BioMerge Manual

Version

2.02

CONTENTS

Hardware / Software Requirements

Minimum PC Specification:

Intel® i5 4th generation or higher

4GB RAM or greater

Minimum 20GB free disk space

256 colours @ 1024 x 768

Physical Ethernet and USB port

Operating System:

Windows 11 Pro

Windows 10 Pro 32 + 64 Bit

Windows 8 32 + 64 Bit

Windows 7 32 + 64 Bit

Windows Server operating systems are not supported.

Virtual Machine environments are not supported.

Advice on how to setup a Vlan environment for Biomerge is not provided.

Paxton Version:

V6.7 and above

Virdi Products:

AC5000-SC Firmware - 10.51.03-000.36

AC5000-SC Firmware – 30.62.01-000.09 (Non PoE)
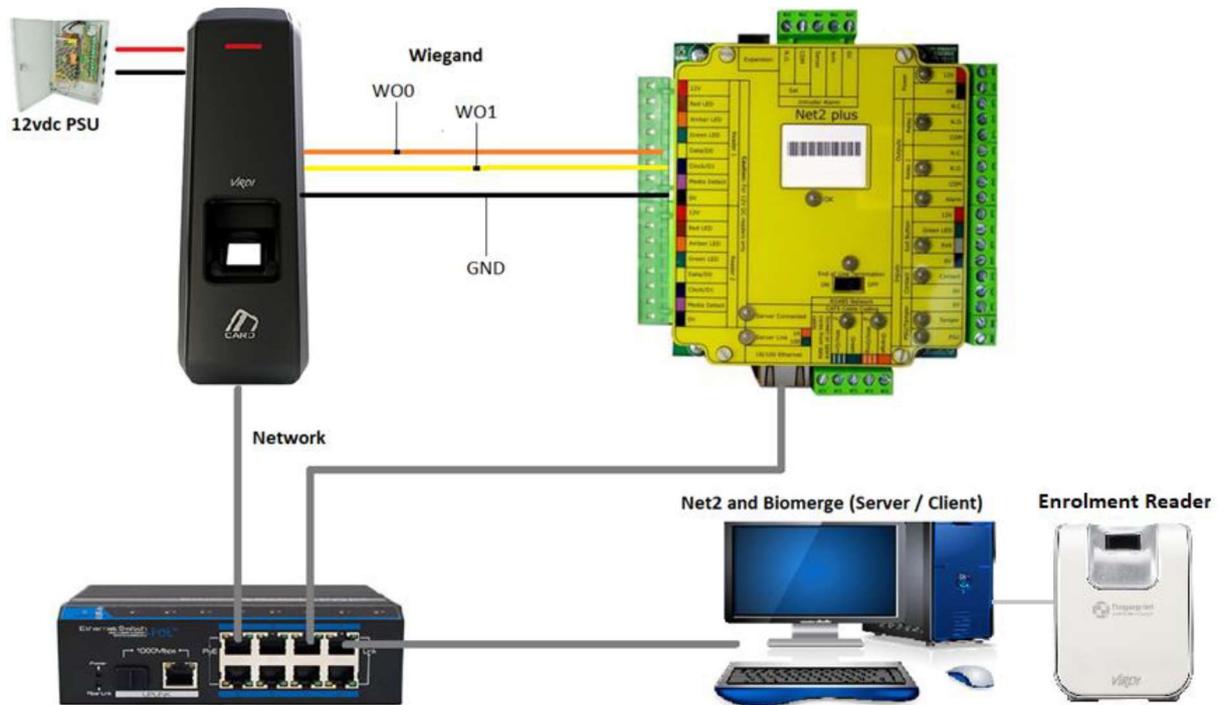
AC2500-SC Firmware - 30.51.09-000.02

AC2200-SC Firmware - 10.61.00-000.35

AC2000-SC Firmware - 10.61.00-000.06

ACF100-SC Firmware - 11.51.04-000.10

Newer firmware versions, and non-Genie sourced variants may work but have not received a full evaluation.

