

# MorphoManager

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BioBridge

AMAG Symmetry

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 has been tested with the following versions of AMAG Symmetry:

- Professional 7.0.1
- Professional 8.0.1
- Professional 8.0.2
- Professional 8.0.2 Homeland Security Edition
- Professional 8.1

## Support

Please contact your installer for additional support.

## Setting up BioBridge

The following areas of MorphoManager need to be configured as part of AMAG Symmetry BioBridge setup:

1. Wiegand Profiles
2. Biometric Device Profiles
3. Biometric Device
4. User Policy
5. User Distribution Group
6. 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.

The screenshot shows the MorphoManager Administration interface. The 'Administration' tab is selected, and the 'Wiegand Profiles' section is active. The interface includes a navigation menu on the left with options like Operator, Biometric Device Profile, Biometric Device, Wiegand Profiles, User Policy, User Distribution Group, User Authentication Mode, Operator Role, and Clients. The main content area displays a table of Wiegand Profiles with the following data:

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
HID Corporate 1000 - HID PACS	HID Corporate 1000 - PACS	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
Standard 26 bit - HID PACS	8 bit Site/16 bit PACS	Interpreted	Interpreted	Raw



The actual setting of the Wiegand Profile from this list will be done at the User Group 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.

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.

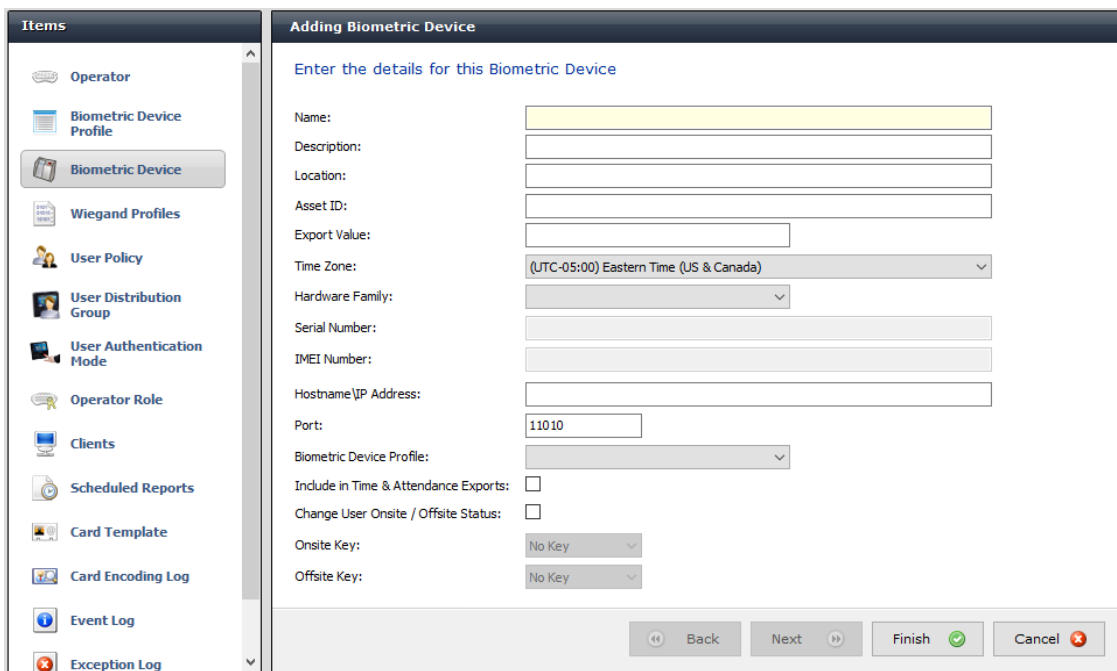


If you plan on using a Wiegand Profile, you will need to set the Wiegand Profile for the Biometric Device(s) here. The Wiegand Profile you choose for your devices must marry to the one being utilized for your users set in the User Policy section of this guide.

