

MorphoManager

BioBridge

DSX WinDSX

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 WinDSX:

- 3.7.155
- 3.10.12

Support

Please contact your installer for additional support.

Setting up BioBridge

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

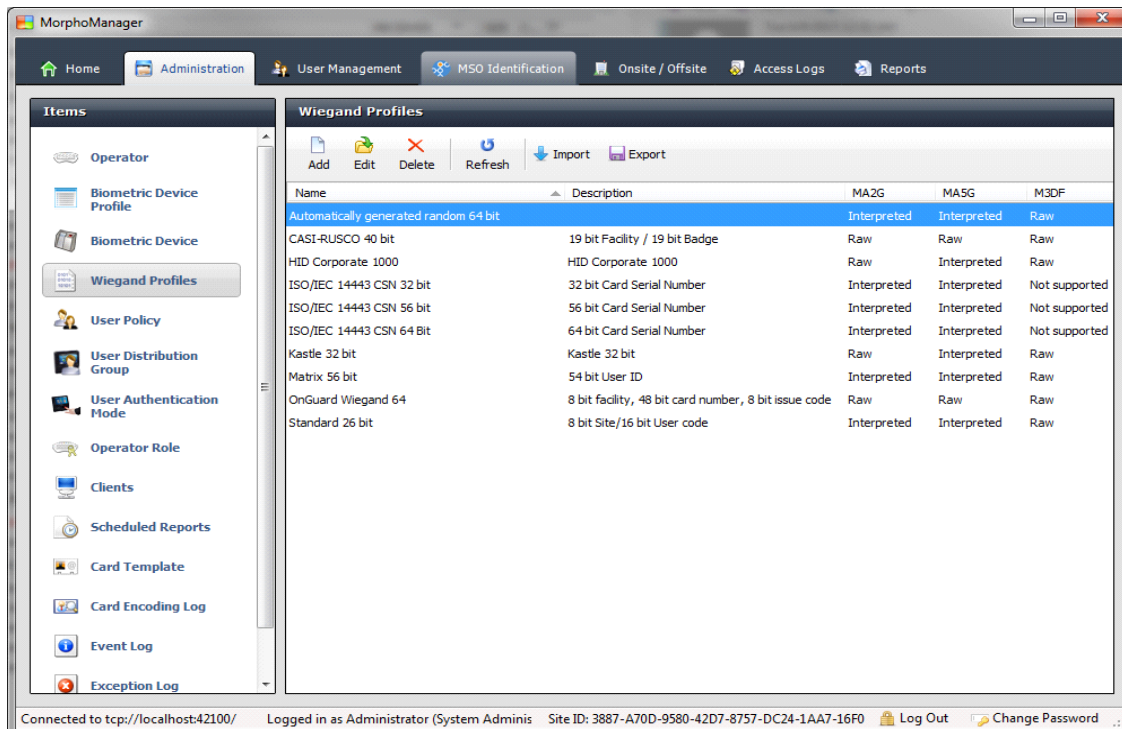
- Wiegand Profiles
- Biometric Device Profiles
- Biometric Device
- User Policy
- User Distribution Group
- BioBridge System Configuration

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.



The screenshot shows the MorphoManager application window with the 'Administration' tab selected. The 'Wiegand Profiles' section is active, displaying a table of profiles. The table has columns for Name, Description, MA2G, MA5G, and M3DF. The 'Automatically generated random 64 bit' profile is selected and 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 |

At the bottom of the window, the status bar shows: Connected to tcp://localhost:42100/ Logged in as Administrator (System Adminis Site ID: 3887-A70D-9580-42D7-8757-DC24-1AA7-16F0 Log Out Change Password



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 interface. The 'Administration' tab is selected, and the 'Biometric Device Profile' option is highlighted in the left-hand 'Items' menu. 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 set to '300' with '(seconds)' next to it.
- Display name encoding code page:** A dropdown menu set to 'Western Europe (Default) (ISO-8859-1)' with '(Applicable to MA500 series only)' next to it.
- Duplicate check on biometrics:** A checkbox, currently unchecked. Below it, text reads: '(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)'
- MorphoAccess heartbeat interval:** A text input field set to '30' with '(seconds)' next to it.

