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Bosch Access Importer/Exporter Installation and User Guide

Abstract   This document describes the installation and operation of the Bosch Access Importer/Exporter tool for cardholder data.

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1   Overview

The **Bosch Access Importer/Exporter**, hereafter referred to by the abbreviation IMPEX, is a standalone software tool to facilitate the bulk import and export of cardholder data to and from the cardholder database of the Bosch Access Management system.

- The **import** process adds, deletes or modifies cardholder data.
- The **export** process writes specific cardholder data from the database to a CSV file. An export template file specifies which data are exported, and how they are formatted.

IMPEX handles LDAP data and data from customizable CSV files.

IMPEX is installed on a computer with a network connection to the cardholder database of the access control system. You can operate IMPEX via a secure HTTPS web client from any authenticated computers and browsers on the same network.

1.1 Terminology

AMS/Access Management system: the Bosch access control system to which the cardholder database belongs

Login server: the computer where the access control system (e.g. AMS or BIS-ACE) is installed

Database server: the computer where the cardholder database is installed, typically but not necessarily the Login server.

IMPEX server: the computer where IMPEX is installed

IMPEX client: a computer where IMPEX is operated via a secure web connection

LDAP: (Lightweight Directory Access Protocol) an open protocol for sharing and maintaining user data.

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CSV: (Comma-separated values) a file extension denoting a text file which contains tabular data. The data records are separated by new lines, and the attribute fields are separated by a designated character, typically a comma or semicolon.

Cardholder: a personnel record that is managed by the access control system, irrespective of whether their credentials are cards, key fobs, PINs or biometric.

2 Updating the application

Note: If you have reinstalled over an older version without following the steps in this section, then you may find that no HTTPS certificate was created and secure connection no longer works. To remedy this, follow the steps described in section There is no Certificate file on IMPEX server.

2.1 Prerequisite software

- **IMPEX** is installed on the IMPEX server. If not, proceed to section 3 Installation

2.2 Preliminary steps

1. Log on to the IMPEX web UI application.
2. Make sure there are no Scheduler Templates in Active state.

Scheduler Template List

+ New

Type	Template Name	Data Type	Last Started	Last Completed	Next Start	Active	Action
All		All				All	
Export	IDs_of_ent	CSV	21.10.2019 11:36	21.10.2019 11:40	-	-	⊘ ✎ 🗑
Export	auths	CSV	21.10.2019 11:34	21.10.2019 11:38	-	-	⊘ ✎ 🗑
Export	cards	CSV	21.10.2019 11:33	21.10.2019 11:37	-	-	⊘ ✎ 🗑
Import	ldapss	LDAP	21.10.2019 11:33	21.10.2019 11:37	-	-	⊘ ✎ 🗑
Import	ldap8	LDAP	21.10.2019 11:34	21.10.2019 11:38	-	-	⊘ ✎ 🗑
Import	companiesAll	CSV	21.10.2019 11:32	21.10.2019 11:36	-	-	⬆ ⊘ ✎ 🗑
Import	personsAll	CSV	21.10.2019 11:35	21.10.2019 11:39	-	-	⬆ ⊘ ✎ 🗑
Import	delete_personsAll	CSV	21.10.2019 11:31	21.10.2019 11:36	-	-	⬆ ⊘ ✎ 🗑
Import	CompPersCardsAuth	CSV	30.09.2019 18:36	30.09.2019 18:36	-	-	⬆ ⊘ ✎ 🗑

3. Make sure there are no import/export tasks in 'Pending' or in 'In Progress' state.

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2.3 Updating IMPEX to a newer version

1. Go to **Control Panel** > **All Control Panel Items > Programs and Features**
2. Choose '**AMS ImportExport**' in the list and check the version of the product
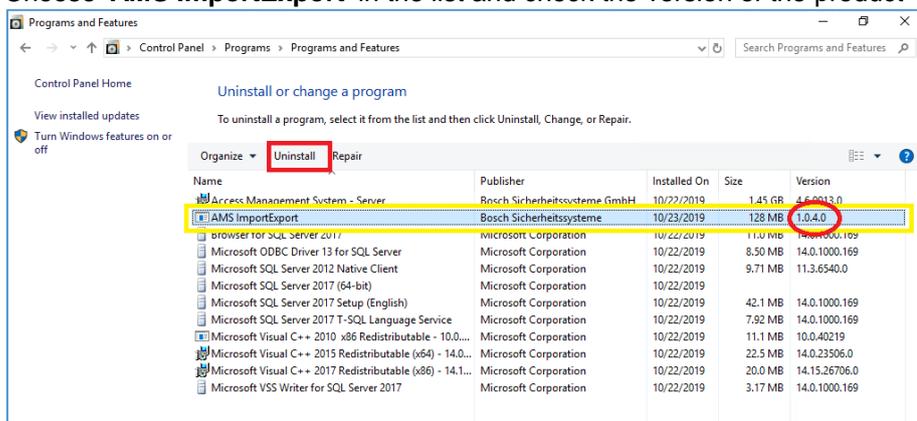
3. If **Version**=1.0.4.0 then click **Uninstall**, otherwise proceed with step 5
-   Uninstall starts
4. Wait until uninstall finishes
-    Uninstall finished
5. If **Version** is not 1.0.4.0, proceed to the Installation section.

2.4 Post-update steps

After updating from 1.0.4.0 version to 1.0.5.0 or higher, follow the instructions in this section to update the credentials in every LDAP Import Template, and verify that IMPEX uses the correct template in the **Preferences** pop-up.

2.4.1 Credentials update

1. Go to the **Import** Tab
2. Find all Import Templates of type LDAP
3. Open each template in turn and enter the credentials for the LDAP server
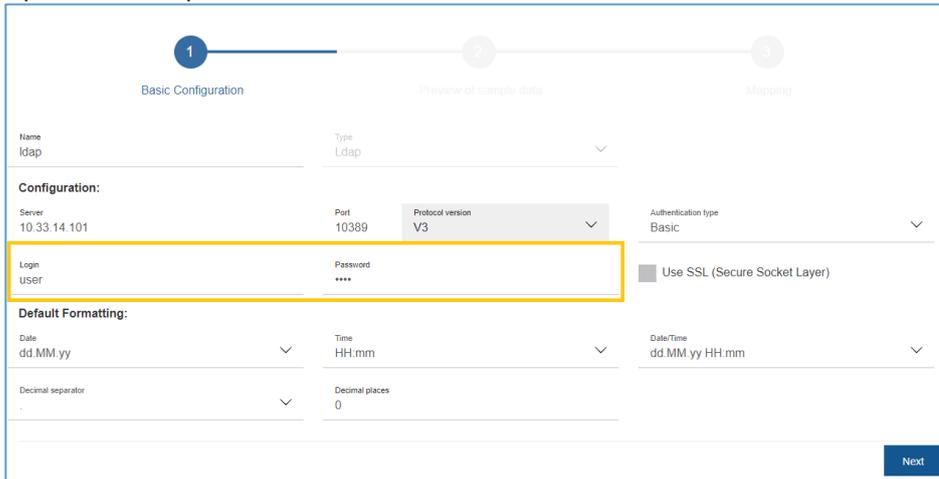
4. Save the templates
5. Go to the **Agent** tab and click the cog icon to access **Preferences**
6. Make sure that the correct **Agent credentials** are entered to perform import and export tasks
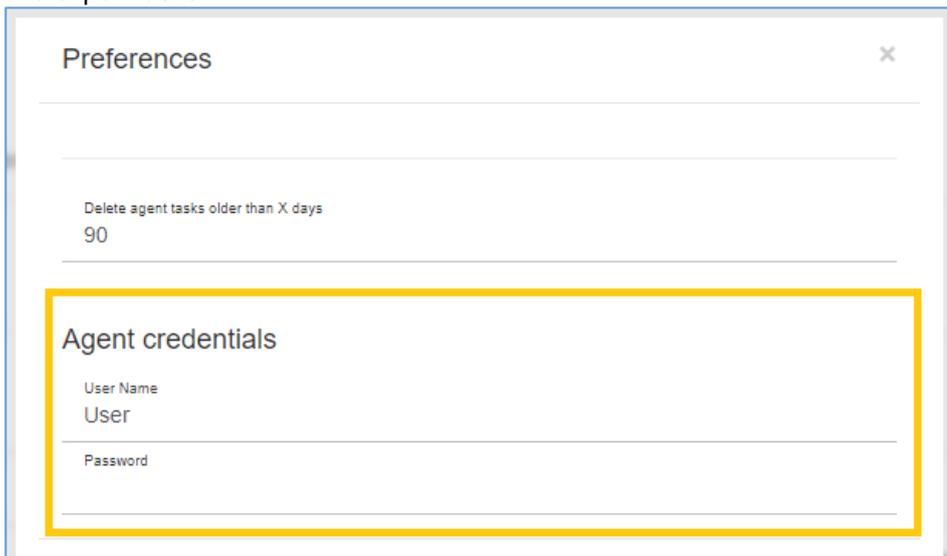
2.4.2 Updating the certificates

After installing a new version a new IMPEX certificate is created. Copy it to the client working stations as described in the section Importing the HTTPS certificate for IMPEX clients and browsers

3   Installation

3.1 Prerequisite software

- **SQL Server 2014 Express edition** or higher on the IMPEX server
- **.NET Framework 3.5** on the IMPEX server

3.2 Preliminary steps

1. Log on to the IMPEX server.
2. Copy the installation package to the IMPEX server.

3.3 Installing IMPEX on the IMPEX server

1. In the installation package, double-click
   `ImportExportInstaller_x.x.x.x.msi`, where each `x` represents any
   digit in the version number, and select **Run as administrator**.
   – The installation preparation wizard opens. Follow the installation
   preparation wizard.
2. Read and accept the terms in License Agreement and click **Next>**
3. Enter the SQL Database Server configuration data:
   - **SQL Server**: The host name of the access control system's database
     server. If the host name is grayed out then only the local SQL Server is
     available.
   - **SQL instance**: The SQL instance name. The default instance name is
     `ACE`
   - **SQL user name**: The name of the SQL user that will be used to access
     the database. This user must have administrative rights. The default SQL
     user name is `sa`
   - **SQL password**: The database password for the chosen **SQL user
     name**
4. Click **Next>**
5. Enter the Administrator password and confirm if prompted.
6. If a dialog window appears listing **Files in Use**
   1. Choose **Close the application and attempt to restart them**
   2. Click **OK**
7. Click **OK** if warned that setup was unable to automatically close all requested
   applications.
8. Observe the installation progress bar.
   - You will be notified if the installation program needs to enable IIS.
9. Click **Finish**

   If you began this installation by uninstalling version 1.0.4.0, proceed with
   Post-update steps

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3.4 Importing the HTTPS certificate for IMPEX clients and browsers

The installation program creates a self-signed certificate and installs it on the IMPEX server. It is not necessary to import the certificate to the IMPEX server, unless you are using Firefox. If you are using Firefox, proceed to 3.4.2 Importing an HTTPS certificate to the Firefox browser.

