



NCheck Bio Attendance System 4.7

User Manual

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NCHECK WINDOWS

1. NCheck Windows

1.1 Scope and Purpose

This document provides procedures for using the software features of NCheck Bio Attendance System. It describes necessary system prerequisites, supported fingerprint scanners and face cameras, installation and configuring application, Basic operations with program (user enrollment and management) and generating and printing reports.

This guide is intended for system administrators and other personnel who are assigned to work with NCheck Bio Attendance System.

1.2 Overview

NCheck Bio Attendance System is a modest and effective employee attendance management system designed to manage employees' time and attendance. The system is characterized by quick and concise data analyzing and processing.

The system contains 3 major components.

- NCheck Server
- NCheck Bio Attendance
- NCheck Web Site

NCheck Server is installed in a PC which operates by an administrator. NCheck Server includes functionalities to server configuration, start/stop service and launch NCheck Bio Attendance application. NCheck Bio Attendance encompasses Control panel and Client Panel. Client panel is used for collecting attendance details of employees by using employees fingerprint, iris and/or face. Control panel is used for user enrollment, user group management, work shift management, attendance event management, system settings configuration and report generation. NCheck Bio Attendance web site facilitates employees to change personal info and check their attendance records.

1.3 System Requirements

To install NCheck Windows your system should meet the following minimal requirements:

<i>Resource</i>	Minimum requirements
<i>Processor</i>	PC with x86 1GHz (or similar)
<i>RAM</i>	512 MB
<i>Hard disk drive</i>	10 GB
<i>Operating system</i>	Windows 7/8/8.1/10

Other

One of Neurotechnology supported fingerprint scanners, Iris Scanners, cameras, barcode scanners or RFID scanners

1.4 Supported fingerprint scanners

Fingerprint scanners and face cameras can be used to perform user check-in/check-out in NCheck Bio Attendance System. Following is the list of fingerprint scanning devices supported.

Note: Not all fingerprint scanners are supported under 64 bits Windows version.

Scanner	Windows 7	Windows 8 and above
3M Cogent CSD 330	32 bit	
Abilma UNITY	32 & 64 bit	32 & 64 bit
ACS AET62	32 & 64 bit	32 & 64 bit
ACS AET65	32 & 64 bit	32 & 64 bit
ARH AFS 510	32 & 64 bit	
Athena ASEDrive IIIe Combo Bio F2	32 & 64 bit	32 & 64 bit
Atmel FingerChip sensor family		
BioLink U-Match MatchBook v.3.5	32 & 64 bit	32 & 64 bit
Biometrika Fx2000	32 bit	
Biometrika Fx2100	32 bit	
Biometrika Fx3000	32 bit	
Biometrika HiScan		
Biometrika HiScan PRO	32 bit	
Cross Match Guardian FW	32 & 64 bit	

Cross Match <u>Guardian USB</u>	32 & 64 bit	
Cross Match <u>Guardian-F USB</u>	32 & 64 bit	
Cross Match <u>Patrol</u>	32 & 64 bit	
Cross Match <u>Patrol ID</u>	32 & 64 bit	
Cross Match <u>Verifier 300 Classic</u>	32 & 64 bit	
Cross Match <u>Verifier 300 LC</u>	32 & 64 bit	
Cross Match <u>Verifier 300 LC 2.0</u>	32 & 64 bit	
Cross Match <u>Verifier 320 LC</u>	32 & 64 bit	
Digent <u>FD1000</u>		
DigitalPersona <u>EikonTouch 710</u>	32 & 64 bit	32 & 64 bit
DigitalPersona <u>U.are.U 2000</u>		
DigitalPersona <u>U.are.U 4000 Module</u>	32 & 64 bit	32 & 64 bit
DigitalPersona <u>U.are.U 4000 scanner</u>	32 & 64 bit	32 & 64 bit
DigitalPersona <u>U.are.U 4500 scanner</u>	32 & 64 bit	32 & 64 bit
DigitalPersona <u>U.are.U 5100 Module</u>	32 & 64 bit	32 & 64 bit
DigitalPersona <u>U.are.U 5100 Reader</u>	32 & 64 bit	32 & 64 bit
DigitalPersona <u>U.are.U 5160 Reader</u>	32 & 64 bit	32 & 64 bit

DigitalPersona <u>U.are.U 5200</u> <u>Module</u>	32 & 64 bit	32 & 64 bit
DigitalPersona (UPEK) <u>Eikon Solo</u>	32 & 64 bit	32 & 64 bit
DigitalPersona (UPEK) <u>EikonTouch 300</u>	32 & 64 bit	32 & 64 bit
DigitalPersona (UPEK) <u>EikonTouch 500</u>	32 & 64 bit	32 & 64 bit
DigitalPersona (UPEK) <u>EikonTouch 700</u>	32 & 64 bit	32 & 64 bit
Fujitsu <u>MBF200</u>	32 & 64 bit	
Futronic <u>eFAM (FS84)</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS10</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS26</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS50</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS60</u>	32 bit	32 & 64 bit
Futronic <u>FS64</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS80</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS82</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS88</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS88H</u>	32 & 64 bit	32 & 64 bit
Futronic <u>FS90</u>	32 & 64 bit	32 & 64 bit
HFSecurity HF-4000	32 & 64 bit	32 & 64 bit
HFSecurity HF-7000	32 & 64 bit	32 & 64 bit
Hongda <u>S500</u>	32 bit	
Hongda <u>S680</u>	32 bit	

Hongda <u>S700</u>		32 bit	
id3 <u>Certis Image</u>			
Intech <u>SOP1</u>			
Integrated Biometrics <u>Columbo</u>		32 & 64 bit	32 & 64 bit
Integrated Biometrics <u>Curve</u>		32 & 64 bit	32 & 64 bit
Integrated Biometrics <u>LES650</u>		32 & 64 bit	32 & 64 bit
Integrated Biometrics <u>Sherlock</u>		32 & 64 bit	32 & 64 bit
Integrated Biometrics <u>Watson</u>		32 & 64 bit	32 & 64 bit
Integrated Biometrics <u>Watson Mini</u>		32 & 64 bit	32 & 64 bit
Jstac <u>Athena 210</u>			
Koehlke <u>KIA-UM01</u>		32 bit	
Koehlke <u>KIAU-5110B3</u>		32 bit	
L-1 <u>DFR 2080</u>		32 bit	
L-1 <u>DFR 2090</u>		32 bit	
L-1 <u>DFR 2100</u>		32 & 64 bit	
L-1 <u>DFR 2300</u>		32 & 64 bit	
LighTuning Technology <u>LTT-C500</u>			
Miaxis <u>FPR620</u>		32 bit	32 bit
Miaxis <u>SM-201 Bluetooth</u>		32 bit	32 bit
Miaxis <u>SM-201 Wi-Fi</u>		32 bit	32 bit
Miaxis <u>SM-2BU</u>		32 bit	32 bit
NEXT Biometrics <u>NB-3010-U</u>		32 & 64 bit	32 & 64 bit

NITGEN <u>eNBioScan-C1</u>	32 & 64 bit	32 & 64 bit
NITGEN <u>eNBioScan-D plus</u>	32 & 64 bit	32 & 64 bit
NITGEN <u>eNBioScan-F</u>	32 & 64 bit	32 & 64 bit
NITGEN <u>Fingkey Hamster</u>	32 & 64 bit	32 & 64 bit
NITGEN <u>Fingkey Hamster II</u>	32 & 64 bit	32 & 64 bit
NITGEN <u>Fingkey Mouse III</u>	32 & 64 bit	32 & 64 bit
SecuGen <u>Hamster III</u>	32 bit	32 bit
SecuGen <u>Hamster IV</u>	32 & 64 bit	32 & 64 bit
SecuGen <u>Hamster Plus</u>	32 & 64 bit	32 & 64 bit
SecuGen <u>Hamster Pro 20</u>	32 & 64 bit	32 & 64 bit
SecuGen <u>iD-USB SC</u>	32 & 64 bit	32 & 64 bit
SecuGen <u>iD-USB SC/PIV</u>	32 & 64 bit	32 & 64 bit
Shanghai Fingertech <u>BIOCA-111</u>	32 bit	
Startek <u>FC320U</u>	32 bit	32 bit
Startek <u>FM220U</u>	32 bit	32 bit
Startek <u>FPC360U</u>	32 bit	32 bit
Suprema <u>BioMini</u>	32 & 64 bit	32 & 64 bit
Suprema <u>BioMini Plus</u>	32 & 64 bit	32 & 64 bit
Suprema <u>BioMini SFU-S20</u>	32 & 64 bit	32 & 64 bit
Suprema <u>BioMini Slim</u>	32 & 64 bit	32 & 64 bit
Suprema <u>SFR300-S</u>	32 & 64 bit	32 & 64 bit
Suprema <u>SFU300</u>	32 & 64 bit	32 & 64 bit
Tacoma <u>CMOS</u>	32 bit	

TENBIO <u>TOUCH ONE</u>	32 bit	32 bit
Testech <u>Bio-i CYTE</u>	32 bit	32 bit
TopLink Pacific <u>BLUEFiN</u>	32 & 64 bit	32 & 64 bit
TST Biometrics <u>BiRD 3</u>	32 bit	
UnionCommunity <u>ViRDI</u> <u>FOH02SC</u>	32 bit	
UPEK <u>Eikon</u>	32 & 64 bit	32 & 64 bit
UPEK <u>Eikon To Go</u>	32 & 64 bit	32 & 64 bit
UPEK <u>TouchChip TCRU1C</u>	32 & 64 bit	32 & 64 bit
UPEK <u>TouchChip TCRU2C</u>	32 & 64 bit	32 & 64 bit
ZKS Group <u>ZKS-1000</u>		
ZKSoftware <u>ZK4000</u>	32 bit	
ZKSoftware <u>ZK4500</u>	32 & 64 bit	
ZKSoftware <u>ZK6000</u>	32 bit	
ZKSoftware <u>ZK7000</u>	32 bit	
ZKSoftware <u>ZK8000</u>	32 bit	
Zvetco Verifi P5100	32 & 64 bit	32 & 64 bit

Note: Fingerprint scanners can be purchased from [Biometric Supply](#).

1.5 Supported face cameras

In general, webcam or camera working in Windows OS are supported.

1.6 IP camera support

Any IP camera, that supports RTSP (Real Time Streaming Protocol) is supported. Following is the list of cameras tested with the system. Contact [support](#) for details on IP camera integration.

- Axis M1114
- Mobotix [80] DualNight M12 IP
- Mobotix [80] S14D
- PiXORD N606
- Sony SNC-CS50

- Cisco [79] 4500 IP
- Prosilica [80] GigE Vision

1.7 Supported Iris scanners

Scanner	Windows 7, 8 and above
CMITech <u>BMT-20 / EMX-30</u>	32 & 64 bit
<u>Cross Match I Scan 2</u>	32 & 64 bit
<u>IrisGuard IG-AD100</u>	32 bit
Iritech <u>IriShield USB MK 2120U / IriShield-USB BK 2121U</u>	32 & 64 bit
Iritech <u>IriMagic1000BK</u>	32 bit
UBKEY <u>Mirrorkey Mirrorkem</u>	32 bit
<u>VistaFA2 / VistaFA2E / VistaEY2 / VistaEY2-02 / VistaEY2R</u> iris & face cameras	32 & 64 bit
<u>VistaEY2H</u> iris camera	32 & 64 bit

Note: Iris scanners can be purchased from [Biometric Supply](#).

1.8 Supported RFID and Barcode scanners

Any barcode scanner or RFID device that supports HID interface or serial communication interface is supported.

Note: By default, HID devices will be identified as keyboards by the system. You should [configure the device](#) to make it identified as a RFID / barcode device.

Following is the list of barcode scanners tested with the system.

- Honeywell Eclipse 5145 Handheld Scanner
- Manhattan Laser Barcode Scanner 177665.

1.9 Access control

1.9.1 Integration of network enabled relays for access control

NCheck Bio Attendance supports [external executables](#). These external executables can be configured to perform in selected events such as checked in, checked out and execute access control triggering program or web URI.

IOT relay modules based on ESP8266 can be used to control access doors from NCheck Bio Attendance. WiFi Relay modules available in the market have an inbuilt web server to control the relay. You can use the relay activation URL to configure NCheck to trigger the door lock control relay. Sample wiring of a similar relay for access control door is shown below.

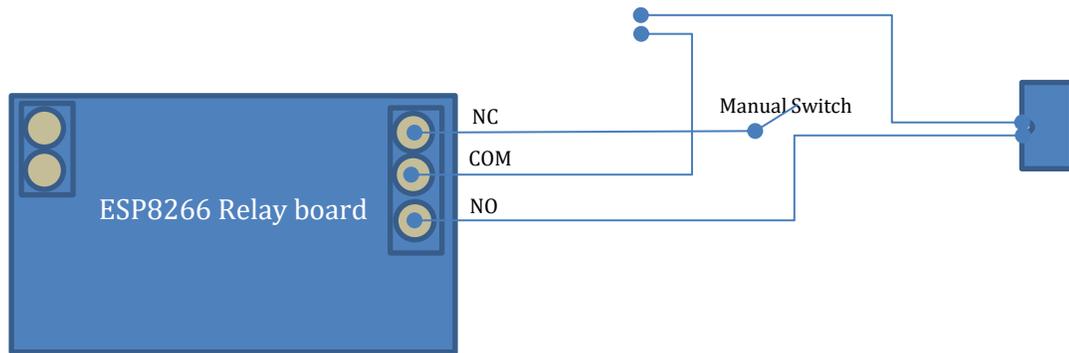


Figure 1: Wi-Fi relay for access control

2. Installation Scenarios

2.1 Installing NCheck Bio Attendance System in a single Windows based computer.

1. It is recommended to have least one camera or a fingerprint scanner plugged in to the computer. If such device is not connected, NCheck Bio Attendance can perform user identification using user name and passwords.
2. Follow [Installation](#) steps to install NCheck Bio Attendance System. This will install NCheck Bio Attendance System in standalone mode without any network support enabled.
3. After installation NCheck Bio Attendance will appear and it will prompt you to enroll users using Control panel when there are no enrolled users in the database. After user enrollment, log out from control panel to start client windows and start marking attendance.

2.2 Installing NCheck Bio Attendance System in a networked environment.

1. Select a PC for installation of NCheck server. Follow [installation](#) steps to install NCheck Bio Attendance System. This will install NCheck Bio Attendance System in Standalone mode without any network support enabled.
2. Open [NCheck Server Settings window](#) and enable remote clients.
3. Select IP address and Port for the NCheck Server and a port for the web site. Press ok to save changes.
4. Select a computer/ computers to install NCheck Bio Attendance client application. It is recommended to have least one camera or a fingerprint scanner plugged in to those computers. If such device is not connected, NCheck Bio Attendance will perform user identification using user name and passwords.
4. Follow [installation](#) steps to install NCheck Bio Attendance application in the selected computers.
5. Change [connection settings](#) of NCheck Bio Attendance to support networked mode.
6. Users can present their appropriate authentication modalities to NCheck Bio Attendance Client panel and report their arrival or departure.

3. Installation

Before installation make sure that your computer meets minimum [requirements](#) for NCheck Windows.

3.1 Installation steps

NCheck is installed using *NCheckBioAttendanceSetup4.4.exe* installer. Following steps should be performed to install the software.

3.1.1 Run the installer

Execute the installer and installation wizard will guide you through installation steps.

3.1.2 Select the installation folder

Select the installation folder for this *NCheck Bio Attendance* software and click on *Next* button. Default system installation folder is created in “*Neurotechnology \NCheckBioAttendance*” under computer “Program Files” folder. Installation folder can be changed by using the *Browse* button. Click on the *Next* button to continue.

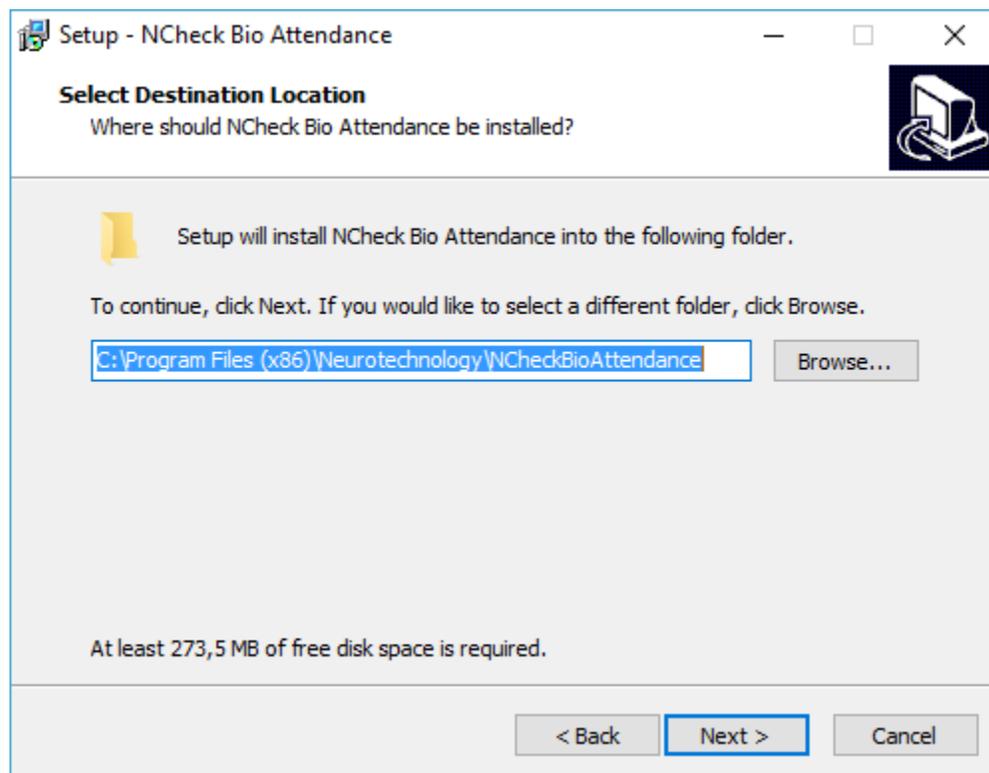


Figure 2: Select installation folder

3.1.3 Select the product to install

This window allows selecting the products you want to install and Click on the Next button to continue. Full Installation installs the server and client components. NCheck Client installs only the client components

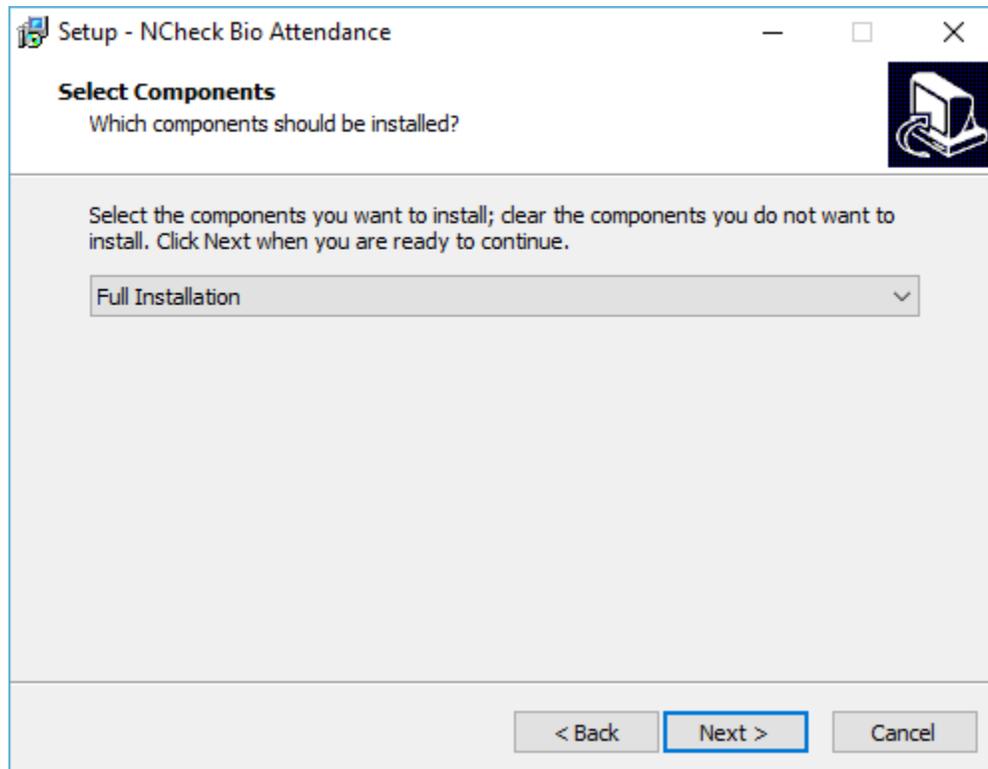


Figure 3: Installation components

3.1.4 Select start menu folder

Select the start menu folder location to place the *NCheck Bio Attendance* software's shortcuts. If you would like to select a different folder to place the application shortcuts, click *Browse* button. Click on the *Next* button to continue.

