

MorphoManager

BioBridge

MorphoManager Universal

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.

Support

Please contact your installer for additional support.

Setting up BioBridge

The following areas of MorphoManager need to be configured as part of the Universal BioBridge setup:

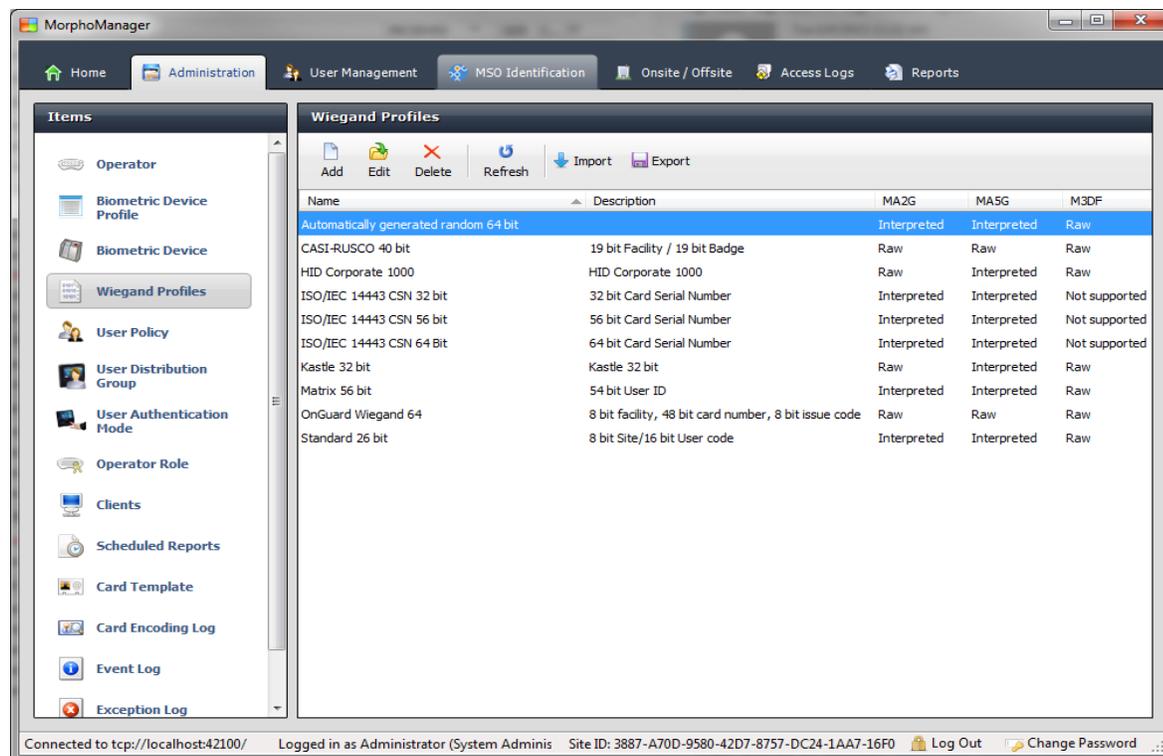
1. Wiegand Profiles
2. Biometric Device Profiles
3. Biometric Device
4. User Policy
5. User Distribution Group
6. BioBridge System Configuration

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 software interface. The 'Administration' tab is selected, and the 'Wiegand Profiles' section is active. A table lists various Wiegand profiles with their descriptions and output formats for MA2G, MA5G, and M3DF. The table has columns for Name, Description, MA2G, MA5G, and M3DF. The first row is highlighted in blue.

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 displays the MorphoManager web application interface. The top navigation bar includes 'Home', 'Administration', 'User Management', 'MSO Identification', 'Onsite / Offsite', 'Access Logs', 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 fields and options:

- Name:** A text input field.
- Description:** A text input field.
- Configuration Mode:** A dropdown menu set to 'Express'.
- Realtime logging enabled:** A checkbox, currently unchecked.
- Log retrieval interval:** A text input field with '300' and '(seconds)'.
- Display name encoding code page:** A dropdown menu set to 'Western Europe (Default) (ISO-8859-1)', with a note '(Applicable to MA500 series only)'. Below it, a list of supported models is shown: '(MA 100, MA 1, MA 500, MA VP, MA Sigma, MA Sigma Lite, MA Sigma Lite+, and MorphoWave only. Only applicable to new user adds or rebuild)'. A checkbox for 'Duplicate check on biometrics' is also present and unchecked.
- MorphoAccess heartbeat interval:** A text input field with '30' and '(seconds)'.
- MA Sigma, MA Sigma Lite, MA Sigma Lite+ Only Settings:**
 - Allow Remote Enrollment:** A checkbox, currently unchecked.
 - Default User Policy for Remote Enrollment:** A 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 connection and user information.

