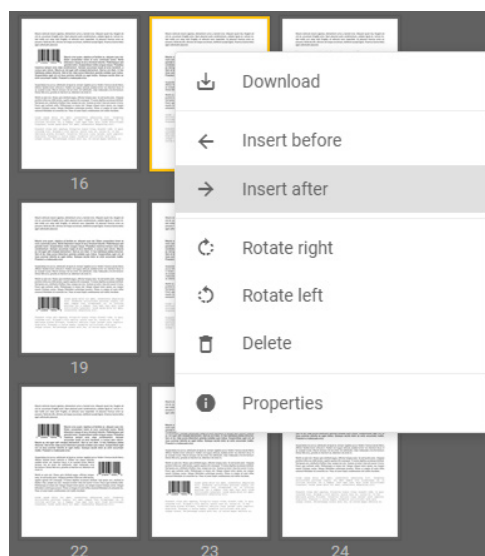


Image 72: Marking the document page before adding pages

7.2.2 Overwriting document pages

By selecting the action “Overwrite” in the command bar and the “Overwrite before” or “Overwrite after” action in the popup menu on the selected document page in the left view, the user can overwrite the pages of a existing document.

By selecting the document page, the user specifies before which page of the existing document or after which page the pages will be overwritten with the new document.

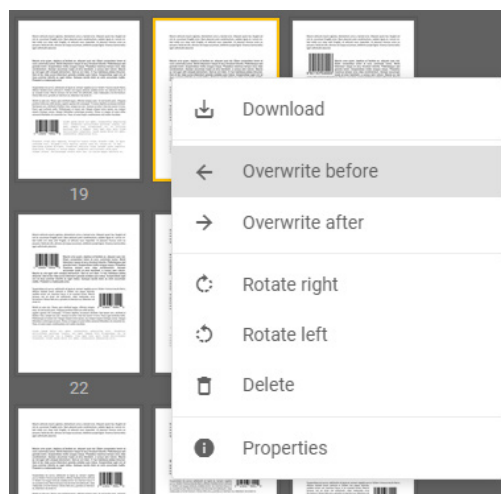


Image 73: Marking the document page before overwriting pages

7.2.3 Moving document page

By selecting an individual document page, the user can move the page to the desired location using the “Drag n' Drop” mode. By selecting and moving the page, the marker is moved too, which specifies between which pages of the existing document a new document page will be added.

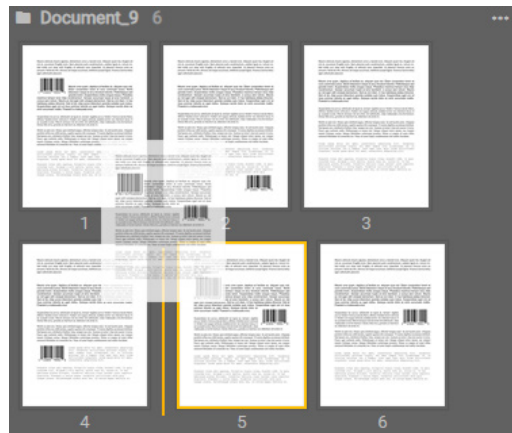


Image 74: Moving a document page

7.3 Batch scanning features

Important: Batch scanning features are available to the developer and to the user with the appropriate license key only.

When activating the license, the basic features of scanning, displaying documents, displaying document data and performing basic operations on the scanned documents will be expanded with additional batch scanning features which include:

- Separating documents by page count (requires the DOCSEP license feature).
- Separating documents using barcodes (requires the DOCSEP license feature and at least one feature of the BAR1DPIX or BAR2DPIX license).

For more information on activation and on the features of the license key see chapter [Product activation](#).

To display the batch scanning features, we have chosen the “Gallery sample” mode which is suitable for displaying larger quantities of scanned documents.

The following building blocks are available to the user:

- a command bar showing document information;
- a view of document thumbnails;
- a view of document pages;
- a view of document data.

