



SW3 Biometrics How2

Revision 002

24 June 2022



Revision History

Version	Date	Person	Reason For Changes
001	2022-05-11	EB	New Document
002	2022-06-22	EB	Add Content and Idemia database license update

Content:

1 Install and Configure Biometric readers for Softwin3

1. Requirements
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2 How to increase user database for Idemia biometric readers

Requirements

The following software packages and drivers will be required for a successful system installation.

- Softwin3 Version 1.04.62 or above.
- SCS-Bio Version 1.04.62 or above.
- You will require an activation code for each Biometric Device (Enrolment, Fingerprint, Wave or Face Reader) newly added to Softwin3 Ver1.04.62 software. A new activation code will also be required when replacing an old device with a new device. Activation codes are linked with devices.
- All associated software for biometric devices **must** be installed before connecting the biometric units in the field:
- Required for Idemia Biometric Devices:
 1. **Morpho License Manager 4.7.4** (To verify product licenses)
 2. **MBTB** (Morpho Toolbox 4.4.1) (Configure Morpho devices in the field)
 3. **Sagem MorphoSmart USB Driver** (To enable Idemia enrolment reader)
- Required for ZK Biometric:
 4. **SCS_Bio_1_04_62** will install most drivers that's required
 5. **ZK9500 enrolment driver** must be installed separately
- Please Note:**

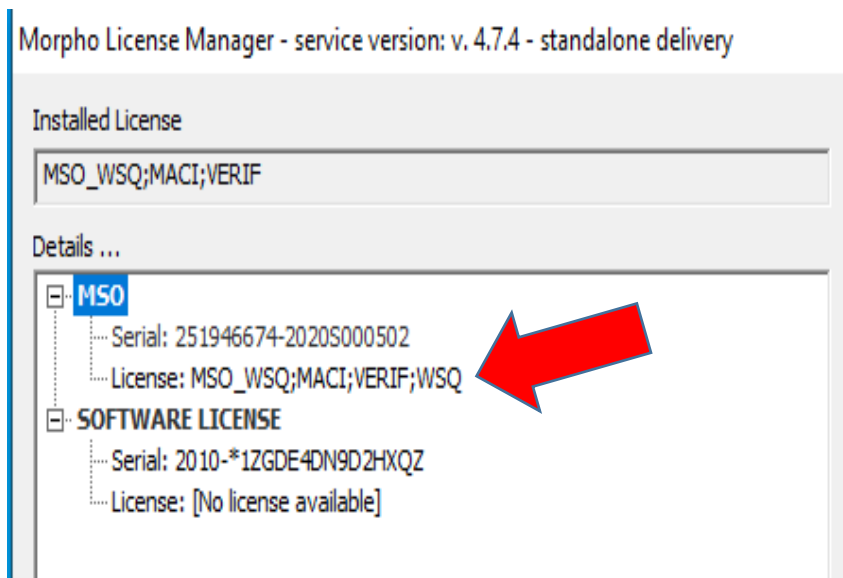
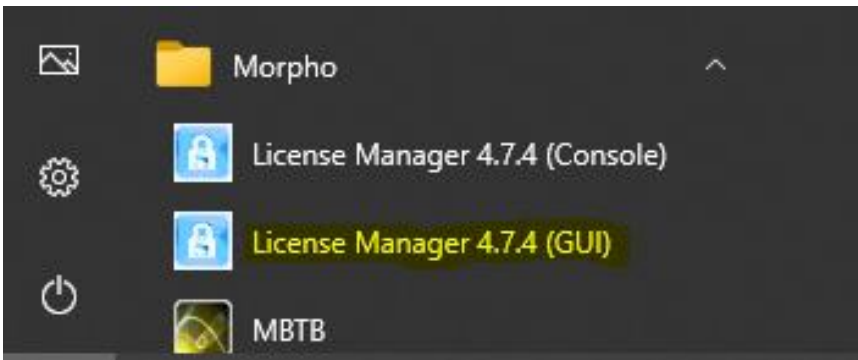
Above software is available for download from our website www.softconserv.com
Please ensure that all **Anti-Virus** and/ or **Anti-Malware** programs are disabled while loading the above drivers and software as they might interfere with the installation process.

