

MorphoManager

BioBridge

Paxton Net2

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 Paxton Net2:

- 4.28

Support

Please contact your installer for additional support.

Setting up BioBridge

The following areas of MorphoManager will need to be configured as part of Paxton Net2 BioBridge setup:

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

Prerequisites

Please ensure that you have the Paxton Net2 SDK redistributable installed before continuing. This can be downloaded at <http://www.paxton.co.uk/spotlight.asp?strStage=SDK>

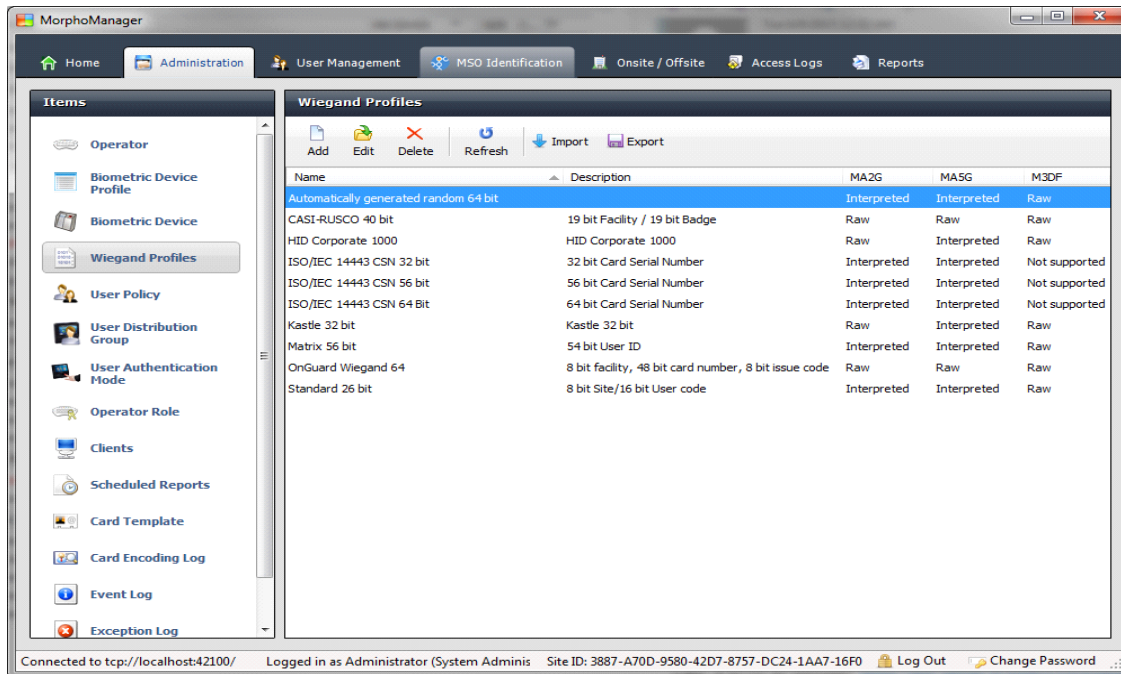
It is only necessary to install RedistOEM.

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 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 Administration interface. The left sidebar contains a tree view with categories like Operator, Biometric Device Profile, Biometric Device, 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 Profile' and contains the following configuration options:

- Name: [Text Field]
- Description: [Text Field]
- Configuration Mode: [Express] (Dropdown)
- Realtime logging enabled: [] (Checkbox)
- Log retrieval interval: [300] (seconds) (Text Field)
- Display name encoding code page: [Western Europe (Default) (ISO-8859-1)] (Dropdown) (Applicable to MA500 series only)
- Duplicate check on biometrics: [] (Checkbox) (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: [30] (seconds) (Text Field)
- MA Sigma, MA Sigma Lite, MA Sigma Lite+ Only Settings:
 - Allow Remote Enrollment: [] (Checkbox)
 - Default User Policy for Remote Enrollment: [Default] (Dropdown)

At the bottom of the form are buttons for Back, Next, Finish, and Cancel. The status bar at the very bottom shows connection and login 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 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.