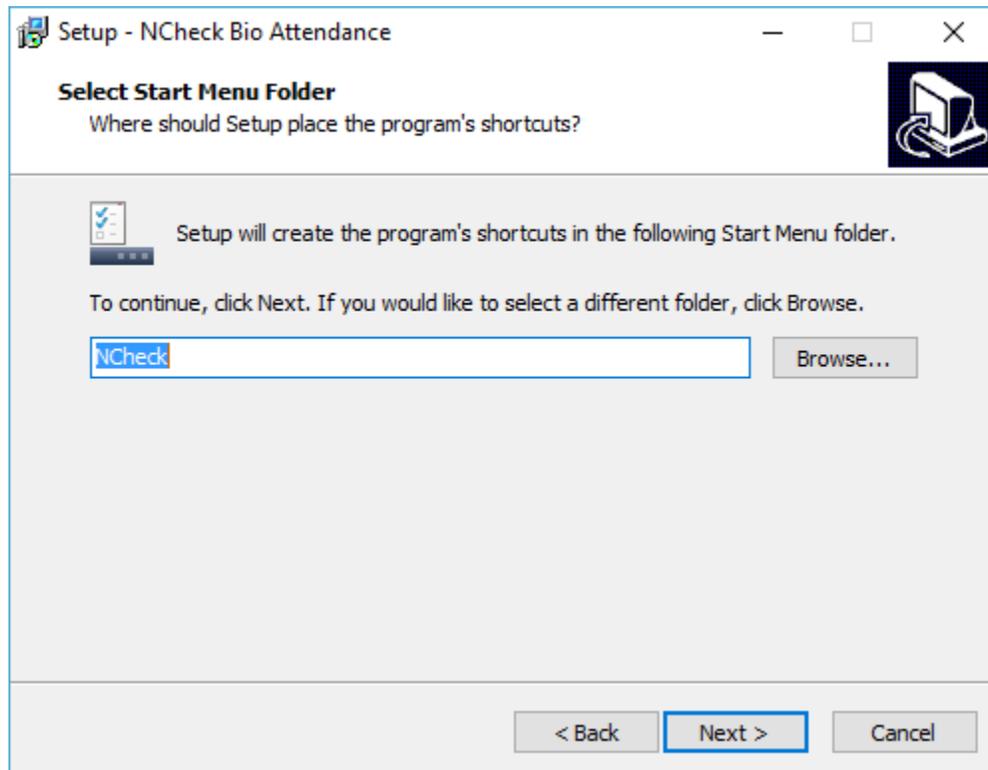


Figure 4: Installation wizard - Select start menu folder

3.1.5 Desktop icon creation

The select additional tasks dialog will prompt as shown below. Desktop icons are not created automatically. Select the checkboxes if you prefer to have desktop shortcuts. Click on the *Next* button to proceed.

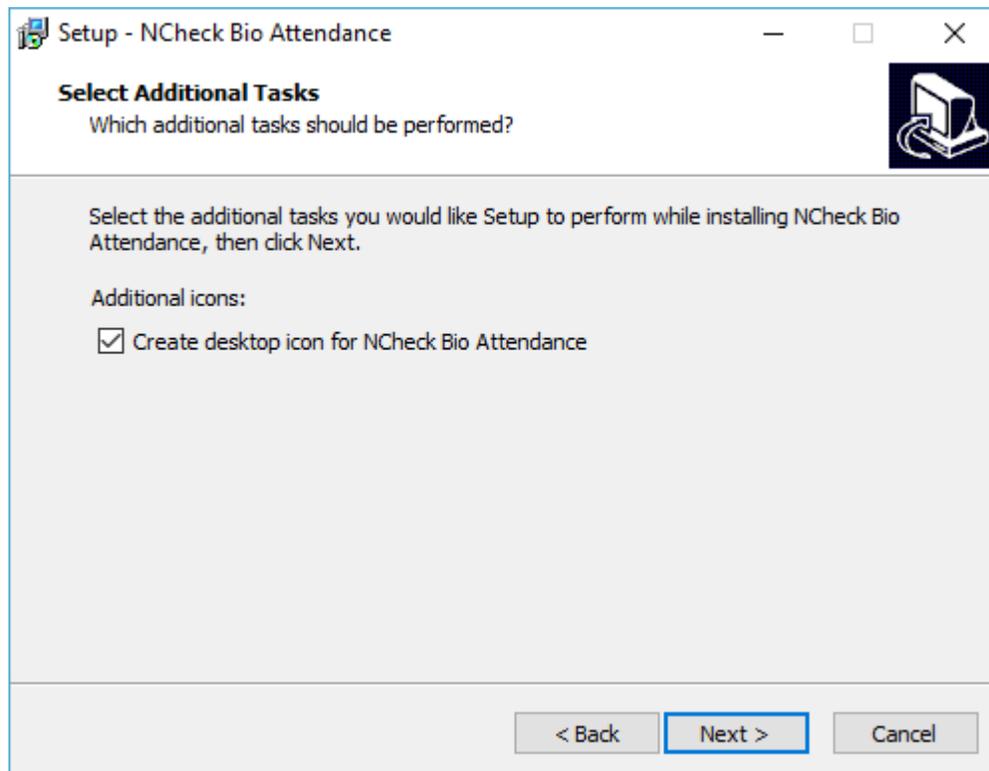


Figure 5: Desktop icon creation

3.1.6 Verify settings and start installation

Ready to install dialog will prompt as shown below. Click *Install* to begin the installation.

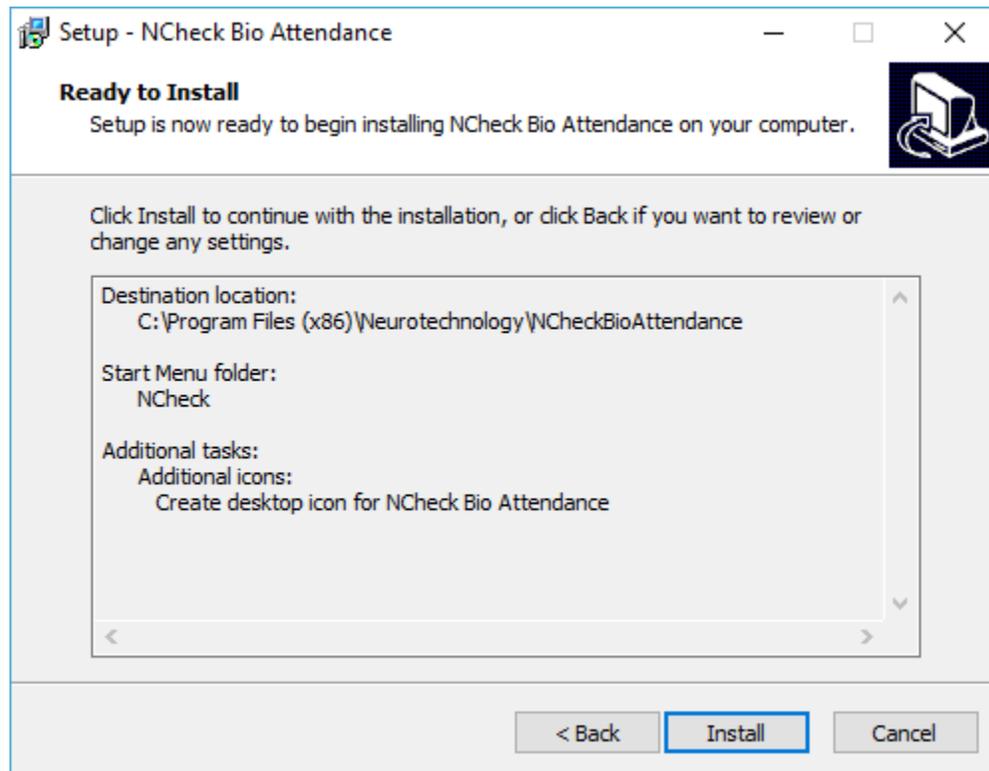


Figure 6: Installation wizard - Ready to install

3.1.7 Preparing to install

In case of a reinstallation or an upgrade, there may be already running NCheck Bio Attendance components. Installer will ask you close the running NCheck Bio Attendance components. Select "*Automatically close the applications*" and click *Next* to begin installation.

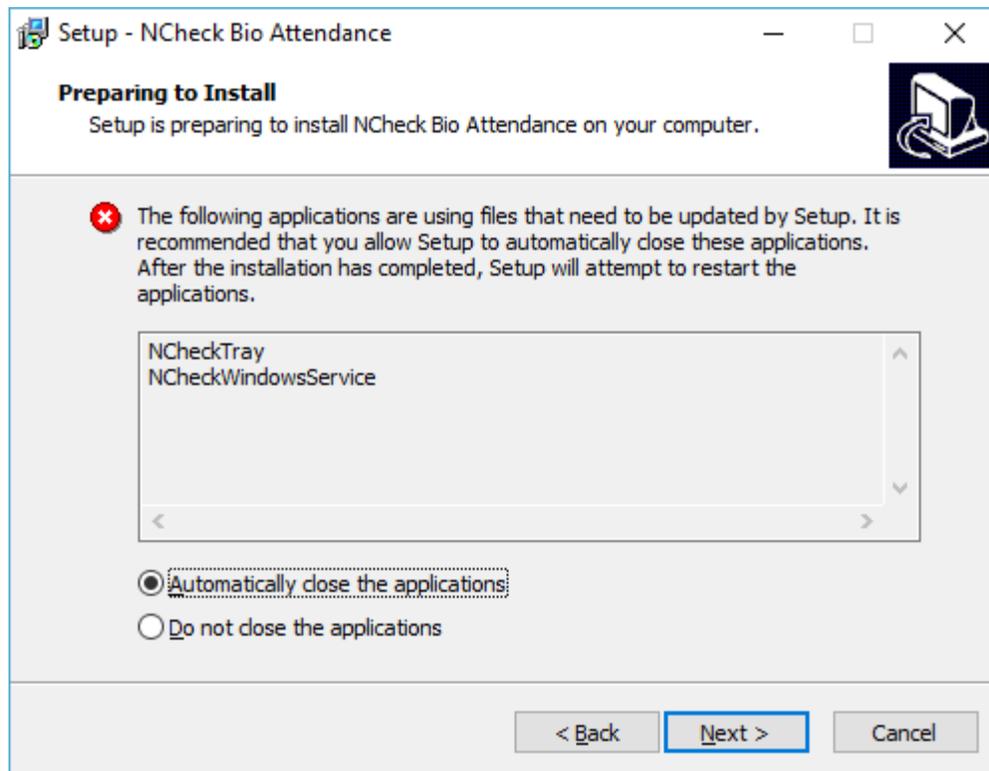


Figure 7: Installation wizard - Preparing to install

3.1.8 Installation progress

The installation will start and a progress bar will display on the dialog.

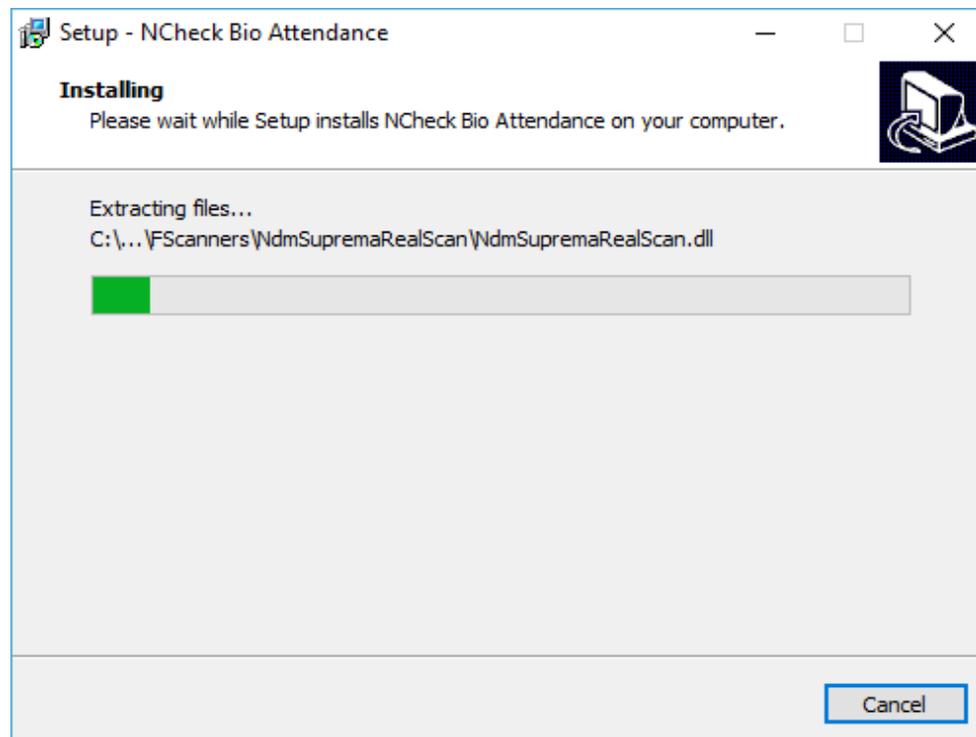


Figure 8: Installation wizard - Installation progress

3.1.9 Installation completed

On the Completion screen, you can select, *Read User Manual* checkbox to launch user manual of NCheck Bio attendance on finishing installation. Click on the *Finish* button to proceed.

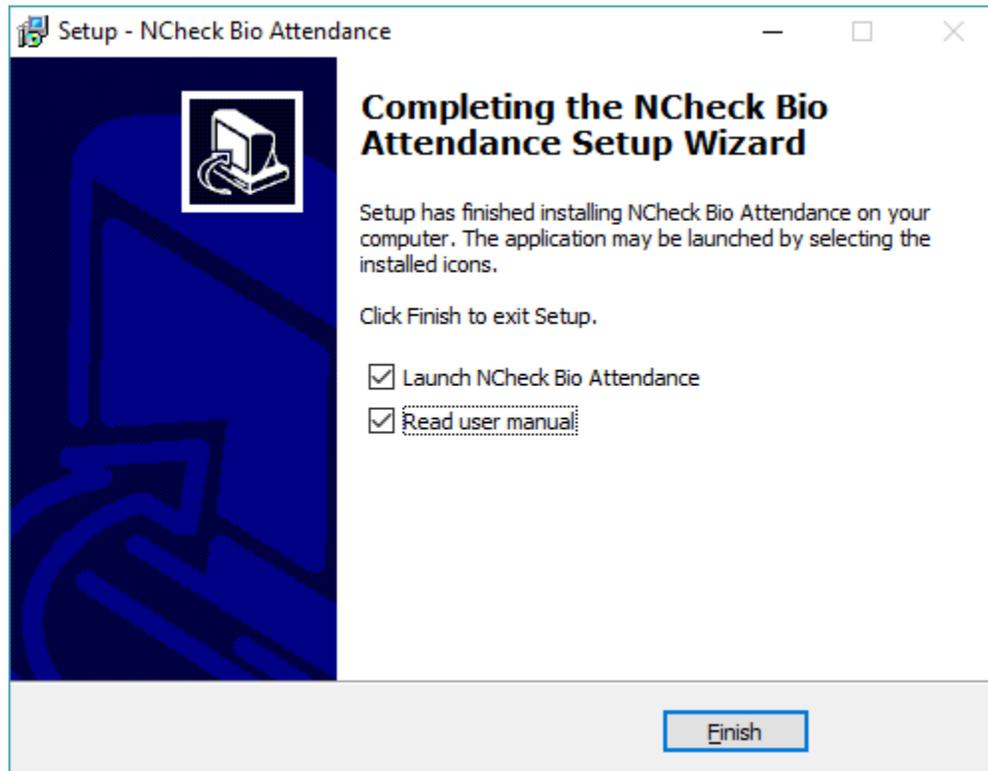


Figure 9: Installation wizard - Installation completed

3.1.10 License Activation and Database Initialization

At the first time running *NCheck Bio Attendance system*, it will activate the product license. If NCheck configuration of a previous installation detected, new installation will use it. For fresh installations, NCheck will automatically create a default configuration and a database with an empty administrator password. Later, it is possible to assign an [administrator password](#) and restrict access to administrative functionality.

3.1.10.1 Trial License Activation

If the trial license activation is not successful, trial license activation dialog is shown. It has below options.

1. Trial activation – Try to activate trial license. If try activation is successful, trial activated message dialog is shown. If it is failed, trial activation failed message dialog is shown.
2. Exit – Exit from the trial license activation dialog

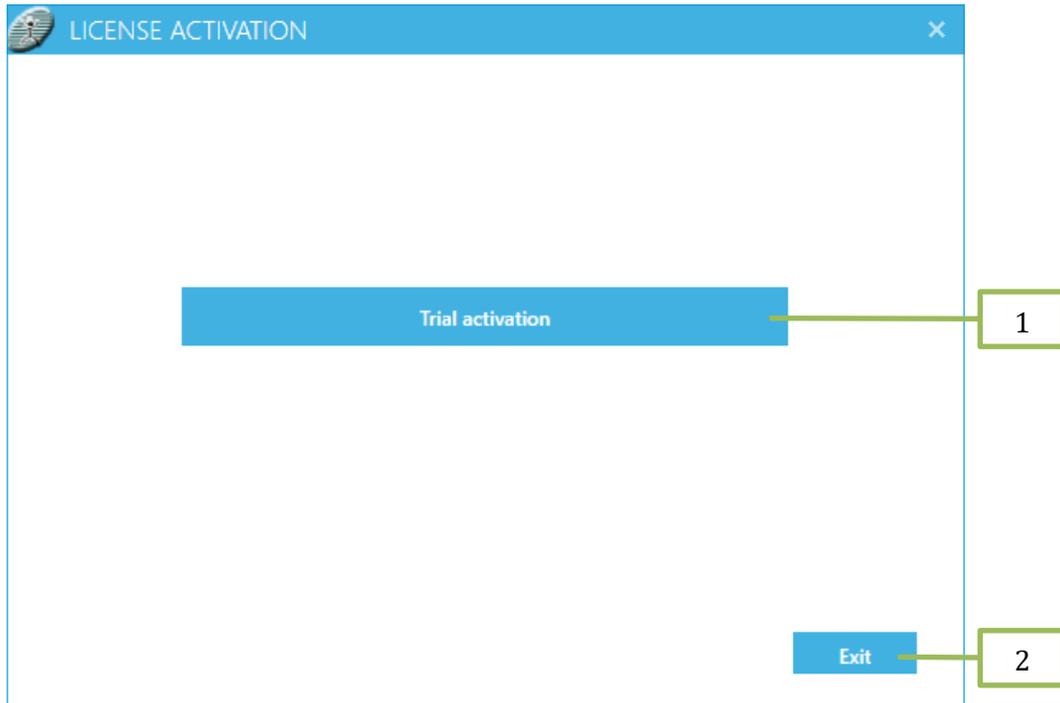


Figure 10: Trial license activation dialog



Figure 11: Trial activation success dialog

Trial activation failed dialog gives you an option to generate a diagnostic text. save the diagnostic text and email it to support for further assistance.

1. Generated diagnostic text – Collect the application information and system information required for trial license activation problem diagnostic.
2. Save – Save the generated diagnostic text.
3. Retry – Retry the trial license activation.
4. Close – Close the license activation dialog.

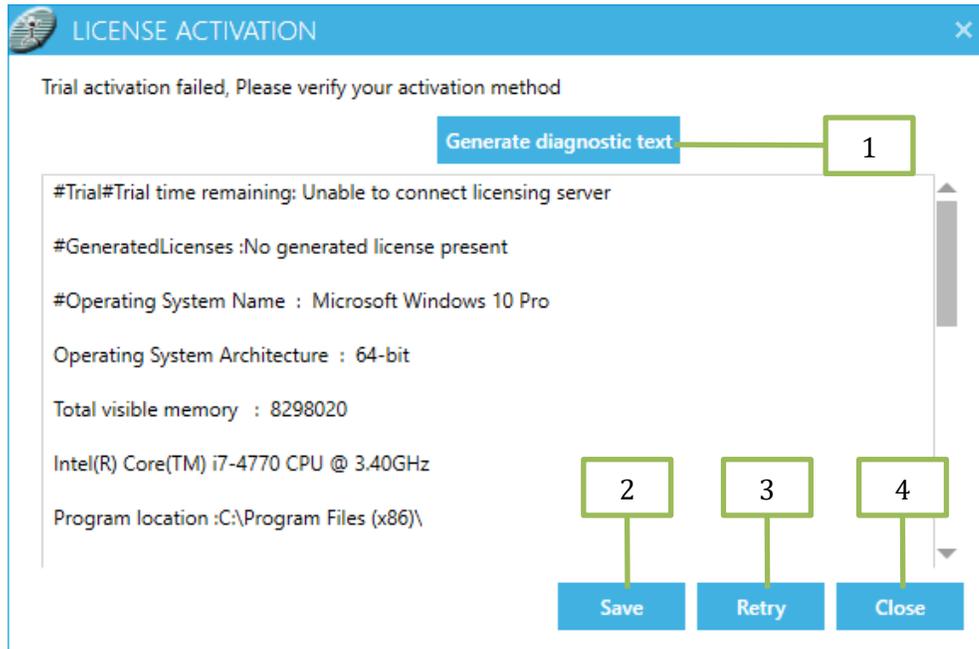


Figure 1: Trial activation failed dialog

Note: Activation might fail on virtual PCs or when using a mobile data connection. Under such circumstances, please contact support for manual trial activation.