SYSTEM OVERVIEW

Peripheral	Required
Enrolment Reader	Yes

| Connection	Required
Network	Yes
Wiegand	Yes
Power	Yes

Configuration And Setup Requirements

Wiegand

You must interface the Virdi terminals and Net2 ACU's physically, just as a standard RFID reader and controller are.

As with all Wiegand interfaces the Ground of the Reader <u>must</u> Connected to the Ground of the Access control Panel.

On Virdi Devices that's OUT0, OUT1 and GND

On Net ACUs that's Data/D0, Clock/D1 and 0V
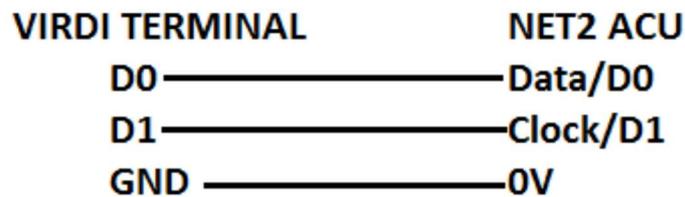
Wiegand format

The Wiegand Output of the Virdi Terminal needs to be enabled and match the Net2 ACU's configuration.

Using Net2's default 26 Bit format will mean that the interfaced terminal will need its Wiegand output set to 26bit.

When using the AC2000, Unis-B Plus mobile app or Unis remote manager is used to enable 26bit Wiegand out in the settings. Once enabled, you can uninstall Unis Remote manager.

Power

The Virdi terminal should be powered from the PSU supplied or PoE if it is a compliant device.

Network

Virdi Terminals require connection to the LAN. They require a unique IP (Dynamic or Static), the Servers IP address and a Terminal ID, for example 1.

Terminal Card reader settings

AC2500: HEXA_2

AC5000: HEXA

Enrolment Reader

Systems Running **BioMerge2 Client** need a Virdi **FOH02SC** attached via a physical **USB** port.

Net2 Door / Reader Configuration

BIOMERGE SOFTWARE OVERVIEW

BioMerge 2 consists of two programs, Server & Client.

Server

The Server program must be installed on the Paxton server, Virdi Terminals can be added to the system and maintained. The server program sends user information to the Virdi terminals and is the link between Paxton Net2 and the Virdi terminal(s).

Client

The Client program needs to be installed on Paxton client PC's or on Paxton server PC's in the case of when installations of the Paxton server PC is also used for enrolment purposes. The client program is used for enrolment / modification of Users and their authentication types in relation to Virdi terminals.
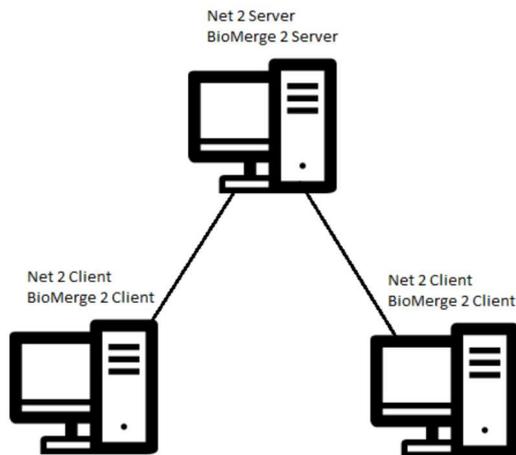
Scenario A.   Scenario B.
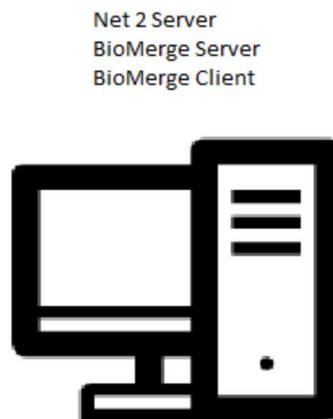
NB .Please Note that both BioMerge2 Server and BioMerge2 Client are a License based system (more information on licensing on page 9 of this manual)

Installation

After unzipping the Biomerge compressed file, open the .autorun folder and select autorun.exe, you will then be presented with the window below.

Select Browse CD, locate and install vcredist_x86(SP1) if you are using Net2 version 6.7 or above. Then return to the My menu [Main Page]

Server

Click the *Install Server* Button

An Information window will pop up stating that SQL 2012 (A dependency of Biomerge) needs to be installed.