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:

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

At the bottom right, there 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 how the Biometric Device Screen looks after the configuration and the devices are online.

The screenshot shows the 'Biometric Device' management screen. The top navigation bar includes: Home, Administration, User Management, MSO Identification, Onsite / Offsite, Access Logs, and Reports. The left sidebar is the same as in the previous screenshot. The main area is titled 'Biometric Device' and features 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, there are tabs for Details, Logs, Queued Tasks (0), and Failed Tasks (0). The 'Details' tab is active, showing the following information for 'MA sigm Multi':

- Description: MA SIGMA Multi
- Hardware Type: 1431SMS000243
- Serial Number: 1.3.2
- Firmware version: 10.10.214.11:11010
- Hostname\IP Address: 0 / 3000
- Time Zone: (UTC-05:00) Eastern Time (US Canada)
- Device Status: Online

A small image of the biometric device is shown in the bottom right corner of the details panel.

User Policy

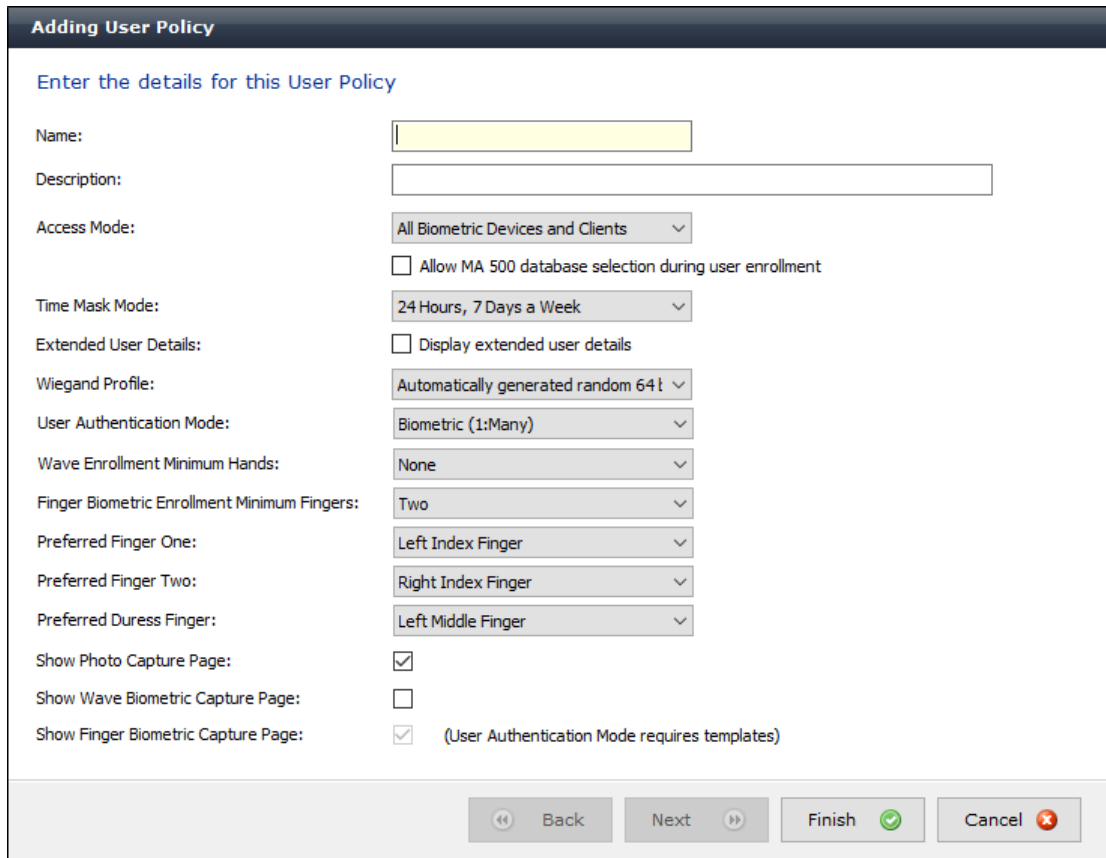
User policies are used to apply access rights and rules to all members of the group.