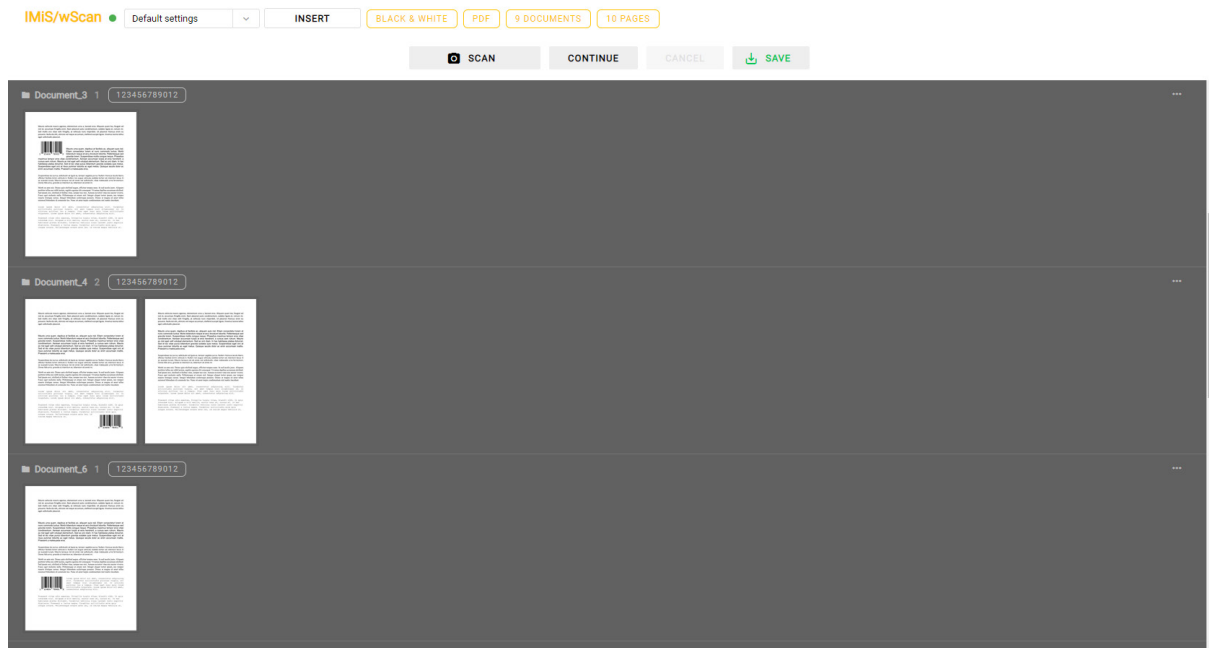


Image 75: User interface in the Gallery mode

Command bar

In the command bar the user is provided the following document information:

In the top command bar, the user can select the following settings and actions:

- Profile name: the name of the selected profile and the display of settings.
For more information see chapter [Profile settings](#).
- Insert: the mode of inserting document pages (adding, overwriting).
For more information see chapter [Adding document pages](#) and [Overwriting document pages](#).

- Scan: scanning of documents.
- Continue: continued scanning of documents.
- Cancel: canceling scanning during the scanning process.
- Save: saving scanned documents.

In the command bar the user is provided the following document information:

- color depth (black & white, grayscale, color)
- document format (PDF, TIFF, PNG, BMP, JPEG ...)
- number of documents
- number of pages.



Image 76: A command bar with document information in the Gallery mode

Document thumbnails

In the central view of the user interface the user is shown the thumbnails of document pages.