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 Group 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.

The screenshot shows the 'Adding Biometric Device' configuration window. On the left is a sidebar with navigation items: Operator, Biometric Device Profile, Biometric Device (selected), Wiegand Profiles, User Policy, User Distribution Group, User Authentication Mode, Operator Role, Clients, Scheduled Reports, Card Template, Card Encoding Log, Event Log, and Exception Log. The main area is titled 'Adding Biometric Device' and contains the following fields and controls:

- Name: [Text input field]
- Description: [Text input field]
- Location: [Text input field]
- Asset ID: [Text input field]
- Export Value: [Text input field]
- Time Zone: (UTC-05:00) Eastern Time (US & Canada) [Dropdown menu]
- Hardware Family: [Dropdown menu]
- Serial Number: [Text input field]
- IMEI Number: [Text input field]
- Hostname/IP Address: [Text input field]
- Port: 11010 [Text input field]
- Biometric Device Profile: [Dropdown menu]
- Include in Time & Attendance Exports:
- Change User Onsite / Offsite Status:
- Onsite Key: No Key [Dropdown menu]
- Offsite Key: No Key [Dropdown menu]

At the bottom right of the form are navigation buttons: Back, Next, Finish (with a green checkmark), and Cancel (with a red X).

- Once the required details are entered click **Finish**.
- Below is a screenshot of the Biometric Device Screen after the configuration and the devices are online.

The screenshot shows the 'Biometric Device' management screen. On the left is the same sidebar as in the previous screenshot. The main area has a toolbar with icons for Add, Edit, Delete, Refresh, Get Logs, Set Date/Time, Rebuild, and Set Offline. Below the toolbar is a table with the following data:

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

Below the table are tabs for Details, Logs, Queued Tasks (0), and Failed Tasks (0). The 'Details' tab is active, showing the following information for the 'MA sigm Multi' device:

- 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: Online

At the bottom right of the details section is a small image of the MA SIGMA Multi biometric device.

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: Allow MA 500 database selection during user enrollment

Time Mask Mode:

Extended User Details: Display extended user details

Wiegand Profile:

User Authentication Mode:

Wave Enrollment Minimum Hands:

Finger Biometric Enrollment Minimum Fingers:

Preferred Finger One:

Preferred Finger Two:

Preferred Duress 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 Group 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.

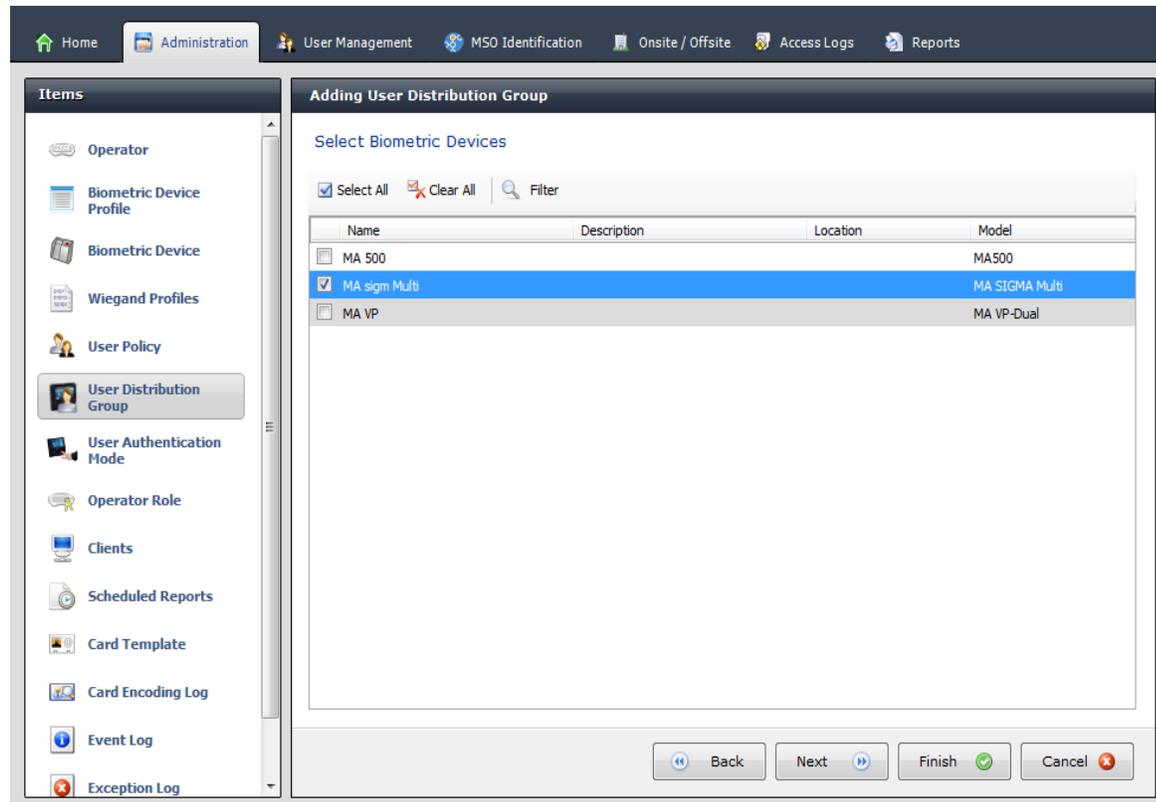
Please reference the MorphoManager User Manual for more detail on all the various properties that can be assigned to a User Policy including Wiegand Profile, Finger Biometric Enrollment Minimum, Fingers, Access Modes and User Authentication Modes.