Enrolment Reader

Certain biometric device manufacturers provide tools which can be used to test the hardware and software installations.

Verify MorphoSmart MSO300 installation:

- ❑ Connect your *MorphoSmart MSO-300* Enrolment Reader to the USB port of the computer where the enrolment process will take place.
- ❑ Verify driver installation and required licenses of the enrolment device by opening the *Morpho License Manager* program. (If MSO is not present/or faulty, the license information will not be displayed in the license Manager program.)
- ❑ To capture and transfer templates to Idemia biometric reader certain licenses are required, Sigma range of readers only require Verif license. All readers on the site must be the Sigma range. MA500 and older model require MACI and VERIF licenses. These licenses are normally stored on the MSO300 enrolment reader.



- ❑ : No verification available for ZK Enrolment reader.

Softwin3 Configuration for Enrolment readers

- ❑ Configuration of Enrolment readers take place in the **Setup / Setup Editor / Bio-Reader Setup** menu. Before you can start with this configuration you need to prepare for the installation. Follow the steps below.
- ❑ For access control purposes, all biometric devices must be linked to a reader in the reader setup. Enrolment readers can be linked to dummy readers. Dummy readers must be in the range that's allowed by the software license for readers. E.g., if software license allows 12 readers the dummy enrolment reader must be in this range.
- ❑ Select **Setup / Setup Editor / Reader** and add an entry for the enrolment reader under **Reader setup**. Choose a descriptive name. This is only a reference, and no further details or settings need to be done for enrolment readers under the **Reader** menu.

User: Administrator - [Reader]

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Ref	Description	Area In	Area To	Controller	Port
10	ZK9500 Enrolment	Outside	Inside	zController 5	2
9	Morpho Smart Enrolment	Outside	Inside	zController 5	1

- ❑ The software can accommodate two types of biometric templets in the same system. These biometric types must be specified before any enrolment can take place. Select **Setup / General Setup**. On the Main Tab, select the required type for 1st and 2nd Templet Types. (See image below)
 - Select Sagem for any biometric device from Idemia
 - Select ZK for ZK Teco biometric devices.
- ❑ To automatically add a user templet to biometric devices after enrolment is done, check **Auto Add Biometric Data**. The user templet will be sent to all biometric devices where the user has access according to his **Area Group** settings.


Auto Add Biometric Data

1sr Bio Templates Type

2nd Bio Templates Type

- ❑ You are now ready to start with the configuration in the **Setup / Setup Editor / Bio-Reader** menu for the enrolment reader.

- ❑ Select *Setup / Setup Editor / Bio-Reader Setup* and add an entry for the Enrolment Reader under the Bio-Reader Setup Menu. The Reference number in the Ref column must be in the range of the allowed biometric devices for the software. (See image below)

Ref 	Name	Reader	Type	PC
10	Enrolment ZK	ZK9500 Enrolment	ZK Enroll	PC for ZK Enrolment
9	Enrolment Idemia	Morpho Smart Enrolment	Sagem Morphosmart	PC for Idemia Enrolment

- ❑ The *Setup / Setup Editor / Bio-Reader Setup* menu consist of several columns that must be completed. Not all these columns are required for Enrolment readers.
- ❑ Below is a list of all the necessary columns that must be completed for a functional enrolment reader.

