

# MorphoManager

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BioBridge

Maxxess eFusion

Quick Start Guide

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## Introduction

BioBridge is an enrollment and synchronization middleware that overlays enrollment and demographic synchronization between MorphoManager and third party data sources. The infrastructure is extensible and supports interfacing to multiple third party systems (one at a time) by the implementation of an interface. BioBridge is not dependent on the underlying technology platform required for integration.

BioBridge supports the following version of Maxxess eFusion:

- 6.1.2.15009

## Support

Please contact your installer for additional support.

## Setting up BioBridge

The following areas of MorphoManager will need to be configured as part of Maxxess eFusion BioBridge setup:

- Wiegand Profiles
- Biometric Device Profiles
- Biometric Device
- User Policy
- User Distribution Group
- BioBridge System Configuration

### Wiegand Profiles

Wiegand Profiles define what information is output over the Wiegand Out interface of the Morpho Biometric Devices when a user is identified. This is most typically used in conjunction with an Access Control System.

- From Administration tab select Wiegand Profile
- Click **Add** button to create a custom Wiegand profile.

The Wiegand formatting used can vary from system to system, but some common formats are listed below.

Name	Description	MA2G	MA5G	M3DF
Automatically generated random 64 bit		Interpreted	Interpreted	Raw
CASI-RUSCO 40 bit	19 bit Facility / 19 bit Badge	Raw	Raw	Raw
HID Corporate 1000	HID Corporate 1000	Raw	Interpreted	Raw
ISO/IEC 14443 CSN 32 bit	32 bit Card Serial Number	Interpreted	Interpreted	Not supported
ISO/IEC 14443 CSN 56 bit	56 bit Card Serial Number	Interpreted	Interpreted	Not supported
ISO/IEC 14443 CSN 64 Bit	64 bit Card Serial Number	Interpreted	Interpreted	Not supported
Kastle 32 bit	Kastle 32 bit	Raw	Interpreted	Raw
Matrix 56 bit	54 bit User ID	Interpreted	Interpreted	Raw
OnGuard Wiegand 64	8 bit facility, 48 bit card number, 8 bit issue code	Raw	Raw	Raw
Standard 26 bit	8 bit Site/16 bit User code	Interpreted	Interpreted	Raw



The actual setting of the Wiegand Profile from this list will be done at the User Policy and Biometric Device Profile Level. Please refer to those sections for further details.

## Biometric Device Profile

The Biometric Device Profile will define common settings and parameters for one or more biometric devices. This profile can be applied when adding units into the system from the Biometric Device section of Administration.

- From Administration tab select Biometric Device Profile.
- Click **Add** button to create a new Biometric Device Profile

The screenshot shows the MorphoManager web application interface. The top navigation bar includes Home, Administration (selected), User Management, MSO Identification, Onsite / Offsite, AccessLogs, and Reports. The left sidebar lists various system components, with 'Biometric Device Profile' highlighted. The main content area is titled 'Adding Biometric Device Profile' and contains the following configuration options:

- Name:** Text input field.
- Description:** Text input field.
- Configuration Mode:** Dropdown menu set to 'Express'.
- Realtime logging enabled:** Unchecked checkbox.
- Log retrieval interval:** Text input field set to '300' (seconds).
- Display name encoding code page:** Dropdown menu set to 'Western Europe (Default) (ISO-8859-1)' with a note: '(Applicable to MA500 series only)'. Below this is a note: '(MA 100, MA J, MA 500, MA VP, MA Sigma, MA Sigma Lite, MA Sigma Lite+, and MorphoWave only. Only applicable to new user adds or rebuild)'. There is also a small note: '(MA 100, MA J, MA 500, MA VP, MA Sigma, MA Sigma Lite, MA Sigma Lite+, and MorphoWave only. Only applicable to new user adds or rebuild)'.
- Duplicate check on biometrics:** Unchecked checkbox.
- MorphoAccess heartbeat interval:** Text input field set to '30' (seconds).
- MA Sigma, MA Sigma Lite, MA Sigma Lite+ Only Settings:**
  - Allow Remote Enrollment:** Unchecked checkbox.
  - Default User Policy for Remote Enrollment:** Dropdown menu set to 'Default'.