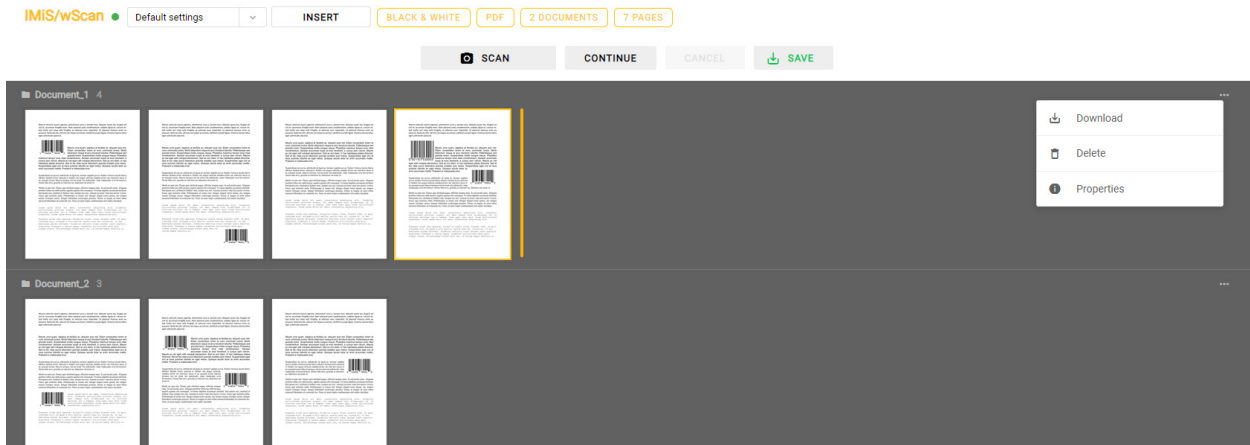


Image 77: Thumbnails of document pages in the Gallery mode

By right-clicking over the selected document, the user opens a popup menu and performs the following actions:

- Download: downloading the document to a computer or device. The default save format is defined by the value of the “Format” attribute in the “Target” tab.
- Delete: removal of the selected document.
- Properties: document data. By selecting the action, the user is shown a new window. For more information see section [Document pages](#) and [Document data](#).

In the view, the documents are visibly separated from each other. The name and number of pages are shown for each document.

By right-clicking over the selected thumbnail of document, the user opens a popup menu and performs the following actions:

- Download: downloading the document pages to a computer or device. The default save format is in .PNG.
- Insert before: inserting new document pages before the selected page. For more information see chapter [Adding document pages](#).
- Insert after: inserting new document pages after the selected page. For more information see chapter [Adding document pages](#).
- Overwrite before: overwriting new document pages before the selected page. For more information see chapter [Overwriting document pages](#).
- Overwrite after: overwriting new document pages after the selected page. For more information see chapter [Overwriting document pages](#).
- Rotate right: rotating the document page to the right.
- Rotate left: rotating the document page to the left.
- Delete: removal of the selected document pages.
- Properties: document pages data.
- Properties: document pages data. By selecting the action, the user is shown a new window. For more information see section [Document pages](#) and [Document data](#).

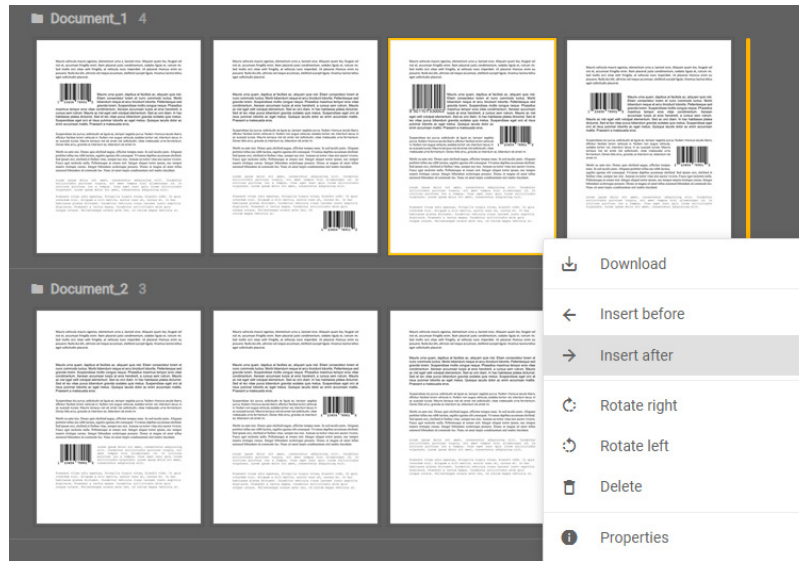


Image 78: Popup menu on the document page in the Gallery mode

Document pages and document data

By selecting the action “Properties”, the user is shown a dialog box displaying the document pages and document data. For more information see section [Document pages](#) and [Document data](#) in the chapter [Scanning features](#).