3.2 Notes about installation

NCheck Bio Attendance system should be available during user arrival and departure. It is recommended to dedicate a separate computer for the NCheck windows client application. Computer should be placed in such way that users can easily access it.

It is recommended to disable screensavers, automatic screen turn off and automatic system sleep or hibernation. System configuration will be stored in database. Fresh installation of NCheck Bio Attendance System will create a new database. It is possible to [import](#) an existing database using NCheck Server Settings window.

4. NCheck Server

NCheck server is running as a windows service and can modify server settings by using server configuration options. NCheck service stores data in the NCheck Database.

1. *Server start/stop*– Starts and stops NCheck Windows Service.
2. *Server Settings* – Displays a settings window which allows modifying NCheck Server settings.
3. *Database settings* – Shows *NCheck Bio Attendance* database settings

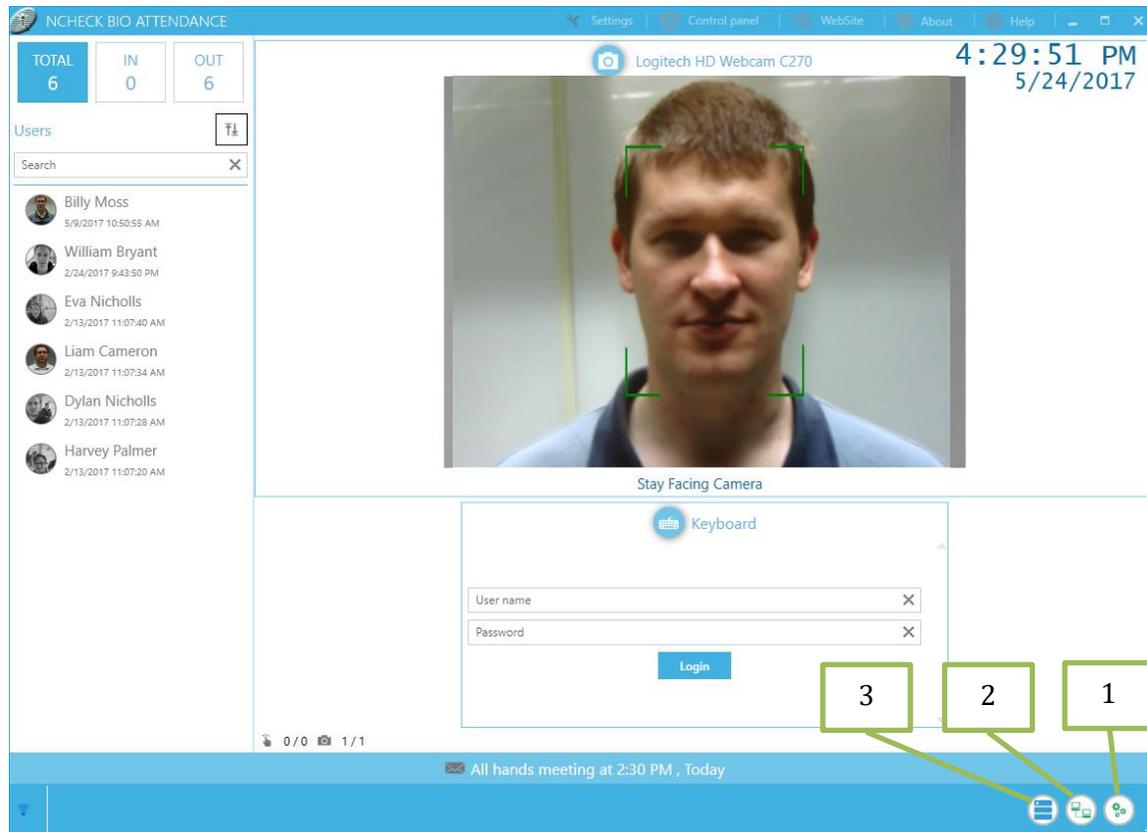


Figure 13: Server configuration options

Note: Server configuration options will not appear when NCheck Server is not installed in the PC.

Note: When NCheck server installed, a tray icon will appear to indicate the server status.

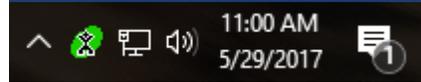


Figure 14: NCheck tray icon

4.1 Starting and Stopping the NCheck Service

Start and *Stop* is used to start and stop NCheck service.

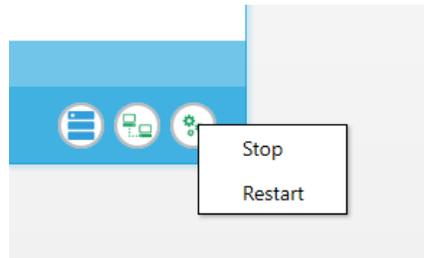


Figure 15: Start/Stop NCheck service

4.2 Server Settings

Server settings option is used to open NCheck Server configuration window. This window is used to configure NCheck service network settings.

1. *Remote clients* –NCheck service allows remote NCheck Bio Attendance application instances to connect with it in network mode. If network mode is not selected, service allows only a NCheck Bio Attendance application instance to connect with it.
2. *IP Address* – Listening IP address of the service in network mode. It is recommended to use “Any IP”.
3. *Port* –Listening port of the service in network mode.
4. *Use a HTTP port for NCheck Web* – Run NCheck Web on a given HTTP port. If not enabled, NCheck web will run on the NCheck Service HTTPS port
5. Specify the HTTP port to be used for NCheck Web.
6. *OK* – Apply changes.

7. *Cancel* - Exit NCheck server configuration window without applying any changes.

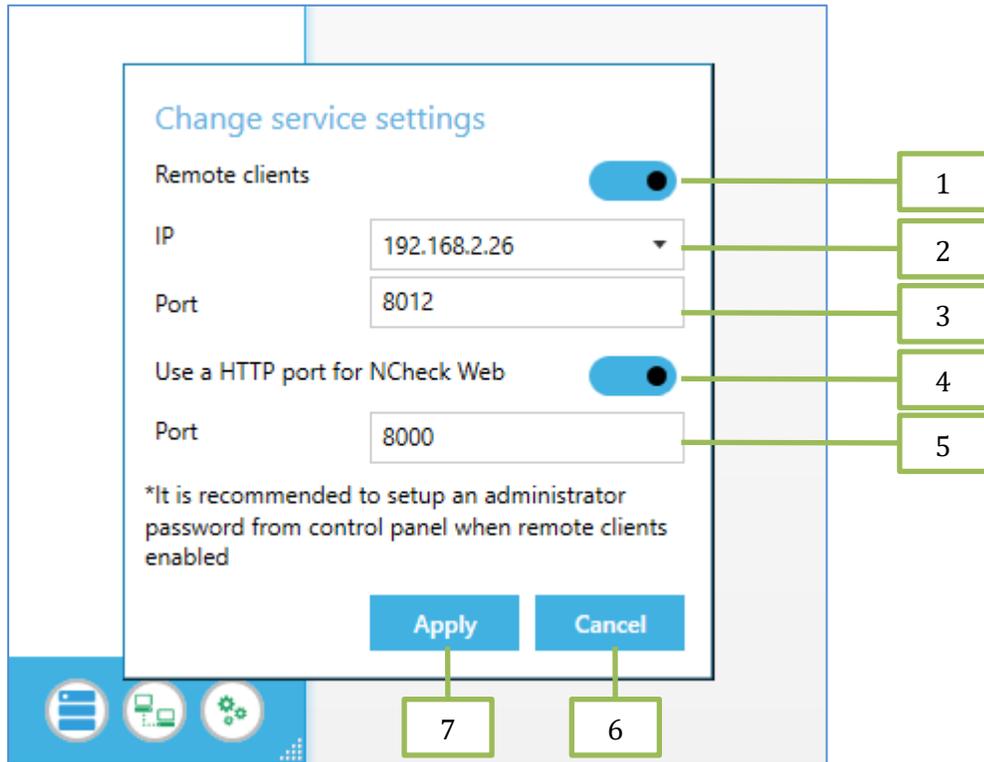


Figure 16: NCheck Server configuration window

4.3 Database settings

Change database option in NCheck Bio Attendance client window allows to change the NCheck database or connect to an existing database.

1. *Change database* – Create a new NCheck database or open existing NCheck database.
2. *Backup database* – Show backup database settings.

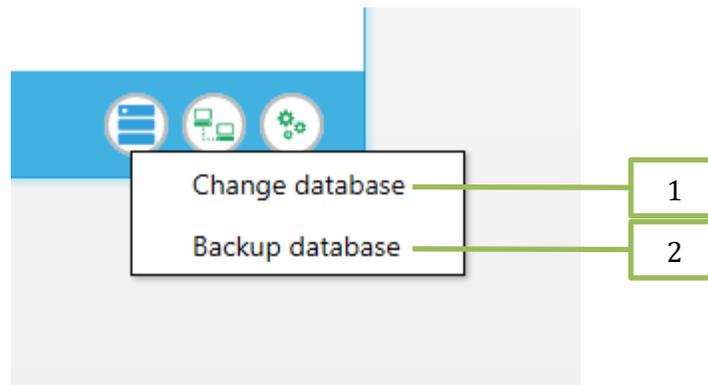


Figure 17: NCheck database configuration

4.3.1 Change database

Change database allow users to create a new database or open an existing database to use with NCheck Server. The database which is used in NCheck server should be either SQLite or MSSQL.

4.3.1.1 SQLite

4.3.1.1.1 Create or open existing database

Following steps should be followed to create a new SQLite database.

1. Select “SQLite” option and click “Change” button to select a folder.
2. Specify a name for the new NCheck database or select an existing database.
3. If creating a new database, configure a password to protect the database file (optional).

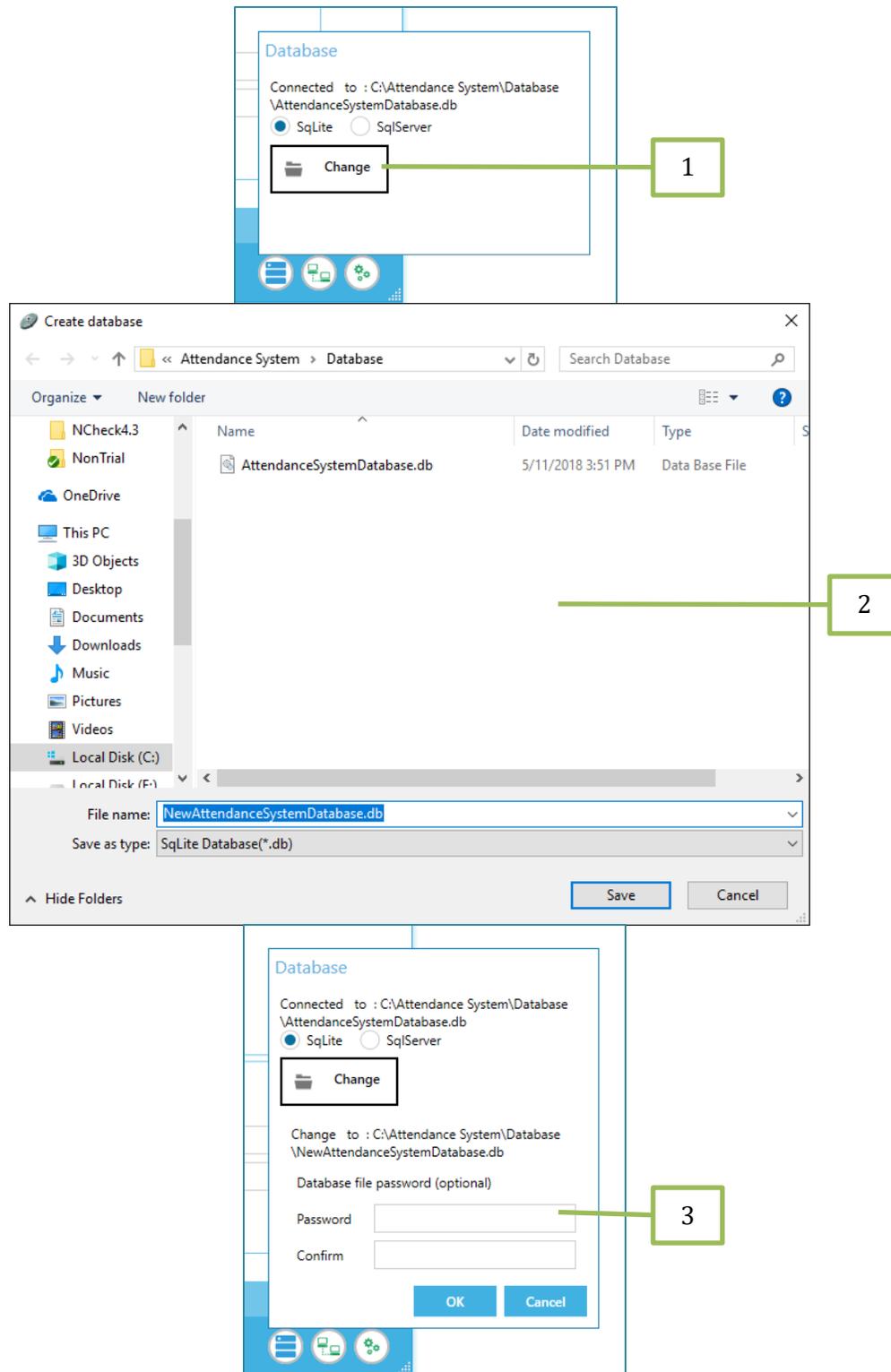


Figure 18: Create a new SQLite database

WARNING: Database file should be modified only with NCheck application.

4.3.1.2 MSSQL

4.3.1.2.1 Create database

Follow steps given below to create MSSQL database.

NOTE: Minimum MSSQL server version supported by NCheck Server is MSSQL Server 2012.

1. Use SQL Server Management Studio to create the new database. Script assumes database name as “AttendanceDb”. Please modify the scripts provided if required to use a different database name.
2. Go to NCheck installation folder and open directory “SQLServer”.
3. Use “CreateTables.sql” script to create database tables.
4. Use “PopulateInitialData.sql” script to populate database tables.

4.3.1.2.2 Connect database

Select option “SqlServer” and press Change button to enter configuration window.

1. Server – Enter the MSSQL server IP address.
2. Database name – Enter the database name.
3. Integrated security – Select this option to use SQL Server integrated security.
4. Login name – Enter the login name of the MSSQL server.
5. Password - Enter the password of the MSSQL server.

Once configured, press OK to continue. NCheck will re-initialize to work with the new database.

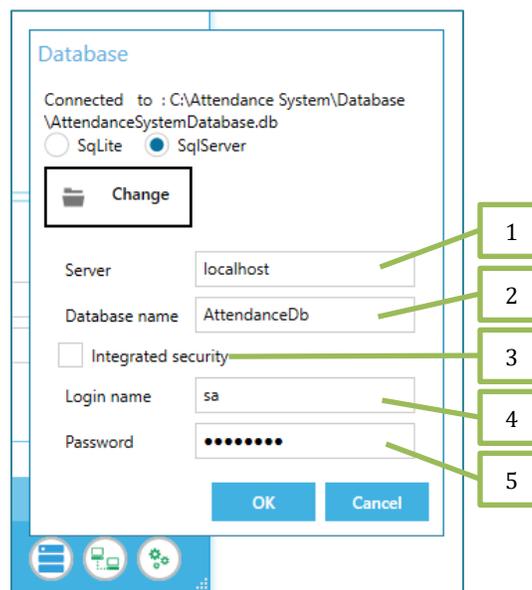


Figure 19: Connect to MSSQL database

4.3.2 Backup settings

NCheck server configuration window *backup* tab allows scheduling of NCheck database backup in to local file system or FTP server.

1. *Backup Database* - Enables NCheck database backup.
2. *Day* - Scheduling day of NCheck database backup.
3. *Time* - Scheduling time of NCheck Database backup.
4. Backup to local folder - Select to backup database in to a local folder.
5. *Backup to FTP server* - Select to backup database in to a FTP server.
6. Display current backup folder path.
7. *Path* - Folder browser to browse backup folder path (it visible only if you select local backup).
8. Press *OK* to save changes.
9. By clicking *Cancel* button, you can exit form this window without saving any changes that you have made.

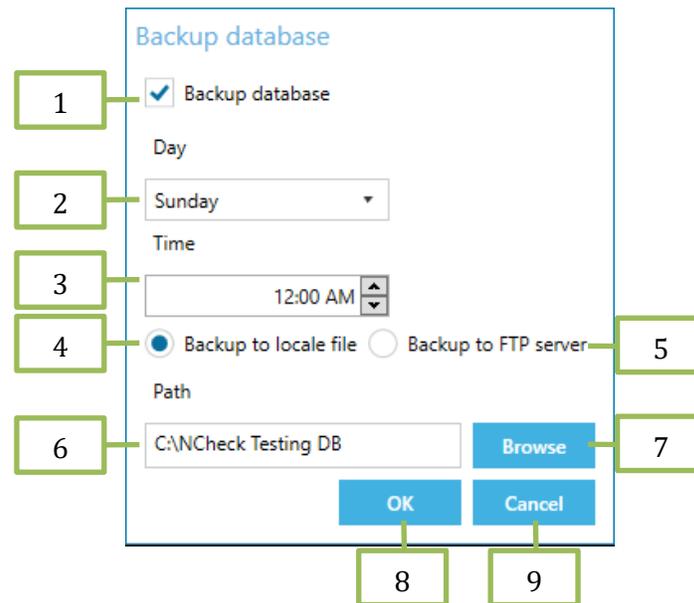


Figure 20: Backup database

5. NCheck Bio Attendance

NCheck Bio Attendance can be launched using the shortcut created by the installer. NCheck Bio Attendance runs in NCheck Client mode by default. Main function of NCheck client is user verification and identification. NCheck Control panel is used to administrate NCheck. To access NCheck control panel, you can use “*Control panel*” link in NCheck Bio Attendance. NCheck Control panel needs authentication with NCheck admin user and password.

5.1 NCheck Client

NCheck Client allows users to check-in and check-out from the system. Following are the important components of the Client.

1. *Total* - Number of users of the system.
2. *In* - Number of check in users of the system.
3. *Out* - Number of check out users of the system.
4. *Sort* - You can sort employee list by name or availability.
5. *Search* - You can search the user by typing name.
6. *Employee list* - Shows users and their current status.
7. *News bar* - Display a message to the users.
8. *Server status icon* – Shows status of the server and client connectivity.
9. *Client settings* - Enables to configure settings.
10. *Control panel* – Enables to log in to the control panel.
11. *Web site* – Enable to open the NCheck web site using default browser.
12. *About* – Shows software information.
13. *Help* – Shows help.
14. *Date and Time* – Shows current date and time.
15. *Device panel* - Shows attached cameras, fingerprint scanner and login option using user name and password.

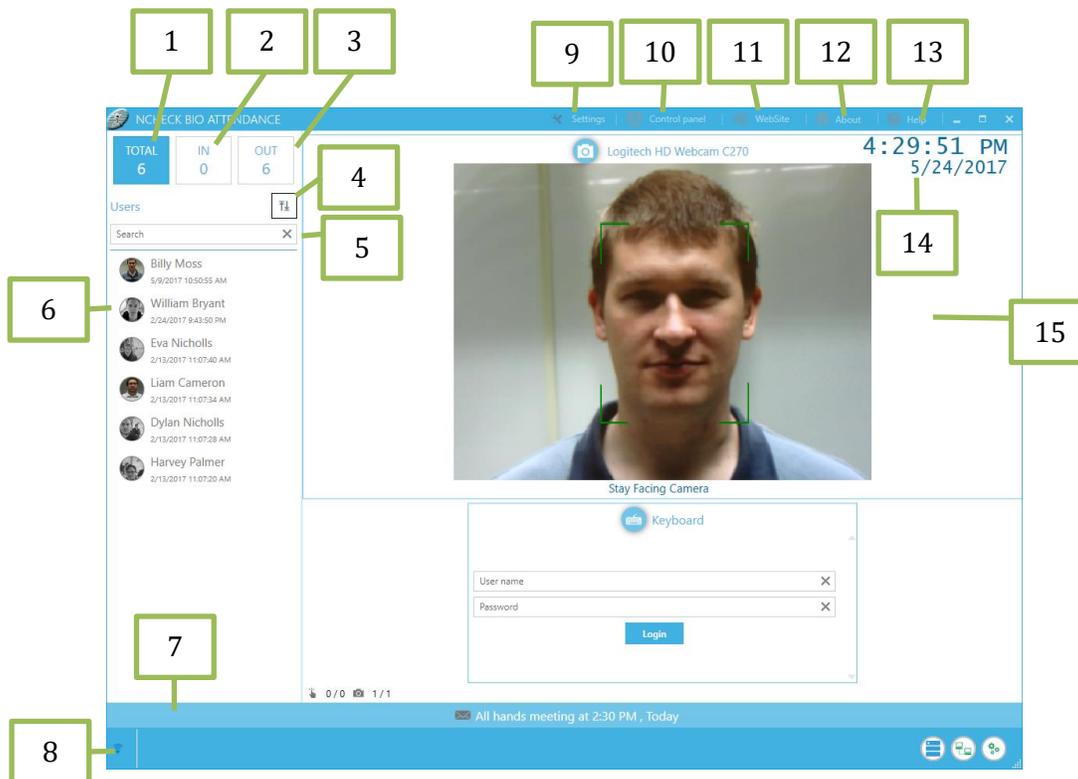


Figure 21: NCheck Client

5.1.1 Attendance Event Recording

Using NCheck Bio Attendance Client, Users have following options to authenticate and check for arrival and departure.