To run IMPEX via HTTPS from a computer other than the IMPEX server (i.e. from an IMPEX client) copy a certificate from the server to the IMPEX client and install it there, as described below:

3.4.1 Installing the HTTPS certificate on an IMPEX client

1. On the IMPEX server find the certificate
   a. AMS:
      `C:\Program Files (x86)\Bosch Sicherheitssysteme\ ImportExportACEWS\ACEImportExport CA.cer`
   b. BIS:
      `Start->Manage Computer Certificates-> trusted root certification authorities->Certificates, right click on BisSelfSignedCERF, All tasks->Export`
   And copy it to the intended IMPEX client computer.
3. From an account with access to administrator rights on the IMPEX client, double-click the certificate.
   − A certificate dialog box appears.
4. Click **Install Certificate...**
   − The **Certificate Import Wizard** opens.
5. Select **Local Machine** (recommended) and click **Next**
6. Select **Place all certificates in the following store** to specify a location for the certificate (recommended).
7. Click **Browse...**
   − A dialog box opens to browse the certificate store.
8. Select `Trusted Root Certification Authorities` (recommended) and click **OK**.
   − You return to the **Certificate Import Wizard**.
9. Click **Next**
10. Click **Finish** to import the certificate.

3.4.2 Importing an HTTPS certificate to the Firefox browser

Skip this section if you are not using the Firefox browser.

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In principle, you can use any browser on the IMPEX client: Chrome reads the certificate from the operating system, but Firefox and others may require you to import the certificate separately into the browser. Use the following procedure for Firefox.

On the IMPEX server locate the certificate
- **AMS**:
  ```
  C:\Program Files (x86)\Bosch Sicherheitssysteme\
  ImportExportACEWS\ACEImportExport CA.cer
  ```
- **BIS**:
  ```
  Start-> Manage Computer Certificates-> trusted root
  certification authorities->Certificates, right click on
  BisSelfSignedCERF, All tasks->Export
  ```

If you are going to use Firefox on the server, treat the server as a client in performing the following steps:

1. Copy the certificate to the intended IMPEX client computer.
2. On the client or server machine start Firefox and type `about:preferences` in the address bar
   – An options page opens.
3. In the **Find in Options** field, type `certificate`
   – The View Certificates button appears on the page.
4. Click the **View Certificates** button.
   – The **Certificate Manager** dialog opens with several tabs
5. Select the **Authorities** tab.
6. Click **Import…**
   – A dialog box to select the certificate opens.
7. Locate and select the certificate, then click **Open**.
   – The **Downloading Certificate** dialog opens.
8. Select **Trust this CA to identify websites** and click **OK**.
   – The Downloading Certificate dialog closes
9. In the **Certificate Manager** dialog, click **OK**.
   – The certificate import process is finished.

4 Logon and authentication

In order to browse and manipulate the cardholder database, IMPEX must log on with an operator name that has sufficient rights. In particular:
- **User profile**: UP-Administrator
- **API usage**: unlimited

If such an operator is already defined in the access control system, you may skip the next section.

If no such user exists, or if you wish to operate IMPEX only through a dedicated operator name, follow the next section to create the operator and assign those rights.

4.1 Creating and enabling an IMPEX user

If no such user exists, or if you wish to operate IMPEX only through a dedicated user, create the operator in the access control system and assign those rights.

- Dialog path (AMS): Main menu > **Configuration** > **Operators and workstations** > **User rights**
- Dialog path (BIS): Configuration Manager > **Administration** > **Operators** > tabs: **ACE operator settings** and **ACE API Access rights**

After creating the operator, save the configuration and reboot the login server of the access control system.

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BIS Configuration Browser
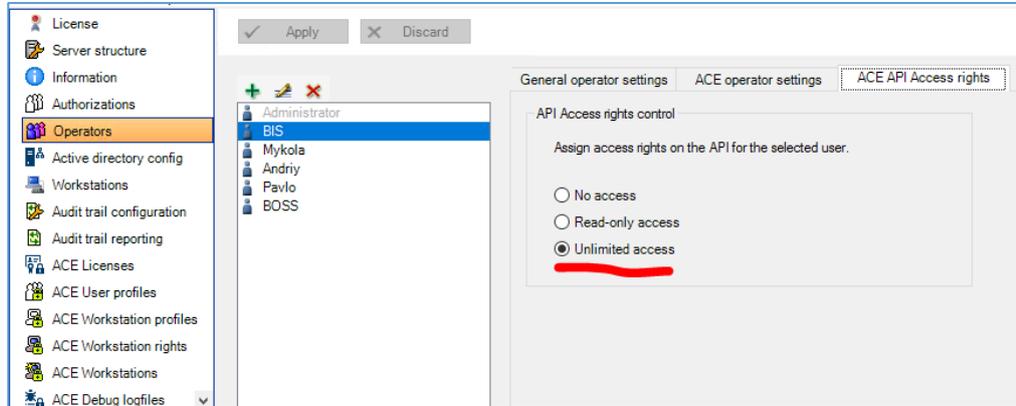
4.2 Logging on to IMPEX

1. Double-click the IMPEX shortcut on the desktop or
   Open any browser with the address
   `https://<IMPEX_server>/ImpEx` where `<IMPEX_server>` is the computer where IMPEX is installed.

   If you are using Internet Explorer JavaScript must be enabled. If it is not, then make the following two settings:
   1. Click Start menu > **Internet Options** > **Security** > **Local intranet**, and set security level to `medium` or lower.
   2. Click Start menu > **Internet Options** > **Security** > **Internet**, and set security level to `medium-high` or lower.

2. Enter the following information in the Login window:
   - **ACE Authority**: (hostname or IP of the login server)
   - **User Name**: The name of an operator with unlimited API usage, as described above
   - **Password**: The password of that operator.

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5   Templates for import and export

Templates are named files, created by the IMPEX user, that contain mappings between the fields of the cardholder database and the fields of the CSV file.
IMPEX can retrieve, add, modify and delete only those fields that are specified in a template.

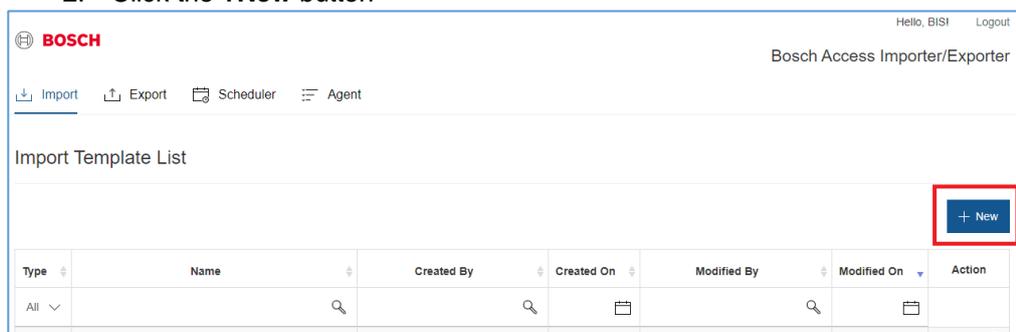After logon the first screen shown in IMPEX is **Import Template List**.
If the list is empty, create an import template as described in the next subsection.

5.1   Creating an import template for a CSV data source

1.   Select **Import**
     -   The **Import Template List** dialog appears
2.   Click the **+New** button

4.   In the pop-up select Csv as **Source Type** and click the **Add** button
     -   The **Create Import Template** dialog is displayed.
5.   Enter or select values for the following fields. **(*)** means the field is mandatory:
     -   **(*) Name**: A unique name for the template
     -   **(*) Upload sample file**:
     -   **Separator**: the character that is used to demarcate data fields
     -   **Column names in first data row**: If the check box is selected, the first row in the table is interpreted as column names.
     -   **Enable automapping**: make this option active and if input file contains headers in format *EntityName.PropertyName.* then IMPEX will try to map columns automatically.
     -    Default **Date**, **Time** and **Date/time formats**
     -   **Decimal separator**: the period or the comma character, used to separate units from tenths.
     -   **Decimal places**: the number of decimal places to be imported.
     -   **Import Photo mode**: Defines the mode on how IMPEX will handle Image property, see Import of images
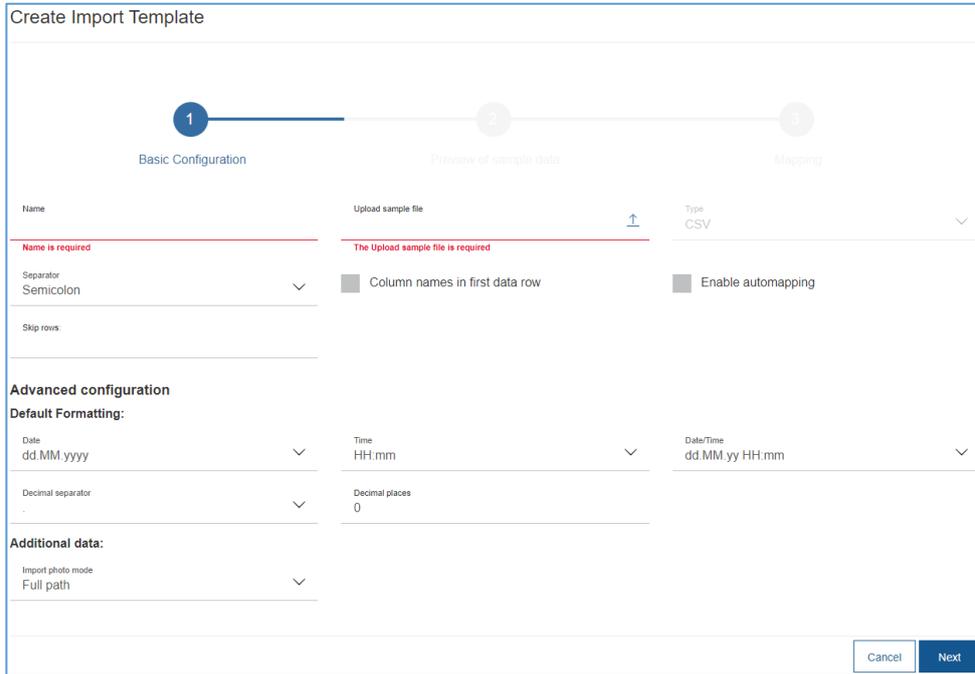
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6. Click **Next**
    - The second page of the **Create Import Template** wizard appears, with a preview of the sample data.
    - If you selected **Column names in first data row** on page 1, then the first row of input file will be displayed as a header row in bold font.
    - The preview contains the first 10 rows plus the header from sample input file chosen on page 1.
    - The data is divided into columns according to the separator character that you chose on page 1.