Select the *Install* button and the Installation will commence, the length of time the install takes will depend on your system specification, it can take over 10 minutes for Microsoft SQL Server 2012 Express Sp2 to install.

Once the prerequisite installation is complete the BioMerge2 Sever Install window will appear on screen.

Click the **Next>** button followed by the **Install** button when the next screen appears.

When the Install is complete click the **Finish** button.

Server is now ready to run for the first time.

It is in **C:\Program Files (x86)\Genie CCTV\BioMerge2 Server**

To create a shortcut on your desktop **right click** the **BioMergeServer** application and select **Create shortcut**.

In scenarios where the **Net2 Server** is separate from the client system, it's recommended that BioMerge2 Server is configured to **start** via a **task** that runs at **start up**.

Client

Click the **Install Client** button.

The BioMerge2 Client install window will appear on screen.

Click the **Next>** button followed by the **Install** button when the next screen appears.

When the Install is complete click the **Finish** button.

Click the **Install Desktop Reader** Button (This installs the Drivers for the Virdi Enrolment reader FOH02SC)

An **InstallShield Wizard** window will appear on screen.

Click **Next>** When the Install is complete click the **Finish** button.

Client is now ready to run for the first time.

It is located in C:\Program Files (x86)\Genie CCTV\BioMerge2 Client

To create a shortcut on your desktop right click the BioMergeClient application and select Create shortcut.

Licensing

Licensing is managed on a per system basis, if Server and Client are installed on a single system then only one license is required, however, if they are installed on two separate systems then two licenses are required. Server and client systems are individually licensed.

After running Server or Client for the first time, the window below will appear on screen.

Please contact the technical team at Bioaccess Sale Limited (Genie) for License Keys, the *terminal serial number and the Installation ID are required* so that a License Key can be produced.

Once the License Key is entered, select *Save License.*

The Program you have licensed will then run.

NOTE: Biomerge is an annual based license that is free to customers who purchase Virdi terminal(s) sourced from Bioaccess Sales Limited (Genie), terminal(s) not sourced from Bioaccess Sales Limited (Genie) will require an annual license fee.
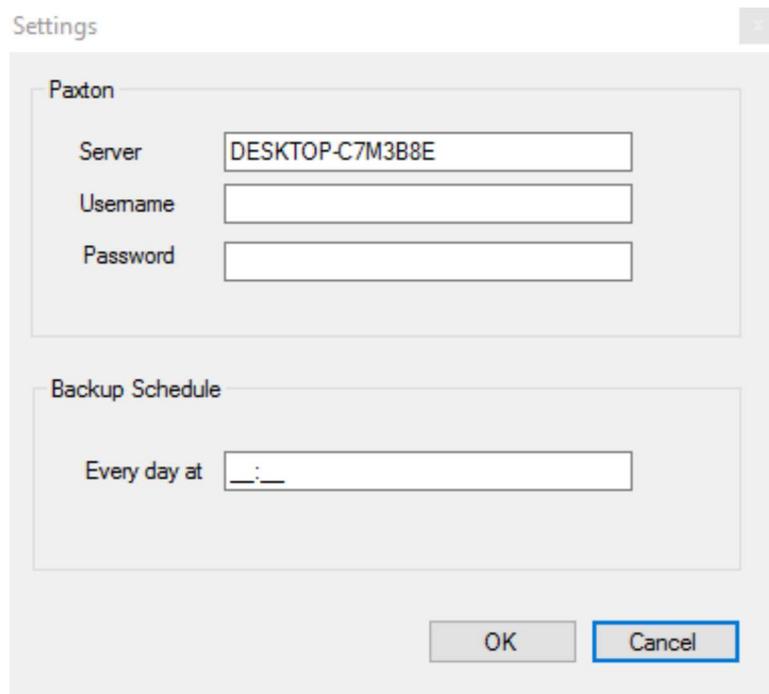
SERVER