- Using Fingerprint scanner
- Using Face camera
- Using Iris scanner
- Using user ID and Password
- Using IP camera (with optional RFID support)
- Using custom hardware devices such as RFID, Barcode etc.

After NCheck Client is started, attendance recording devices (cameras / fingerprint scanner etc.) are shown in the *Device Panel*. User can use one of them or password login to report arrival or departure.

5.1.1.1 Result view

Result view will appear when the user check-in/check-out event is completed.

1. *Profile Picture* - Shows profile picture of user.
2. *Event type* – This can be either check-in or check-out.
3. *User name* – Displays users' name.

4. *Event time* – Displays event occurred time.
5. *Work details* – Shows summary of users work time.
6. *Cancel* – Delete the current checked-in/checked-out event.

Note: “Work details” visibility can be changed from [control panel](#).

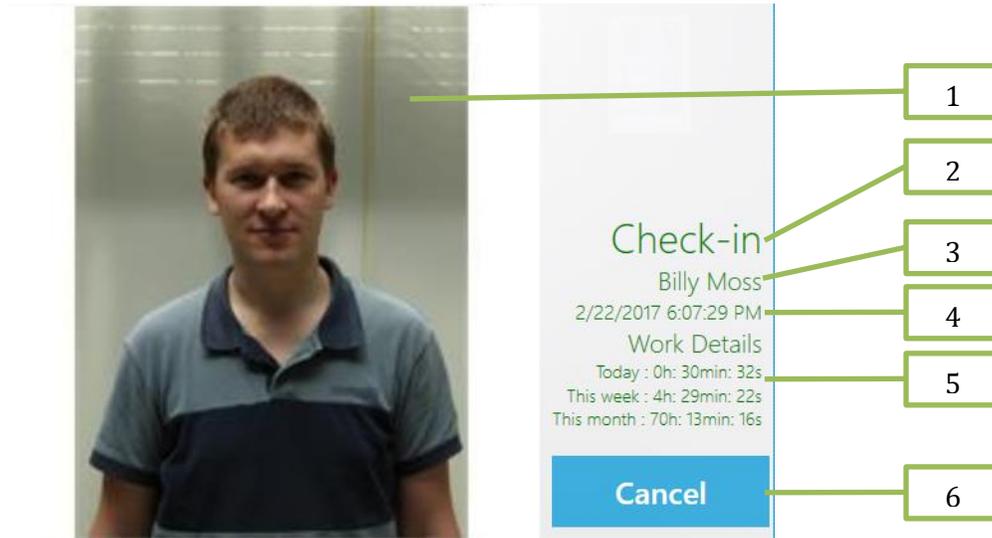


Figure 22: Result view

5.1.2 Settings

Client allows following operations.

1. *Start NCheck Bio Attendance with Windows*- Starts NCheck client with windows.
2. *Change connection settings* - Used to configure NCheck server connection details.
3. *Enable offline operation* – Enables client to perform operations when disconnected from the server. When connection is restored, data is synchronized with the server.
4. *Kiosk mode* - NCheck Client will not allow users to close or access the operating system of the PC.
5. *Activate face detection after RFID, keyboard or barcode event* – Face detection starts only after RFID, keyboard or barcode event.
6. *Activate face recognition on button click* – Allow to start camera capturing by button.
7. *Display user list* - Display or hide user list on the main screen.
8. *Display server messages* - Display or hide messages coming from the NCheck Server. Server messages are used to show company notifications to employees.
9. *Display customer banner* – A customer banner can be displayed in *device panel*.
10. *Check-in/check-out Notification timeout* – Delay between consecutive check-in and check-out events for user
11. *Play notification sound when a face is detected*- Enable playing a notification sound when face is detected.
12. *Play notification sound when capture result are displayed*- Enable playing a notification sound when capture results are displayed.

13. *Application Language* – Set application language. This setting is applied after restarting the application.
 - a. Following languages are supported in NCheck
 - i. English
 - ii. Spanish
 - iii. French
 - iv. Russian
14. *Camera rotation* – Can be used to rotate preview of attached cameras.
15. *Subscribe to HID device plugged/unplugged events at runtime*-If enabled, client will monitor HID device attach and detach events coming from the operation system. **This operation may consume more operating power and memory.**
16. *Login name and password* - NCheck admin login name and password to authorize setting changes.
17. *OK* – Apply setting changes.

18. *Close* – Close settings dialog without saving changes.

Client settings

1 Start NCheck Bio Attendance with Windows

Change connection settings

2 Host: 192.168.2.11 Port: 8443
 Local Remote

Offline support

3 Enable offline operation

Display settings

4 NCheck Client run in full screen on kiosk mode

5 Activate face detection after RFID, keyboard or barcode event

6 Activate face recognition on button click

7 Display user list

8 Display server messages

9 Display customer banner in client

10 Check-in / check-out Notification timeout (Seconds)

Sounds

11 Play notification sound when a face is detected

12 Play notification sound when capture results are displayed

Figure 23: Client settings 1

Application language

12 — Select language on next start

Rotation of camera

13 — Rotated by (counterclockwise)

HID scanners

14 — Subscribe to HID device plugged \ unplugged events at runtime
Will update status of attached HID devices in the server when they are plugged or unplugged.
Not recommended for low end devices due to high CPU usage

Confirm your action

NCheck administrator credentials of given server is required to change the settings.

15 — Login name

15 — Password

16 — 17 —

Figure 24: Client settings 2

5.1.2.1 Activate face recognition on button click

Face capturing, and recognition is taken place always. It may be a problem if it recognizes faces unattended and record unwanted attendance events. To avoid such situations, system provides this setting to change the face recognition to manual.

By enabling this client setting, camera preview provides manual button named “Start”. Then, an employee needs to start face capture and recognition by pushing the button and record an attendance event. Camera capturing will be stopped and show the “Start” button after capturing and recognizing a user.

1. Start – Starts the camera capturing for recognizing face.

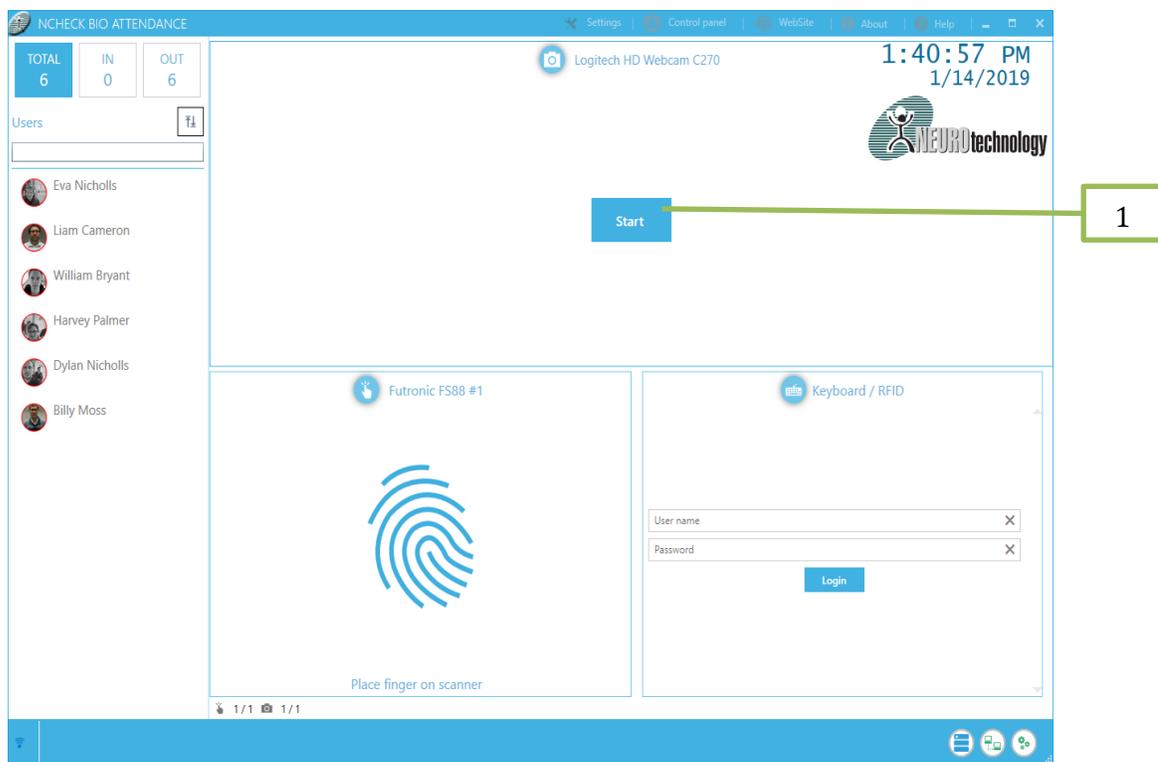


Figure 25: Activate face recognition on button click

5.1.2.2 Remote connection Settings

1. Search - Automatically search available NCheck servers in the local area network

Client settings

Change connection settings

Host: 192.168.2.26 Port: 8010

Local
 Remote

1

Server

192.168.2.26

Port

8010

Figure 26: Remote connection settings

5.2 NCheck Control Panel

Control panel can be launched using *Control panel* link provided in NCheck Bio Attendance application. To access NCheck control panel, you have to authenticate with NCheck admin user/power user authentication details.

1. *Login* - Allows administrator to log into the NCheck control panel with given login name and password.
2. *Exit* - Allows exit from the NCheck control panel.
3. *Connection Settings* – Expand to change NCheck server connection settings.

Login

Login name

admin

Password

..... ?

CONNECTION SETTINGS
 3

1
2

Figure 27: NCheck control panel login screen

Note – Power user is one of the two user login type in NCheck Bio Attendance system. Power user does not have full administrator privileges and does not allow to change client administrator settings in the control panel.

NCheck control panel have two connection modes. If your NCheck server and NCheck control panel install in same computer, you can select *Local* mode on NCheck control panel to connect the NCheck server. If your NCheck server and NCheck control panel install in separate computers in same network, you can select *Remote* mode on NCheck control panel to connect a remote NCheck server (Note: NCheck server mode must be *Network*). You can change your connection settings on NCheck control panel by clicking on *Connection Settings* collapsible panel. If you select network mode, you have to provide NCheck server *Host* and *Port*.

1. *Connection mode* - This allows select the connection mode.
2. *Host* - Server host name.
3. *Port*- Server port.

The screenshot shows the NCheck control panel login interface. At the top, the word "Login" is displayed. Below it, there are two input fields: "Login name" with the value "admin" and "Password" with masked characters. A blue header for "CONNECTION SETTINGS" is expanded, showing two radio buttons: "Local" (unselected) and "Remote" (selected). Below the radio buttons are three input fields: "Host" containing "192.168.2.26", "Port" containing "8010", and "Port" (repeated label). At the bottom of the settings panel are two buttons: "Login" and "Cancel". Three green boxes with numbers 1, 2, and 3 are positioned to the left of the settings panel, with lines pointing to the "Remote" radio button, the "Host" field, and the "Port" field respectively.

Figure 28: NCheck control panel login screen connection settings

After successfully login to the NCheck control panel, it provides following options from title bar buttons.

1. *Web site* – Launch NCheck Web.
2. *Logout* – Logout from the control panel.
3. *About* – Show about NCheck Bio Attendance.
4. *Help* – Launch NCheck Bio Attendance help.

1 2 3 4

WebSite Logout About Help

Dashboard Users User Groups Shifts Rosters Attendance Reports Client devices Settings

TOTAL 6 IN 1 OUT 5

Search User group

Name All groups

NAME	LOGIN NAME	EMPLOYEE CODE	STATUS	AVAILABLE	EMAIL	ASSIGNED USER GROUPS	ASSIGNED SHIFTS	FINGERPRINT	FACE IMAGES	IRIS
Billy Moss	Billy		Active	IN		Default, Executives	Default, Night Shift	16	32	3
Dylan Nicholls	Dylan		Active	OUT		Default, HR, Executives	Default	0	0	0
Eva Nicholls	Eva		Active	OUT		Default, Executives	Default	0	0	0
Harvey Palmer	Harvey		Active	OUT		Default, Executives	Default	0	3	0
Liam Cameron	Liam		Active	OUT		Default, Executives	Default	0	2	0
William Bryant	William		Active	OUT		Default, Executives	Default	0	3	0

Reload Add Edit Remove Block Export Import

Figure 29: NCheck control panel title bar buttons

The administrator user can use the NCheck control panel to manage users, user groups, work shifts, attendance records, devices, NCheck application settings and view reports. NCheck control panel has following tabs.

1. *Dashboard* – Provides an overall view of the system.
2. *Users* – Manage NCheck users.
3. *User Groups* – Manage user groups.
4. *Shifts* – Manage user shifts.
5. *Rosters* – Schedule shifts for users and user groups.
6. *Attendance* – View and manage employee attendance records.
7. *Reports* – Generate employee attendance reports.
8. *Client devices* – Manage NCheck Clients connected to the NCheck Server
9. *Settings* – Manage employee error event notifications, authentication settings, external executables and administrator password.

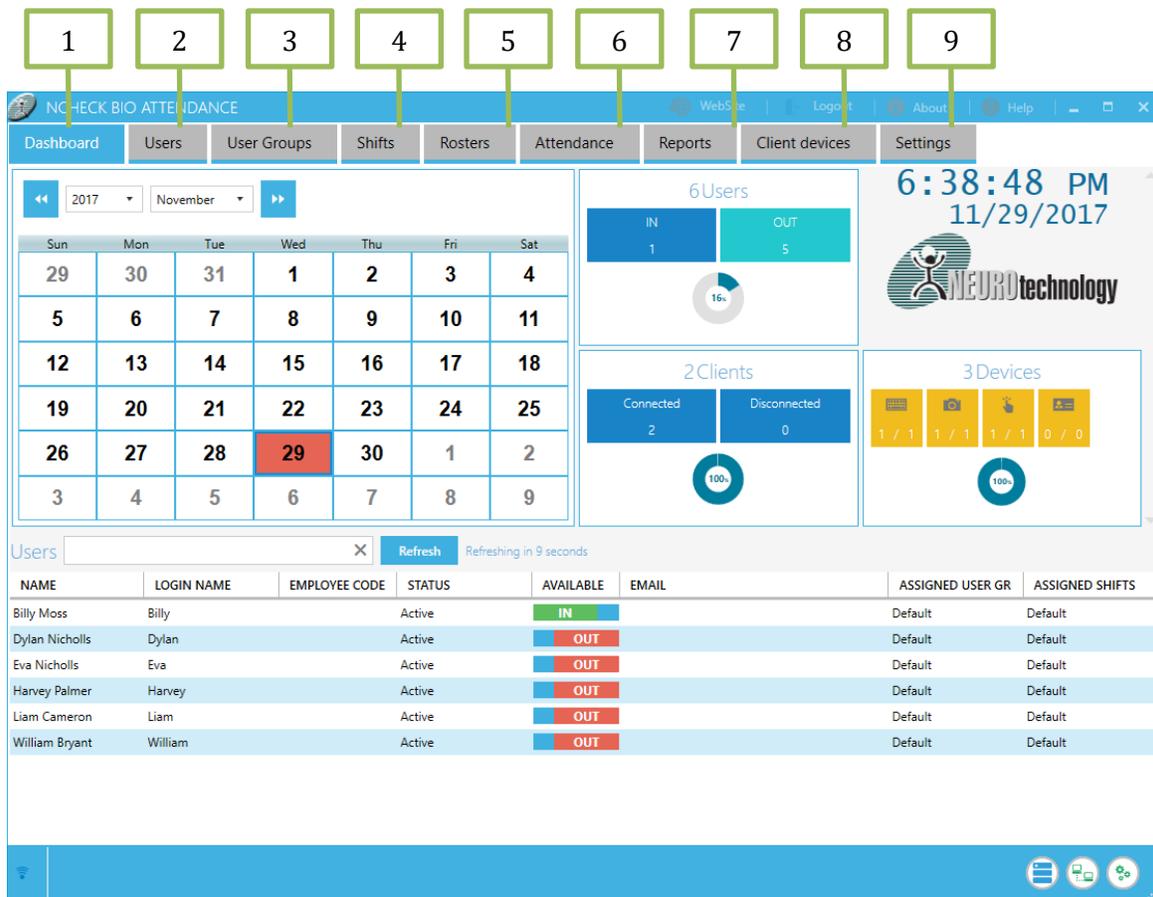


Figure 30: NCheck control panel - Main window

5.2.1 Dashboard

Dashboard tab displays overall view of system. It provides current status of users, clients and client devices.

5.2.2 Users

Users tab displays NCheck Bio Attendance system users and provides options to manage them. It has following features.

1. Search users - This control allows search users by user id, name, login name or email.
2. User group - This control allows filtering users by user group.
3. User table - Shows details relate to users.
4. Reload - Updates the users table.
5. Add - Add new users to NCheck.
6. Edit - Edit selected user.
7. Remove - Delete selected user.
8. Block - Block selected user.
9. Export - Export NCheck users to a CSV file
10. Import users - Import users from a CSV file

NCHECK BIO ATTENDANCE

WebSite Logout About Help

Dashboard Users User Groups Shifts Rosters Attendance Reports Client devices Settings

TOTAL 6 IN 1 OUT 5

Search

Name User group All groups

NAME	LOGIN NAME	EMPLOYEE CODE	STATUS	AVAILABLE	EMAIL	ASSIGNED USER GROUPS	ASSIGNED SHIFTS	FINGERPRINT	FACE IMAGES	IRIS
Billy Moss	Billy		Active	IN		Default, Executives	Default, Night Shift	16	32	3
Dylan Nicholls	Dylan		Active	OUT		Default, HR, Executives	Default	0	0	0
Eva Nicholls	Eva		Active	OUT		Default, Executives	Default	0	0	0
Harvey Palmer	Harvey		Active	OUT		Default, Executives	Default	0	3	0
Liam Cameron	Liam		Active	OUT		Default, Executives	Default	0	2	0
William Bryant	William		Active	OUT		Default, Executives	Default	0	3	0

4 Reload 5 Add 6 Edit 7 Remove 8 Block 9 Export 10 Import

Figure 31: NCheck control panel - Users tab

5.2.2.1.1 Add/ edit users

User management window allows adding or editing user details. Add/Edit user facilitates to enter following information.

1. *First name*
2. *Last name*
3. *Email* (Optional)
4. *Employee code* (Optional)
5. *Photo*(Optional)
 - 5.1. Select picture from file
 - 5.2. Capture picture from camera
 - 5.3. Select picture from history
 - 5.4. Remove photo
6. *Login name*
7. *Enable Password Login* – Enable or disable password login. Allows empty password.
8. *Barcode tag* (Optional) – Scan using an attached barcode reader.
9. *RFID tag* (Optional)- Scan using an attached RFID scanner.
10. *Biometrics* (Optional)
 - 10.1. *Fingerprint*
 - 10.1.1. Scan using an attached fingerprint reader.

- 10.1.2. Select unidentified fingerprint from history.
- 10.2. *Face*
 - 10.2.1. Capture face using and attached camera.
 - 10.2.2. Select face image from unidentified face images from history.
- 10.3. *Iris*
 - 10.3.1. Capture iris using attached iris scanner.
 - 10.3.2. Select iris image from unidentified iris images from history.
- 11. Location restriction
 - 11.1. Add a location restriction for user from history.
 - 11.2. Delete selected loaction restriction.
- 12. *Save* - Save changes.
- 13. *Cancel* – Exit without saving changes.

The screenshot shows the 'User management' window in the NCheck Bio Attendance application. The window has a blue header with the application name and navigation tabs. The 'Users' tab is selected. The main area contains a form for editing a user named 'Billy Moss'. The form has several sections: personal information (First name, Last name, Email, Employee code, Login name), login settings (Enable password login, Password, Confirm password), Barcode management (Barcode, Scan button, Code, Confirm code), and RFID tag management (Change RFID tag, Scan button, Tag, Confirm tag). A photo of the user is shown on the right. A vertical toolbar on the right side has icons for Save (5.1), Add Photo (5.2), Refresh (5.3), and Delete (5.4). Numbered callouts (1-9) point to specific form elements.