Below these fields, there is a section titled '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, there are four buttons: 'Back', 'Next', 'Finish', and 'Cancel'. The 'Finish' button has a green checkmark icon.

The status bar at the bottom of the window shows: 'Connected to tcp://localhost:42100/ Logged in as Administrator (System Adminis 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.



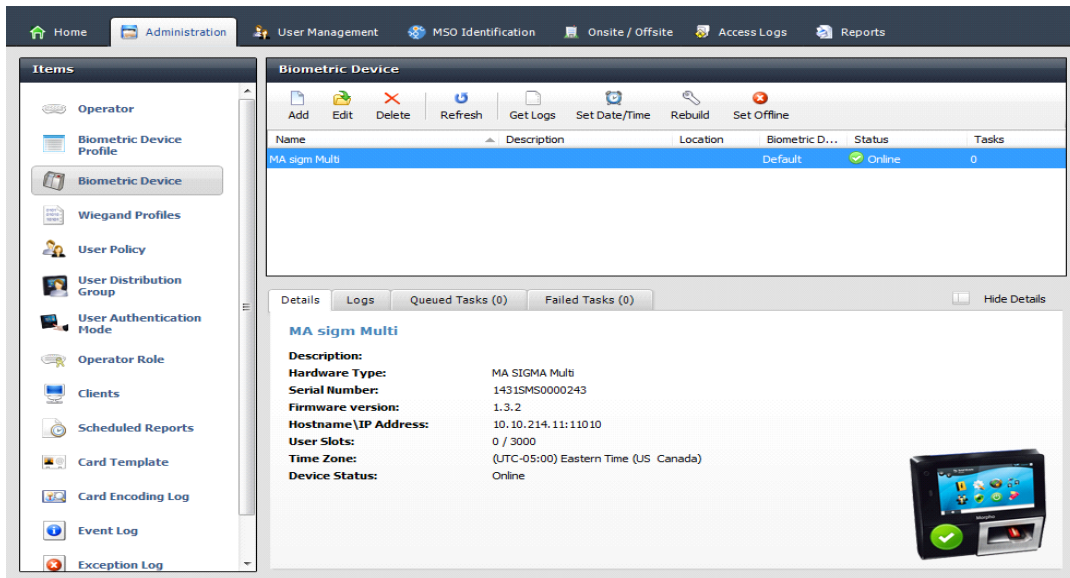
If you plan on using a Wiegand Profile, you will need to set the Wiegand Profile for the Biometric Device(s) here. The Wiegand Profile you choose for your devices must marry to the one being utilized for your users set in the User Policy section of this guide.

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




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.

 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.