At the bottom of the form are navigation buttons: Back, Next, Finish, and Cancel. The status bar at the very bottom shows: 'Connected to tcp://localhost:42100/ Logged in as Administrator (System Admini: Site ID: B45E-4B3F-2A3F-4FD1-BD85-58AA-2986-32BB Log Out Change Password'.

In order to create the most basic profile utilizing biometrics stored on the devices that can be used, simply give the profile a name and click **Finish**. Please reference the MorphoManager User Manual for more detail on all the various properties that can be assigned to a Biometric Device Profile including the use of smartcards.



If you plan on using a Wiegand Profile, you will need to set the Wiegand Profile for the Biometric Device(s) here. The Wiegand Profile you choose for your devices must marry to the one being utilized for your users set in the User Policy section of this guide.

## Biometric Device(s)

A Biometric Device is the device used to verify users and allow access to doors. They record a log of every attempt to gain access. MorphoManager is used to manage user’s access to Biometric Devices.

- From Administration tab select Biometric Device.
- Click **Add** button to create a new Biometric Device.
- Enter the details for the device including the Hardware Family the device falls into, the IP address, and the Biometric Device Profile.

- Once the required details are entered click **Finish**.

Below is a screenshot of how the Biometric Device Screen looks after the configuration and the devices are online.

Name	Description	Location	Biometric D...	Status	Tasks
MA sigm Multi			Default	Online	0

**MA sigm Multi**

**Description:** MA SIGMA Multi  
**Hardware Type:** 1431SMS0000243  
**Serial Number:** 1.3.2  
**Firmware version:** 10.10.214.11:11010  
**Hostname\IP Address:** 0 / 3000  
**User Slots:** (UTC-05:00) Eastern Time (US Canada)  
**Time Zone:** Online  
**Device Status:**

## User Policy

User policies are used to apply access rights and rules to all members of the group.

To Configure BioBridge, MorphoManager's UserPolicy with an Access Mode "Per User" must be selected.

This will create User Distribution Groups (groups of Biometric Devices) that can place the enrolled user into specific devices.

- From Administration tab select User Policy.
- Click **Add** button to create a new User Policy.

**Adding User Policy**

Enter the details for this User Policy

Name:

Description:

Access Mode: All Biometric Devices and Clients ▾

Allow MA 500 database selection during user enrollment

Time Mask Mode: 24 Hours, 7 Days a Week ▾

Extended User Details:  Display extended user details

Wiegand Profile: Automatically generated random 64 t ▾

User Authentication Mode: Biometric (1:Many) ▾

Wave Enrollment Minimum Hands: None ▾

Finger Biometric Enrollment Minimum Fingers: Two ▾

Preferred Finger One: Left Index Finger ▾

Preferred Finger Two: Right Index Finger ▾

Preferred Duress Finger: Left Middle Finger ▾

Show Photo Capture Page:

Show Wave Biometric Capture Page:

Show Finger Biometric Capture Page:  (User Authentication Mode requires templates)

« Back
Next »
Finish ✓
Cancel ✕



If you plan on using a Wiegand Profile, you will need to set it here in order for the users enrolled in this User Policy to have a particular Wiegand Profile. The Wiegand Profile you choose for your users must marry to the one you utilize for your biometric access devices set in the Biometric Device Profile section of this guide.

The default User Policy will be set to utilize an authentication mode of Biometric (1: Many). To utilize another authentication mode (such as encoding smartcards) additional User Policies can be created.