After licensing, the first time **BioMergeServer** runs the window below will appear on screen, this is because **BioMergeServer** needs the login details of the **Net2 server System engineer** account.
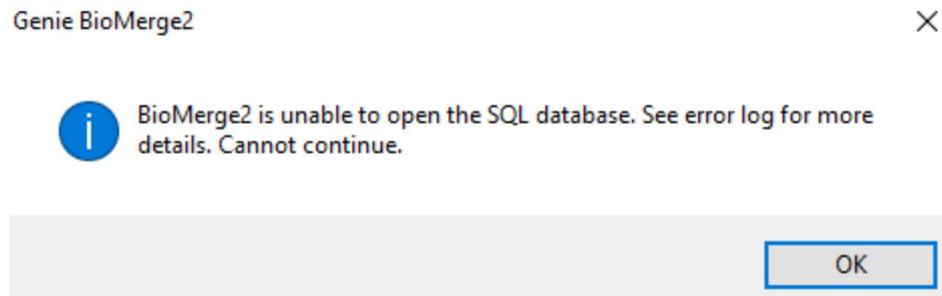
To enter the information that **BioMergeServer** needs in order to communicate with Net Server expand system tray and right click the **Orange Square with the letter 'S'** Icon, then select **Edit Net2 Settings**. Enter the **Password** for the **Net2''System enginee'** account and in the blank fields of the Settings window. Enter a **time** in the Blank field under **Backup Schedule** , a backup will be written daily to **C:\Bio-Merge backups** at the specified time.

Click **OK** on the settings window and then **OK** on the database message window. **Restart BioMergeServer.**

To add a terminal to the server open ports **9870 ~ 9875** for **TCP** and **UDP** on the PC's **firewall.**

Under the terminals network configuration settings, set the **Server IP address field** to the **IP address** of the **Net2/BioMerge** server computer.

Please note that a terminals IP address and ID also need to be configured. Please refer to the relevant terminal installation manual (downloadable from https://genieproducts.co.uk*) for more information.*

Newly Configured Terminals will appear in the **Server Console** as illustrated below**.**

Click the new **terminal** and the small configuration window as below will appear on screen.
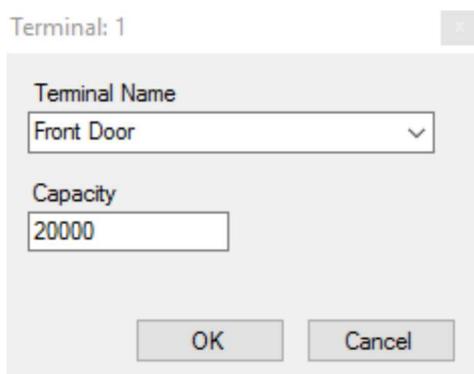
Enter a **name** for the **terminal** and its capacity, for example an AC5000 has a capacity of 20000 finger templates.

Once added to the server a **door Icon** will appear next to the terminals Name in the ID column this Icon will appear **greyed out** if the terminal is, for whatever reason, **disconnected** from the Server.

Connected to server

Not connected to server

SERVER CONSOLE

Remove Terminal

Deletes a Selected terminal.

Resend All Users

Sends all enrolled users to a selected terminal.

Delete All Users

Deletes all users from a selected terminal.

Assign All Users

Assign all Users in the Biomerge database to a selected Terminal

List Users

List all users associated with a selected Terminal

Upload File

Sends a customized file to a selected Terminal, for example a background image for an AC5000.

Upload Firmware

Upload firmware to a selected Terminal

Backup Database

Allows users to manually create a backup of the Biomerge database to location of choice outside of the scheduled backup time.

Edit Net2 Settings

Net2 Server address/ name, Login details and Schedule settings for BioMerge2 database backup.

License Key

Displays License Key and its validity.

View Events

Lists event information, such as enrolment and deletion of users, the list refreshes when the server is restarted.

Remote Help

Reserved function for future releases that will offer fast remote support via a remote desktop session with a Genie technician.

Hide

Minimizes the Server Console to the system tray.

The system Tray Icon has two states and

System Tray Icon

Orange

The Server is starting and initiating database and network connections.

Green

The server has started successfully making all required database and network connections.

Right clicking the system tray Icon will give access to the following options/settings.

Show

Shows the Server Console window.