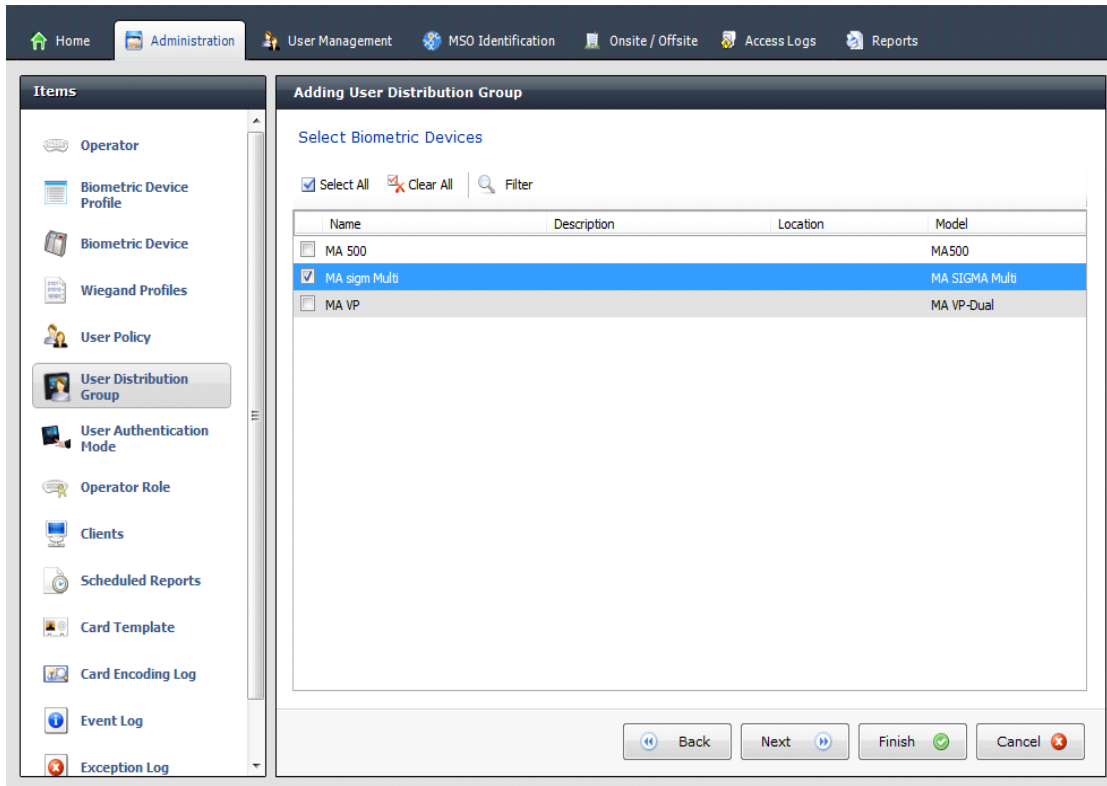
User Distribution Groups

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 WinDSX.

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

The screenshot shows the 'System Configuration' window with the 'BioBridge' tab selected. The 'MorphoManager BioBridge Settings' section includes the following fields and options:

- 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 picker set to '00:00'.
- User Synchronization End Time:** A time picker set to '23:59'.
- Delay Between Each User Synchronization (ms):** A spinner box 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 specific times of day (0:00 through 23:00). All checkboxes are currently checked.
- User Distribution Group Mappings:** A table with columns for 'Access Groups' and 'User Distribution Group'.

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

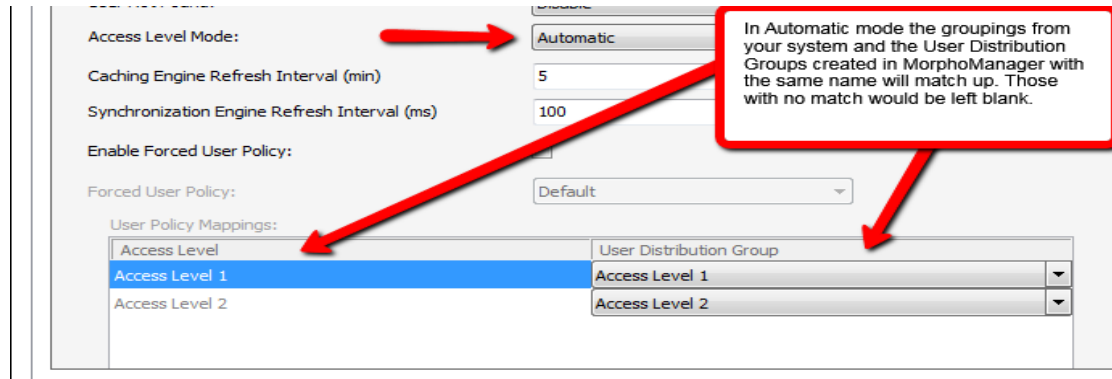
The screenshot shows the 'BioBridge DSX WinDSX Connection' dialog box. It contains the following fields and sections:

- Provider:** A dropdown menu set to 'SQL Server'.
- SQL Server** section:
 - Server:** A text input field.
 - Database:** A text input field.
- Logon details** section:
 - Please enter the WinDSX SQL credentials below.**
 - Username:** A text input field.
 - Password:** A text input field.
- Buttons:** 'OK' and 'Cancel' buttons at the bottom.