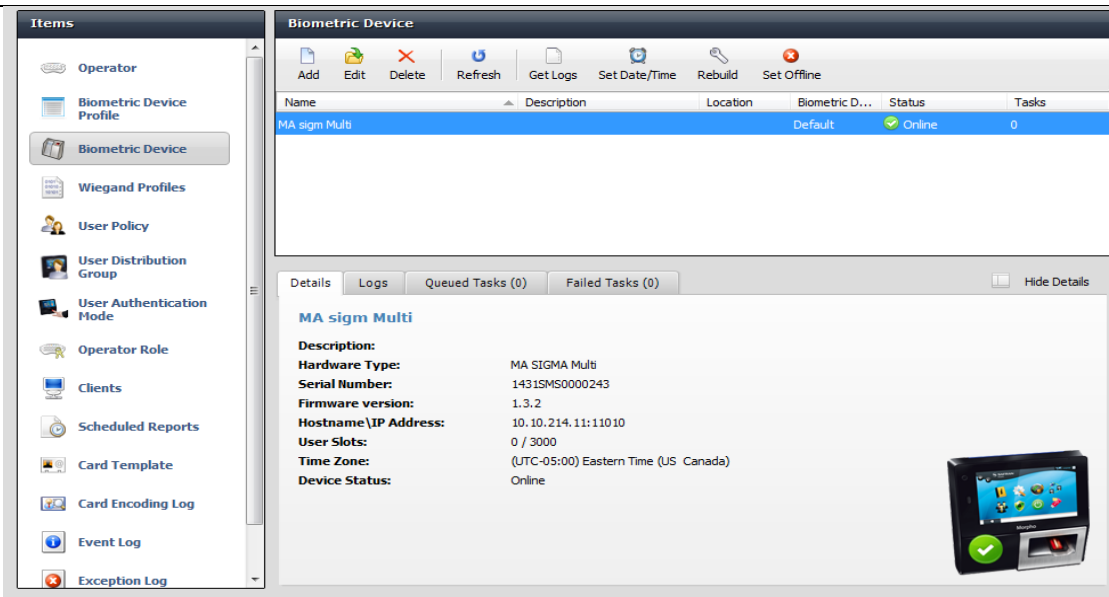
## Biometric Device(s)

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.



## 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)

 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.



The screenshot displays the BioBridge software interface. At the top, a navigation bar contains icons for Home, Administration, User Management, MSO Identification, Onsite / Offsite, Access Logs, and Reports. On the left, a vertical 'Items' menu lists various system components, with 'User Distribution Group' highlighted. The main content area is titled 'Adding User Distribution Group' and features a 'Select Biometric Devices' section. This section includes a table with columns for Name, Description, Location, and Model. The table lists three devices: MA 500, MA sigm Multi (which is selected with a blue highlight and a checked checkbox), and MA VP. Below the table, there are four navigation buttons: Back, Next, Finish (with a green checkmark), and Cancel (with a red X).

Name	Description	Location	Model
<input type="checkbox"/> MA 500			MA500
<input checked="" type="checkbox"/> MA sigm Multi			MA SIGMA Multi
<input type="checkbox"/> MA VP			MA VP-Dual

## BioBridge System Configuration

The last step in the process is to configure BioBridge to connect to AMAG Symmetry.

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

**MorphoManager BioBridge Settings**

System:

Wiegand Profile:

Grouping Mode:

Enable Forced User Policy:  Enabled

Forced User Policy:

User Synchronization Start Time:

User Synchronization End Time:

Delay Between Each User Synchronization (ms):

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 AMAG Symmetry (depending on the version of Symmetry you have installed) and click the **Configure connection** button.

A BioBridge connection box window will pop up. Fill in all the required fields and click OK.

**Note** that MorphoManager requires the presence of active XML Open Integration Module License to communicate with the Symmetry Server.