Column Name	Description
Name	Add your own descriptive name for the Enrolment Reader
Reader	Drop-Down Menu: Select enrolment Reader created in the <i>Reader Setup</i> from the list.
Type	Drop-Down Menu: Select enrolment reader type.
PC	Drop-Down Menu: Select enrolment pc name – Computer name (from PC Setup) where enrolment device is plugged in.
FP Protocol	Default
CD Fingers	2 – always 2 fingers
CD Min	1 – Starting reference number in database for users
CD Max	User Database size of device – this setting is device dependant.
Using TokenNo	Check to use token number as reference number for templet on device
Consolidation	Check to consolidate template 3 times for better quality biometric data.
2FP Acquisition	Check to verify enrolment operation for a second time. This ensures a high-quality templet.
Enrol Save	Check to save templet in database

Finalise Enrolment Reader

To complete the enrolment reader configuration process, the enrolment device must be linked to a software application in Softwin3. Follow step below.

- ❑ Go to *Setup / Setup Editor / Bio-App* and select the required application in *App* column for the enrolment reader in *the FP Reader* column. (See image below)

Ref	App	FP Reader
1	SCS_Client	Enrolment Idemia
2	SCS_Visitor	Enrolment Idemia
3	SCS_Client	Enrolment ZK
4	SCS_Visitor	Enrolment ZK

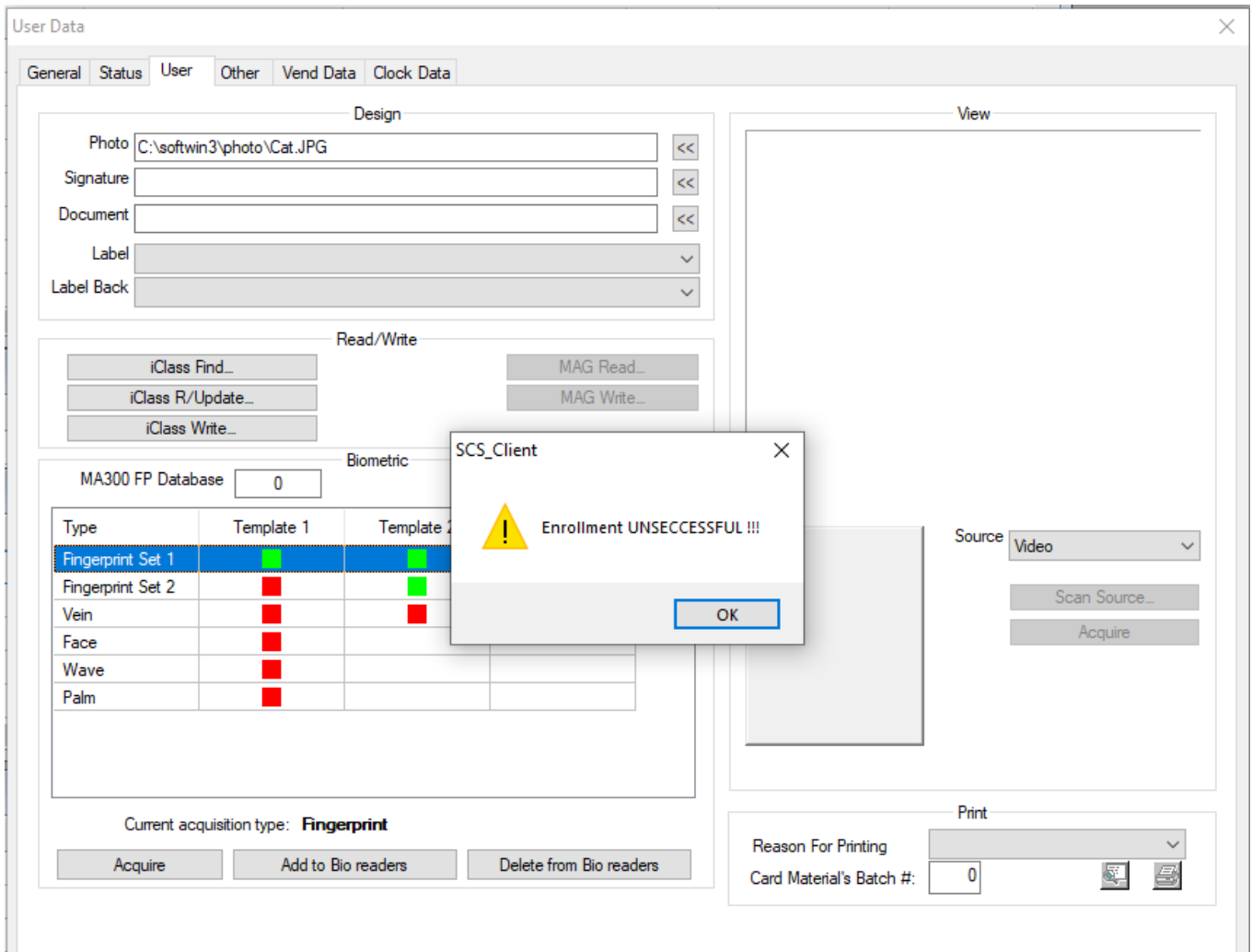
Enrolment reader configuration process completed.