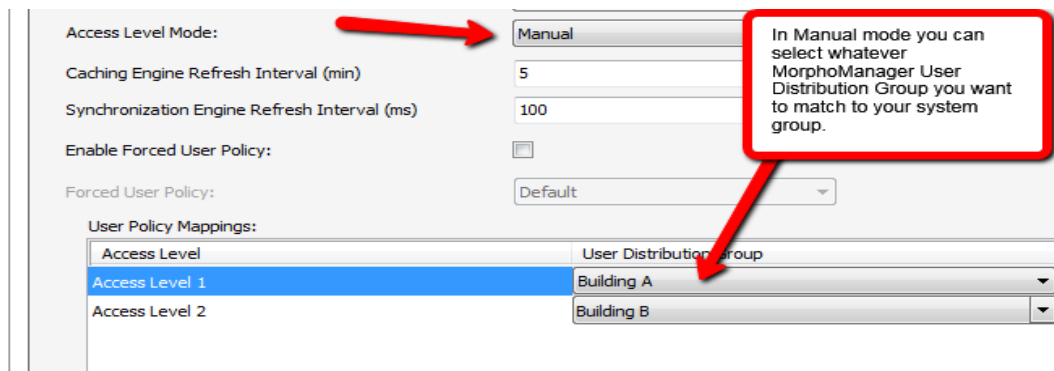
Wiegand Profile: Select the Wiegand format in use from the drop down menu.

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

Automatic: This mode will automatically match Access Level groups from WinDSX to the ones created in MorphoManager User Distribution Group if they have the same naming convention. Those with no match would be left blank.



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

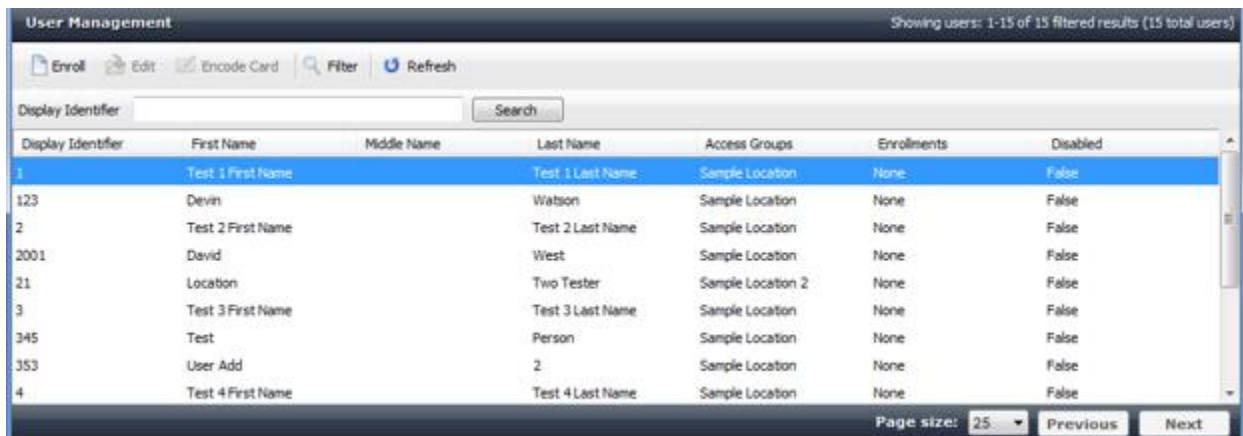
After configuring BioBridge you will now utilize the BioBridge Enrollment Client. This client will check if BioBridge Integration has been enabled and configured. If it is has not, the application will display the message “BioBridge integration has not been enabled and configured” and you will need to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



| Display Identifier | First Name | Middle Name | Last Name | Access Groups | Enrollments | Disabled |
|--------------------|-------------------|-------------|------------------|-------------------|-------------|----------|
| 1 | Test 1 First Name | | Test 1 Last Name | Sample Location | None | False |
| 123 | Devin | | Watson | Sample Location | None | False |
| 2 | Test 2 First Name | | Test 2 Last Name | Sample Location | None | False |
| 2001 | David | | West | Sample Location | None | False |
| 21 | Location | | Two Tester | Sample Location 2 | None | False |
| 3 | Test 3 First Name | | Test 3 Last Name | Sample Location | None | False |
| 345 | Test | | Person | Sample Location | None | False |
| 353 | User Add | | 2 | Sample Location | None | False |
| 4 | Test 4 First Name | | Test 4 Last Name | Sample Location | None | False |

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)
 - Fingerprint
 - Card and Fingerprint (enabled only if Card + Finger + Pin is selected)
- 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:** Includes input fields for 'First Name', 'Last Name', and 'Display Identifier'. Below these is a radio button group for 'Enabled' with options: 'Any' (selected), 'Enabled', and 'Disabled'.
- Sort By:** A section with three dropdown menus: 'Primary' (set to 'Display Identifier Ascending'), 'Secondary' (set to 'Last Name Ascending'), and 'Tertiary' (set to 'First Name Ascending').
- Locations:** A list box with a 'Select All' checkbox (checked) and a 'Clear All' button. The list contains 'Sample Location' (highlighted) and 'Sample Location 2'.