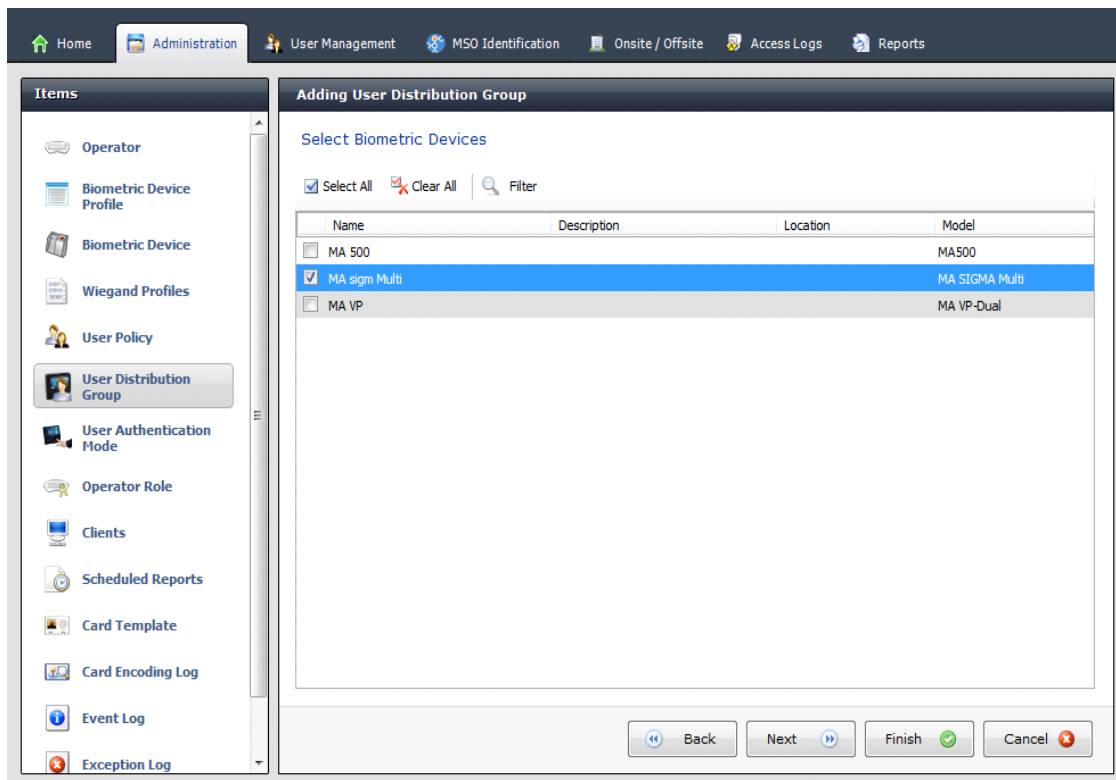
Please reference the MorphoManager User Manual for more detail on all the various properties that can be assigned to a User Policy including Wiegand Profile, Finger Biometric Enrollment Minimum, Fingers, Access Modes and User Authentication Modes.

## User Distribution Groups

User Distribution Groups are designed to distribute users onto groups of MA readers or MorphoManager Clients. In order to be utilized the user must be in a User Policy that has its Access Mode set to “Per User”. Then the User Distribution Groups will be selectable when creating (or editing) a user.

- From Administration tab select User Distribution Group.
- Click **Add** button to create a new User Distribution Group.

Below is the screenshot where group will only be placing users on one of the three devices installed on the system.





## BioBridge System Configuration

The last step in the process is to configure BioBridge specifications to EFusion.

From Administration, select System Configuration.  
 Select the BioBridge Tab in System Configuration.

**MorphoManager BioBridge Settings**

System: None Configure connection

Wiegand Profile:

Grouping Mode:

Enable Forced User Policy:  Enabled

Forced User Policy: Default

User Synchronization Start Time: 00:00

User Synchronization End Time: 23:59

Delay Between Each User Synchronization (ms): 50

Allow User Sync While User Cache Is Refreshing:  Enabled

User Cache Schedule:  Sunday  Monday  Tuesday  Wednesday  Thursday  Friday  Saturday

0:00  1:00  2:00  3:00  4:00  5:00  
 6:00  7:00  8:00  9:00  10:00  11:00  
 12:00  13:00  14:00  15:00  16:00  17:00  
 18:00  19:00  20:00  21:00  22:00  23:00

User Distribution Group Mappings:

Access Groups	User Distribution Group

**System:** From the System drop down menu choose EFusion and click the **Configure connection** button. A BioBridge connection box window will pop up. Fill in all the required fields and click OK.