7. Click **Next**

- Page 3 of the Import Template wizard appears, containing a mappings table:
- In the mappings table, every row maps a column in the input file with an object in the database, and allows you to define metadata for that object, such as its datatype, uniqueness and formatting.
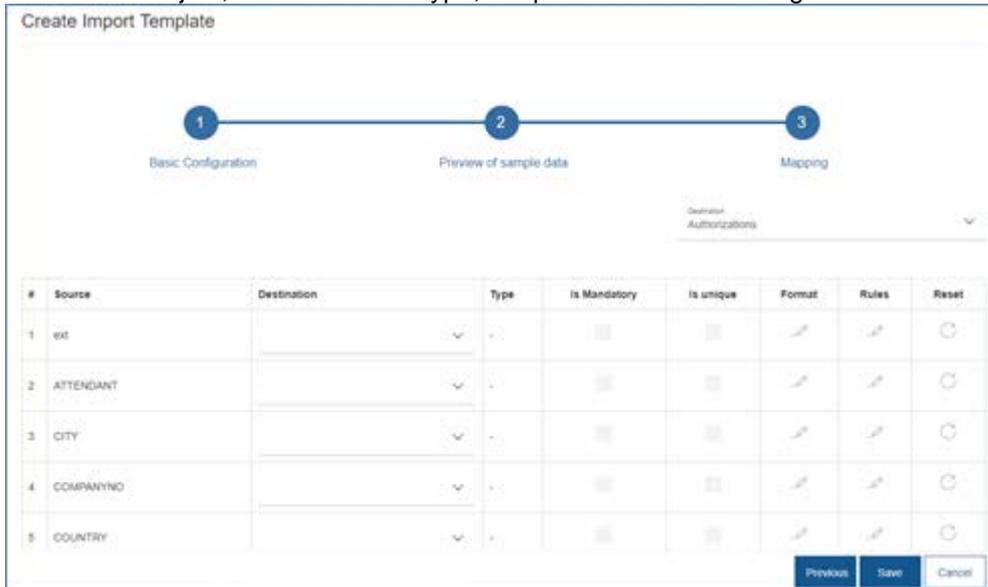
8. Select a type of database entity from the **Destination** drop-down list above the table.
   IMPEX can import and export the following types of entity.
   - Persons (Cardholders)
   - Visitors
   - Companies
   - Authorizations
   - Cards
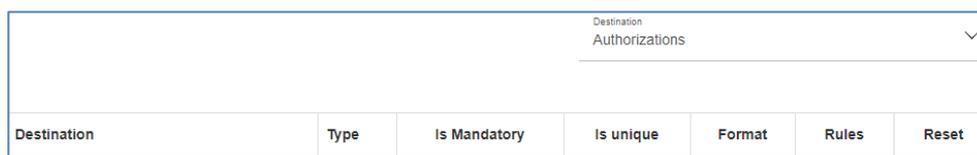
9. Enter the following metadata for each row:

Destination (first column in table, not the Destination from the previous step)	(Select from list) The field in the database record into which the value will be written
Type	(Select from list)The data type of the destination field

Is mandatory	(Check box) Select if the database record would be invalid without a value in this field.
Is unique	(Check box) Select if the value in this field is unique to the database record. See the following subsections for details.
Datetime format	(Select from list) The datetime format of the destination field, e.g. dd/MM/yyyy HH:MM See the following subsections for details.
Rules	(Click the edit icon to start a selection dialog) One or more text transformations that will be applied to the value before it is written to the database. See the following subsections for details.
The **Reset** button at the end of each row instantly deletes all the metadata for that row.	

10. When the mappings are complete, click **Save** to save the import template.
    - The Import Template List is displayed, including a new row for the template you have just created.

5.1.1 Unique identifier option mechanism

If you select one of the following in the **Destination** drop-down list:
- `Persons(w. attached authorizations, cards, companies)`
- `Visitors(w. attached authorizations, cards, companies)`

and the import file contains property fields for more than one entity type (`Persons`, `Visitors`, `Companies`, `Authorizations`, or `Cards`) then each entity type requires at least one of its fields to be unique.
Since version 1.0.5.0 only `Persons`/`Visitors` require unique keys to be defined. For `Cards`, `Companies` and `Authorizations` unique keys are set automatically.

The import process then groups the rows in the CSV import file by this unique field value. That is, all lines in the import file that have the same value in the unique field will be treated as belonging to the same database entry.
If multiple lines in the import file refer to the same field in a unique entity, then the last line "wins", that is, its field value will supersede that of the earlier lines.

There are three methods for defining a field as unique:

A) If an entity type, such as `Companies` or `Cards`, has a naturally unique field, such as an ID number, in the database, then select the **Is unique** check box in the mapping. An example is `Companies.COMPANYNO`

B) If an entity type, such as `Persons`, does not have a naturally unique field in the database, then you can define a dummy field called, for example `ext` in the import template, and give it a **Destination** of `ExternalID,` for example `Persons.ExternalID.`
The import process will then treat all the `Person` lines in the import file that have the same value in the column `ext` as belonging to the same `Person`. In this case do **not** select the **Is unique** check box.

C) Use `Persons.PERSID` for Persons or `Visitors.VISID`. The internal database identifiers of the entities. Please note that only update is available with this option, and if the input value is empty import will fail with an error.

IMPORTANT: Do not mix the methods A, B and C within the same entity type.

5.1.2 Import of images

To do import of the Person's or Visitor's photos a column which contains a path to image file or image file name should be mapped to special property 'Image'
There are 3 options available to import images (drop-down on 1st step of Import Template):
1. Full path – input file should contain value with full path to the image file located on the IMPEX server
2. Relative path – input file should contain value with image file name with extension. User should provide a path to folder with images located on the IMPEX server
3. From Zip file – input file should contain value with image file name with extension. User should upload a ZIP archive with images on immediate or scheduled import.

Note: Image files should not be bigger than 500Mb.

5.1.3 Setting a datetime format for a mapping
1. Click the Edit icon in the **Rules And Formatting** column
2. Select a datetime format from the list

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5.1.4 Adding Rules to a mapping

Rules are text transformations that the import process applies to a value from the import file before entering it in the access control database. This is to ensure that the database does not become corrupted by invalid data.

To add a rule for a specific mapping:

1. Click on 'Edit' icon in 'Rules and Formatting' column

Column	Column name in source	Destination	Is Mandatory	Is Unique	Rules And Formatting	Combine	Remove
1	Persons.ExternalId	Persons.ExternalId ∨	☐	☐	✎	⤢	🗑
2	Persons.FIRSTNAME	Persons.FIRSTNAME ∨	☐	■	✎	⤢	🗑

-    The **Rule List** pop-up is displayed.

Rule List	✕

+ New

Order	Name	Description	Action
		No matching records found	

Cancel   Save

2. Click **+New** to see the list of available rules

Rule List ✕

Choose rule to add:

- ◉ Trim   ○ Decimal to hexadecimal conversion   ○ Hexadecimal to decimal conversion
- ○ Fill   ○ Predefined text substitution   ○ Extract characters
- ○ Character constraints   ○ Case sensitivity

Cancel   Add

3. Select a single rule and click **Add** to add it to the list of rules in the **Rule List** dialog.
4. If the rule requires parameters, specify them in the fields provided.
    For instance, for the **Case sensitivity** rule select one of:
    ```
    1. All upper case
    2. All lower case
    3. Capitalize first word in line
    4. Capitalize each word in line
    ```

5. If more text transformations are required on the same field, click **Add** and repeat the previous step. The rules will be applied in the order in which they appear in the **Rule List** dialog. Order can be changed via drag and drop option.

Rule List			✕
			+ New
Order	**Name**	**Description**	**Action**
1	Trim		✖
2	Case sensitivity	Type: All lower case	✖
		Cancel	**Save**

6. Click **Save** in the **Rule List** dialog to save the list of rules.

5.1.5 Column Split

On import file preview (2nd page) you can define whether the column in the file should be split before inserting the data into the access control database. To configure a split do the following:

1. On the 2nd page, click the diverging arrows icon ⤢ in the header of the file preview table
A configuration pop-up appears
2. Specify a separator character and the number of the columns in which to split
3. Click **Save**
The Preview reflects the Split configuration

After you configure a column split, additional rows, representing database fields as column numbers, will be available on the 3rd page: **Mappings**

5.1.6 Column Combine

On **Mappings** (3rd page) you can define whether specified column data should be merged before they are inserted into the access control database. To configure such a combination do the following:

1. On 3rd page, click the converging arrows icon ⤡ in the **Combine** column
A configuration pop-up appears
2. Specify a connector character with which to join data values
3. Click '**Add column**' to add additional row and select a column to be combined with
4. Click '**Save'** button to save combine settings

After you configure a column combination, the selected values from input file will be joined with the specified connector character before they are inserted into the access control database.