At the bottom right of the dialog are three buttons: 'Reset Filters' (with a red eraser 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
- Last Name
- Display Identifier
- 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 WinDSX 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:

- Display Identifier
- First name
- Middle name
- Last name
- Access Groups – All of the Access 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.

The screenshot shows the 'User Management' interface. At the top, there are buttons for 'Enroll', 'Edit', 'Encode Card', 'Filter', and 'Refresh'. Below these is a search field labeled 'Display Identifier' with a 'Search' button. The main part of the interface is a data grid with the following columns: Display Identifier, First Name, Middle Name, Last Name, Access Groups, Enrollments, and Disabled. The grid contains 15 rows of test data. Below the grid is a pagination control showing 'Page size: 25' and 'Previous' and 'Next' buttons. At the bottom of the interface is a 'Details' panel with tabs for 'Details', 'Logs', and 'Finger Biometrics'. The 'Details' tab is active, and it displays the message 'User has not been enrolled' along with fields for 'Date of Birth:', 'Selected Authentication:', 'User Group:', 'Disabled:', and 'Authentication Identifier:'. The status bar at the very bottom shows connection information, login details, and site ID.

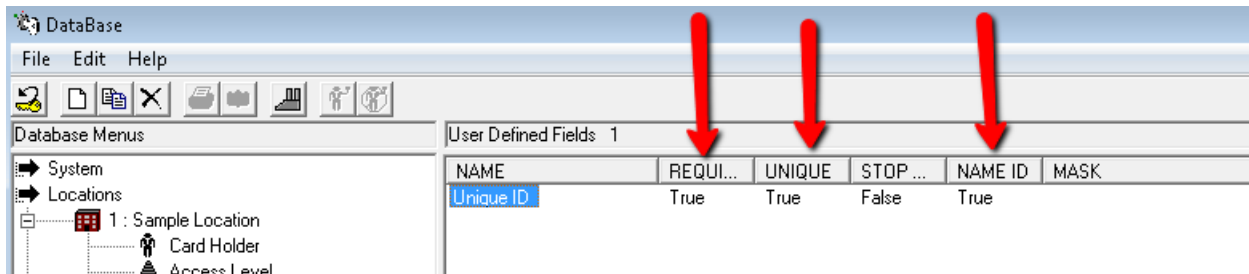
| Display Identifier | First Name | Middle Name | Last Name | Access Groups | Enrollments | Disabled |
|--------------------|-------------------|-------------|------------------|-------------------|-------------|----------|
| 1 | Test 1 First Name | | Test 1 Last Name | Sample Location | None | False |
| 123 | Devin | | Watson | Sample Location | None | False |
| 2 | Test 2 First Name | | Test 2 Last Name | Sample Location | None | False |
| 2001 | David | | West | Sample Location | None | False |
| 21 | Location | | Two Tester | Sample Location 2 | None | False |
| 3 | Test 3 First Name | | Test 3 Last Name | Sample Location | None | False |
| 345 | Test | | Person | Sample Location | None | False |
| 353 | User Add | | 2 | Sample Location | None | False |
| 4 | Test 4 First Name | | Test 4 Last Name | Sample Location | None | False |

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.