**BioBridge AMAG Symmetry v8.0 Connection**

**Server**

Symmetry Server:

Use HTTPS:

**Logon details**

Please enter the Symmetry credentials used to logon below.

Username:

Password:

Use Advanced Configuration

Advanced Configuration

Select Advanced Configuration to choose a unique identifier for users. Please note that only users with the specified criteria will be retrieved from the Symmetry database.

## Required fields

**Symmetry server:** Enter either the hostname or IP address of the Symmetry Server.

**Use HTTPS:** If your Symmetry server is configured to use SSL/TLS, check this box to enable HTTPS communication with your Symmetry Server.

**Username & Password:** Enter the user credentials you use to login to Symmetry. These credentials will be used to retrieve data from the Symmetry Server.

## Optional configuration

For most installations, MorphoManager requires no additional configuration. Under very specific scenarios, you may choose to use an advanced configuration option to specify which field should be used to uniquely identify & link cardholders from Symmetry with MorphoManager users.

**BioBridge AMAG Symmetry v8.0 Connection**

**Server**

Symmetry Server: test-us013.morphomanager.com

Use HTTPS:

**Logon details**

Please enter the Symmetry credentials used to logon below.

Username: installer

Password: ●●●●●●

Use Advanced Configuration

**Advanced Configuration**

Select Advanced Configuration to choose a unique identifier for users. Please note that only users with the specified criteria will be retrieved from the Symmetry database.

User Identifier: Employee Reference

The default option is to use the Card ID field, but this can be configured to use the Employee Reference, or any one of the Personal Data Fields configured within Symmetry.

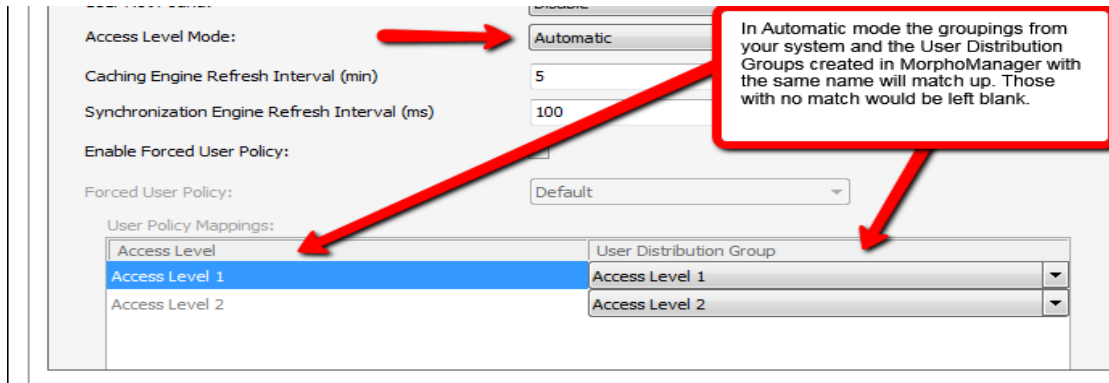
**NOTE: The selected field must contain a unique identifier value per Symmetry cardholder!**

Once configured, click “OK” to confirm your configuration is correct and return to the System Configuration / BioBridge configuration tab.

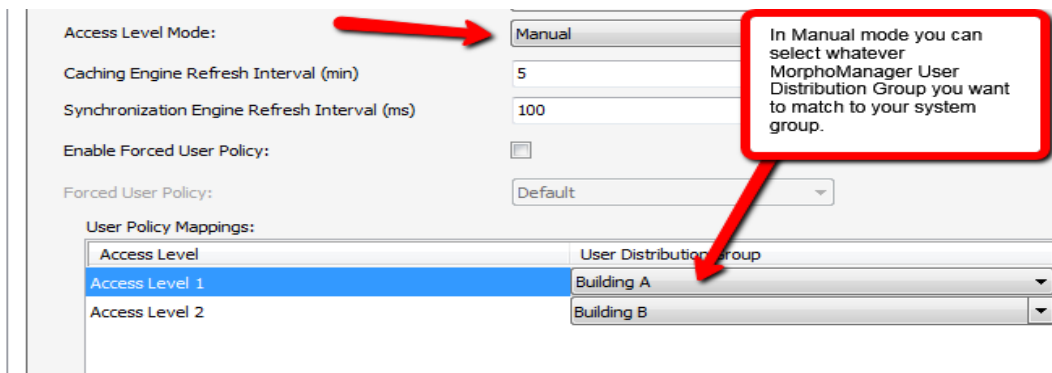
**Wiegand Profile:** Select the Wiegand format in use from the drop down menu.