You are now ready to Enrol a user's fingerprint on the system. (See How to Enrol document)

Follow steps below to configure a fingerprint biometric reader from Idemia or ZK.

Enrollment Reader Error

- ❑ When configuration of enrolment reader is incorrect or driver installation was blocked by Anti-Virus program, the enrolment process will fail immediately and display the message below.



- ❑ To rectify this error, make sure your configuration is complete and correct.
 - Make sure all biometric devices in the **Bio-Reader Setup** are configured in the range that the software license allow you.
- ❑ Disable all Antivirus programs and reinstall all software and drivers.
- ❑ Re-register the required drivers as explained below.
 - Register for Morpho drivers from Idemia
 - Open Windows Explorer and go to C:\softwin3\exe\Morpho folder
 - Run the registration.bat file with administrator rights.
 - Register drivers for ZK Teco
 - Open Windows Explorer and go to C:\softwin3\exe\ZK folder
 - Run the registration.bat file with administrator rights

Biometric reader configuration

- ❑ Configuration of fingerprint biometric readers take place in the **Setup / Setup Editor / Bio-Reader Setup** menu. Before you can start with this configuration you need to prepare for the installation. Follow the steps below.
- ❑ **Device communication to Computer:**
All biometric devices communicate through TCP/IP communication with the computer to get the required information and templates. Therefore, each device needs to have an IP address. The configuration of this address will differ between device manufacturers. (See IP address configuration from manufacturer)
- ❑ **Device communication to Controller:**
All biometric devices communicate via Wiegand communication with the controller. The Wiegand out on the device must be configured to match the required bit formats on the controller. (See Wiegand settings from manufacturer.)



The MBTB tool from Idemia can be used to configure IP addresses and Wiegand settings for any of Idemia's biometric devices. MBTB tool is available for download from our website. www.softconserv.com



IP addresses and Wiegand settings for any ZK Teco device is normally configure by an administrator user on the device itself. Biometric templates of Softwin3 administrators can also unlock devices for configuration purposes (See documentation on how to configure Softwin3 system passwords).

Bio-Reader Setup

- ❑ For access control purposes, all biometric devices must be linked to a reader from the reader setup. Before you continue with the biometric configuration, you need to make sure the **Reader setup** is completed. All standard configuration settings in *Reader Setup* are required. When these settings are completed, you can continue with the **Bio-Reader Setup**.
- ❑ To start with configuration, select **Setup / Setup Editor / Bio-Reader Setup** and add a new entry for the new biometric reader. (See image below)

User: Administrator - [Bio - Reader Setup]

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Ref	Name	Reader	Serial No	Type
1	ZK SF100 BIO FP	zRD 13	AHQ3214960230	ZK
2	ZK Enrollment Reader	zEnrollment Reader ZK		None
9	WAVE READER	zC1 Rd 1 - WAVE reader	2202SMP0001908	None
8	Sigma Lite Bio Reader	Controller5 Reader Port1	2202SMP0001908	Sagem Sigma

- ❑ **Bio-Reader Setup** consist of various columns that must be complete for a functional biometric reader. Not all columns are required, and certain columns is only relevant to certain products. Below is a list of all the columns that's required with a description of the functionality.