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.

In the following screenshot, the distribution group will place users on one of the three devices installed on the system.



BioBridge System Configuration

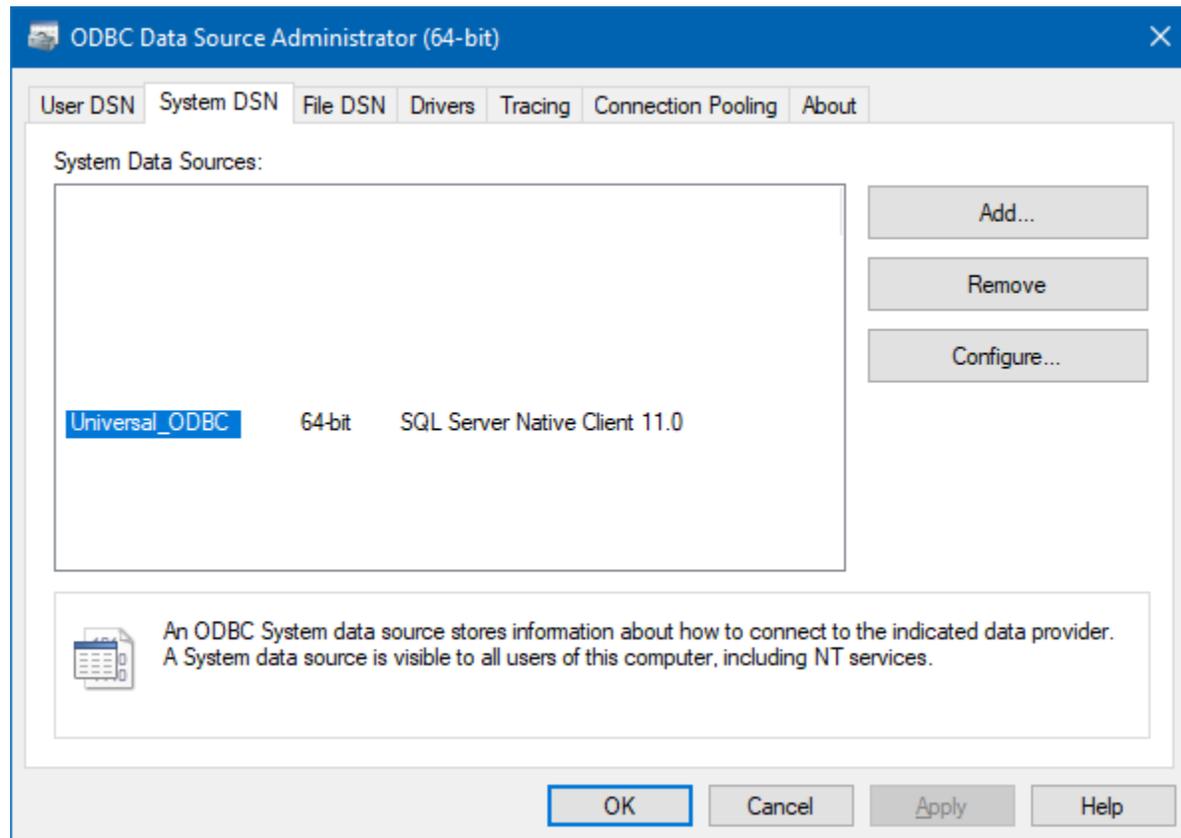
The last step in the process is to configure BioBridge specifications to MorphoManager Universal BioBridge. However, before this can be configured Open Database Connectivity (ODBC) must be set up as shown below:

Open Database Connectivity (ODBC)

Open Database Connectivity (ODBC) is a programming interface that allows applications to access data from a variety of database management systems (DBMS), such as SQL Server, Oracle, and Access. You will need to install an ODBC driver for your DBMS to use ODBC with MorphoManager. MorphoManager server is a 64-bit application so it requires 64-bit ODBC drivers.

Creating a DSN for ODBC

- Open the Control Panel in Windows and click on **Administrative Tools**.
- Select **ODBC Data Sources (64-bit)** from the list.
- Click the **System DSN** tab.



- Click Add to select a driver for your DBMS.
- Select the correct driver.
- Fill in all the details for the DSN.

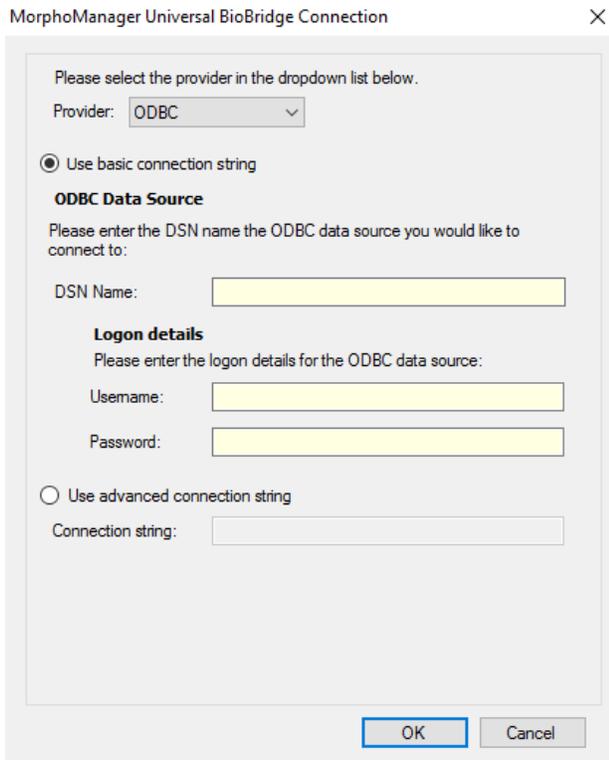
Once the ODBC is set up you can continue with BioBridge System Configuration as follows:

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

The screenshot shows the 'System Configuration' interface with the 'BioBridge' tab selected. The page title is 'MorphoManager BioBridge Settings'. The configuration options include:

- System:** A dropdown menu currently set to 'None' with a 'Configure connection' button to its right.
- Wiegand Profile:** A dropdown menu.
- Grouping Mode:** A dropdown menu.
- Enable Forced User Policy:** A checkbox labeled 'Enabled' which is currently unchecked.
- Forced User Policy:** A dropdown menu set to 'Default'.
- User Synchronization Start Time:** A time selector set to '00:00'.
- User Synchronization End Time:** A time selector set to '23:59'.
- Delay Between Each User Synchronization (ms):** A numeric selector set to '50'.
- Allow User Sync While User Cache Is Refreshing:** A checkbox labeled 'Enabled' which is currently unchecked.
- User Cache Schedule:** A grid of checkboxes for days of the week (Sunday through Saturday) and hourly intervals from 0:00 to 23:00. All checkboxes are currently checked.
- User Distribution Group Mappings:** A table with two columns: 'Access Groups' and 'User Distribution Group'.