**Wiegand Profile:** Select the Wiegand format in use from the drop down menu.

**Grouping Level Mode:** This setting determines how MorphoManager should map eFusion users into MorphoManager User Distribution Groups.

**Automatic:** This mode will automatically match Access Level groups from eFusion to the ones created in MorphoManager User Distribution Group if they have the same naming convention.

**Manual:** If the Access Level grouping names of eFusion and the User Distribution Group(s) created in MorphoManager are not the same, then selecting which eFusion Access Level maps

to which MorphoManager User Distribution Group can be done manually in the User Policy Mappings.

Access Level Mode:	Manual
Caching Engine Refresh Interval (min)	5
Synchronization Engine Refresh Interval (ms)	100
Enable Forced User Policy:	<input type="checkbox"/>
Forced User Policy:	Default
User Policy Mappings:	
Access Level	User Distribution Group
Access Level 1	Building A
Access Level 2	Building B

For basic setups, the following settings do not require any changes:

#### Enable Forced User Policy

By activating this feature, you can select a User Policy from the drop down menu. The 3<sup>rd</sup> party user will automatically be placed in this User Policy during the enrollment process started in the BioBridge Enrollment Client. The User Policy selected here must be a “Per User” access mode policy.

#### User Synchronization Start Time and End Time

The user synchronization engine will only be permitted to run in this time frame.

#### Delay between Each User Synchronization

The duration that the User Synchronization Engine will sleep between each user sync. Increase the delay time to use less system resources, but this will also extend the time it takes for all the users to be updated.

#### Allow User Sync While User Cached Is Refreshing

When enabled, the User Synchronization engine will run in parallel to the User Cache Refresh. This is very taxing on system resources. It is recommended to disable this setting when using large databases.

#### User Cache Refresh Schedule

The specified times when the user cache refresh may start. The ideal schedule would be 24/7, but this is not always possible with large databases.

## Using the BioBridge Enrollment Client

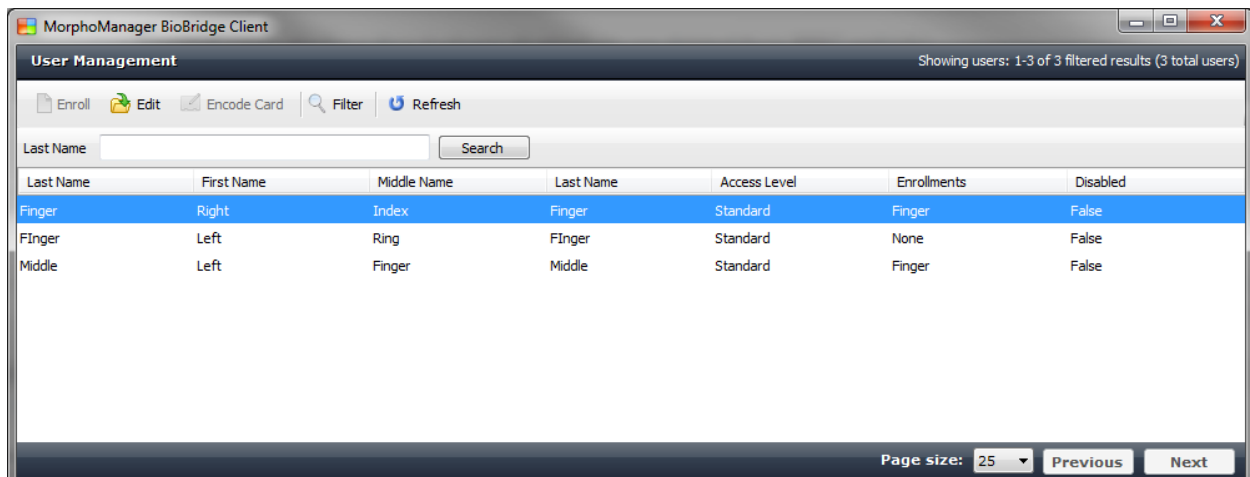
After configuring BioBridge you will now utilize the BioBridge Enrollment Client. This client will check if BioBridge Integration has been enabled and configured. If it is has not, the application will display the message “BioBridge integration has not been enabled and configured” and you will need to go back to MorphoManager/Administration/System Configuration/BioBridge to configure it properly.