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

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



**Manual:** If the Access Level grouping names of AMAG Symmetry and the User Distribution Group(s) created in MorphoManager are not the same, then selecting which AMAG Symmetry Access Level maps to which MorphoManager User Distribution Group can be done manually in the User Policy Mappings.



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

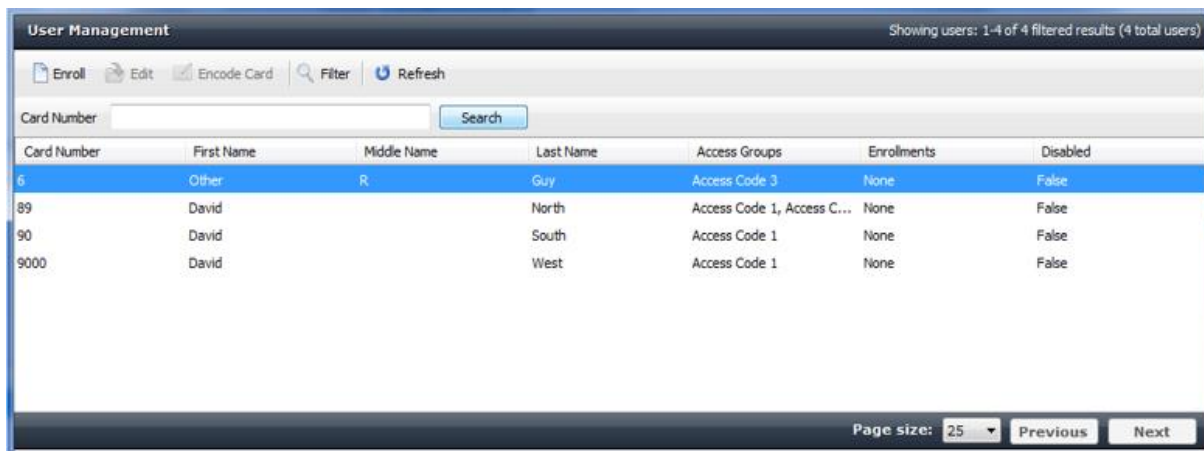
After configuring BioBridge you will now utilize the BioBridge Enrollment Client. This client will check if BioBridge Integration has been enabled and configured. If it is has not the application will display the message “BioBridge integration has not been enabled and configured” and you will need to 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



The screenshot shows the 'User Management' interface. At the top right, it says 'Showing users: 1-4 of 4 filtered results (4 total users)'. The toolbar includes icons for Enroll, Edit, Encode Card, Filter, and Refresh. Below the toolbar is a search field labeled 'Card Number' with a 'Search' button. The main area contains a table with the following data:

Card Number	First Name	Middle Name	Last Name	Access Groups	Enrollments	Disabled
6	Other	R	Guy	Access Code 3	None	False
89	David		North	Access Code 1, Access C...	None	False
90	David		South	Access Code 1	None	False
9000	David		West	Access Code 1	None	False

At the bottom right, there is a 'Page size: 25' dropdown menu and 'Previous' and 'Next' buttons.