5.2 Creating an export template for CSV data

1. Click the '**Export**' tab to see the Export Template List
2. Click the '**New**' button to choose export destination:

Select Export Template Destination ✕

Destination Type
Csv ⌄

Add   Cancel
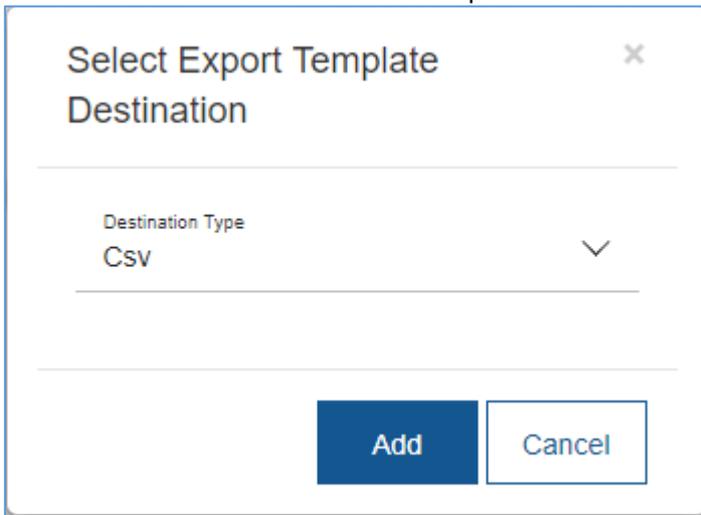
3. Click the '**Add**' button to start the creation of an export template.
4. Enter a name for the template.
5. (Optional) Reset the **Separator** character (default is the semicolon) and the options under **Default Formatting**, including the decimal separator and presence of headers in the output CSV file.

Create Export Template

①————————————— ②
Basic Configuration   Mapping

Name
Name is required

Separator
Semicolon ⌄

Type
Csv ⌄

☐ Headers row presence

Default Formatting:

Date
dd.MM.yy ⌄

Time
HH:mm ⌄

Date/Time
dd.MM.yy HH:mm ⌄

Decimal separator
. ⌄

Decimal places
0
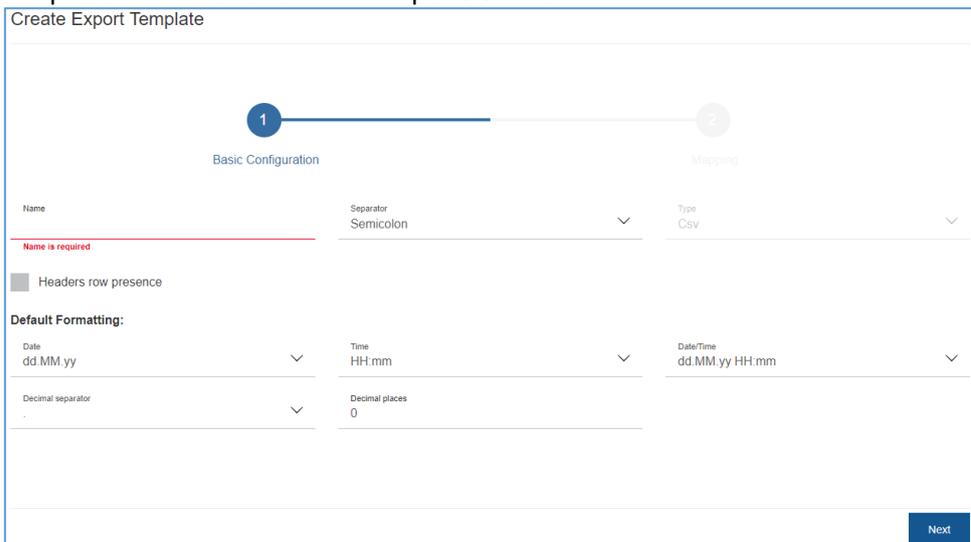
Next

6. Click '**Next'** to see page 2 of **Create Export Template** wizard
   By default there are initially no mapping lines in the template.

7. Select a Source from the **Source** list. Your choice will determine the database fields that will be offered in the **Column name in source** column in the mapping lines. Currently IMPEX can export the following entities:

- Persons (Cardholders)
- Visitors
- Companies
- Authorizations
- Cards

8. Click the '**+ Add Mapping**' button to add a new mapping line.
   A new mapping line is added.
   Drag-and-drop any lines to change their order in the table, if required.
   a. Similar as for Import configuration Combine is available for Export.

9. After all the required mappings have been added click 'Next' button to see export preview with actual data taken from ACE.
   a. Split configuration is available to be configured in a same way as on Import Column Split
10. Click the '**Save**' button to save the template and finish Export Template Creation.
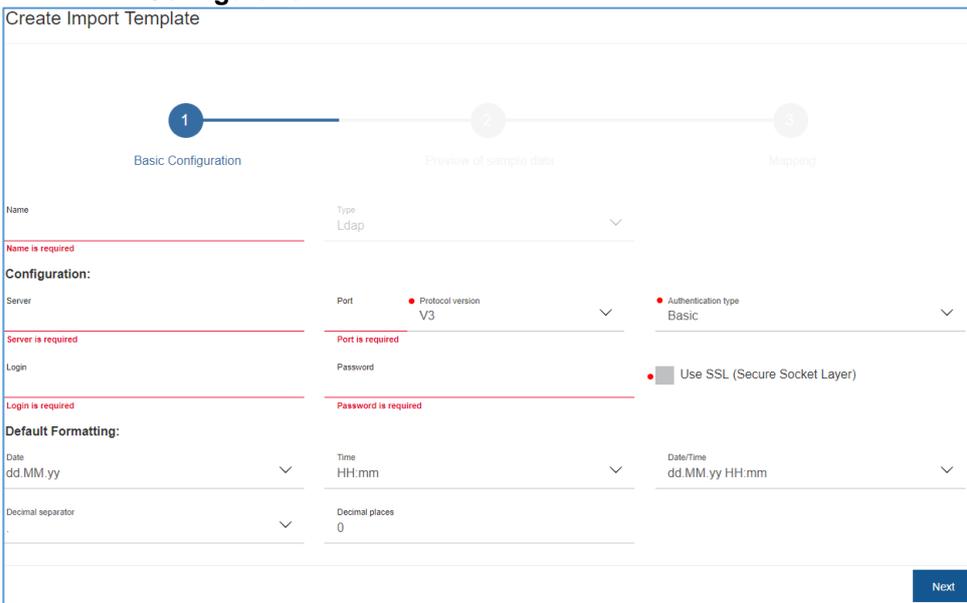   Note: It is not possible to save the template if it contains no complete mappings.

5.3 Creating an import template for LDAP data

1. Select **Import**
   - The **Import Template List** dialog appears
2. Click the **+New** button
   - **The Select Import Template source** popup appears
3. Select **LDAP** from the list and click **Add**
   - The **Create Import Template** dialog appears, Page 1 **Basic Configuration**

Create Import Template

1 Basic Configuration	**2** Preview of sample data	**3** Mapping

Name

Type
Ldap

Name is required

Configuration:

Server

Port

Protocol version
V3

Authentication type
Basic

Server is required

Port is required

Login

Password

☐ Use SSL (Secure Socket Layer)

Login is required

Password is required

Default Formatting:

Date
dd.MM.yy

Time
HH:mm

Date/Time
dd.MM.yy HH:mm

Decimal separator
.

Decimal places
0

Next

4. Enter or select values for the following fields:
   - **Name**: A unique name for the template

   Configuration
   Server: The name of the LDAP server computer
   - **Port**: Take the default offered
   - **Protocol version**: Take the default offered
   - **Authentication type**: Select **Basic**
   - **Login**: The username on the LDAP server with enough privileges to export user data.
   - **Password**: The password for this LDAP username.
   - **Use SSL (Secure Socket Layer)**: Select this check box

   Default formatting:
   - Default **Date**, **Time** and **Date/time** formats
   - **Decimal separator**: the period or the comma character, used to separate units from tenths.
   - **Decimal places**: the number of decimal places to be imported.
5. Click **Next**
   - Page 2 **Preview of sample data appears**.
6. Enter search parameters to query a LDAP directory if data should be filtered before import.

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- **Search Base:** The base DN (Distinguished Name) of the search, e.g. *ou=users,ou=system*
- **Filter:** Enter a valid LDAP search filter, e.g. by default it is *(objectClass=inetOrgPerson)*

7. Click **Next**
   - Page 3 of the **Import Template** wizard appears, containing a mappings table
8. Select one of 2 modes for the LDAP import template, as described in detail below.
   - **Delete if not in LDAP**
   - **Delete by attribute value**

Delete if not in LDAP	Select all persons/visitors in the database that are no longer found in LDAP, but which had been previously imported from LDAP.
	
	The deletion process is then as follows:
	1. Select all cards of an employee or visitor.
	   a. Delete the cards of the employee.
	   b. Remove the assignments of the cards from the visitor.
	2. Select all authorizations of the employee or visitor and remove them.
	3. Delete the employee or visitor record itself.

Delete by attribute value	Deletes persons if the specified attribute and its value are found in the record that is being imported. Note: If all data was deleted from LDAP server deletion from ACE system will not be performed. The task will be finished with 'Failed' state and an error message, for example: 'LDAP server '`<IP address of LDAP server>:<Port number>`' returned 0 entries'

6 Creating a Schedule for import and export

The scheduler is a tool for executing imports and exports automatically at set times.

1. Click the '**Scheduler**' tab to see a list of schedules already created.
2. Click the pen icon to edit an existing schedule, or the '**+New**' button to create a new schedule.
   The '**Create Scheduler Template**' dialog opens.