Columns	Information description
Name	Add your own descriptive name for the biometric Reader
Reader	Drop-Down Menu: Select which reader this biometric device will link to for access control.
Serial No	Request Serial Number by Right-Click See License requirement explanation below.
Type	Drop-Down Menu: Select the type of biometric device from the list.
PC	Drop-Down Menu: Select the computer name that will transfer the biometric templet to the reader. This will be computer where enrolment reader is plugged in.
IP Port	11010 for all Idemia biometric devices. 4709 for all ZK Teco biometric devices
IP Addr	Enter the IP Address of the biometric device

Columns	Information description
CD Fingers	2 – Always 2 fingers
CD Min	1 – Starting reference number in database for users
CD Max	User Database size of device – this setting is device dependant. The templet specification from ZK Teco devices must be divided by 2. E.g., a device that can accommodate 3000 templets will be 1500 user with 2 templets for Softwin3
Vis Fingers	1 – Always 1
Vis Min	If <i>SCS-Visitors Auto Add</i> is used, what must the starting reference number be where a visitor templet will automatically be inserted.
Vis Max	What is the last reference number for <i>SCS-Visitor Auto Add</i>
FP Protocol	Default for all biometric devices except Sigma readers from Idemia. (MA5G must be selected for Sigma readers)
Using Tokens	Only relevant to enrolment readers.
Consolidation	Only relevant to enrolment readers.
2FP Acquisition	Only relevant for enrolment readers.
Bio Required	Must be selected for all biometric devices except ZK Facial readers. Make sure the check is removed for ZK Facial readers.
Push Server	Only required for ZK Facial readers.
No Controller	This setting is only valid for ZK Facial readers.

License Requirements

- ❑ You will require an activation code for each Biometric Device (Enrolment, Fingerprint, Wave or Face Reader) newly added to Softwin3 Ver1.04.62 software. A new activation code will also be required when replacing an old device with a new device. Activation codes are linked with devices. These activation codes can be obtained from Softcon. Contact your local sales representative for more information.
- ❑ Before activation code can be entered for any device, the serial number of the device must be requested from the device.
- ❑ To request serial number from a device, right click on row with the required device settings and select **Request Serial No** from the menu (See image below) If the software can communicate with the device, it will request the serial number from the device. The access control **Activity Menu** will display the result on screen. If the result was successful, the system will populate the **Serial No** column with the device serial number.

Ref	Name	Reader	Type	Serial No
1	Name 1	C1 Rd 1	Sagem MA300	
2	Name 2	C1 Rd 2	Sagem MA300	
3	Name 3	zC2 Rd 1	Sagem MA300	
4	Name 4	zC2 Rd 2	Sagem MA300	
5	Name 5	zC3 Rd 1	Sagem MA300	
6	Name 6	zC3 Rd 2	Sagem MA300	
7	Name 7	zC4 Rd 1	Sagem MA300	
8	Name 8	zC4 Rd 2	Sagem MA300	
9	Enrolment Idemia	Morpho Smart Enrolment	Sagem MA300	
10	Enrolment ZK	ZK9500 Enrolment	ZK Enroll	

- ❑ After serial number was requested successfully the activation key can be entered. Activation keys are entered in the Serial Number menu. Select *Setup / Setup Editor / Serial Numbers* and enter key in *Activation Key* column corresponding to the device serial number. If an activation file was supplied to you, you can right click on the screen and select **Import** from the menu. Select the file and click OK to complete the process.