Figure 32: NCheck control panel – User management window

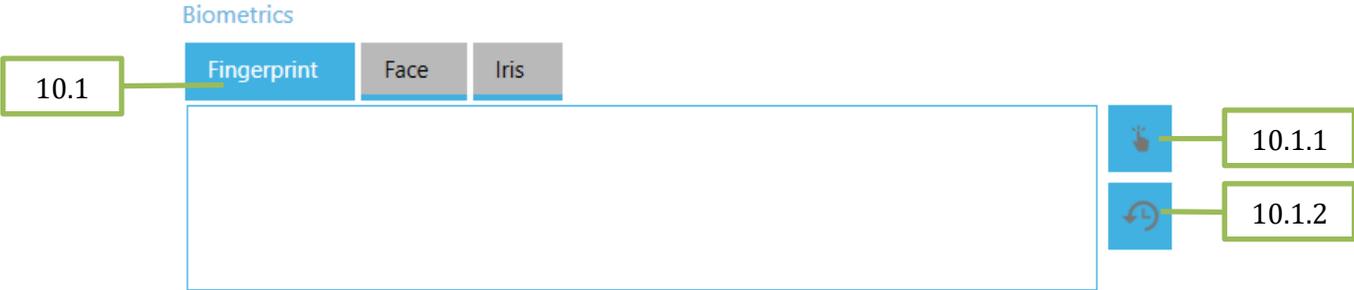


Figure 33: Face (User management window continue)

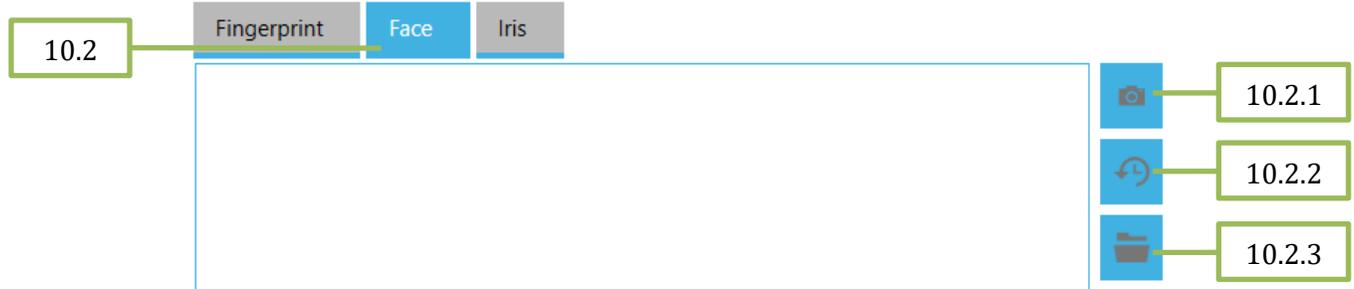


Figure 34: Fingers (User management window continue)



Figure 35: Iris (User management window continue)

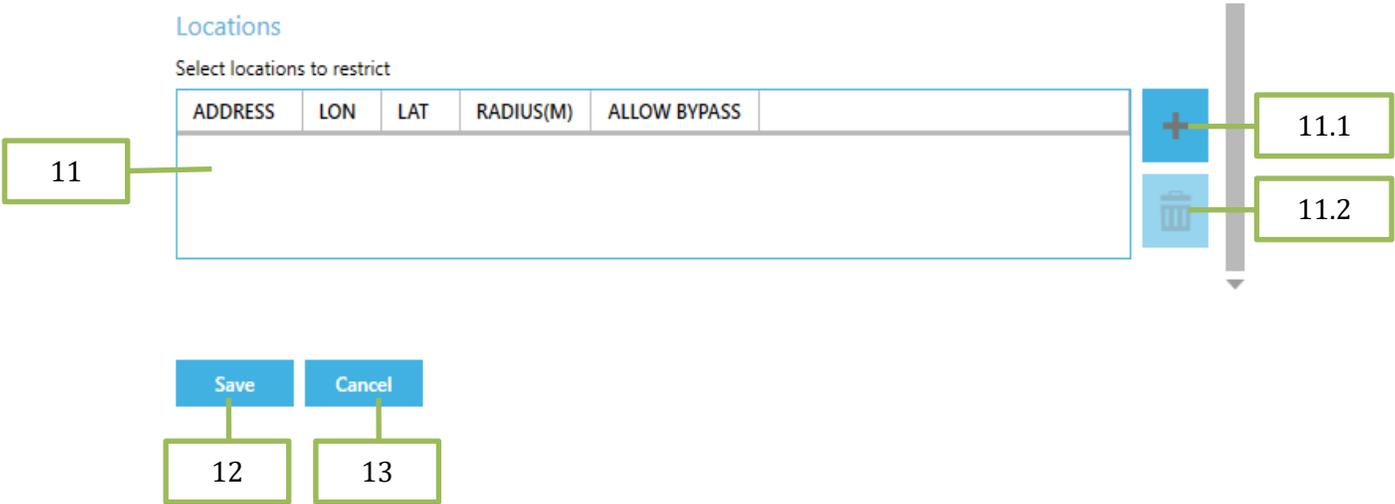


Figure 36: Locations restrictions (User management window continue)

5.2.2.1.2 Capturing Biometric data

In order to use bioemtric authentication of employees, their fingerprints and/ or faces should be enrolled to the system. Biometric section of the User Management window provides this facility.

5.2.2.1.2.1 Scan fingerprint

1. *Scanner* – Selects a scanner, if there are more than one connected scanner.
2. *OK* - Apply changes.
3. *Cancel* - Exit without saving changes.

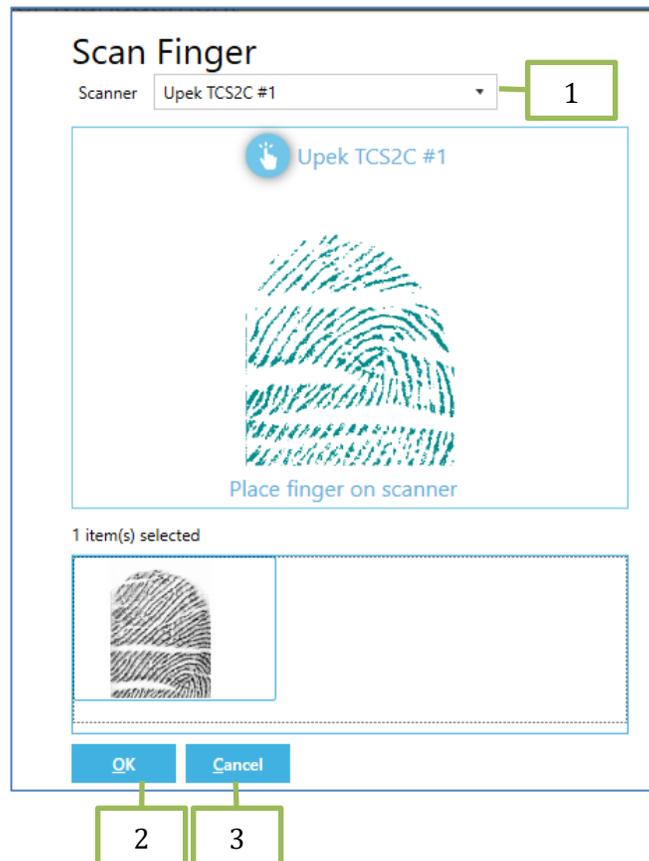


Figure 37: User management – Scan finger

5.2.2.1.2.2 Fingerprint from history

1. Shows number of selected item(s).
2. *Clear all* – Clear all undefined fingerprints from the database.
3. *Refresh* - Refresh the view with undefined fingerprints from the database .
4. Unidentified fingerprints list in the database.
5. Sort fingerprints based on similarity based on existing fingerprints.
6. *OK* - Apply changes.

7. *Cancel* - Exit without saving changes.

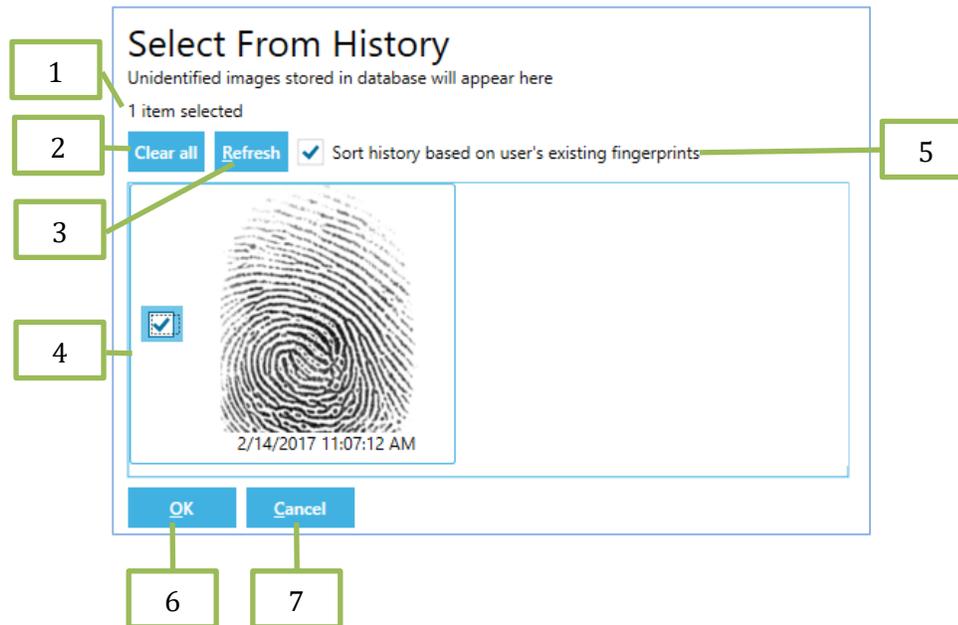


Figure 38: User management – Select finger from history

Note: Recent biometric which have not been identified are stored in the history of NCheck server database. Administrators can use those unidentified biometrics to enroll for the user under adding or editing.

5.2.2.1.2.3 Capture Face

1. *Camera* – Select a camera, if there are more than one connected camera.
2. *Capture/Stop* – Capture starts face capturing. Then *Capture* is changed to *Stop* and start to detect and capture a face. Face capturing process can be stopped Using *Stop* button.
3. *OK* - Apply changes.
4. *Cancel* - Exit without saving changes.
5. *Remove Face* – Remove existing face. Remove face button is shown only when the mouse pointer is over the face item in the faces list.

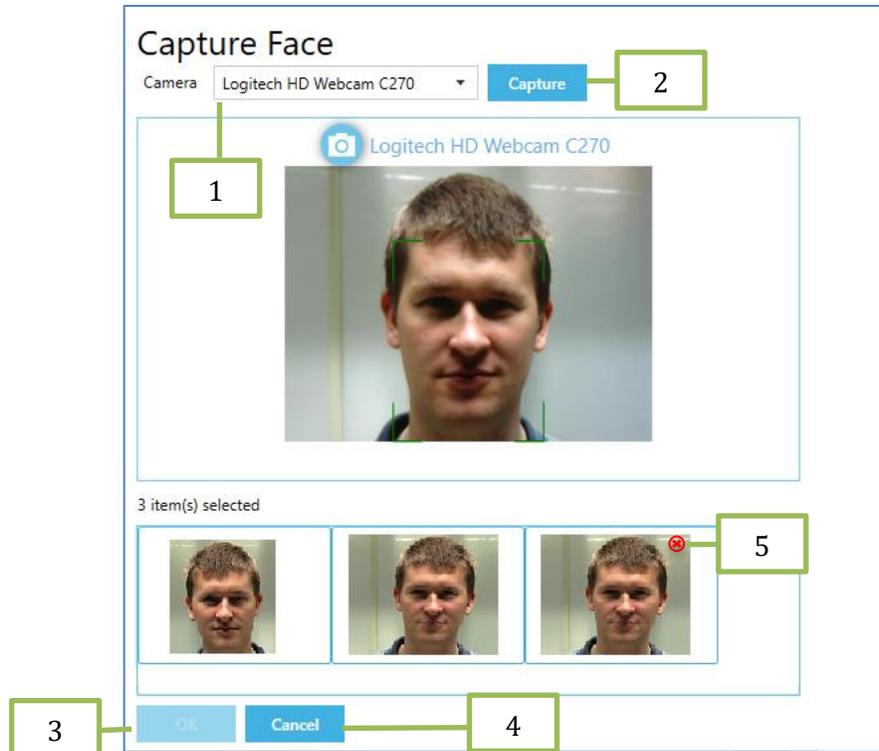


Figure 39: NCheck Control Panel - Face capture

5.2.2.1.2.4 Face from history

1. Shows number of selected item(s).
2. *Clear all* - Clear all undefined face templets from the database.
3. *Refresh* - Refresh the view with undefined face templets from the database .
4. Unidentified face templates list in the database.
5. *Sort history based on user's existing faces* - Allows to sort unidentified face templates on user's existing faces.
6. *OK* - Apply changes.

7. *Cancel* - Exit without saving changes.

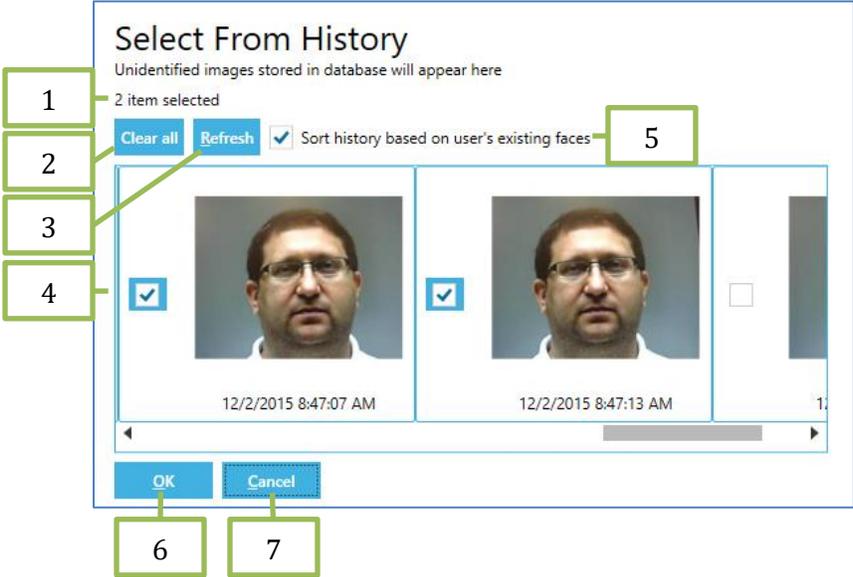


Figure 40: NCheck Control Panel – Face from history

5.2.2.1.2.5 Scan Iris

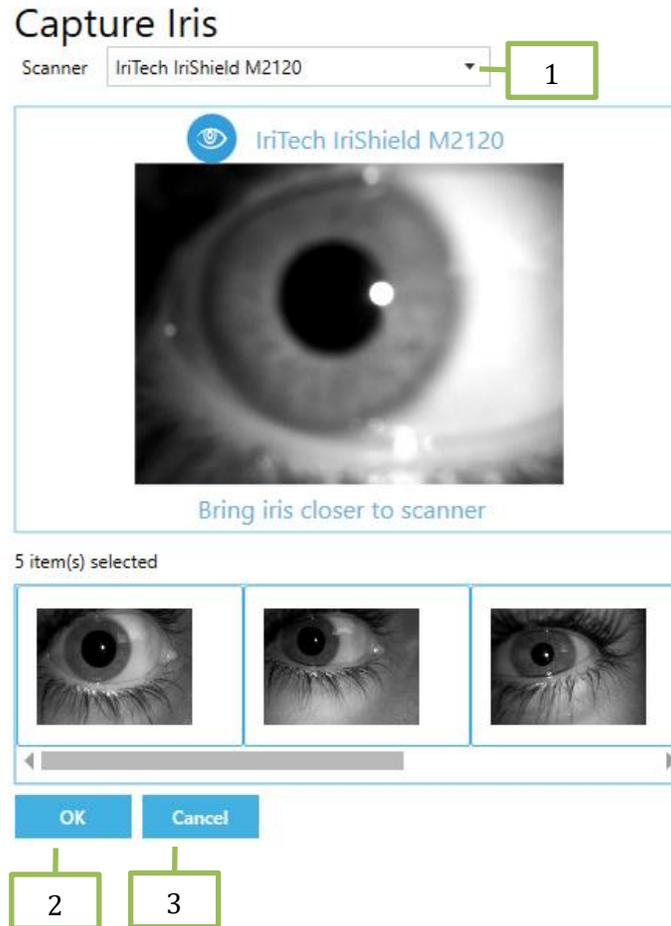


Figure 41: User management - Capture Iris

1. *Select Iris scanner* - There will be several items if system has several iris scanners.
2. *OK* - Apply changes.
3. *Cancel* - Exit without saving changes.

5.2.2.1.2.6 Iris from history

1. *Shows number of selected item(s).*
2. *Clear all* – Clear all undefined face templets from the database.
3. *Refresh* - Refresh the view with undefined face templets from the database.
4. *OK* - Apply changes.
5. *Cancel* - Exit without saving changes.

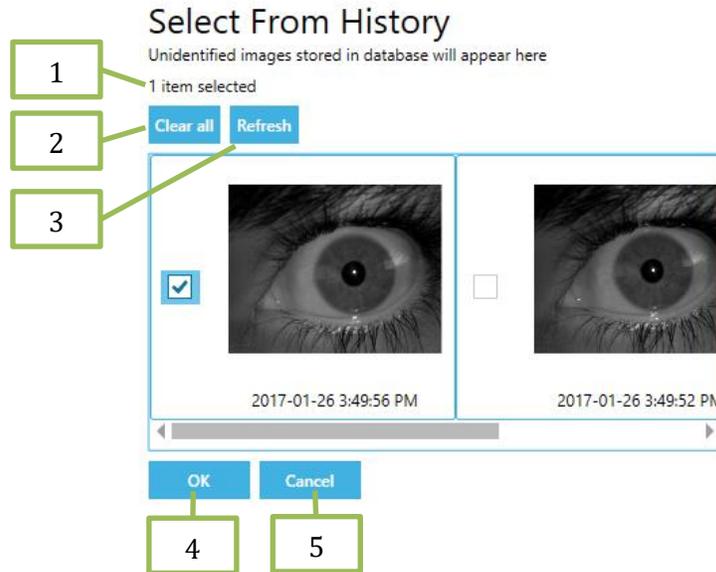


Figure 42: User management - Select Iris from history

Note: Recent biometric which have not been identified are stored in the history of NCheck server database. Administrators can use those unidentified biometrics to enroll for the user under adding or editing.

5.2.2.1.3 Photo

This selection is optional and allows choosing user profile picture. User current profile picture is shown, if user have already chosen one.

5.2.2.1.3.1 Browse

The *Browse* button allows to choose a new picture for the user. The picture must be in JPG, PNG, GIF or BMP format.

5.2.2.1.3.2 Capture from camera

Camera button allows to take a picture using your computer camera.

5.2.2.1.3.3 Remove

The *Remove* button allows removing the profile picture, if user has already chosen one.

5.2.2.2 Remove users

User management allows removing a selected user from the system using *Remove* button. Confirmation message is prompted before removing from the system.

5.2.2.3 Block/Activate users

User management window allows block/activate users. If you want to block an active user, first select the particular user and click on *Block* button. Similarly. If you want to unblock a blocked user, select the particular user and click on *Activate* button.

5.2.2.4 Export/Import users

User management window allows exporting current user list to a comma separated value (CSV) file by using *Export* button. Also, it allows importing users from a CSV file to the system by using *Import* button. When importing users, the existing users are updated.

Importing CSV file should have following fields as headers.

- First name - **mandatory field**
- Last name- **mandatory field**
- Login name- **mandatory field** and value should be *unique*
- Employee Id – optional field
- Email – optional field
- Created date – optional field
- Password – optional field
- Barcode – optional field
- RFID – optional field
- Photo – optional field and this is for user’s profile picture path.
- Face images - optional field and face picture folder with face images of the user.

5.2.2.4.1 Import profile picture

To import user’s profile picture, the path of the profile picture for a respective user should be specified under “Photo” field in CSV file.

5.2.2.4.2 Import user faces

To import user’s face images, the path of the face images directory for a respective user should be specified under “Face images” field in CSV file.

5.2.2.4.3 Import restricted locations

To import user’s restricted locations, should include user’s information for login name, description, latitude, longitude, radius and by pass allowed respectively under “Locations” field in the importing CSV file.

5.2.2.4.4 Sample user list importing csv file content

Following figure demonstrate the sample content for user list importing csv file.

```

First name, Last name, Login name, Employee Id, Email, Created date, Password, Barcode, RFID, Photo, Face images
Billy,Moss,Billy,112,billy.moss85@abc.ty,10/25/2018 5:14:31 PM,,,,F:\temp\user_list\BillyM.jpg,F:\temp\user_list\Billy
Liam,Cameron,Liam,115,liam.cameron86@abc.ty,5/22/2019 10:35:10 AM,,,,F:\temp\user_list\LiamC.jpg,F:\temp\user_list\Liam
#
Locations
Billy,"Laisves pr. 125A,Vilnius, LT-06118,Lithuania",54.727053,25.236724,True
Liam,"Laisves pr. 125A,Vilnius, LT-06118,Lithuania",54.727053,25.236724,True

```

Figure 43: User list importing sample csv file content

5.2.3 User Groups

User group details of the system can be checked by using *User Groups* tab. Following functionalities are available in user group management.