To Configure BioBridge, MorphoManager's User Policy 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.

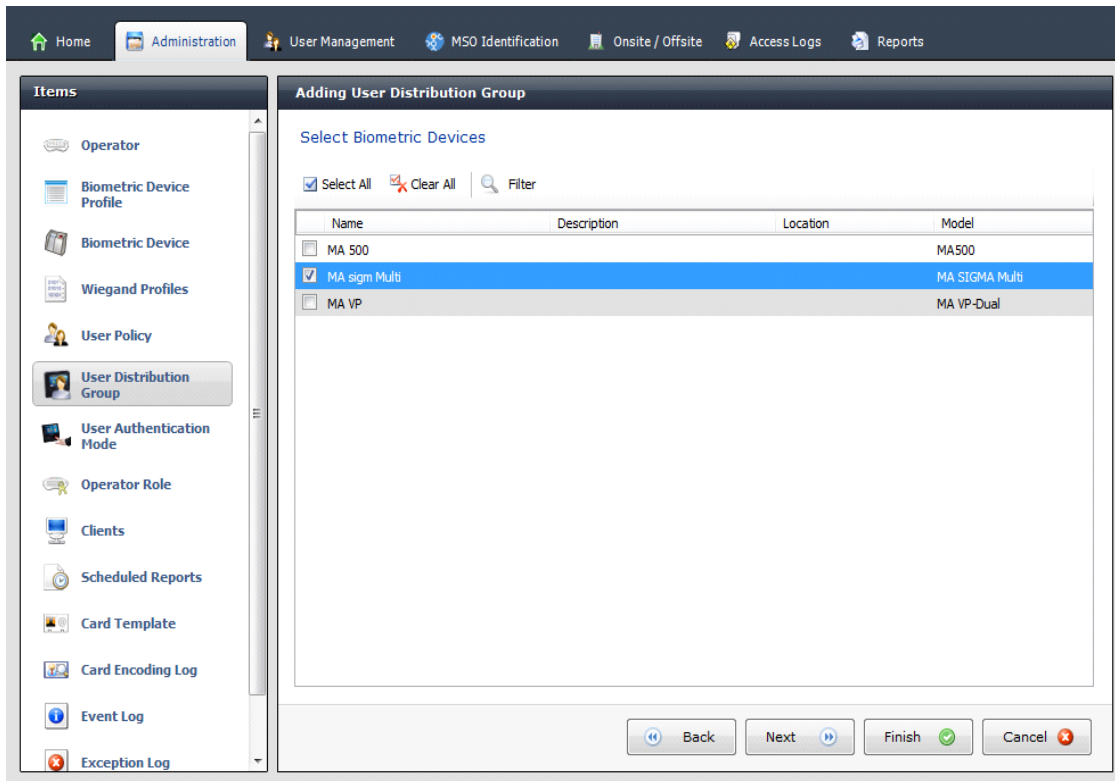
Please reference the MorphoManager User Manual for more detail on all the various properties that can be assigned to a User Policy including Wiegand Profile, Finger Biometric Enrollment Minimum, Fingers, Access Modes and User Authentication Modes.

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 Net2.

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 Net2 and click the **Configure connection** button. A BioBridge connection box window will pop up. Fill in all the required fields and click OK.

BioBridge Paxton Net2 Connection

Server

Net2 Server:

Port: 8025

Logon details

Please enter the Net2 logon credentials below.