## 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 displays a 'Filter' popup form with the following sections:

- User Details:** Includes input fields for First Name, Middle Name, Last Name, and Card Number. Below these is an 'Enabled' section with radio buttons for 'Any' (selected), 'Enabled', and 'Disabled'.
- Sort By:** A section with three dropdown menus: 'Primary' (set to 'Card Number Ascending'), 'Secondary' (set to 'Last Name Ascending'), and 'Tertiary' (set to 'First Name Ascending').
- Access Groups:** A list box containing three items: 'Access Code 1' (highlighted), 'Access Code 2', and 'Access Code 3'. Above the list are 'Select All' and 'Clear All' options.

At the bottom right of the form are three buttons: 'Reset Filters' (with a refresh icon), 'OK' (with a green checkmark icon), and 'Cancel' (with a red X icon).

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

- First Name
- Middle Name
- Last Name
- Card Number
- Enabled/Disabled
- Access Groups

## 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 AMAG Symmetry 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 screenshot shows the 'User Management' interface. At the top, it says 'Showing users: 1-4 of 4 filtered results (4 total users)'. Below this are buttons for 'Enroll', 'Edit', 'Encode Card', 'Filter', and 'Refresh'. There is a search field labeled 'Card Number' with a 'Search' button. The main area is a data grid with the following columns: Card Number, First Name, Middle Name, Last Name, Access Groups, Enrollments, and Disabled. The data is as follows:

Card Number	First Name	Middle Name	Last Name	Access Groups	Enrollments	Disabled
89	David	R	Guy	Access Code 3	None	False
90	David		North	Access Code 1, Access C...	None	False
9000	David		South	Access Code 1	None	False
	David		West	Access Code 1	None	False

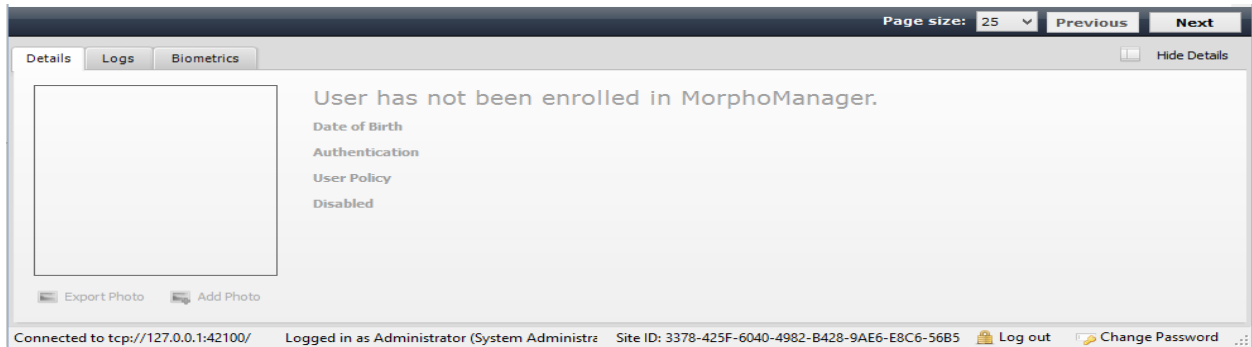
At the bottom right of the grid, there is a 'Page size:' dropdown set to '25', and 'Previous' and 'Next' buttons.

The data grid will have the following columns:

- Card Number
- First name
- Middle name
- Last name
- Access Groups – 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 AMAG Symmetry the following steps will need to be completed after completing the “Setting up Biobridge” section of this guide.

### Multimax.ini file

The Symmetry Multimax.ini file that is located in C:\ProgramData\Security Management System folder will need to be edited. The lines that need to be added to the .ini file are:

```
[multiMAX]  
A4Active=1
```

```
[A4Vision]  
Directory = C:\Program Files (x86)\Morpho\MorphoManager\Client  
Application =ID1.MM.AMAGSymmetryStub.exe
```

The Symmetry services will need to be restarted. Afterwards, a Capture button will appear in the Biometrics tab for a cardholder called A4Vision Biometric Template. This will launch the MorphoManager enrollment process.