3. On the top of the form chose '**Type**' `Import` or `Export`
   Depending on your selection, the '**Template name**' list will contain import or export templates.
4. Pick the desired template from the **Template name** list.
   a. In Case of import, specify quantity of rows to be skipped on every execution.

Note: If Import Template was created with 'Column names in first data row'

enabled, then imports will always skip the 1st row.

5. Clear the '**Active**' check box until you have finished making your settings. This will prevent exports from execution until the schedule is ready.
   There are two kinds of schedule,
   a. Interval based
   b. Calendar based
6. Select **Every** and specify the number of minutes or hours for the interval or
   Select a time in `HH:MM` format use the calendar controls to define on which days or dates of the month the scheduler should activate.

   > *Note: If a chosen date, for instance day 31, does not occur in the month, then the scheduler activates on the last day in the month.*

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7. Click the '**Save**' button to finish creating the schedule.
8. Select the **Active** check box to activate the schedule.
   The import or export template selected under **Template name** will be executed at the defined interval, or at the defined time.
   > *Note*: *It is not possible to create more than one schedule for same template.*

7 Editing templates and schedules

To edit a template, locate the template in a list and click the 'Edit' (pen) icon in the 'Action'.

Import Template List						
						+ New
Type	Name	Created By	Created On	Modified By	Modified On	Action
All ∨			📅		📅	
Csv	d	Pavlo	15.04.2019	Pavlo	15.04.2019	↓ 🖊 🗑

7.1 Editing import templates for CSV data sources

The editing process of a template is almost identical to its creation except for the following points:

- '**Separator**' and '**Column names in first data row**' are disabled until a new sample file is selected.
- After a new sample file is selected, the 'Separator' and 'Column names in first data row' become editable. The previous sample file may be used, or a version with additional columns. Additional columns will cause additional empty mapping lines to appear on page 3 of the wizard. Any other changes will cause a reset of all mappings.
- Resets of mappings are accompanied by a popup warning.
- If **Destination** has changed, all previous mappings will be removed from page 3.
  - o Removed mappings are highlighted in red
  - o Added mappings are highlighted in green.
  - o Modified mappings are highlighted in orange

7.2 Editing export templates for CSV data sources

The editing process of a template is almost identical to its creation except for the following points:

- Resets of mappings are accompanied by a popup warning.
- If **Source** is changed, all mappings are removed on page 2.
- In addition:
  - o Added mappings are highlighted in green.
  - o Modified mappings are highlighted in orange.
  - o Deleted mappings are highlighted in red.

7.3 Editing import templates for LDAP data sources

The editing process of the template is almost identical to its creation except for the following points on page 3:
- All mappings will be removed if '**Destination'** is changed. The user receives an appropriate warning beforehand.
  - o   Added mappings are highlighted in green.
  - o   Modified mappings are highlighted in orange.
  - o   Deleted mappings are highlighted in red.

7.4 Editing export templates for LDAP data sources

The editing process of the template is almost identical to its creation except for the following points on page 2:
- All mappings will be removed if '**Source'** is changed. The user receives an appropriate warning beforehand.
  - o   Added mappings are highlighted in green.
  - o   Modified mappings are highlighted in orange.

7.5 Editing schedules

1. Click the **Scheduler** tab to display a list of schedules.
2. At the end of the row of the desired schedule, click the Edit (pen) icon.
3. Clear the **Active** check box, to prevent the schedule from being executed in the meantime.
4. Make the desired changes
5. Click the **Save** button to finish editing.
6. Select the **Active** check box to allow the execution of the schedule.

8   Deleting templates and schedules

Notes:
- If the template that you wish to delete is included in a schedule, then you must delete the schedule first, regardless of whether the schedule is active.
- You cannot delete a schedule if any of its tasks are **in progress** or **Pending**. Wait for the tasks to finish before deleting the schedule.

To delete an import template, an export template or a schedule:
1. Locate the template or schedule in the list on the first page of the respective tab (**Import**, **Export** or **Scheduler**).
2. Click the '**Delete**' (trash can) icon in the '**Action**' column.
3. Confirm or cancel the deletion in the popup warning message.

Import Template List

+ New

Type	Name	Created By	Created On	Modified By	Modified On	Action
All ∨			🗓		🗓	
Csv	d	Pavlo	15.04.2019	Pavlo	15.04.2019	⬇ ✎ 🗑

9 Execution of import/export tasks: The Agent

9.1 Execution of the import process

If a line in an input file refers to an entity that already exists in the access control database, then the import will update it. Otherwise the import will create a new database record.

Before every create/update operation, entities in the access control database are searched by the following fields:

- **Authorizations** will be checked by SHORTNAME property.
- **Companies** – by COMPANYNO.
- **Cards** – by CARDNO and Customercode (CODEDATA).
  Persons and Visitors – by unique identifiers provided by operator (see section 5.1.1 Unique identifier option mechanism)

Note: If Input file contains empty value for text type of properties such a property will be cleared on update import. This is actual only for text type of properties. Dates, Numbers and Boolean will not be cleared.

9.2 To execute an import or an export immediately

1. Locate the template in the list on the first page of the respective tab (**Import** or **Export**).
2. Click the '**Import**' or **Export** icon in the '**Action**' column.
3. Specify quantity of rows to be skipped on the execution

Note: If Import Template was created with 'Column names in first data row' enabled, than 1st row will be skipped during every import execution.

4. Confirm or cancel the execution in the popup message.
   a. The **Agent Task List** is displayed.
   b. The new import or export appears at the top of the list, with dates and times for **Created**, **Started** and **Completed**, and a **State** (one of Pending, In Progress, Succeeded, Failed).

Agent Task List

	Type	Template Name	Data Type	Executed By	Created On	Started On	Completed On	State	Action
	All ∨		All ∨		📅	📅	📅	All ∨	
−	Import	ldap_persons	Ldap	Scheduler	15.04.2019 17:10	15.04.2019 17:10	15.04.2019 17:10	Succeeded	

Operation has completed: 8 entities imported successfully, 0 entities failed to import, 0 entities deleted successfully, 0 entities failed to delete.

9.3 To evaluate an import or export in the Agent Task List

Records in the **Agent task list** are color-coded green, yellow or red, depending on whether they succeeded, partially succeeded or failed.

To evaluate an import or export task:
1. Click the **Agent** tab to display the **Agent Task List**
2. Locate the desired import or export in the list
   - Click the **+** icon in the first column to see details of how many records were processed successfully.
   - Click the **Download** (down arrow) icon in the **Action** column to view a CSV export file.
   - Click the logfile (LOG) icon to view the logfile.

The Agent tasks are backed up to the server. Use the Preferences tool on the **Agent** tab to delete tasks automatically that are older than a set number of days. See section 9.5 Using Agent Preferences.

9.4 Execution of scheduled import and exports

After a schedule has been created and set active it will be executed at the intervals defined.

From the **Scheduler Template List** there are 2 ways to execute imports from CSV (LDAP and exports will be executed automatically).
   A. Manually select the input file from the scheduler template list
   B. Use an external program to copy a new version of the input file to a special import folder before each scheduled import.

Method A.
1. Locate the scheduled import in the **Schedule Template List**
2. Click the Upload icon in the **Action** column
3. Specify quantity of rows to be skipped on the execution

Note: If Import Template was created with 'Column names in first data row' enabled, than 1st row will be skipped during every import execution.

4. Use the file selector to select the desired input file.
    The input file that you select will be imported **once only**, at the date and time indicated in the **Next Start** column.

Scheduler Template List

							+ New
Type	Template Name	Data Type	Last Started	Last Completed	Next Start	Active	Action
Import ⌄		All ⌄	🗓	🗓	🗓	All ⌄	
Import	companiesAll	Csv	15.04.2019 17:35	15.04.2019 17:35	15.04.2019 17:50	Yes	↥ ⊘ ✎ 🗑

Method B.

1. Copy the intended input file to the following folder on the IMPEX server:
    `C:\inetpub\wwwroot\ImportExportWebApp\Content\files\import\`

Note: Folder path can be changed in [Agent Preferences](#).

2. Ensure that the filename matches the name in the **Template Name** column. For instance, if the Template Name is `companiesAll`, then the input file must be named `companiesAll.csv`
3. The input file will be imported at the date and time indicated by the **Next Start** column, and then **repeatedly**, after the interval specified by the schedule.
    Use a shell script or other external program to ensure that the input file is overwritten by a new version with the same name, in time for the next scheduled import. Otherwise the same data will be imported with every schedule cycle.

9.5 Using Agent Preferences

Preferences are settings that schedule the deletion of completed Agent tasks from the list, and store the credentials used for executing the tasks in the access control system.

1. Select the **Agent** tab
2. Click the '**Preferences**' (cog wheel) icon in the upper right of the Agent window.

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3. Set the following options in the '**Preferences**' pop-up window:
   - **Delete agent tasks older than X days**
     This option defines the maximum age of the task in the list. Older tasks will be deleted automatically from the server, along with their input and log files.
   - **Agent credentials**
     This option defines the operator account that will be used to execute import/export tasks. By default first operator logged-on will be used.

Note: Only operators with unlimited API access can execute import tasks.