1. *Search* – Filter user groups by group name.
2. *Reload* – Updates the user groups table.
3. *Add* - Create new user group.
4. *Edit* – Change user group detail.
5. *Remove* - Remove the selected user group. A confirmation message is shown before deleting the user group. At least one user group should be available in the system. Therefore, it is not allowed to delete in case there is only one user group in the system.
6. *Export* – Export user groups to a csv file.
7. *Import* – Import user groups from a csv file.
8. *User group users* - Users for a particular user group can be added or removed using the checkbox associated with each user.
9. *Do not allow users to be in multiple user groups* –Prevent assigning a user in to multiple user groups.
10. *Search users* - Search users by user name.

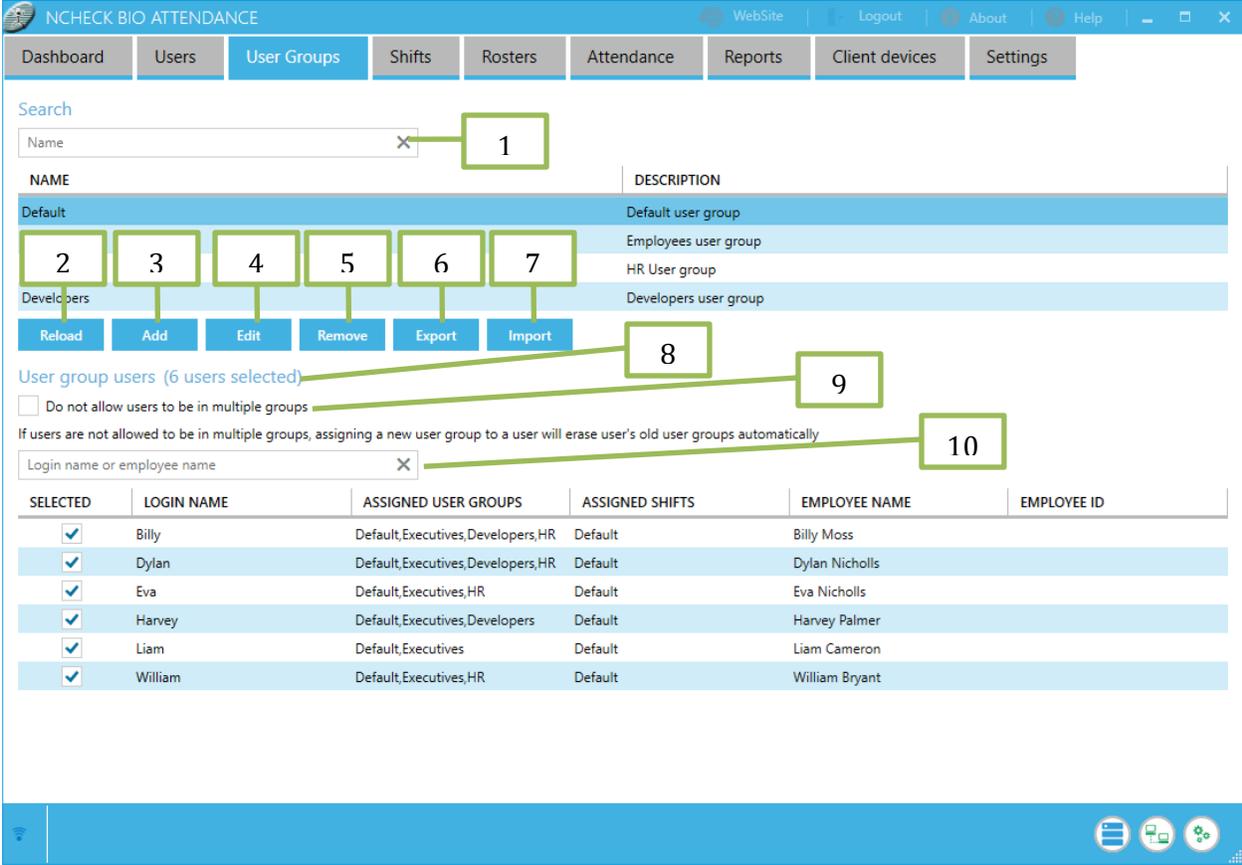


Figure 44: NCheck Control Panel – User Groups Tab

5.2.3.1 Add or edit User Group

Using user group configuration window, user group name and the description can be given/changed.

1. *Save* – Save changes.
2. *Cancel* - Exit without saving changes.
3. *Add*- Add locations to restrict.
4. *Delete*- delete selected locations.

User group management

Name

Description

Locations

Select locations to restrict

ADDRESS	LON	LAT	RADIUS(M)	ALLOW BYPASS
<input type="button" value="+"/> 3				
<input type="button" value="🗑️"/> 4				

1
2

Figure 45: NCheck control panel – Add/Edit user group

5.2.3.1.1 Add location restrictions

Allow users to define location restrictions to user groups. These locations are retrieved from attendance device's location history.

1. *Allow bypass* – Allow users to skip the restrict location.
2. *Ok* – Save changes.

3. *Cancel* - Exit without saving changes.

Select locations from history

Assign restricted locations. Availability of address is depend attendance device location service capabilities. Area of the restriction can be adjusted by using the radius. Bypass option allows users to skip location restriction and those event logs will have a reason for skipping the location restriction.

IS SELECTED	ADDRESS	LAT	LON	RADIUS	ALLOW BYPASS
<input checked="" type="checkbox"/>	Alvis Terrace, Colombo 00300, Sri Lanka	6.91434	79.8536	20	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Alvis Terrace, Colombo 00300, Sri Lanka	6.91432	79.8536	20	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Alvis Terrace, Colombo 00300, Sri Lanka	6.91427	79.8535	20	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Alwis Place, Colombo 00300, Sri Lanka	6.91436	79.8534	20	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Alwis Place, Colombo 00300, Sri Lanka	6.91461	79.8535	20	<input checked="" type="checkbox"/>
<input type="checkbox"/>	Alwis Place, Colombo 00300, Sri Lanka	6.91415	79.8535	20	<input checked="" type="checkbox"/>

1

2

3

OK Cancel

Figure 46: Add location restrictions to user groups

5.2.4 Shifts

Shift tab represents the shifts available. You can create a shift and can assign groups to the shift. Shift tab allows. Following operations.

1. *Search* - Search available shift by typing shift name.
2. *Reload* - Reload the shifts table
3. *Add* - Create new shift.
4. *Edit* - Edit an existing shift.
5. *Remove* - Remove an existing shift. A confirmation message is shown before deleting the shift. At least one shift should be there in the system. Therefore, it is not allowed to delete a shift, if the system has only one shift.
6. *Export* - Export shifts to a csv file.
7. *Import* - Import shifts from a csv file.

The screenshot shows the 'Shifts' tab in the NCheck Bio Attendance application. The navigation menu at the top includes 'Dashboard', 'Users', 'Groups', 'Shifts', 'Rosters', 'Attendance', 'Reports', 'Client devices', and 'Settings'. The 'Shifts' tab is active. Below the navigation is a 'Filter' section with a text input field labeled 'Shift name' and a 'Reload' button. A table below the filter lists various shift types with their start and end times. At the bottom of the table are five action buttons: 'Add', 'Edit', 'Remove', 'Export', and 'Import'. Numbered callouts (1-7) point to the 'Shift name' field, the 'Reload' button, and the five action buttons respectively.

NAME	START	END
Default	5:00 AM	4:59 AM
Day Shift	8:00 AM	5:00 PM
Night Shift	8:00 PM	8:00 AM
Split Shift	8:00 PM	10:00 PM
Afternoon shift	1:00 PM	5:00 PM

Figure 47: NCheck control panel – Shifts tab

5.2.4.1 Add or edit Shift

Shift management window provides following functionality.

1. *Name* – Shift name.
2. *Start and End* - It can define shift start time and end time.
3. *Work Hours* – Specify the number of work hours a user should cover in this shift.
4. *Restrict Check-in time* - It can define specific time interval for the check in. If you uncheck this option, check in time is not restricted.
5. *Restrict Check-out time* - It can define specific time interval for the check out. If you uncheck this option, check out time is not restricted.
6. *Restrict Overtime Hours* - It can define specific time interval for the overtime. If you uncheck this option, over time hours are not restricted.
7. *Use a weekly overtime rate in weekly total work hours' report* – Enables to define a weekly overtime rate which will be used in weekly total work hours' report.
8. *Use a monthly overtime rate in monthly total work hours' report* – Enables to define a monthly overtime rate which will be used in monthly total work hours' report.
9. *Apply shift start time to old logs* – Shift start time will be change from the specified date onward.

10. *Cancel* - Exit without saving changes.

Shift management

Name 1

Specify shift start and end (HH:mm:ss)

Start End 2

Specify work hours a user should cover 3

Optional Settings

Restrict check-in 4

Users will only be able check-in during the specified interval

Start End

Restrict check-out 5

Users will only be able check-out during the specified interval

Start End

Restrict overtime hours 6

Overtime calculation will be restricted to the specified interval

Start End

Use a weekly overtime rate in weekly total work hours report 7

Specify hours a user should cover in a week

Use a monthly overtime rate in monthly total work hours report 8

Specify hours a user should cover in a month

By default, changes to shift start time will only take effect for new user events

Apply shift start time to old logs 9

Start

10

11

Figure 48: NCheck control panel – Shift management

Note: By default, changes to shift start time will only take effect for new user events.

5.2.5 Rosters

Rosters tab allows users to schedule shifts for users and user groups. Following functionalities are available in rosters management.

1. Refresh – Refresh the rosters list.
2. Show expired roster records – Enable/Disable showing expired rosters in current roster list.
3. Roster
 - 3.1. Show the roster name and time range of roster.
 - 3.2. Shows the roster status which can be either one of the following status.
 - Active – Roster is currently in effect.
 - Pending – Roster is scheduled for future.
 - Expired – Roster is expired.
 - 3.3. Delete – Delete the roster.
 - 3.4. Export – Export the roster to a csv file.
 - 3.5. Edit – Edit the roster.
4. Add – Add a new roster.
5. Import – Import rosters from csv file.

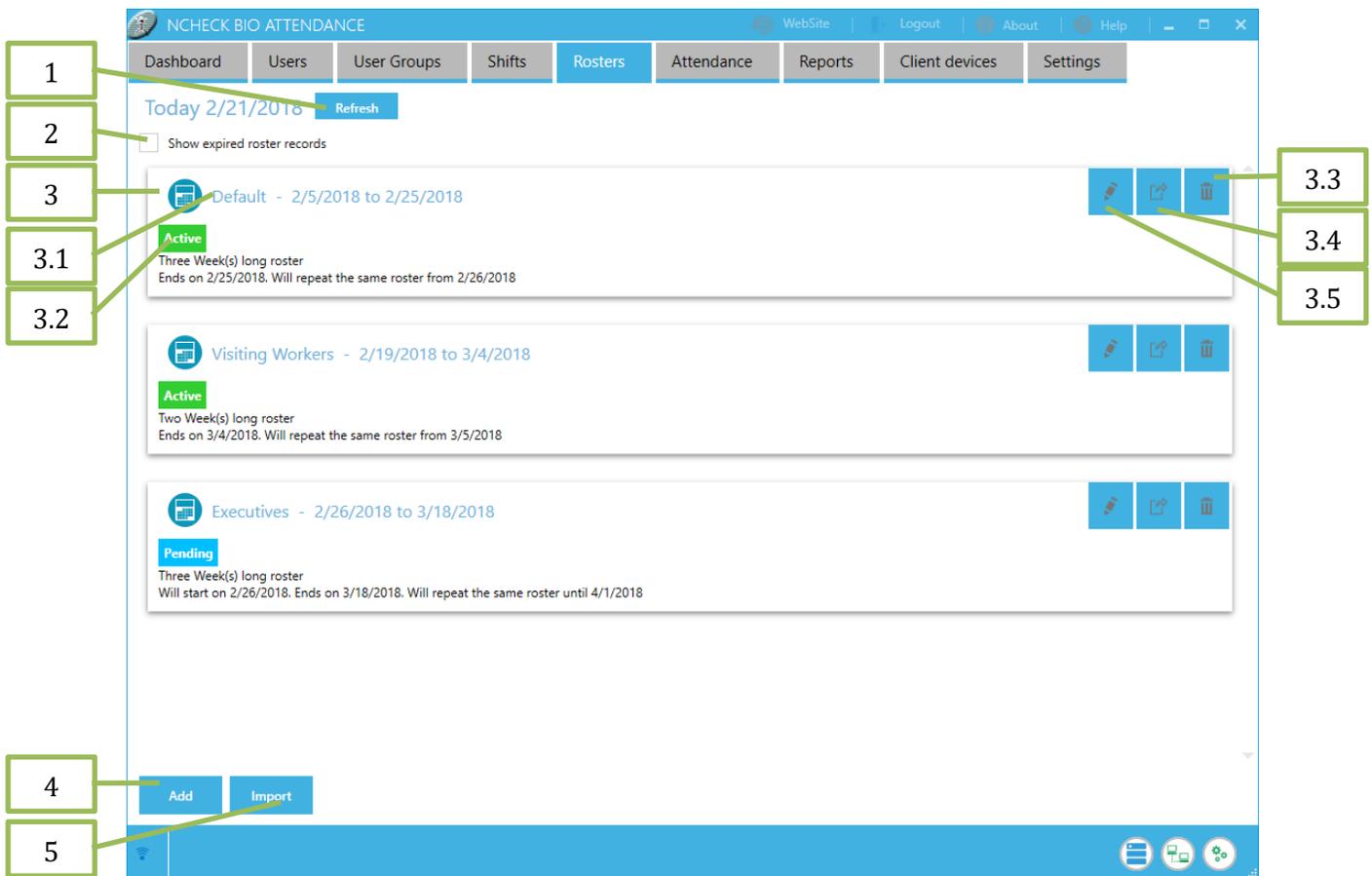


Figure 49: NCheck Control Panel – Rosters tab

5.2.5.1 Add a roster

To add a new roster, following information should be given.

1. Name – Name of the roster.
2. Week(s) – Life time of this roster in week(s).
3. Start week – Specify the start week of this roster.
4. Range of recurrence
 - 4.1. No end date – Select this option to repeat the roster forever.
 - 4.2. End by – Select this option to repeat the roster until the given date.
5. Cancel – Cancel the creation of a new roster.
6. Continue – Continue to completion of roster creation.

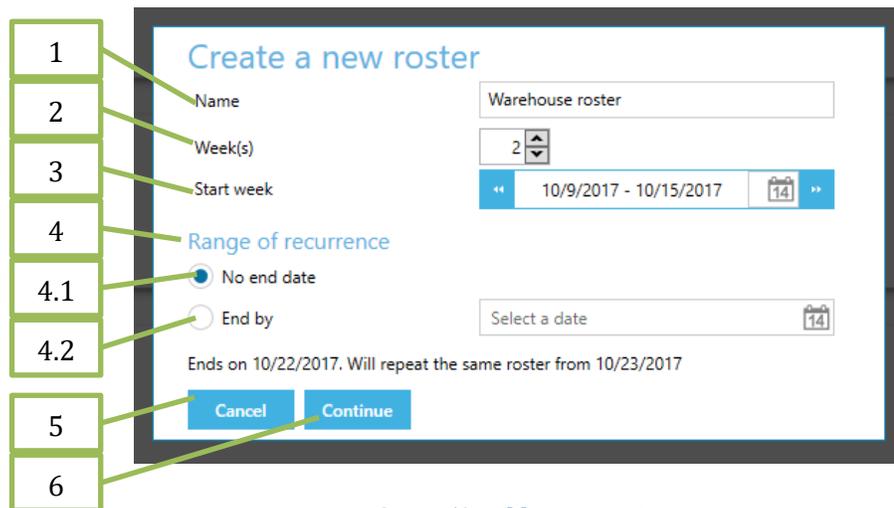


Figure 50: Add a new roster

5.2.5.2 Edit a roster

Edit roster provide following functionality to schedule a shift for user or user group.

1. Edit – Edit roster name and end date.
2. Filter the roster items by user/user group.
3. Filter the roster items by shift.
4. Shows the roster items of selected week.
5. New – Create a new roster.
6. Roster item
 - 6.1. The shift that scheduled within this roster item.
 - 6.2. User/User group assigned to scheduled shift.
 - 6.3. Edit – Edit this roster item.
 - 6.4. Delete – Delete this roster item.
7. Close – Close the current roster.

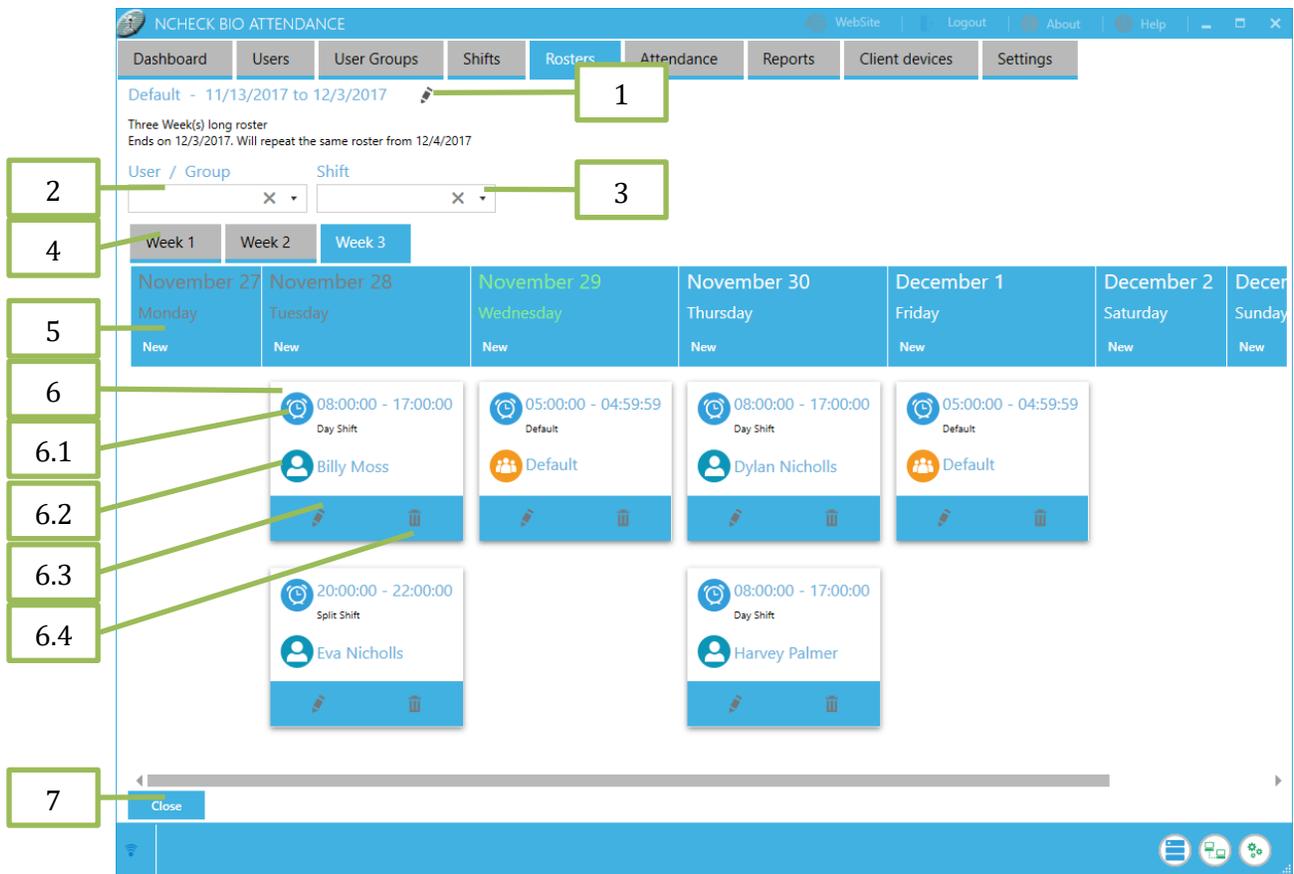


Figure 51: Edit a roster

5.2.5.3 Edit a roster name and shift

Allows users to change roster name and end date of the roster.

1. Name – Change the name of the roster.
2. Range of recurrence
 - 2.1. No end date – Select this option to repeat the roster forever.
 - 2.2. End by – Select this option to repeat the roster until the given date.
3. Apply – Apply the changes to current roster.
4. Cancel – Cancel the changes.