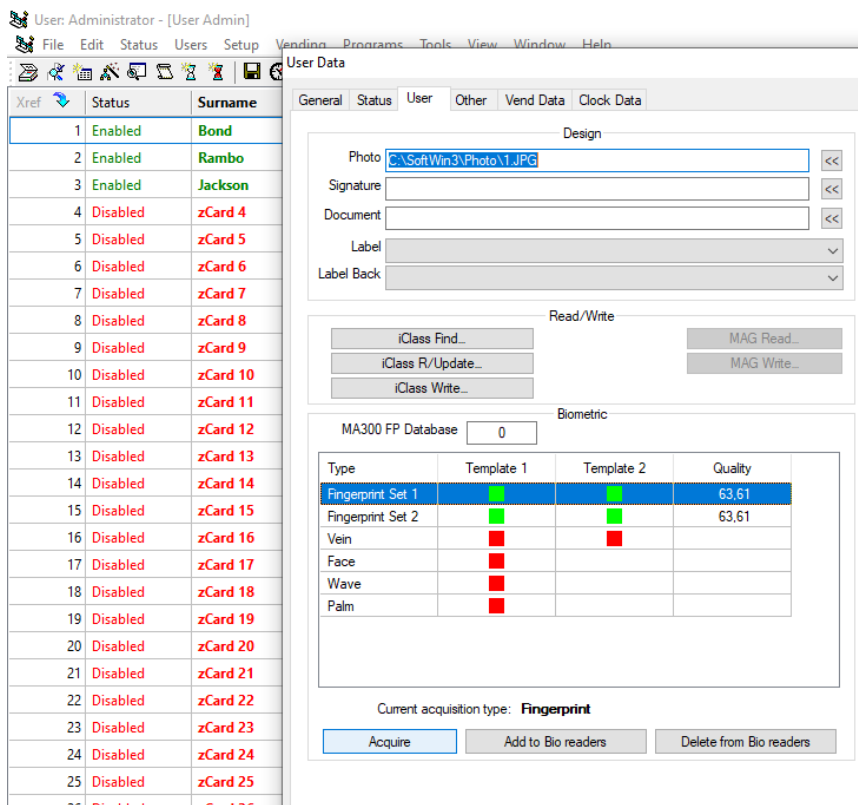
User: Administrator - [Serial Numbers]

File Edit Status Users Setup Vending Programs Tools View Window Help

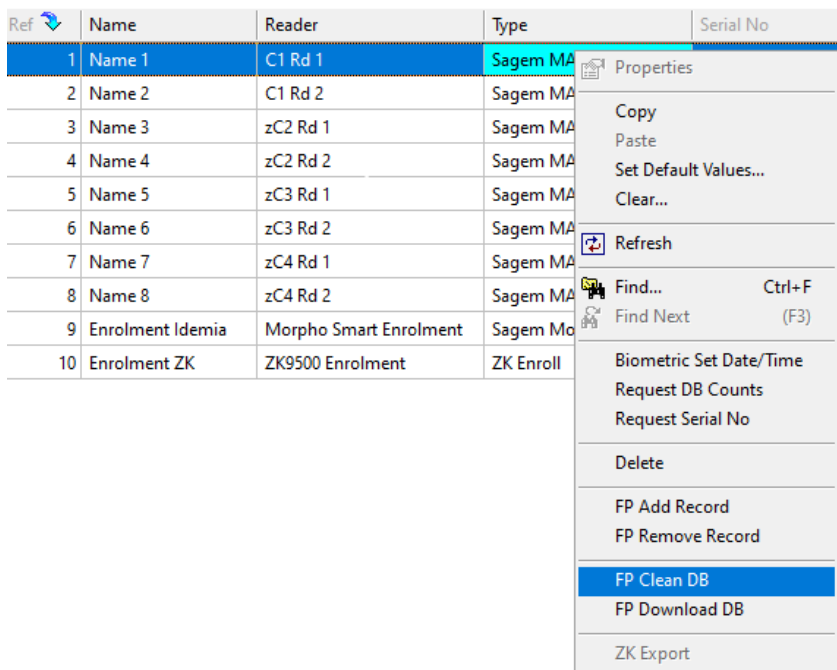
Ref	Type	Serial No	Activation key
6	IDECO	2202SMP0001908	YRPS-T886-993I-R9S3
5	ZK	AHQ3214960230	0GCX-71DY-Y0AY-FTVL

- ❑ You are now ready to download templets to your newly installed fingerprint reader. Templets can be sent to biometric readers directly from the **Bio-Reader Setup** menu or from the properties screen of a user's profile in the **User Editor** menu.