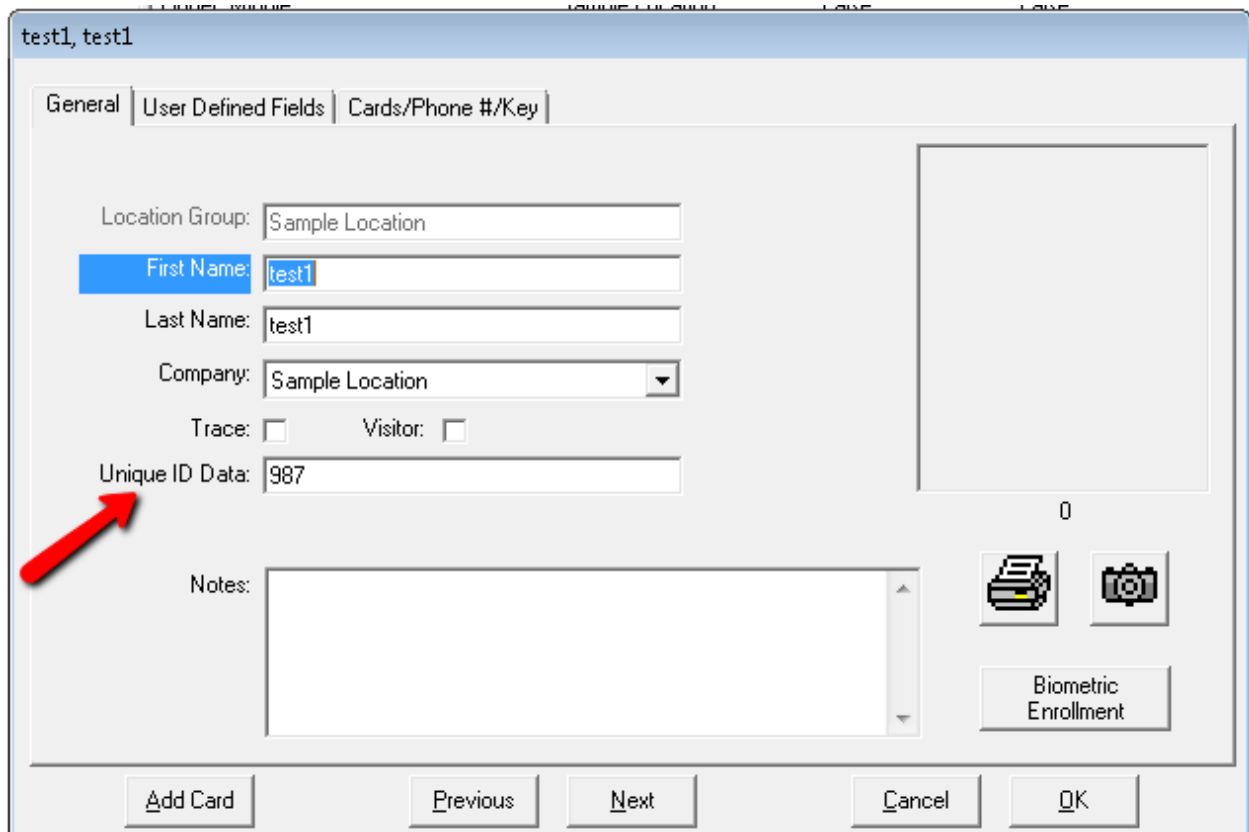
Embedded Enrollment

The configuration of Biobridge in System Configuration>Biobridge should **NOT** be completed if using Embedded Enrollment. However, please note that the User Policy and the User Distribution Group set up in MorphoManager will need to be named "Default".

WinDSX needs be configured with a User Defined Field (UDF) that is Required, Unique **AND** Name ID.



With this configuration, the UDF will appear on the general tab of WinDSX when adding/editing a user.



In order to launch the enrollment process from within WinDSX (Version 3.7.155 & 3.10.12) the steps in the sections below will need to be completed.

Configure Registry

Go to Windows Regedit and the entry is as follows: Hkey_Current_User/Software/VB and VBA Program Settings/DSX_Access_Systems\WinDSX\DB\AuxExportExe

The string field will have a value consisting of the path and executable program to be launched. See screenshot below for an example:

| Name | Type | Data |
|---------------|--------|---|
| (Default) | REG_SZ | (value not set) |
| AuxExportExe | REG_SZ | C:\Program Files (x86)\Morpho\MorphoManager\Client\ID1.ECP4.MorphoManager.DSXIntegrator.exe |
| AuxExportText | REG_SZ | Biometric Enrollment |

Enrolling Cardholder Biometrics

After configuring the registry the “Biometric Enrollment” button on the Cardholder’s General tab can be clicked to launch MorphoManager. This will start the enrolment and biometric capture steps needed to add the user to MorphoManager.