   - **Custom import/export directories**
     Enables two additional inputs where it is possible to specify folders where on IMPEX Server should be stored result and log files of import/export tasks. In case of import, same folder will be searched for files to be imported by Scheduler. Only full paths can be used.
     Before enabling the option, it is required to define folders on IMPEX Server and give IMPEX sufficient access rights to read/write data from the folders:
     Right click on the folder -> Properties -> Security -> Edit -> Add
     Add `ImportExportUser` (a special user created by the installation).
     Allow **Full control** permissions as shown below:
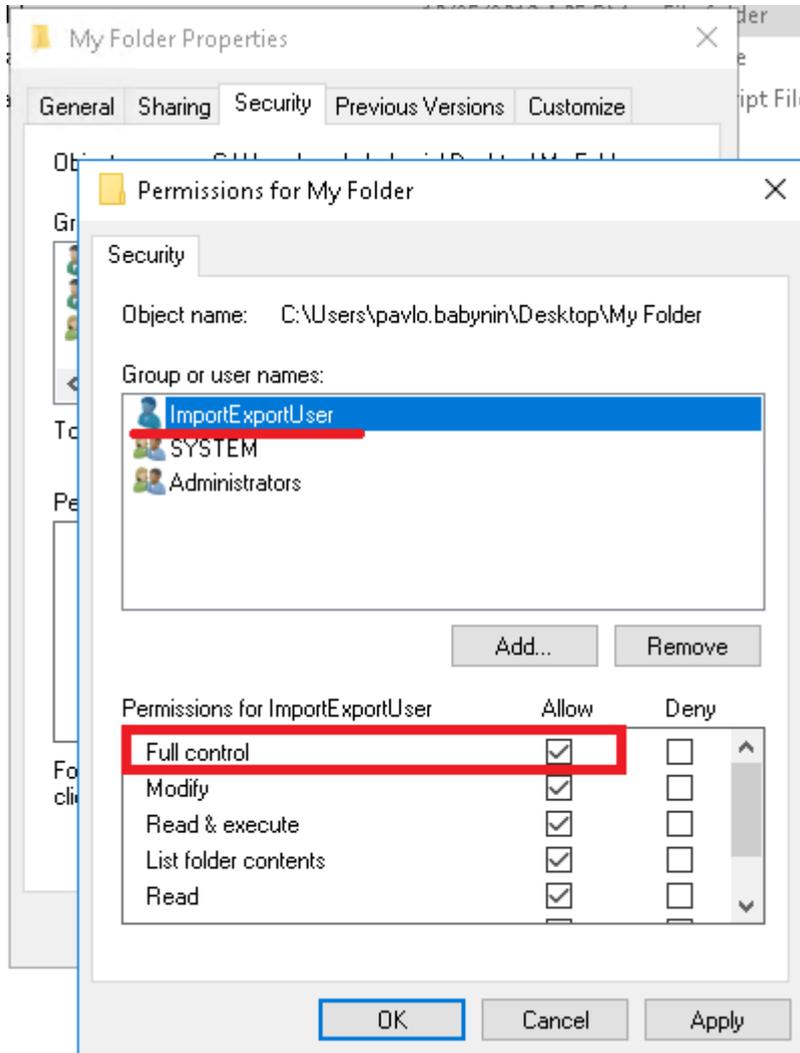
- **Enable server logs (disabled by default)**
  Enables server logs to be written and stored on IMPEX server:
  IMPEX service logs - `C:\Program Files (x86)\Bosch Sicherheitssysteme\ImportExportACEWS\logs`
  IMPEX website logs -
  `C:\inetpub\wwwroot\ImportExportWebApp\logs`

- **Enable user logs (disabled by default)**
  Enables user logs (available for downloading from UI Agent tab under each import/export task in Action column) to be written and stored on IMPEX server in the folder
  `C:\inetpub\wwwroot\ImportExportWebApp\Content\files\` by default or folder specified in **Custom import/export directories**

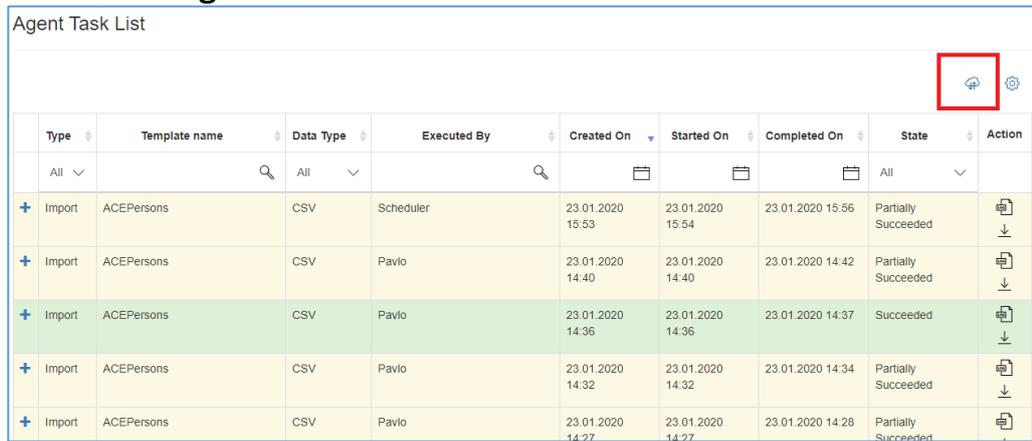| From	Our Reference	Tel	Grasbrunn
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9.6 Using Agent Backup/Restore

IMPEX configuration (Import Templates, Export Templates, Scheduler Templates and Preferences) can be backed up and restored via a dedicated menu on the **Agent** tab.
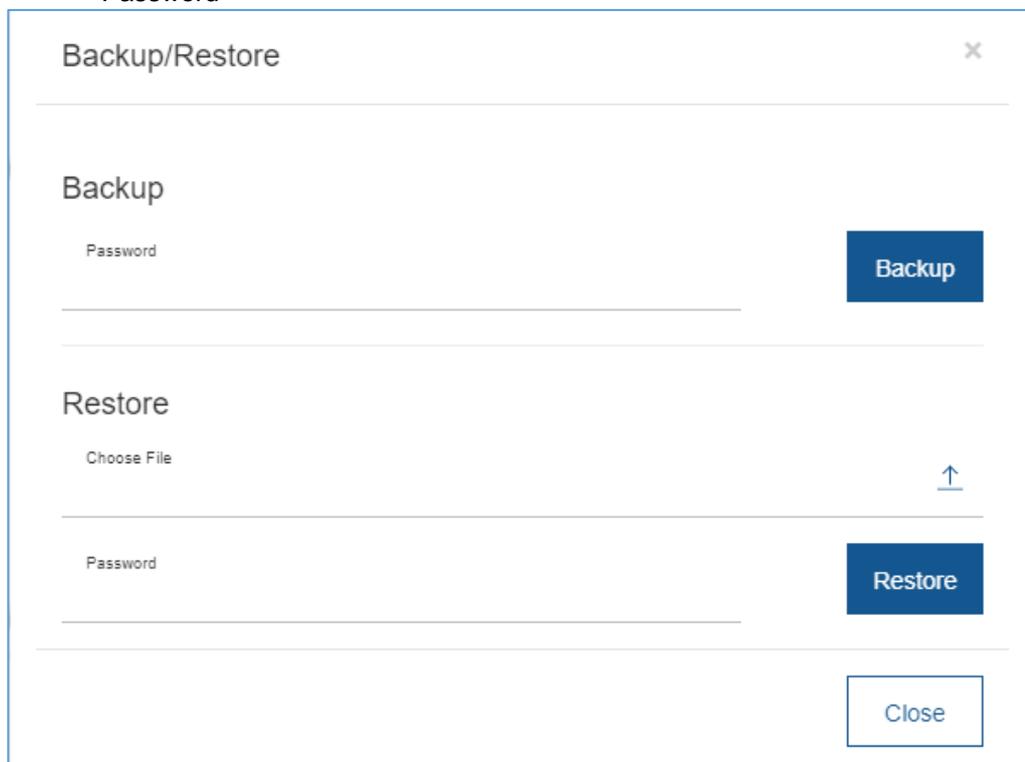

Click the 'Backup/Restore' (cloud) icon. A pop-up appears with options:
   Backup
   -    Password
   Restore
   -    Choose file
   -    Password

Backup

This option provides ability to enter a password for the BAK file which will contain the IMPEX configuration. Then click the '**Backup'** button to initiate the backup process. After the process is finished the BAK file can be downloaded and saved.

Restore

This option allows you to select the BAK file created with **Backup** option. After providing the password specified on the **Backup** option, and clicking on '**Restore'** button, the current configuration will be replaced with the configuration from the BAK file.

10 Examples

10.1 CSV import example

Using the example file **import_input_exampl.csv**, the following Import Template settings are defined for an import:

import_input_exam
ple.csv

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Page 3:
Destination = `Persons(w. attached authorizations, cards, companies)`

The format of the **Date** column is overridden to match the input:

Add Format

dd/MM/yyyy HH:mm   ⌄

Cancel   **Save**

After the import
- Task finishes with a success message.

Agent Task List

⚙

	Type	Template Name	Data Type	Executed By	Created On	Started On	Completed On	State	Action
	All ⌄		All ⌄		📅	📅	📅	All ⌄	
−	Import	import_input_exampl	Csv	Pavlo	10.06.2019 14:30	10.06.2019 14:30	10.06.2019 14:30	Succeeded	⬇

Operation has completed: 8 entities imported successfully, 0 entities are failed, 0 rows skipped.