- ❑ The **Add to Bio Readers** button will send the users templet to all biometric readers according to his Area Group settings where he/she has access. (See image below) **Activity** menu will display **Successful** result if templet is successfully downloaded. **Invalid Access** will be displayed in **Activity** menu if person don't have access to a reader.

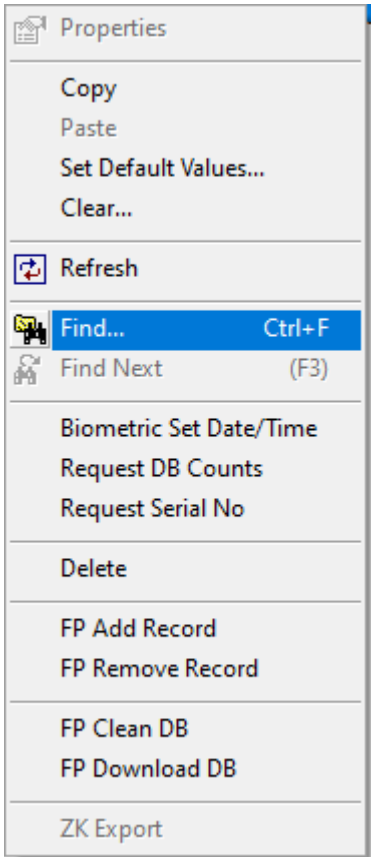


- ❑ To download templets from **Bio-Reader Setup**, right-click on row with the with the fingerprint Reader. Use **FP Clean DB** and **FP Download DB** options to download database or clean database. Single user templets can also be downloaded by selecting **FP Add Record** option. (See description for Dropdown Menu options).



❑ Below is the description of the menu options when you right click on a biometric reader (Image below)

Menu	Description
Biometric Set Date/Time	Only available for Idemia readers
Request DB Count	Request the number of templates on the device.
Request Serial No	Request the serial number of the device
Delete	Delete the record from the database (Reference number will be removed completely)
FP Add Record	Add biometric templet to selected device. User Database Xref No must be entered when requested.
FP Remove Record	Remove biometric templet from selected device and database. User Database Xref No must be entered when requested.
FP Clean DB	Clean all templates from device. On request, database 0 must be selected for all devices except for Idemia devices with database for 50000 users.
FP Download DB	Download all templates to device. On request, database 0 must be selected for all devices except for Idemia devices with database for 50000 users.



Errors Messages

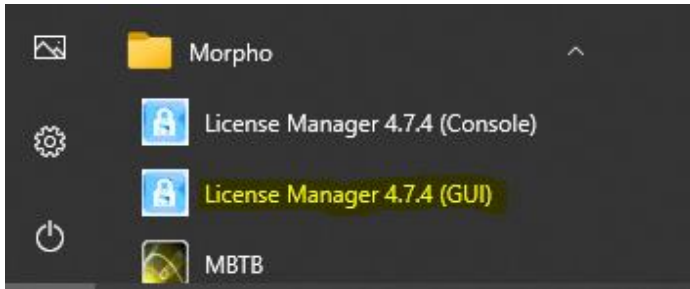
- ❑ When biometric templets are downloaded to biometric devices the Softwin3 Activity Menu will display the result of the download on the screen. Below is a list with most common errors that clients experience:

Error	Description with possible solution
Invalid license	No or incorrect activation key supplied – Make sure you enter the correct activation key. Activation key is linked to device serial number.
Invalid access	The user is not allowed to enter at this reader, or the user profile is still Disabled – Make sure the user's profile is enabled and the Area Group allow him/her to the specified area of the reader.
Database not found	Database on device is faulty or corrupt – Return device for repair.
Invalid minutiae	MACI License for MA500 and older versions of IDEMIA readers are missing – Make sure enrolment or dongle with MACI license is plugged in computer that will download the templets
Invalid user data	Information on user profile is incomplete – Both Name and First name fields must be completed and cannot be blank.
Connection/Protection Error	Software can not communicate with the IP address of the device. – Make sure you can ping device and TTL level on reply is 64.