If BioBridge integration is configured the application will display a user management screen. The screen will consist of a toolbar and a data grid.

### Toolbar

The toolbar will have the following items:

- Enroll
- Edit
- Encode Card
- Filter
- Refresh
- Search Field



### Enroll

Enroll will start the enrollment of the selected user. The enrollment process will be derived from the standard MorphoManager user add/edit wizard with the following pages (For details on the enrollment process please see the User Management section of the MorphoManager User Manual):

- Authentication Type (Only if more than one mode is configured)
- 3D Face Selection
- 3D Face Enrollment
- Finger Selection
- Finger Enrollment

If a card based authentication method is configured the operator will be prompted if they want to encode a card.

## Edit

Opens the already enrolled user details for viewing or editing.

## Encode Card

Encode card will display an animation of the card being presented to a SDI 011 and wait for the card encoding to complete or be cancelled.

## Filter

The screenshot shows a 'Filter' dialog box with the following sections:

- User Details:** Fields for First Name, Middle Name, Last Name (two), and Date of Birth. 'Enabled' is set to 'Any'.
- Access Level:** 'Select All' is checked. The list contains '\_No doors' (selected) and 'Standard'.
- User Wiegand values:** Ten 'N/A' labels with empty input fields.
- Sort By:** Primary: Last Name Ascending; Secondary: Date of Birth Ascending; Tertiary: First Name Ascending.
- Buttons:** Reset Filters, OK, Cancel.

Filter will show a popup inline form that allows filtering on the following items:

- First Name
- Middle Name
- Last Name
- Date of Birth
- Enabled/Disabled
- Access Level

## Refresh

Refresh will update the data currently being shown using the currently set filter conditions.

## Search Field

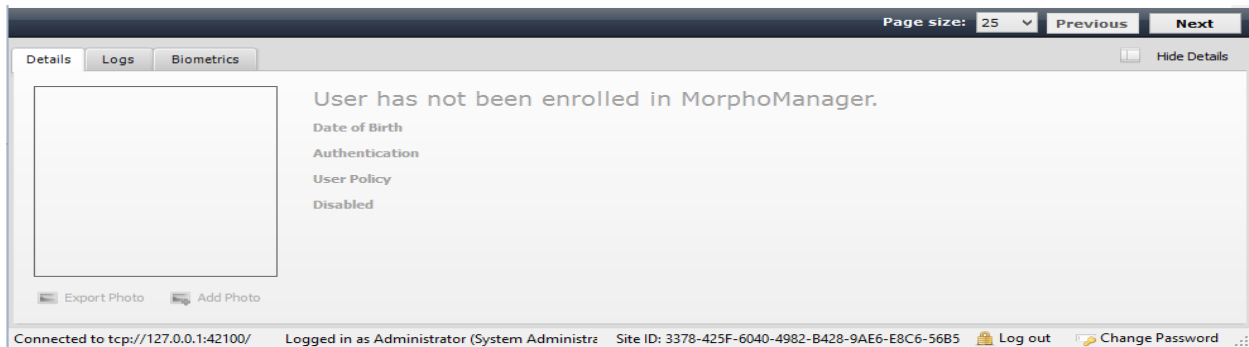
The Search Field can be used to find individual users quickly and/or to migrate users from Maxxess eFusion to the BioBridge Enrollment Client without waiting for a cache refresh.

## Data Grid

The data shown in the data grid is a combination of your system and MorphoManager. Only users that exist in your system will be shown. A MorphoManager user does not exist until the user is enrolled. By default pagination is set for the first 25 BioBridge users to be shown. Operators may change the pagination to 25, 50, 100 & 250.