- the Access control database contains the following entries:

COMPANYNO	NAME	CITY	PERSNO	LASTNAME	FIRSTNAME	DATEOFBIRTH	CARDNO	CODEDATA	COLLECT	SHORTNAME	NAME
Lagoda	Lagoda Inc.	Berlin	p12378951	Arnoldssons	Arnold	19980814	000000124593	0x068F4D820001E6B1	2018-01-05 19:55:00.000	Authz-1	Authorization number one
Sisters	Sisters & Co	Helsinki	p78915610	Jamesson	James	19801201	000000457812	0x0045B6D50006FC54	2019-01-10 09:15:00.000	Authz-All	Authorization for administrators

10.2 Export Examples

10.2.1   CSV Export example

The following Export Template's settings defined for an export:

Page 1:

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Page 2:

The following database entries are available for the export:

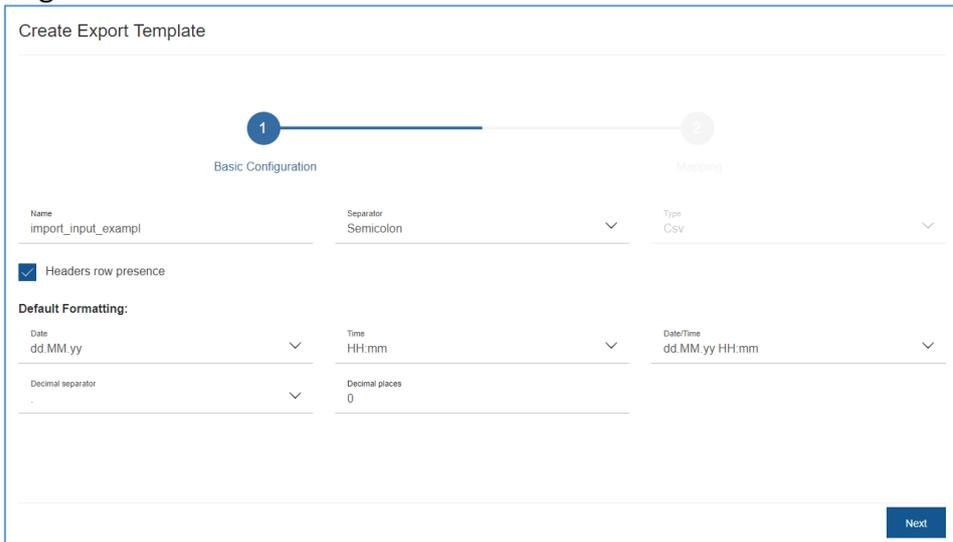| COMPANYNO	NAME	CITY	PERSNO	LASTNAME	FIRSTNAME	DATEOFBIRTH	CARDNO	CODEDATA	COLLECT	SHORTNAME	NAME
Lagoda	Lagoda Inc.	Berlin	p12378951	Arnoldssons	Arnold	19980814	000000124593	0x068F4D820001E6B1	2018-01-05 19:55:00.000	Authz-1	Authorization number one
Sisters	Sisters & Co	Helsinki	p78915610	Jamesson	James	19801201	000000457812	0x0045B6D50006FC54	2019-01-10 09:15:00.000	Authz-All	Authorization for administrators

The Export generates a file that can be downloaded from the **Agent Task List** with the following contents:

import_input_exampl.csv

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```
import_input_exampl.csv - Notepad
File  Edit  Format  View  Help
COMPANYNO;NAME;CITY;PERSNO;LASTNAME;FIRSTNAME;DATEOFBIRTH;CARDNO;CODEDATA;COLLECT;SHORTNAME;NAME
Lagoda;Lagoda Inc.;Berlin;p12378951;Arnoldssons;Arnold;14.08.98;000000124593;110054786;05.01.18 23:55;Authz-1;Authorization number one
Sisters;Sisters & Co;Helsinki;p78915610;Jamesson;James;01.12.80;000000457812;4568789;10.01.19 13:15;Authz-All;Authorization for administrators
```

10.2.2   Export Wiegand and Bosch serial number cards

1. Cards are created and linked to person via AMS or ACE dialog:

Dialog (Wiegand)
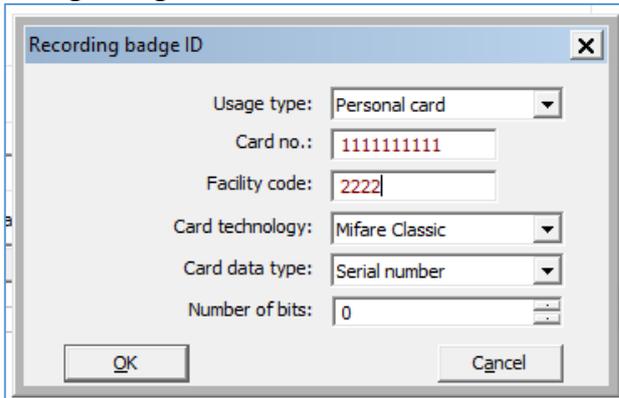
Dialog (Bosch)
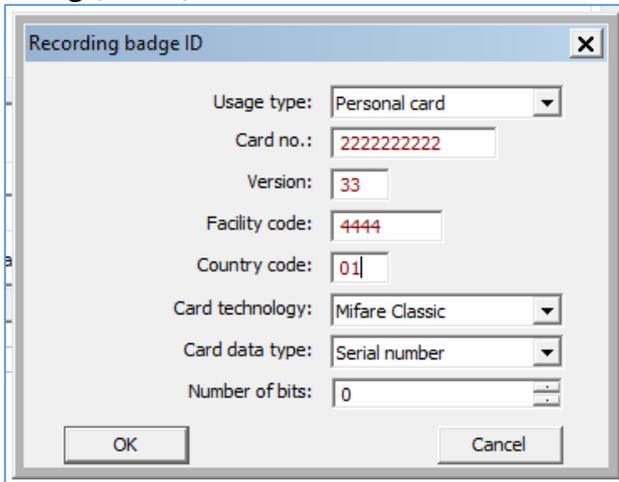
2. *See section 10.2.1* CSV Export example for a template file defined for an export

3. The export generates a file that can be downloaded from Agent Task List. It will have the following contents:

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export_input_exam
pl (2).csv