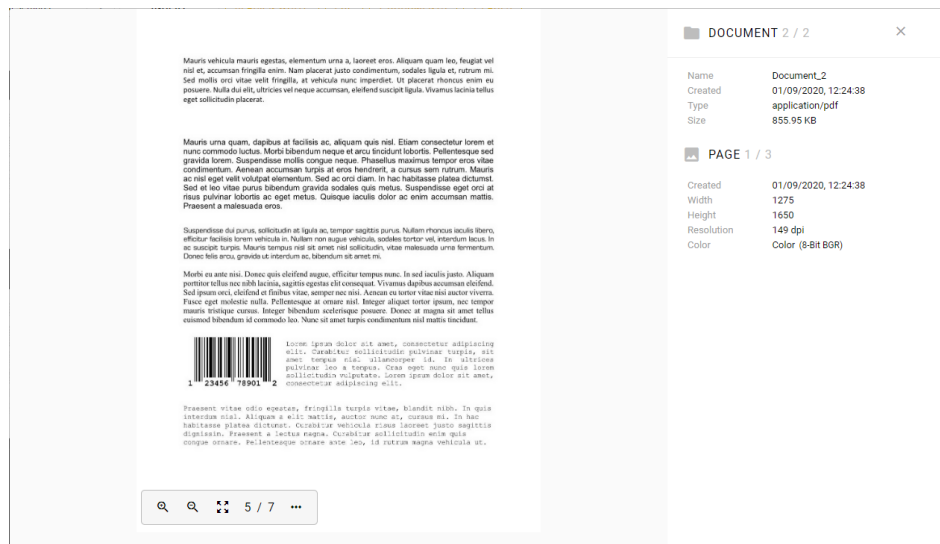


Image 79: View of document data

7.3.1 Separation by page count

Separating documents by page count requires a license with an activated DOCSEP feature (see chapter [Product activation](#)).

When scanning with the activated separation of documents by page count, the pages are added to the document up to (and inclusive) the number of pages specified in the “Page count” field in the separator settings (see chapter [Separator](#)). Afterwards, a new document is created and the process is repeated until it runs out of pages to scan.

For more information on obtaining a license key for expanding the set of features with batch scanning, send an email to info@imis.si.

7.3.2 Barcode-based separation

Separating documents based on the barcode requires a license with an activated DOCSEP feature and at least one BAR1DPIX or BAR2DPIX feature (see chapter [Product activation](#)).

When scanning with the activated barcode-based separation of documents, the pages are added to the document up to (and exclusive) the page containing the recognized barcode that represents the separator (see chapter [Separator](#)). The page containing the barcode that represents the separator is either included in the new document if the “Separate” action has been selected, or deleted if the “Separate and delete” action has been selected, and the scanning continues until the next recognized separator.

For more information on obtaining a license key for expanding the set of features with batch scanning, send an email to info@imis.si.

7.3.3 Blank page separation

Blank page separation of documents requires a license key with the activated DOCSEP feature. For more information see chapter [Product activation](#).

When scanning with the blank page separation of documents activated, the pages are added to the document up to (and exclusive) the blank page that represents the separator (see chapter [Separator](#)).

The blank page is not included in the new document. The scanning continues until the next recognized separator, i.e., blank page. Blank pages at the beginning of the scan are discarded.

For more information on obtaining a license key for expanding the set of features with batch scanning, send an email to info@imis.si.

8 TROUBLESHOOTING

8.1 Problems using IMiS®/wScan

Below, issues frequently encountered when using IMiS®/wScan application are described and instructions for resolving them are given.

8.1.1 Error “Forbidden”

Cause of problem

The web application has not forwarded the correct security key via the “imis.scan.js” library to the IMiS®/Capture Service.

Solution for problem

The user with administrator authorization must verify that the security key is the same both in the IMiS®/Capture Service and the web application. If a new security key was entered or created in the IMiS®/Capture Service, a user with administrator authorization must restart the service. After the restart, the browser’s web page for displaying scanned documents must be refreshed.

8.1.2 Error “Error in establishing connection”

Cause of problem

The web application accesses the IMiS®/Capture Service via a domain that is not allowed in the IMiS®/Capture Service.

Solution for problem

A user with administrator authorization must enter the allowed domains from which the web application can access the IMiS®/Capture Service. After entering them in the IMiS®/Capture Service, the service must be restarted. After the restart, the browser’s web page for displaying scanned documents must be refreshed.

8.1.3 Error “Socket connection error”

Cause of problem

The web service IMiS®/Capture Service has not been started or the client does not have access rights for the address at which IMiS®/Capture Service is located.

Solution for problem

The administrator has to restart IMiS®/Capture Service. After restarting the service refresh the web page in the browser to show the scanned documents.