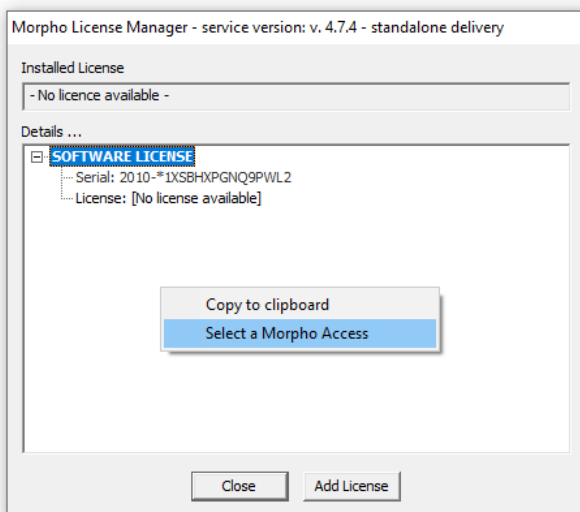
Add Database License

This section explains how to increase the user database of an Idemia biometric reader with a provided license file. License file must be used to update the biometric reader database.

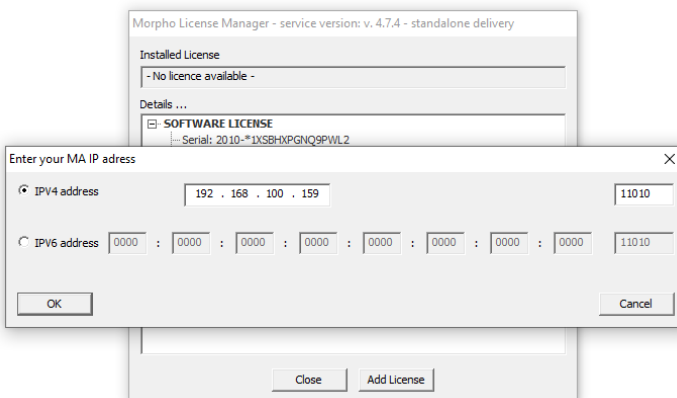
- ❑ Open the Morpho License Manager application.



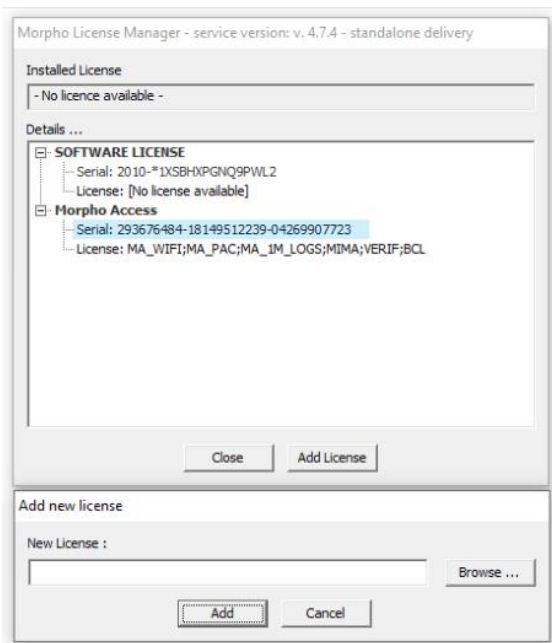
- ❑ Right click on the screen of the application and Select a Morpho Access.



- ❑ Enter IP address of reader that require user license upgrade



- ❑ Select the serial number of the device and click on the Browse Button to select the licence file that was provided to you for the user license upgrade. After the license file was selected, click on the Add button to update the user license of the reader.



The End.