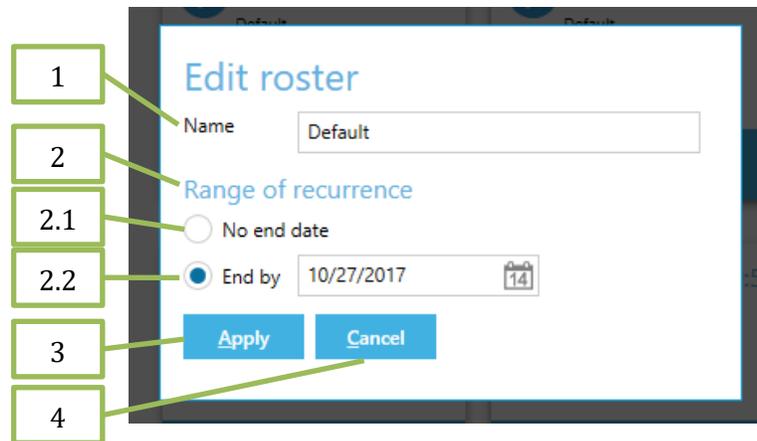


Figure 52: Edit a roster name and range of recurrence

5.2.5.4 Edit a roster item

Allows users to change the scheduled shift and assigned user/user group of the selected roster item.

1. Shift – Change the scheduled shift.
2. User/User group – Change the assigned user/user group.
3. Ok – Apply the changes to roster item.
4. Cancel – Cancel the changes.

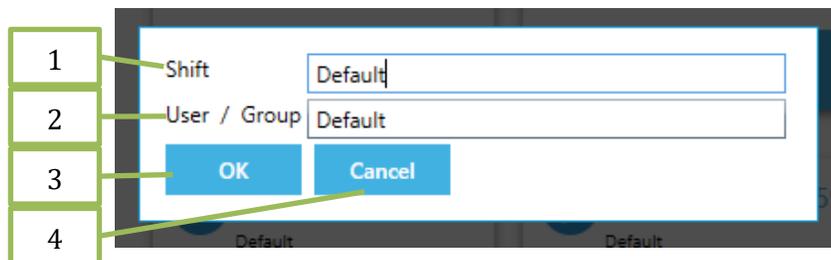


Figure 53: Edit a roster item

5.2.6 Attendance

Attendance details of employees can be check with clicking Attendance tab. You can perform below operations to filter attendance record or correct any attendance discrepancy.

1. *Filter* - Filter attendance record.
 - 1.1. *Name* - Filter by user name.
 - 1.2. *Group* - Filter by user group.
 - 1.3. *Shift* - Filter by shift.
 - 1.4. *Show* – Show selected event records.
 - 1.5. Show deleted logs - Include deleted event records.
 - 1.6. Reload filters – Refresh the filters.
2. *New* – Add new attendance record manually.
3. *Edit* – Edit selected attendance record.

4. *Delete* – Delete selected attendance record. It will pop up a confirmation message, before deleting an event record from the system.
5. *Refresh* - You can refresh event log view.
6. *Group event log by name* - Arranges attendance events according to user names.
7. *Show deleted logs* - Enables showing deleted user events.
8. Event log view.
9. *Reevaluate* – Reevaluate the user status according to changes made in to the event log. It will reevaluate the shift and date for a particular event log and rearrange them if inconsistencies found.
10. *Auto arrange* – makes first event a Check In and rearrange succeeding events accordingly.
11. *Auto fix* – Automatically apply missing check-in or check-out event logs to complete user attendance.
12. *Event Images* – Face, fingers and iris captured images during check in and check out.
13. *Show in map* - Open the user event location on the google maps.

The screenshot shows the 'Attendance' tab in the NCheck Bio Attendance control panel. The interface includes a navigation menu at the top with options like Dashboard, Users, User Groups, Shifts, Rosters, Attendance, Reports, Client devices, and Setting. The main area displays an 'Events log' table with columns for NAME, SHIFT, SHIFT START TIME, TIME, ACTION, STATUS, LAT, LON, and ALT. A filter sidebar on the left allows users to filter by Name, User group, Shift, and Show (All events, Show deleted logs). A calendar view at the bottom shows the current month (January 2019) with dates from 30 to 9. At the bottom of the interface, there are buttons for 'New', 'Edit', and 'Delete'. Numbered callouts (1-13) highlight specific features: 1 (Filter), 1.1 (Name filter), 1.2 (User group filter), 1.3 (Shift filter), 1.4 (Show deleted logs), 1.5 (Calendar), 2 (New), 3 (Edit), 4 (Delete), 5 (Refresh), 6 (Group event log by name), 7 (Show deleted logs), 8 (Events log view), 9 (Reevaluate), 10 (Auto arrange), 11 (Auto fix), 12 (Event Images), and 13 (Show in map).

NAME	SHIFT	SHIFT START TIME	TIME	ACTION	STATUS	LAT	LON	ALT
Billy Moss	Default	1/14/2019 12:00:00	1/14/2019 8:00:00	AI Check-in	Valid	0	0	
Billy Moss	Default	1/14/2019 12:00:00	1/14/2019 5:39:48	PI Check-out	Valid	0	0	0
Dylan Nicholls	Default	1/14/2019 12:00:00	1/14/2019 5:41:30	PI Check-in	Valid	6.9392	79.8436	0
Dylan Nicholls	Default	1/14/2019 12:00:00	1/14/2019 5:43:10	PI Check-out	Valid	6.9392	79.8436	0
Eva Nicholls	Default	1/14/2019 12:00:00	1/14/2019 5:42:33	PI Check-in	Checked in	6.9392	79.8436	0
Harvey Palmer	Default	1/14/2019 12:00:00	1/14/2019 5:42:39	PI Check-in	Checked in	6.9392	79.8436	0
Liam Cameron	Default	1/14/2019 12:00:00	1/14/2019 5:42:46	PI Check-in	Checked in	6.9392	79.8436	0
William Bryant	Default	1/14/2019 12:00:00	1/14/2019 5:42:52	PI Check-in	Checked in	6.9392	79.8436	0

Figure 54: NCheck Control Panel – Attendance tab

5.2.6.1 Adding new attendance record or editing existing record

To add or edit event log following information should be given.

1. *Event time* - Set event time.
2. *Event*- Select event (Check in or Check out).
3. *User* - Select the user associate with the event record.
4. *Shift* - Select shift that associate with event record.
5. *Description* - Add description for the even record.
6. *Create* – Create new event record in the system.

7. *Cancel* – Ignore changes and go back to the event management window.

Time attendance record

Wednesday, August 9, 2017

1 Time Wednesday, August 9, 2017 6:32:43 PM

2 Check-in Check-out

User

3 Billy Moss

Shift

4 Default



Description

5

ADVANCED	
+ Created date	8/9/2017 6:33 PM
✎ Last updated time	8/9/2017 6:33 PM

6 Change

7 Cancel

Figure 55: NCheck Control Panel – Add/Edit time attendance record

5.2.6.2 Auto fixing the event log

Auto fix button enables to complete user attendance by automatically filling missing check-in and check-out events.

1. *Shift* - Select shift which requires auto fixing.
2. *User Group*- Select the user group requires auto fixing.
3. *User* - Select the user requires auto fixing.

4. *From* – Start date for auto fixing events.
5. *To* – End date for auto fixing events.
6. *Fill missing check-in using* – Select how to fill the missing check-in events.
 - 6.1. *Ignore* - missing check-in events will be ignored.
 - 6.2. *Shift start time* – Use shift start time to fill missing check-in events.
 - 6.3. *Custom time* – Specify a custom time.
7. *Fill missing check-out using* – Select how to fill the missing check-out events.
 - 7.1. *Ignore* - missing check-out events will be ignored.
 - 7.2. *Shift end time* – Use shift end time to fill missing check-out events.
 - 7.3. *Custom time* – Specify a custom time.

The screenshot shows a dialog box titled "Auto fix records" with the following fields and options:

- Shift:** A dropdown menu with "Default" selected. Callout 1 points to this field.
- User group:** A dropdown menu with "All groups" selected. Callout 2 points to this field.
- User:** A dropdown menu with "Eva Nicholls" selected. Callout 3 points to this field.
- From:** A date input field with "3/2/2016" and a calendar icon. Callout 4 points to this field.
- To:** A date input field with "3/2/2016" and a calendar icon. Callout 5 points to this field.
- Fill missing check-in using:** A section with three radio button options:
 - 6.1. Ignore
 - 6.2. Shift start time
 - 6.3. Custom time
 Callout 6 points to the section header, 6.1 to the first option, 6.2 to the second option, and 6.3 to the third option.
- Fill missing check-out using:** A section with three radio button options:
 - 7.1. Ignore
 - 7.2. Shift end time
 - 7.3. Custom time
 Callout 7 points to the section header, 7.1 to the first option, 7.2 to the second option, and 7.3 to the third option.

At the bottom of the dialog are two buttons: "Apply" and "Cancel".

Figure 56: Auto fix records – Automatically fill missing check-in and check-out records

5.2.6.3 Event images

Event log images contains face, iris and fingerprint images which images are relevant to their attendance event.

1. Refresh – refresh the event log images
2. Print – print all showing event log images

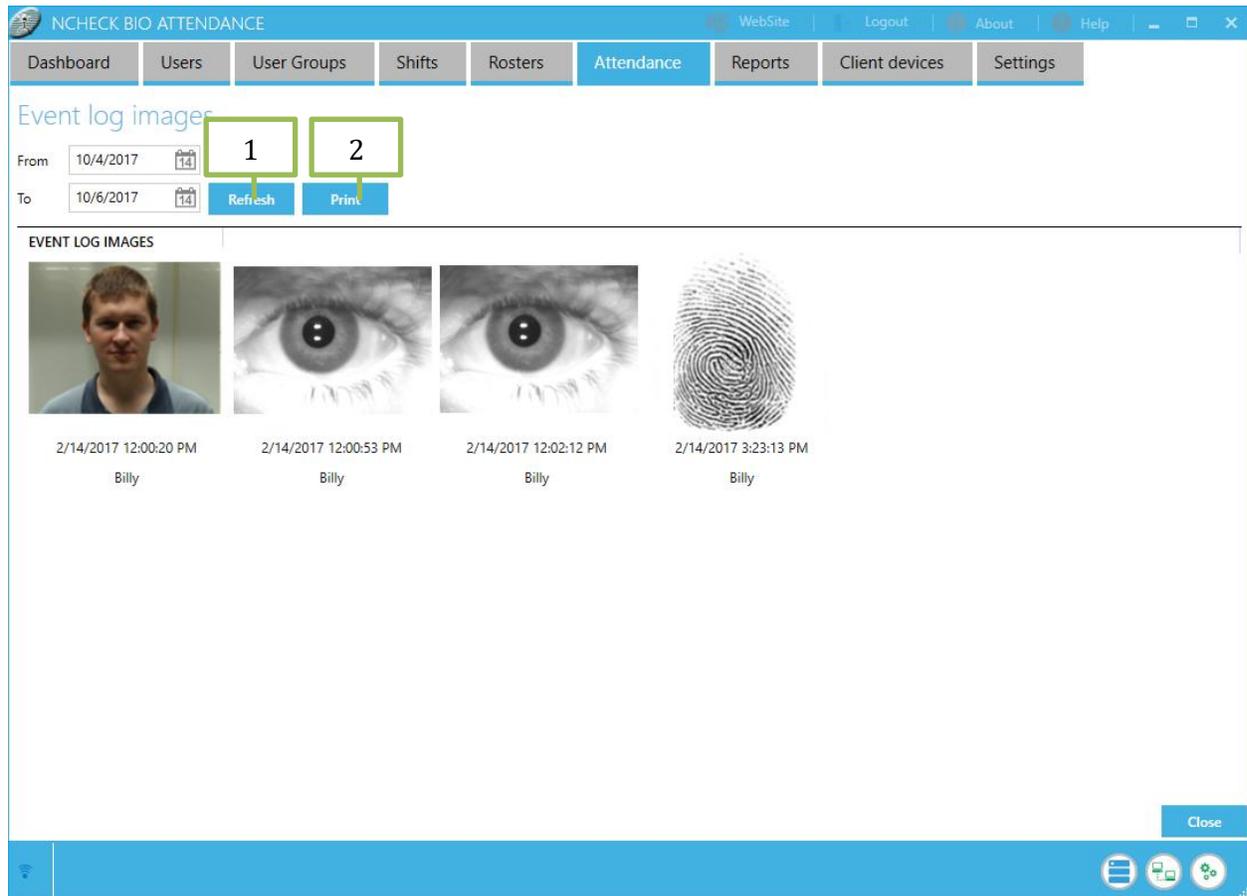


Figure 57: Attendance tab - Event log images

5.2.7 Reports

Report tab allows generate the report of this system. This window has some common controls. Following are the common controls.

1. *Type* - Select report type that you want to generate.
2. *User* - Filter the report by user.
3. *User group* - Filter the report by user group.

4. *Shift* - Filter the report by shift.

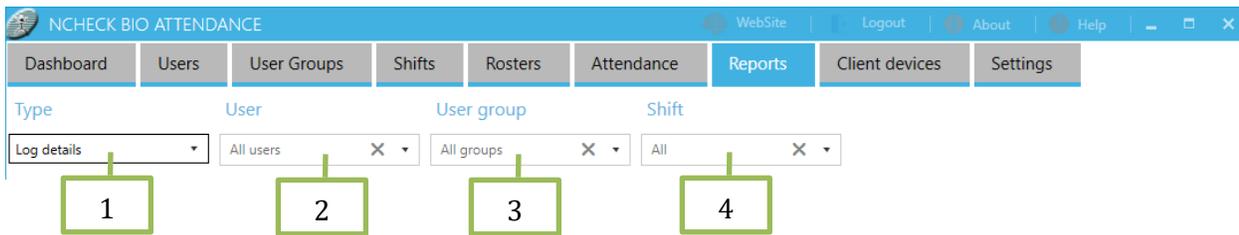


Figure 58: NCheck control panel –Report tab common controls

All reports can be viewed, printed or exported to PDF, CSV or excel formats. Following are the controllers.

1. *Refresh* - Manually refresh the report.
2. *Schedule current report* – Send the current report to specified recipients at scheduled time.
3. *Print preview* – Shows print preview of selected report.
4. *Export to Excel* - Export current report to the Excel format file.
5. *Export to PDF* - Export current report to the PDF format file.
6. *Export to CSV* - Export current report to the CSV format file.

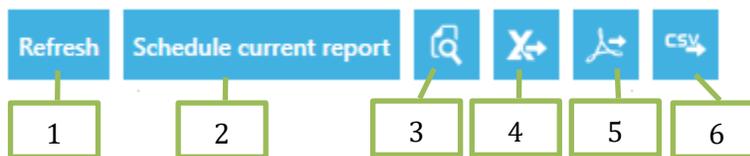


Figure 59: NCheck control panel –Report tab viewing printing and exporting option

NCheck provides following reports.

1. Employee details
2. Log details with location
3. Total work hours
4. Monthly summary
5. Summary for date range
6. Productivity report
7. Absentee report
8. Late check-out report
9. Late check-in report

5.2.7.1 *Schedule current report*

Allows users to schedule reports with a specific time and an interval.

1. *Type* – Selected report type.
2. *Employee name* – Selected employee.
3. *User group* – Selected user group.

4. *Shift* – Selected shifts.
5. *Time* – Set time by fixed time, based on shift start time and based on shift stop time.
6. *Interval* – Set time interval by daily, weekly and monthly.
7. *Export*
 - 7.1. *Email* – Report will be sent to the specified Email addresses.
 - 7.2. *Recipients* –Email addresses of recipients.
 - 7.3. *Folder* – Save scheduled report to an internal file storage.
 - 7.4. *FTP/ Remote Folder* – Save scheduled report to an external file storage.
 - 7.4.1.Path – Path of the ftp server.
 - 7.4.2.Login name – Login name of the ftp server.
 - 7.4.3.Password – Password of the ftp server.
8. *Add* – Add configured schedule.
9. *Cancel* – Exit without saving changes.
10. *Delete* – Delete a selected schedule from schedule table.
11. *Schedule table* – Show available schedules.

The screenshot shows a web form titled "Schedule current report" with a warning message: "*Make sure you have enabled error event notifications and mail server is properly configured." The form is divided into several sections:

- Log details:** Fields for Employee name, User group, and Shift, all showing "N/A".
- Time:** Radio buttons for "Fixed time" (selected), "Based on shift start", and "Based on shift end". Below is a date/time picker showing "Monday, February 26, 2018 4:27:50 PM" and two "Minutes after" input fields, each set to "15".
- Interval:** Radio buttons for "Daily" (selected), "Weekly", and "Monthly".
- Export:** Radio buttons for "Email", "Folder", and "FTP / Remote Folder" (selected).
- FTP / Remote Folder fields:** Input fields for Path, Login name, and Password.
- Buttons:** "Add" and "Cancel" buttons.
- Current schedules table:** A table with columns: REPORT, INTERVAL, SEND AT, TIME, RECIPIENTS, SHIFT, USER GROUP, USER, START, and an "Edit" button.

Numbered callouts (1-11) point to the following elements:

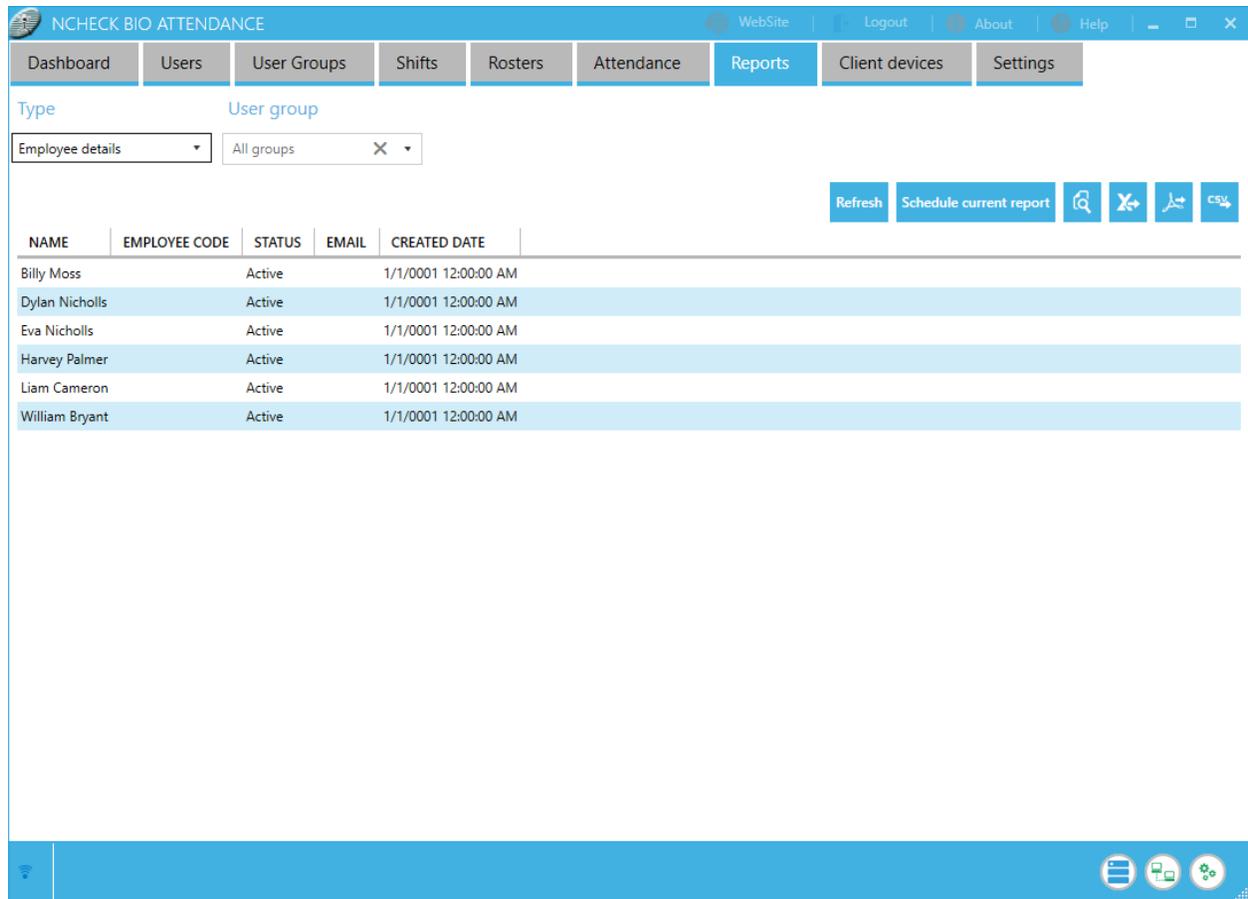
- 1: Warning message
- 2: Employee name field
- 3: User group field
- 4: Shift field
- 5: Fixed time radio button
- 6: Email radio button
- 7: FTP / Remote Folder radio button
- 7.1: Path input field
- 7.2: Login name input field
- 7.3: Password input field
- 8: Add button
- 9: Cancel button
- 10: Edit button in the table
- 11: Table header row

REPORT	INTERVAL	SEND AT	TIME	RECIPIENTS	SHIFT	USER GROUP	USER	START	EDIT
Log details	Daily	Fixed time	2/27/2018 4:26:14 PM	user1@abc.com;user2@abc.com	N/A	N/A	N/A	1/27/2018 12:00:00 AM	2/27/2018 12:00:00 AM
Log details	Daily	Fixed time	2/28/2018 4:27:09 PM	C:\Attendance System	N/A	N/A	N/A	1/28/2018 12:00:00 AM	2/28/2018 12:00:00 AM

Figure 60: Schedule current report

5.2.7.2 Employee details report

The Employee Details report provides a list of employee information that enrolls with the system. You can use it to obtain all employee name, status, employee code, email, and join date.