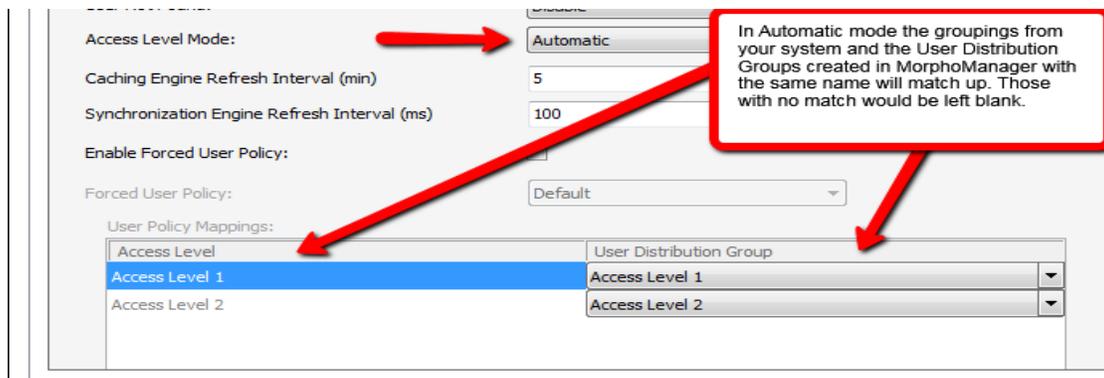
- On the BioBridge tab, select MorphoManager Universal BioBridge from the System drop down menu and click the Configure Connection button.
- Select ODBC from the Provider drop down list.
- Complete the fields with a DSN (Data Source Name) and the username and password for the DBMS.



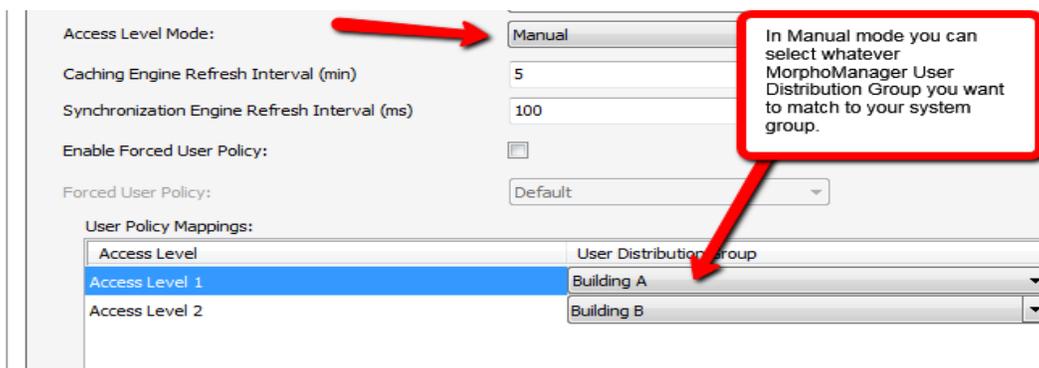
Wiegand Profile: Select the Wiegand format in use from the drop down menu.

Grouping Level Mode: This setting determines how MorphoManager should map MM Universal BioBridge users into MorphoManager User Distribution Groups.

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



Manual: If the Access Level grouping names of MM Universal BioBridge and the User Distribution Group(s) created in MorphoManager are not the same, then selecting which MM Universal BioBridge 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 3rd 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

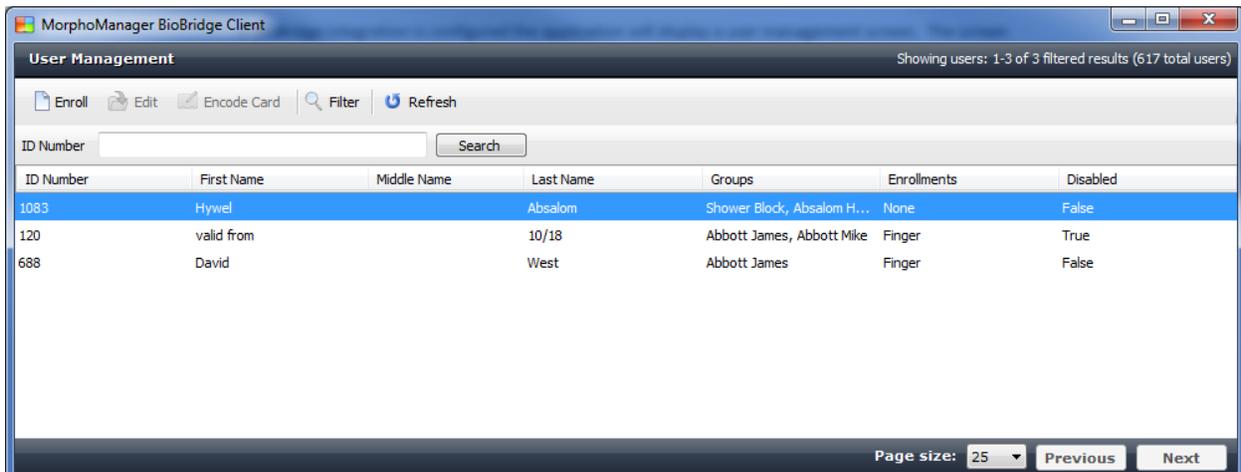
The BioBridge Enrollment Client is ready for use after you have configured BioBridge. This client will check BioBridge Integration to ensure that it has been enabled and configured. If it has not, the application will display the message “BioBridge integration has not been enabled and configured”. If this message appears, return to MorphoManager/Administration/System Configuration/BioBridge to configure BioBridge properly.