Edit Net2 Settings

Net2 Server address/ name, Login details and Schedule settings for BioMerge database backup.

Edit License

Displays the License Key and its validity.

Remote Support

Reserved function for future releases that will offer fast remote support via a remote desktop session with a Genie technician**.**

Backup Database

Allows users to manually create a backup of the Biomerge database to location of choice outside of the scheduled backup time.

Quit

Closes and stops the BioMerge2 server from running.

Client

After licensing and the first time BioMergeClient runs, the window below will appear on screen, this is because BioMergeClient needs connection details for the Net2 and BioMerge2 Server.
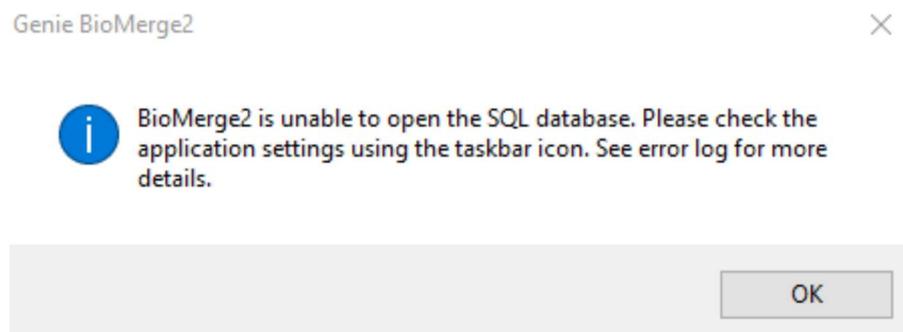
To enter the information that **BioMergeClient** needs to enable communication with the **BioMergeServer**, expand the system tray and right click the **Orange Square Icon displaying the letter 'C'** then click **Settings**. Enter the **Servers Name** and the **Net2 System engineer Username** and **Password** in the blank fields of the Settings window.

Click **OK** on the settings window and then **OK** on the database message window.

Restart BioMergeClient.

The system tray icon has two states, ***Orange*** and ***Green***

Orange

The Client is starting and initiating network connections.

Green

The Client has started successfully making required network connections.

Right clicking the system tray Icon will give access to the following options/settings.
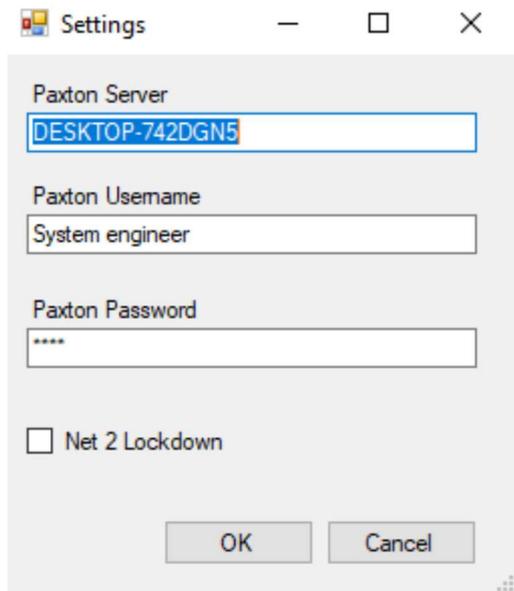
Show

Shows the Server Console window

Settings

Net2 Server address/ name, Login details and Schedule settings for BioMerge2 database backup.

Enable / disable Net 2 Lockdown mode setting, this mode only needs to be selected when using the security Lockdown feature in Net2 Pro.

Edit License

Displays the License Key and its validity.

Remote Support

Reserved function for future releases that will offer fast remote support via a remote desktop session with a Genie technician**.**

Quit

Closes and stops the BioMerge2 server from running.

Enrolment

The client will remain minimized to the system tray until enrolment is initiated.

To start enrolment, add a new user in Paxton Net2 access control software.

There are requisite fields that <u>must</u> be completed at this stage for the BioMergeClient to function. They are as follow.

First name

Surname

Access Level – *No access* is <u>NOT</u> *VALID.*

Token number – **Maximum** supported Token number **65535** when using Net2s default Wiegand 26bit format.