Username:

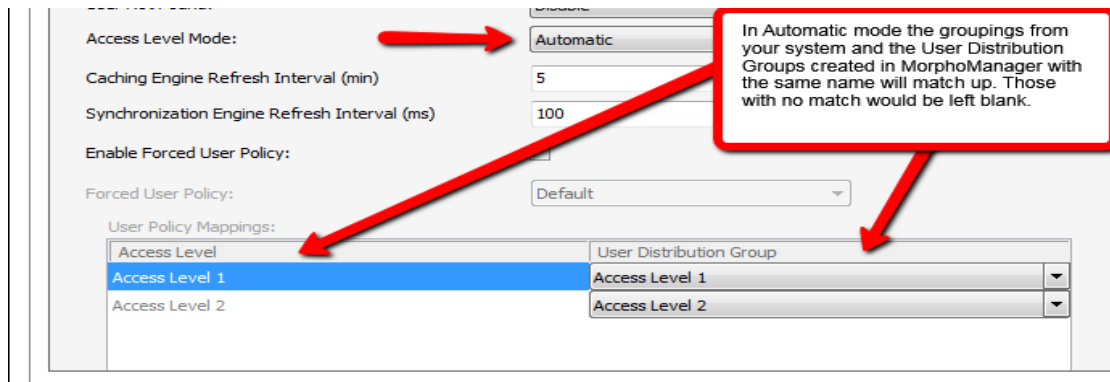
Password:

OK Cancel

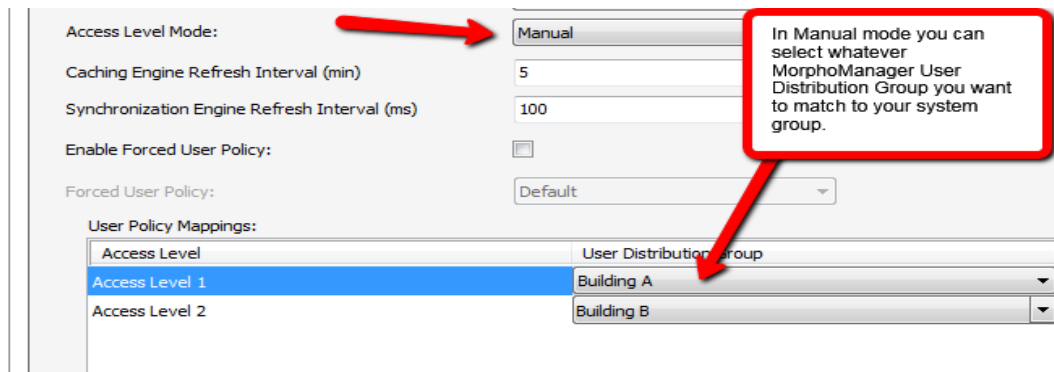
Wiegand Profile: Select the Wiegand format in use from the drop down menu.

Grouping Level Mode: This setting determines how MorphoManager should map Net2 users into MorphoManager User Distribution Groups.

Automatic: This mode will automatically match Access Level groups from Net2 to the ones created in MorphoManager User Distribution Group if they have the same naming convention.



Manual: If the Access Level grouping names of Net2 and the User Distribution Group(s) created in MorphoManager are not the same, then selecting which Net2 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

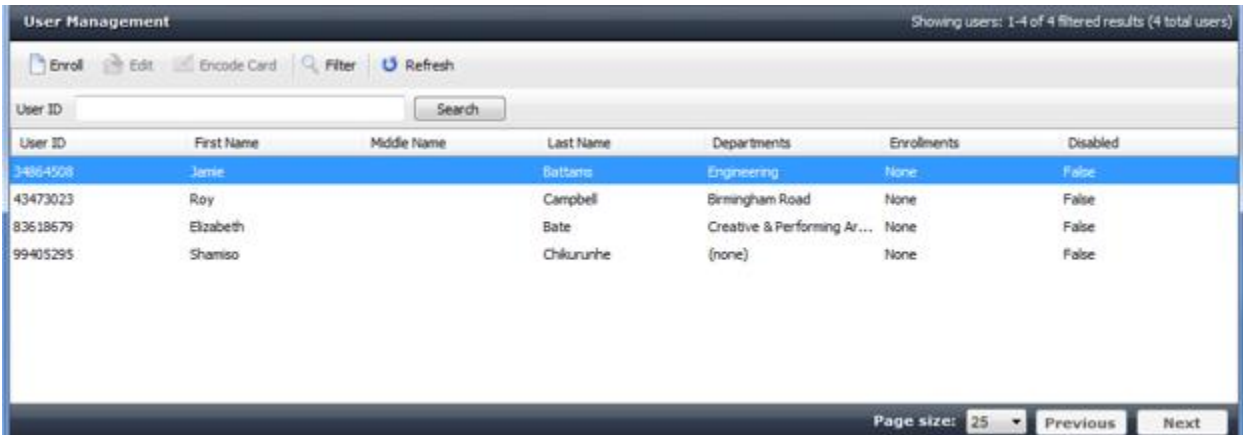
After configuring BioBridge you will now utilize the BioBridge Enrollment Client. This client will check if BioBridge Integration has been enabled and configured. If it has not been configured, the application will display the message “BioBridge integration has not been enabled and configured” and you 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 buttons for 'Enroll', 'Edit', 'Encode Card', 'Filter', and 'Refresh'. Below the toolbar is a search field labeled 'User ID' with a 'Search' button. The main area is a table with the following data:

User ID	First Name	Middle Name	Last Name	Departments	Enrollments	Disabled
34864508	Jamie		Batters	Engineering	None	False
43473023	Roy		Campbell	Birmingham Road	None	False
83618679	Elizabeth		Bate	Creative & Performing Ar...	None	False
99405295	Shamiso		Chikunhe	(none)	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 shows a 'Filter' dialog box with the following sections:

- User Details:** Fields for First Name, Middle Name, Last Name, and User ID. An 'Enabled' section with radio buttons for 'Any' (selected), 'Enabled', and 'Disabled'.
- Sort By:** Three dropdown menus for Primary (User ID Ascending), Secondary (Last Name Ascending), and Tertiary (First Name Ascending).
- Departments:** A list with 'Select All' and 'Clear All' buttons. The list includes '(none)', 'Birmingham Road', 'Creative & Performing Arts - Art & Design', and 'Engineering'.
- Buttons:** 'Reset Filters', 'OK', and 'Cancel' at the bottom right.

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

- First Name
- Middle Name
- Last Name
- User ID
- Enabled/Disabled
- Departments

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 Paxton Net2 to the BioBridge Enrollment Client without waiting for a cache refresh.

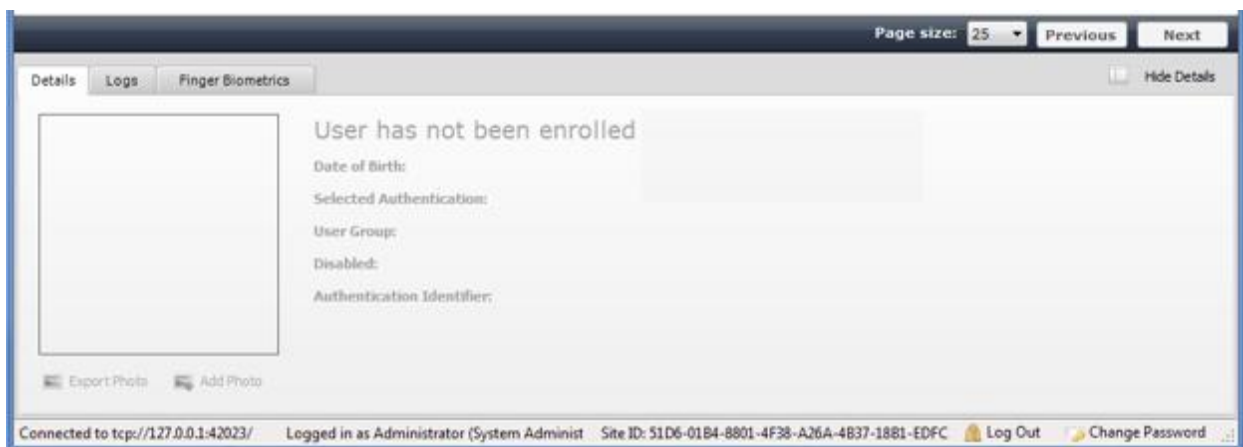
Data Grid

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:

- User ID
- First name
- Middle name
- Last name
- Departments– All of the Department 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 setup

Embedded enrollment is not supported for Paxton Net2.