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

Toolbar

BioBridge Client toolbar displays the following items:

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



Enroll

Click Enroll to begin enrollment for the selected user. The enrollment process is 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 to encode a card.

Edit

Click Edit to open details for an already enrolled user, for viewing or editing.

Encode Card

Encode card displays an animation of the card being presented to a SDI 011 device and waits for the card encoding to complete or be cancelled.

Filter

The screenshot displays a filter interface with the following sections:

- User Details:** Includes input fields for First Name, Middle Name, Last Name, ID Number, and Date of Birth. The Enabled status is set to 'Any' via radio buttons.
- User Wiegand values:** A field labeled 'Not Applicable'.
- Groups:** A list of groups with checkboxes for selection. 'Select All' and 'Clear All' options are present. The selected groups are: Abbott James, Abbott Mike, Absalom Hywel, Acheson Kenneth, Adam Jonathan, and Adams Kerry.
- Sort By:** Three dropdown menus for sorting: Primary (ID Number Ascending), Secondary (Last Name Ascending), and Tertiary (First Name Ascending).

Filter shows a popup inline form that allows filtering based on the following items:

- First Name
- Last Name
- ID Number
- Enabled/Disabled
- Group

Refresh

Refresh updates the data currently being shown using the currently set filter conditions.

Search Field

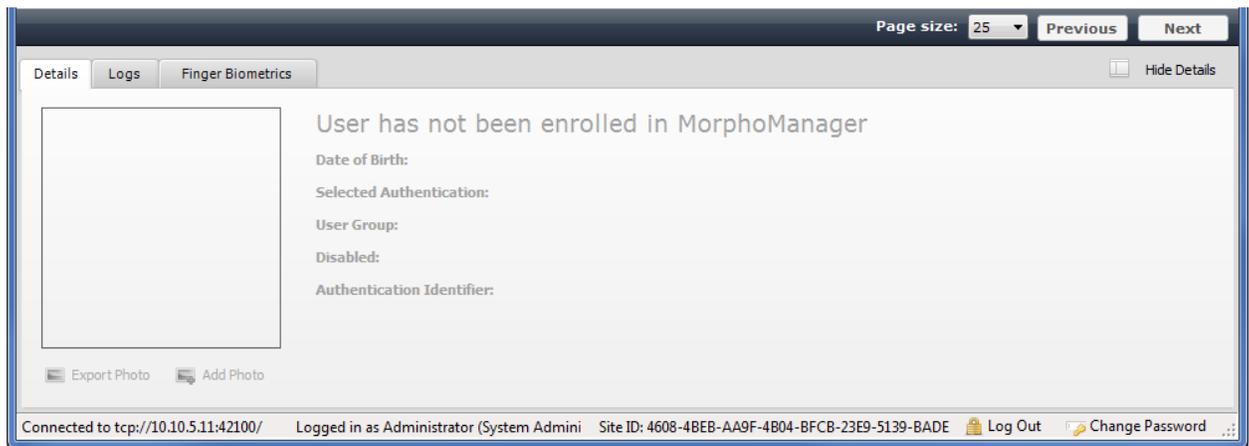
The Search Field can be used to find individual users quickly and/or to migrate users from the external system to the BioBridge Enrollment Client without waiting for a cache refresh.

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:

- ID Number
- First name
- Last name
- 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.