The data grid will have the following columns:

- First name
- Middle name
- Last name
- Access Level – All of the groups that your user is a member of in your system.(Comma separated values)
- Enrollments (None, Finger, Finger & 3D Face, 3D Face) (Derived from linked MorphoManager User)
- Disabled- A value of either True or False will be present.



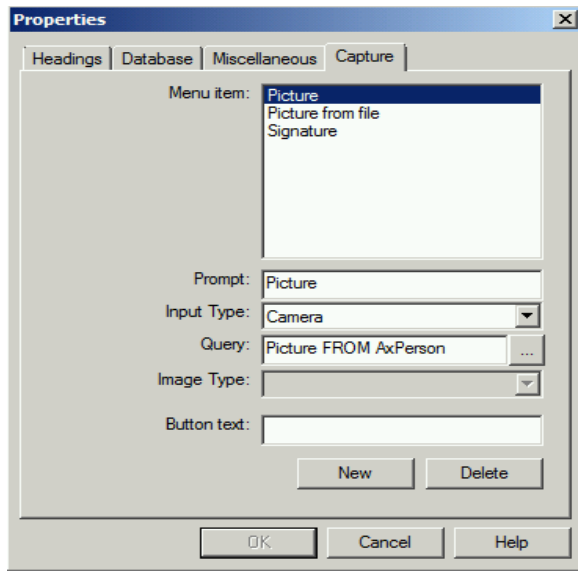
Enrolled user will show their MorphoManager details in the “Show Details” panel below the data grid. This area will be blank if the user has not been enrolled.

## Embedded Enrollment

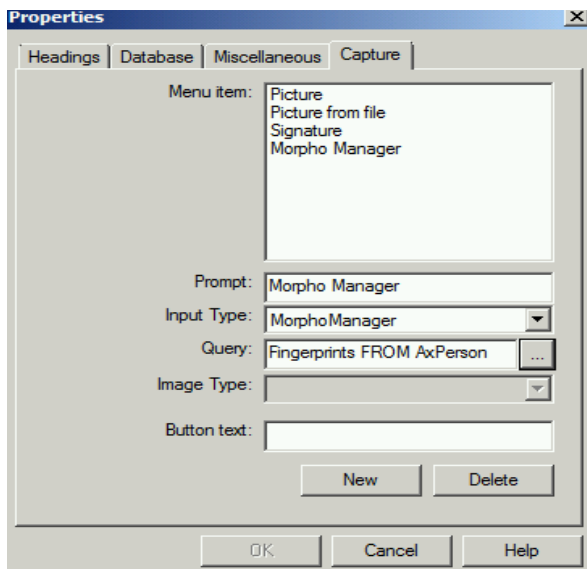
In order to launch the enrollment process from within Maxxess eFusion the Morpho Integration component of eFusion will need to be installed with the help of Maxxess Customer Support. Once that is installed, the following steps will need to be completed after configuring the “Setting up Biobridge” section of this guide.

## Configuring Cardholder Template

- In eFusion go to Configuration>Templates>Template Design.
- Select the Cardholders template that is being used currently.
- Right click in the grey area of the template (an area with no fields). Select **Properties**.
- Select **Capture** on the tabs.

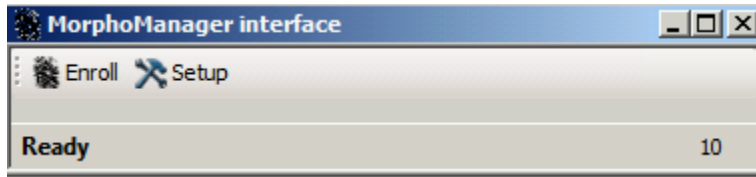


- Click **New**.
- Fill in the detail for Prompt.
- Select **Morpho Manager** as the Input Type.
- Set the Query to be Fingerprints.
- Click **OK**.



## Launching Embedded Enrollment

- From the Personnel/Cardholders screen that was configured above click **Capture**. Then click name of the button just created to launch MorphoManager. The screen below will appear.



- Click **Enroll**.

MorphoManager should launch and start the enrolment process including biometric capture.