Token type – *Fingerprint verification card* needs to be selected.

After the user is added in Net2 access control the ***BioMerge desktop client*** will pop up on Screen.

On the left under terminals, ***select*** the ***terminals*** you wish to send the users(s) credentials to.

In the middle under token tick admin if the user is to be a terminal admin user. Once a terminal admin user is sent to the terminal(s), access to those terminal(s) settings will be locked to admin users only.

On the right select the desired ***Authentication Type***, Present a card to the enrolment reader and/or enter a Pin Number as per the Chosen Authentication type then ***Click Enrol***

BioMerge2 Desktop Client

Terminals

Lists all Virdi Terminals that are connected to the Server and displays Usage, how many users are on the device. The Tick box under the ID column is used to tell server what Terminals to send a User to. Ticking select All will select all terminals.

Admin tick box

Ticking this sets users to Admin on Virdi terminals, it is recommend that at least one user is set as admin to secure the Virdi terminals local configuration menus.

Authentication Type

There are nine authentication types to choose from. They are Fingerprint, Pin Number, Card and combinations of the three.

Fingerprint Registration Level

This is set to highest by default and is the recommended level that is used.

Authorisation Level

Here a User's Fingerprint authorisation level can be changed.

1:N

One to Many authentication- the terminal will check all data until it finds a match to the presented. 1:1 the Data to check is specified by entering a user ID before presenting a print.

Card Number

Card numbers appear in this box during enrolment.

PIN

Pin numbers are entered here up to a maximum of 8 digits.

Editing Users

There are scenarios where a user's settings need to be modified, good examples of this include changing Authentication Type and/or the changing Authentication Level.

To edit a user in the BioMerge2 Desktop Client **right click** the users **Fingerprint Verification Token** in Net Access Control and **select fingerprint verification card** followed by **apply** this will cause the client to popup on screen.

BioMergeRecoveryTool

The BioMerge **Recovery tool** is located in **C:\Program Files (x86)\Genie CCTV.** It is used to restore backups of the BioMerge2 database. **Please be aware that doing this will overwrite / erase all existing data.**
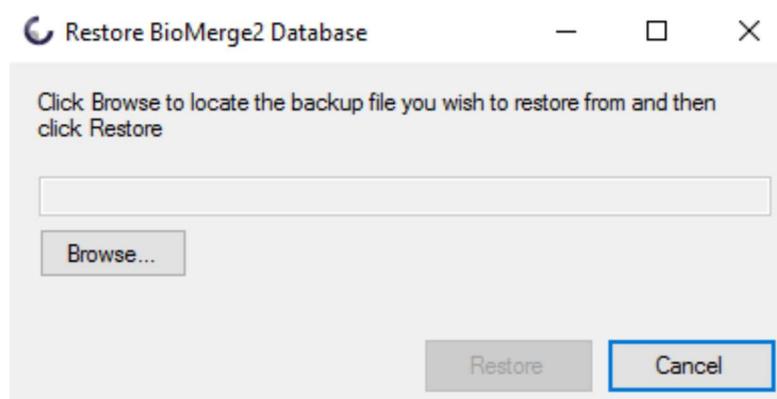
Trouble shooting

Problem

The Biomerge2 Client Console doesn't appear on screen after adding a User to Net2 Access Control.

Solution

Check the user has **Access rights** configured and/or their Token Type is **Fingerprint verification card.**

Check the system tray *icon* is *Green* if not check **Settings**, for example, the Paxton password may have been changed during commissioning.

Check that the **Server Name** and **Net2 Site Name** match.

Problem

Users are Enrolled and sent to the server but cannot authenticate at terminals.

Solution

Check that **BioMerge2 Server** is **running**.

Check via the Server console that the affected **Terminal(s) are online.**

Problems

Biomerge Server Console is not function correctly and the system tray icon is orange.

Solutions

Check the system has a functioning network connection.

Check the Net2 Logon details are correct under Net2 Settings.

Check the SQL Instance **BIOMERGE** is Running.

For further support please contact **Genie Technical Support** on **01707 330 541 (option 2)** or email **technical@genieproducts.co.uk.**