8.1.4 Error “Error in establishing connection” or “Socket connection error”

Cause of problem

MS Edge is a UWP application that runs in isolation from the local computer and which does not have access to the localhost if called from another domain.

Solution for problem

The solution is running the command in the command bar as a user with administrator authorization:

CheckNetIsolation LoopbackExempt -a -n=Microsoft.Windows.Spartan_cw5n1h2txyewy

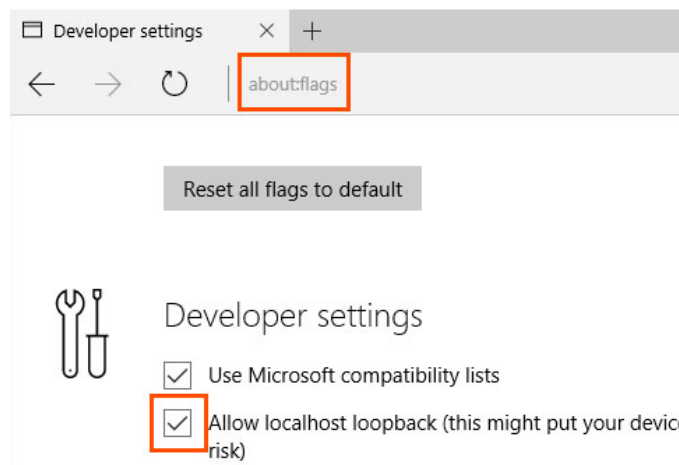


Image 80: Shows the entry in the MS Edge title bar

If executing the above command still does not enable access, the user with administrator authorization can run the following command:

```
CheckNetIsolation LoopbackExempt -a -p=S-1-15-2-3624051433-2125758914-1423191267-1740899205-1073925389-3782572162-737981194
```

Detailed information on the problem and how to resolve it is available at these links:

<https://blogs.msdn.microsoft.com/msgulfccommunity/2015/07/01/how-to-debug-localhost-on-microsoft-edge/>

<http://solidlystated.com/software/edge-windows-10-cant-reach-localhost-sites/>

8.1.5 Error “No scanner is connected”

Cause of problem

When starting IMiS®/Capture Service, the service could not locate or load a driver for the connected scanner.

Solution for problem

The administrator has to check whether the scanner is turned on and connected to the computer. Next, check if the IMiS®/Scan application is running. If it is running, you have to stop it and restart IMiS®/Capture Service. For more information see chapter [Startup and closing](#).

8.1.6 Error “Scanner: '{scanner name}' cannot be loaded”.

Cause of problem

Prior to starting the scan IMiS®/Capture Service was unable to load a driver for the selected scanner.

Solution for problem

The administrator has to check whether the scanner is turned on and connected to the computer. Next, check if the IMiS®/Scan application is running. If it is running, you have to stop it and try scanning in the IMiS®/wScan application. If scanning is still not working, you have to restart IMiS®/Capture Service. For more information see chapter [Startup and closing](#).

8.1.7 Scanning cannot be continued after successful scanning

Cause of problem

During scanning the data connection between the scanner and computer was terminated.

Solution for problem

The administrator has to turn the scanner off and disconnect it from the workstation. Then turn the scanner back on and connect it to the workstation. Start the scanning procedure again in the IMiS®/wScan application. If scanning is still not working, open the Task Manager program. Find the process named "fjictwsw.exe" among all the processes and end it by clicking on the button "End process".

8.1.8 During scanning empty pages are not being removed

Cause of problem

In the profile settings the scanner settings for removing empty pages have not been configured.

Solution for problem

After configuring the profile in the IMiS®/wScan application, the administrator starts the IMiS®/wScan administration module and follows the procedures described in chapter [Additional settings](#).

8.1.9 Error "Your browser does not support Javascript ES6. Update browser."

Cause of problem

The "imis.scan.js" library does not work if the browser does not support the ECMAScript6 JavaScript standard.

Solution for problem

The existing browser has to be updated to the latest version.

Warning: The latest version of the Internet Explorer browser does not support this standard.

8.1.10 Error “Your browser does not support WebSockets. Update browser.”

Cause of problem

The “imis.scan.js” library does not work if the browser does not support WebSocket technology.

Solution for problem

The existing browser has to be updated to the latest version.

Warning: The latest version of the Internet Explorer browser does not support this standard.