```
import_input_exampl (2).csv - Notepad                                    —  □  ×
File  Edit  Format  View  Help
COMPANYNO;NAME;CITY;PERSNO;LASTNAME;FIRSTNAME;DATEOFBIRTH;CARDNO:CODEDATA:COLLECT:SHORTNAME;NAME
Sisters;Sisters & Co;Helsinki;p78915610;Jamesson;James;01.12.80;001111111111;2222;;Authz All;Authorization for administrators
Sisters;Sisters & Co;Helsinki;p78915610;Jamesson;James;01.12.80;002222222222;3301004444;;Authz-All;Authorization for administrators
```

11 Data field reference

Entity	Property	Datatype	Dialog / (Tab) / Dialogfield Valid characters	Description / Remarks
Authorizations	SHORTNAME	String	Access Authorizations / Authorization name	Can be used to assign existing authorizations. But also it is possible to create new authorizations - note that there are no entrances included.
	MACID	String	Access Authorizations / MAC	Reference to Devices table (MAC type only) Unique Identifier from Devices table of type MAC is used as ID can be used. If nothing is provided then default instance 1 of type MAC is used.
	TMID	String		Reference to time models table
	CLIENTID	String		Optional, reference to clients (=divisions) table
	SPECIALFUNCTIONID	String		Reference to special functions table
	NAME	String	Access Authorizations / Description	Description provided for Authorization
Cards	CARDNO	String	PersHdr / ID card no.	card number for a particular card, Combined with CODEDATA it should be unique
	CLIENTID	String		Optional, reference to clients (=divisions) table
	Customercode (CODEDATA)	String		Required field, accepts decimal values which will be converted to CODEDATA.
	CODELEN	Int16		Optional field, codelen
	CODELEN2	Int16		Optional field, codelen (codedata2)

	CODETYPE	ACECardTypeT	Accepts one of next values, literal or numeric: ACE_CARDTYPE_UNKNOWN = 0 ACE_CARDTYPE_MIFARECLASSIC = 1 ACE_CARDTYPE_MIFAREDESFIRE = 2 ACE_CARDTYPE_LEGICPRIME = 3 ACE_CARDTYPE_LEGICADVANT = 4 ACE_CARDTYPE_ICLASS = 5 ACE_CARDTYPE_HIDPROX = 6 ACE_CARDTYPE_EM = 7 ACE_CARDTYPE_HITAG = 8	Optional field, codetype.
	CODEVAR	ACECardVariationT	Accepts one of next values, literal or numeric: ACE_CARDVARIATIONS_UNKNOWN = 0 ACE_CARDVARIATIONS_CSN = 1 ACE_CARDVARIATIONS_BOSCH = 2	Optional field, cardvariation.

	CODEVAR2	ACECardVariationT	Accepts one of next values, literal or numeric: ACE_CARDVARIATIONS_UNKNOWN = 0 ACE_CARDVARIATIONS_CSN = 1 ACE_CARDVARIATIONS_BOSCH = 2	Optional field, card variation (codedata2)
	COLLECT	DateTime		Optional field, timestamp of card collection date Date Time format must be defined.
	PERSID	String		NULL if it is a card for later visitors usage; in all other cases it references the Persons table.
	USAGETYPEID	String		Either Unique Identifier from CardUsageTypes is used as ID or Usage type name can be used. If nothing is provided then default value 1 usage type id is used.
Companies	ATTENDANT	String		n/a
	CITY	String	Companies / City	City of the company
	COMPANYNO	String	Companies / Short name	Required and unique field. Represents company Short name in the access control system.
	COUNTRY	String		Country of the company
	EMAIL	String	Companies / E-mail	E-mail address
	FAX	String	Companies / Fax	Company's Fax number.
	HOMEPAGE	String	Companies / Webpage address	Company's webpage address
	MAILBOX	String	Companies / Post-office box	Company's Post-Office box
	MOBILEPHONE	String	Companies / Mobile	Company's Mobile phone number

		NAME	String	Companies / Name	Required field. Represents company Name in the access control system.
		PHONE	String	Companies / Phone	Company's phone number
		REMARKS	String	Companies / Remarks	Company's remark
		STATE	String		The geographical state where the company' is located.
		STREETHOUSENO	String	Companies / Street	Company's Street
		STREETHOUSENOEXT	String		Company's Address line #2
		ZIPCODE	String	Companies / Zip code	Company's Zip code
	Persons	ExternalId	String		This property is not written to ACE system but used for linking entries in input file that refer to the same object.
		ADDITIONALLASTNAME	String	PersHdr / Birth name	Birth name
		ATTENDANT	String	Persons / (Additional Company Data) / Adviser	
		AUTHFROM	DateTime	Cards / Authorizations / Authorization / Valid from	Date Time format must be defined.
		AUTHUNTIL	DateTime	Cards / Authorizations / Authorization / until	Date Time format must be defined.
		CENTRALOFFICE	String	Persons / (Additional Company Data) / Location	
		CITY	String	Persons / (Address) / City	
		CITYOFBIRTH	String	Persons / (Additional Person Data) / Birthplace	

CLIENTID	String		Client ID from Clients table, to which Division this person belongs.
COMPANYID	String		Company ID from Companies table, to which company this person refers to. It is possible, that this data field is missing in the list. With the entries for Company.Name and Company.Shortname the company name is displayed.
COSTCENTRE	String	Persons / (Additional Company Data) / Cost unit	
COUNTRY	String	Persons / (Address) / Country, State	
DATEOFBIRTH	ACEDateT	PersHdr / Date of birth	Date format must be defined.
DEPARTMENT	String	Persons / (Additional Company Data) / Department	
EMAIL	String	Persons / (Contact) / e-mail	
EXTOPENTIME	ACEBoolT	TRUE=1 FALSE=0	
FAXOFFICE	String	Persons / (Contact) / Fax business	
FAXPRIVATE	String	Persons / (Contact) / Fax home	
FIRSTNAME	String	PersHdr / First name	
GLOBALLYADMINISTERED	ACEBoolT	PersHdr / Administrated globaly TRUE=1 FALSE=0	

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GRADE	String	PersHdr / Title	
HEIGHT	Int32	Persons / (Additional Person Data) / Size	
Image	String		Special property to do import of the Person's ID photo. Should contain a path to image file.
IDENTIFICATIONMODE	ACEPersonIdentModeT	ACE_IDENTMODE_UNKNOWN = 0 ACE_IDENTMODE_FINGER = 1 ACE_IDENTMODE_CARD = 2 ACE_IDENTMODE_FINGERANDCARD = 3	
IDNUMBER	String	Persons / (Additional Person Data) / Identification No	
IDTYPE	String	Persons / (Additional Person Data) / Official pass	
IDVALIDUNTIL	ACEDateT	Persons / (Additional Person Data) / Valid until	Date format must be defined.
JOB	String	Persons / (Additional Company Data) / Job title	
LASTNAME	String	PersHdr / Last name	= required
MAIDENNAME	String	Persons / (Additional	

		Person Data) / Father's name	
MARITALSTATUS	ACEMaritalStateT	Persons / (Additional Person Data) / Marital status UNMARRIED = 0 MARRIED = 1 WIDOWED = 2 DIVORCED = 3 MARITALSTATUS_UNDEFINED = -1	
NATIONALITY	String	Persons / (Contact) / Nationality	
NUMBERPLATE	String	PersHdr / Car license no.	
PERMOPEN	ACEBoolT	TRUE=1 FALSE=0	
PERSCLASSID	String	Employee ID	PersClassId should be provided, it has to be the identifier from PersClasses
PERSNO	String	PersHdr / Personnel no.	
PHONEMOBILE	String	Persons / (Contact) / Mobile	
PHONEOFFICE	String	Persons / (Contact) / Phone business	
PHONEOTHER	String	Persons / (Contact) / Phone	
PHONEPRIVATE	String	Persons / (Contact) / Phone home	
REASONSTAY	String	Persons / (Additional Company Data)	

			/ Residence reason	
	REMARK	String	Persons / (Remarks) / Remarks	
	REMOTECTRL1	ACEBoolT	TRUE=1 FALSE=0	
	REMOTECTRL2	ACEBoolT	TRUE=1 FALSE=0	
	SEX	ACESexT	PersHdr / Gender SEX_MALE = 0 SEX_FEMALE = 1 SEX_UNDEFINED = -1	
	STREETHOUSENO	String	Persons / (Address) / Street, No	
	VIP	ACEBoolT	TRUE=1 FALSE=0	
	WEBPAGEURL	String	Persons / (Contact) / Homepage	
	ZIPCODE	String	Persons / (Address) / ZIP	
Visitors	ExternalId	String		Dummy property which will not be written to ACE system but used for identifying entries in input file.
	ADDITIONALLASTNAME	String	VisitorHdr / Birth name	
	ARRIVALDATE	DateTime	Visitor / (Additional data) / Date of arrival	Date Time format must be defined.
	ARRIVALEXPECTED	DateTime	Visitor / (Additional data) / Expected arrival	Date Time format must be defined.
	ATTENDANT	String		

ATTENDANTID	String	Visitor / (Additional data) / Attendant	Identifier of the Person who is the attendant.
AUTHFROM	DateTime	Visitor / (Authorizations) / Authorization / Valid from	Date Time format must be defined.
AUTHUNTIL	DateTime	Visitor / (Authorizations) / Authorization / until	Date Time format must be defined.
CENTRALOFFICE	String		
CITY	String	VisitorHdr / City	
CITYOFBIRTH	String		
CLIENTID	String		
COMPANYID	String	VisitorHdr / Company	Company ID from Companies table, to which company this visitor refers to. It is possible, that this data field is missing in the list. With the entries for Company.Name and Company.Shortname the company name is displayed.
COUNTRY	String		
DATEOFBIRTH	ACEDateT	VisitorHdr / Date of birth	Date format must be defined.
DEPARTDATE	DateTime	Visitor / (Additional data) /Date of departure	Date Time format must be defined.
DEPARTEXPECTED	DateTime	Visitor / (Additional data) /Expected departure	Date Time format must be defined.
DEPARTMATTEND	String		
DEPARTMENT	String		
EMAIL	String		
FAXOFFICE	String		
FAXPRIVATE	String		

	FIRSTNAME	String	VisitorHdr / First name	
	GLOBALLYADMINISTERED	ACEBoolT	TRUE=1 FALSE=0	
	GRADE	String		
	HEIGHT	Int32		
	Image	String		Special property to do import of the Visitor's photos. Should contain a path to image file.
	IDENTIFICATIONMODE	ACEPersonIdentModeT	ACE_IDENTMODE_UNKNOWN = 0 ACE_IDENTMODE_FINGER = 1 ACE_IDENTMODE_CARD = 2 ACE_IDENTMODE_FINGERANDCARD = 3	
	IDENTIFIEDBY	ACEVisitorIdentifyT	VisitorHdr / Official pass ACE_IDENTIFY_TYPE_PASSPORT = 0 ACE_IDENTIFY_TYPE_DRIVING_LICENCE = 1 ACE_IDENTIFY_TYPE_ID_CARD = 2 ACE_IDENTIFY_TYPE_OTHER = 3 ACE_IDENTIFY_TYPE_UNKNOWN = -1	
	IDENTPAPER	String	VisitorHdr / Official pass / Other	It is valid only if the Visitor.IDENTIFIEDBY is 3.

	IDNUMBER	String		
	IDTYPE	String		
	IDVALIDUNTIL	ACEDateT		Date format must be defined.
	JOB	String		
	LASTNAME	String	VisitorHdr / Last name	required
	LOCATION	String	Visitor / (Additional data) / Location	
	MAIDENNAME	String		
	MARITALSTATUS	ACEMaritalStateT	UNMARRIED = 0 MARRIED = 1 WIDOWED = 2 DIVORCED = 3 MARITALSTATUS_UNDEFINED = -1	
	NATIONALITY	String		
	NUMBERPLATE	String	VisitorHdr / Car license No.	
	PASSPORTNO	String	VisitorHdr / Official pass / Number	
	PHONEMOBILE	String		
	PHONEOFFICE	String		
	PHONEOTHER	String		
	PHONEPRIVATE	String	VisitorHdr / Phone	
	REASON	String	Visitor / (Additional data) / Reason	
	REASONSTAY	String		
	REMARKS	String	Visitor / (Additional data) / Remark	
	SEX	ACESexT	SEX_MALE = 0 SEX_FEMALE = 1	

			SEX_UNDEFINED = -1	
	STREETHOUSENO	String	VisitorHdr / Street, no	
	WEBPAGEURL	String		
	ZIPCODE	String	VisitorHdr / Zip code	

From	Our Reference	Tel	Grasbrunn
BT-AI/PAA			June 2020

12 Troubleshooting

12.1 *Pictures and icons are not displayed*

- Verify if user's group IIS_USRS is added into Local Security Policy:
Start -> Local Security Policy -> Local Policies -> User Rights Assignment -> Impersonate a client after authentication
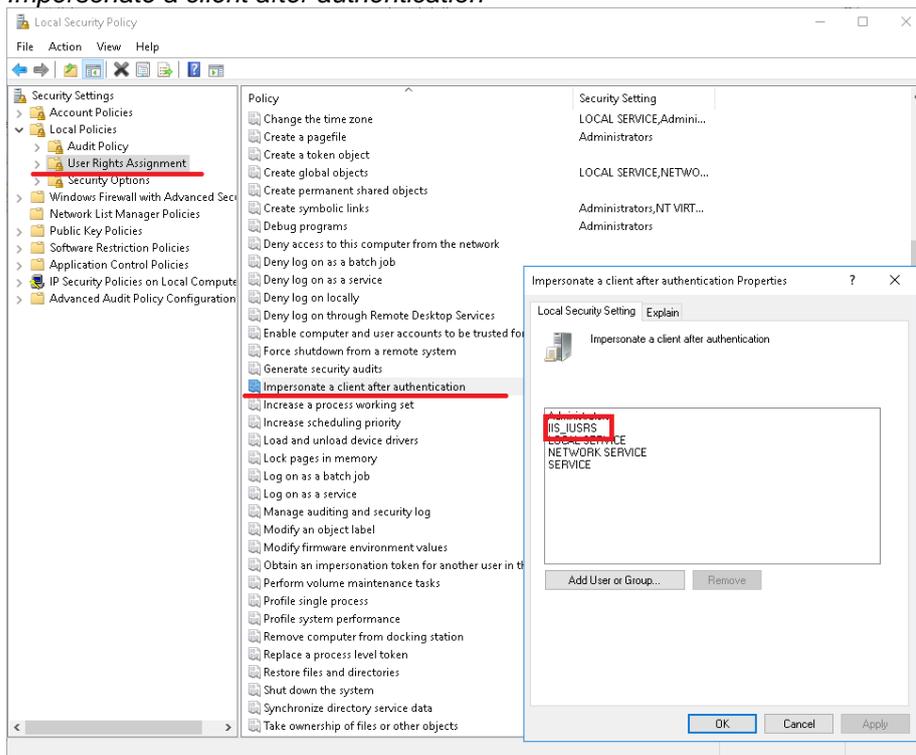
12.2 *There is no Certificate file on IMPEX server*
- Go to IMPEX installation folder
- Execute PowerShell script *'CreateCertificates.ps1'* as Administrator