The screenshot shows the NCheck Bio Attendance control panel. The 'Reports' tab is selected in the navigation menu. Below the menu, there are filters for 'Type' (set to 'Employee details') and 'User group' (set to 'All groups'). To the right of the filters are buttons for 'Refresh', 'Schedule current report', and icons for search, zoom, print, and CSV export. Below these is a table with the following data:

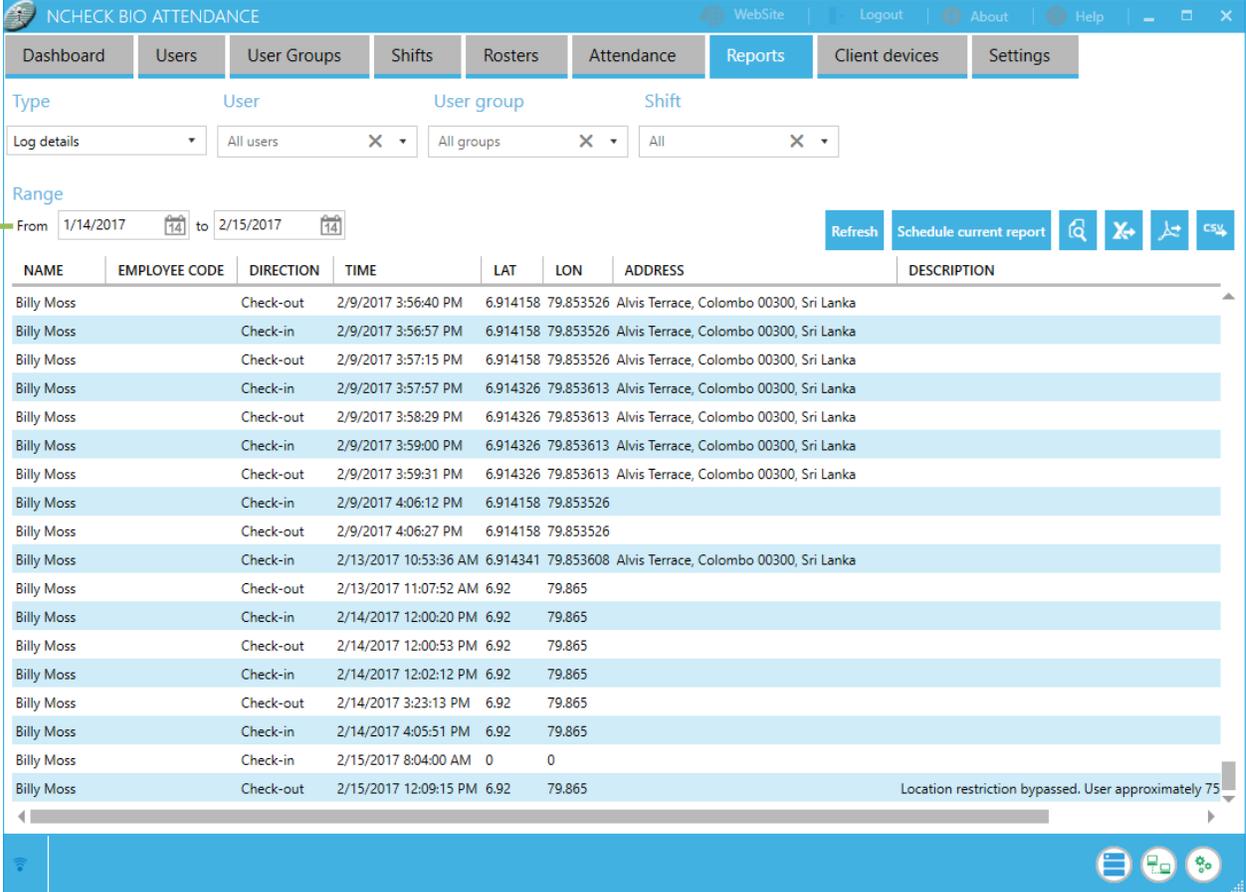
NAME	EMPLOYEE CODE	STATUS	EMAIL	CREATED DATE
Billy Moss		Active		1/1/0001 12:00:00 AM
Dylan Nicholls		Active		1/1/0001 12:00:00 AM
Eva Nicholls		Active		1/1/0001 12:00:00 AM
Harvey Palmer		Active		1/1/0001 12:00:00 AM
Liam Cameron		Active		1/1/0001 12:00:00 AM
William Bryant		Active		1/1/0001 12:00:00 AM

Figure 61: NCheck control panel- Reports – Employee details

5.2.7.3 Log details report

The Log Details report provides a list of latest activities of Employees' (Check in and Checkout details) with location. You can use it to obtain all employee latest activities. In this report employee last activities can be filtered by user, user group and shift. Also this report can be generated for the specific date range.

1. *Range* - You can select specific date range.



The screenshot shows the 'Reports - Log details' panel in the NCheck Bio Attendance application. A green box with the number '1' highlights the 'Range' section, which includes a 'From' date of 1/14/2017 and a 'to' date of 2/15/2017. Below this, a table displays log details for Billy Moss. The table has columns for NAME, EMPLOYEE CODE, DIRECTION, TIME, LAT, LON, ADDRESS, and DESCRIPTION. The data shows multiple check-in and check-out events for Billy Moss between January 14, 2017, and February 15, 2017. The last entry on February 15, 2017, includes a note: 'Location restriction bypassed. User approximately 75'.

NAME	EMPLOYEE CODE	DIRECTION	TIME	LAT	LON	ADDRESS	DESCRIPTION
Billy Moss		Check-out	2/9/2017 3:56:40 PM	6.914158	79.853526	Alvis Terrace, Colombo 00300, Sri Lanka	
Billy Moss		Check-in	2/9/2017 3:56:57 PM	6.914158	79.853526	Alvis Terrace, Colombo 00300, Sri Lanka	
Billy Moss		Check-out	2/9/2017 3:57:15 PM	6.914158	79.853526	Alvis Terrace, Colombo 00300, Sri Lanka	
Billy Moss		Check-in	2/9/2017 3:57:57 PM	6.914326	79.853613	Alvis Terrace, Colombo 00300, Sri Lanka	
Billy Moss		Check-out	2/9/2017 3:58:29 PM	6.914326	79.853613	Alvis Terrace, Colombo 00300, Sri Lanka	
Billy Moss		Check-in	2/9/2017 3:59:00 PM	6.914326	79.853613	Alvis Terrace, Colombo 00300, Sri Lanka	
Billy Moss		Check-out	2/9/2017 3:59:31 PM	6.914326	79.853613	Alvis Terrace, Colombo 00300, Sri Lanka	
Billy Moss		Check-in	2/9/2017 4:06:12 PM	6.914158	79.853526		
Billy Moss		Check-out	2/9/2017 4:06:27 PM	6.914158	79.853526		
Billy Moss		Check-in	2/13/2017 10:53:36 AM	6.914341	79.853608	Alvis Terrace, Colombo 00300, Sri Lanka	
Billy Moss		Check-out	2/13/2017 11:07:52 AM	6.92	79.865		
Billy Moss		Check-in	2/14/2017 12:00:20 PM	6.92	79.865		
Billy Moss		Check-out	2/14/2017 12:00:53 PM	6.92	79.865		
Billy Moss		Check-in	2/14/2017 12:02:12 PM	6.92	79.865		
Billy Moss		Check-out	2/14/2017 3:23:13 PM	6.92	79.865		
Billy Moss		Check-in	2/14/2017 4:05:51 PM	6.92	79.865		
Billy Moss		Check-in	2/15/2017 8:04:00 AM	0	0		
Billy Moss		Check-out	2/15/2017 12:09:15 PM	6.92	79.865		Location restriction bypassed. User approximately 75'

Figure 62: NCheck control panel- Reports – Log details

5.2.7.4 Total work hours report

The Total work hours report provides working hours details for a selected date range. That details can be calculated by daily, weekly, monthly or selected range also can be grouped by user or date.

1. *Calculated by* - Allows to change employee total work hour calculation type.
2. *Group by* - It can be used to group the report results by user or date.

The screenshot shows the 'Reports' section of the NCheck Bio Attendance application. The navigation bar includes 'Dashboard', 'Users', 'User Groups', 'Shifts', 'Rosters', 'Attendance', 'Reports', 'Client devices', and 'Settings'. The 'Reports' section is active, showing filters for 'Type' (Total work hours), 'User' (All users), 'User group' (All groups), and 'Shift' (All). Below these are options to 'Calculate by' (Daily, Weekly, Monthly, Selected range) and a 'Range' selector (From 2/1/2017 to 2/1/2017). A 'Group by' dropdown is set to 'Date'. A table displays work hours for several employees from 1/25/2017 12:00:00 AM to 2/25/2017. Two callouts are present: '1' points to the 'Calculate by' section, and '2' points to the 'Group by' dropdown.

NAME	EMPLOYEE CODE	START DATE	END DATE	WORKED HOURS	WORKED HOURS (DEC)	OVERTIME HOURS	OVERTIME HOURS (D)
1/25/2017 12:00:00 AM							
William Bryant		1/25/2017	2/25/2017	10:08:06	10.13	02:00:00	2.00
Liam Cameron		1/25/2017	2/25/2017	08:52:00	8.87	00:52:00	0.87
Harvey Palmer		1/25/2017	2/25/2017	09:10:00	9.17	01:10:00	1.17
Eva Nicholls		1/25/2017	2/25/2017	08:10:00	8.17	00:10:00	0.17
Dylan Nicholls		1/25/2017	2/25/2017	08:39:00	8.65	00:39:00	0.65
Billy Moss		1/25/2017	2/25/2017	19:52:13	19.87	03:11:00	3.18

Figure 63: NCheck control panel- Reports – Total work hours

5.2.7.5 Monthly summary report

This report is generated for a selected month. It provides all users working details for all days in selected month. User can generate this report with over time or not.

1. *Month* - You can select the month to generate the monthly summary report.
2. *Calculate overtime* - This allows generate the report with or without overtime details.

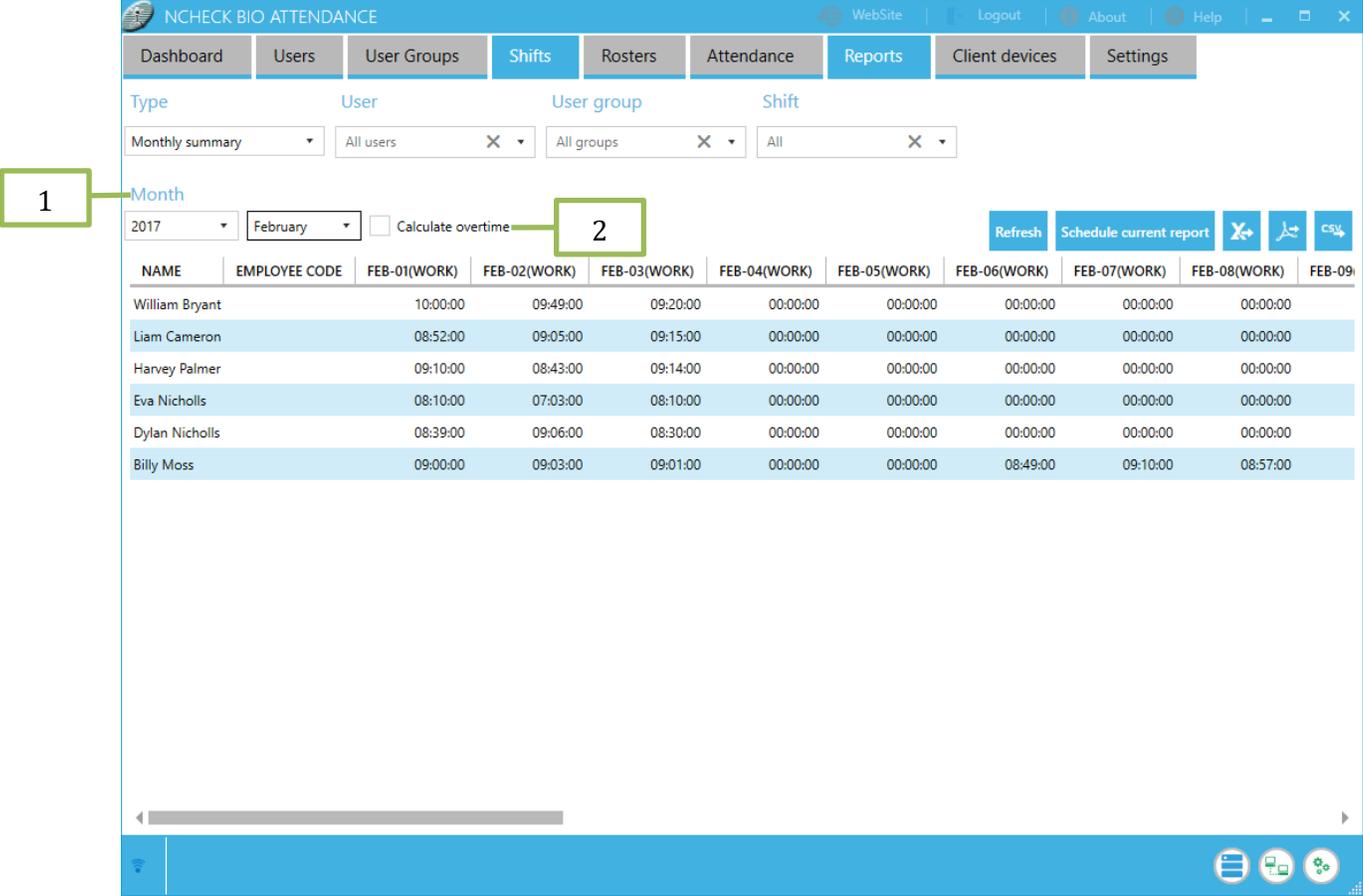


Figure 64: NCheck control panel- Reports – Monthly summary report

5.2.7.6 Summary for date range report

This report is similar to monthly summary report except it allows to select from and to dates for the report.

The screenshot shows the 'Reports' section of the NCheck Bio Attendance control panel. It features a navigation bar with tabs for Dashboard, Users, User Groups, Shifts, Rosters, Attendance, Reports, Client devices, and Settings. The 'Reports' tab is active. Below the navigation bar, there are filters for 'Type' (User, User group, Shift), a 'Summary for date range' dropdown, and three filter boxes for 'All users', 'All groups', and 'All'. A 'Range' section allows selecting dates from 2/1/2017 to 10/6/2017, with a 'Calculate overtime' checkbox checked. Action buttons for 'Refresh', 'Schedule current report', and 'CS' are visible. The main content is a table with columns for employee names, employee codes, and work/OT hours for each day of the week in February.

NAME	EMPLOYEE CODE	FEB-01(WORK)	FEB-01(OT)	FEB-02(WORK)	FEB-02(OT)	FEB-03(WORK)	FEB-03(OT)	FEB-04(WORK)	FEB-04(OT)	FEB-05(WORK)	FEB
William Bryant		10:00:00	02:00:00	09:49:00	01:49:00	09:20:00	01:20:00	00:00:00	00:00:00	00:00:00	
Liam Cameron		08:52:00	00:52:00	09:05:00	01:05:00	09:15:00	01:15:00	00:00:00	00:00:00	00:00:00	
Harvey Palmer		09:10:00	01:10:00	08:43:00	00:43:00	09:14:00	01:14:00	00:00:00	00:00:00	00:00:00	
Eva Nicholls		08:10:00	00:10:00	07:03:00	00:00:00	08:10:00	00:10:00	00:00:00	00:00:00	00:00:00	
Dylan Nicholls		08:39:00	00:39:00	09:06:00	01:06:00	08:30:00	00:30:00	00:00:00	00:00:00	00:00:00	
Billy Moss		09:00:00	01:00:00	09:03:00	01:03:00	09:01:00	01:01:00	00:00:00	00:00:00	00:00:00	

Figure 65: NCheck control panel- Reports – summary for date range

5.2.7.7 Productivity report

Productivity report is generated for a selected time period. Fields in the report are calculated as follows.

1. *Calculated by* - Allows aggregating employee work hours based on a daily, weekly, monthly or on a custom date range.
2. *Use flexible hours* - Allows to exclude late arrival and early departure calculations from productivity report.
3. *Max early arrival* - Maximum time limitation for early arrival.
4. *Max late departure* - Maximum time limitation for late departure.
5. *Productivity report table*
 1. *Break hours* - Total difference between check-out and check-in events.
 2. *Work hours* - Total difference between check-in and check-out events.
 3. *Late arrival* - Time difference between shift start and the first check-in when first check-in occurs after shift start time.
 4. *Early arrival* - Time difference between shift start and the first check-in when first check-in occurs before shift start time.

5. *Late departure* - Time difference between shift end and the last check-out when last check-out occurs after shift end time.
6. *Early departure* - Time difference between shift end and the last check-out when last check-out occurs before shift end time.
7. *Overtime* - Difference between actual work hours' user has spent in the office and work time defined for the particular shift.
8. *Unproductive* – Sum of Late arrival and departure excluding overtime.
9. *Productive* – Work hours without early arrival and late departure.
10. *Efficiency* – Ratio between productive hours and work time defined for the particular shift.

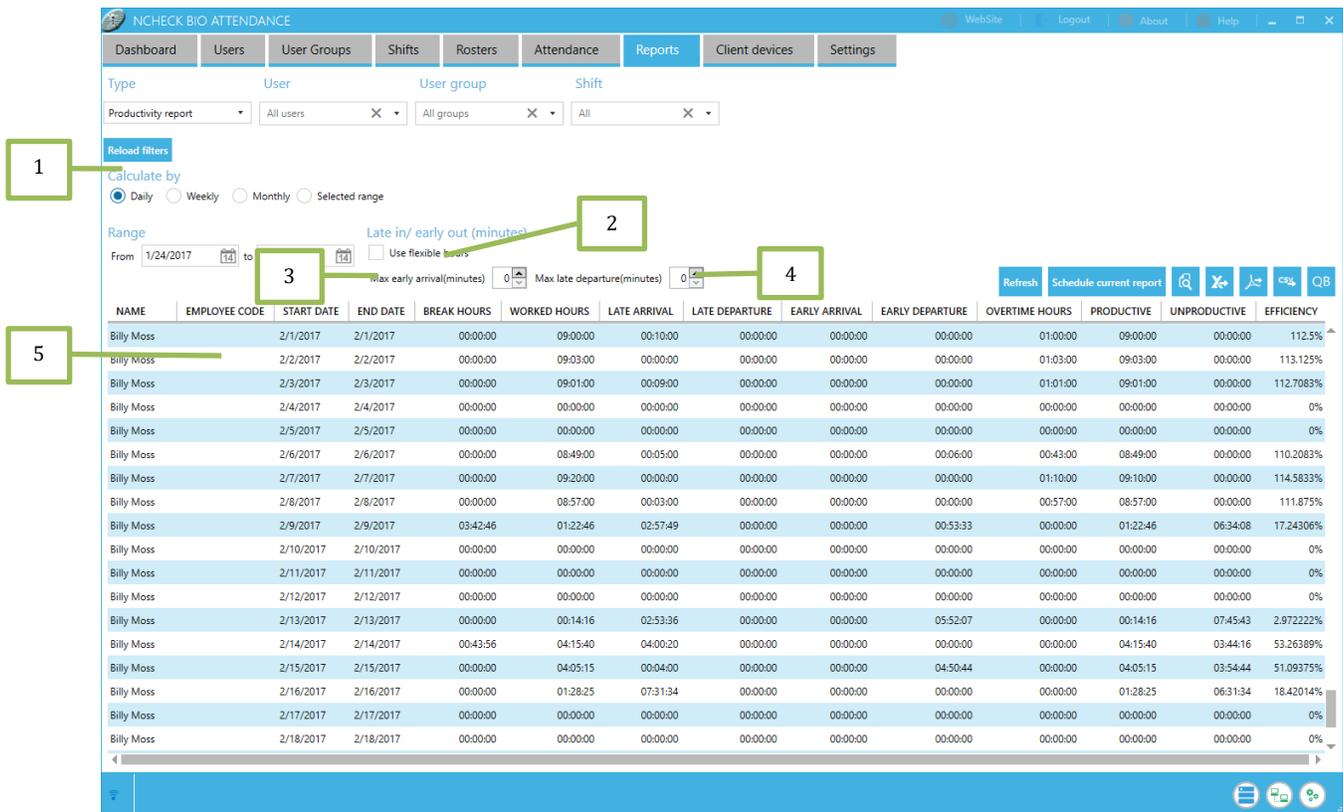


Figure 66: NCheck control panel- Reports – Productivity report

5.2.7.8 Absentee report

Absentee report contain absentee list for a given date range.

1. *Range* - You can select specific date range.

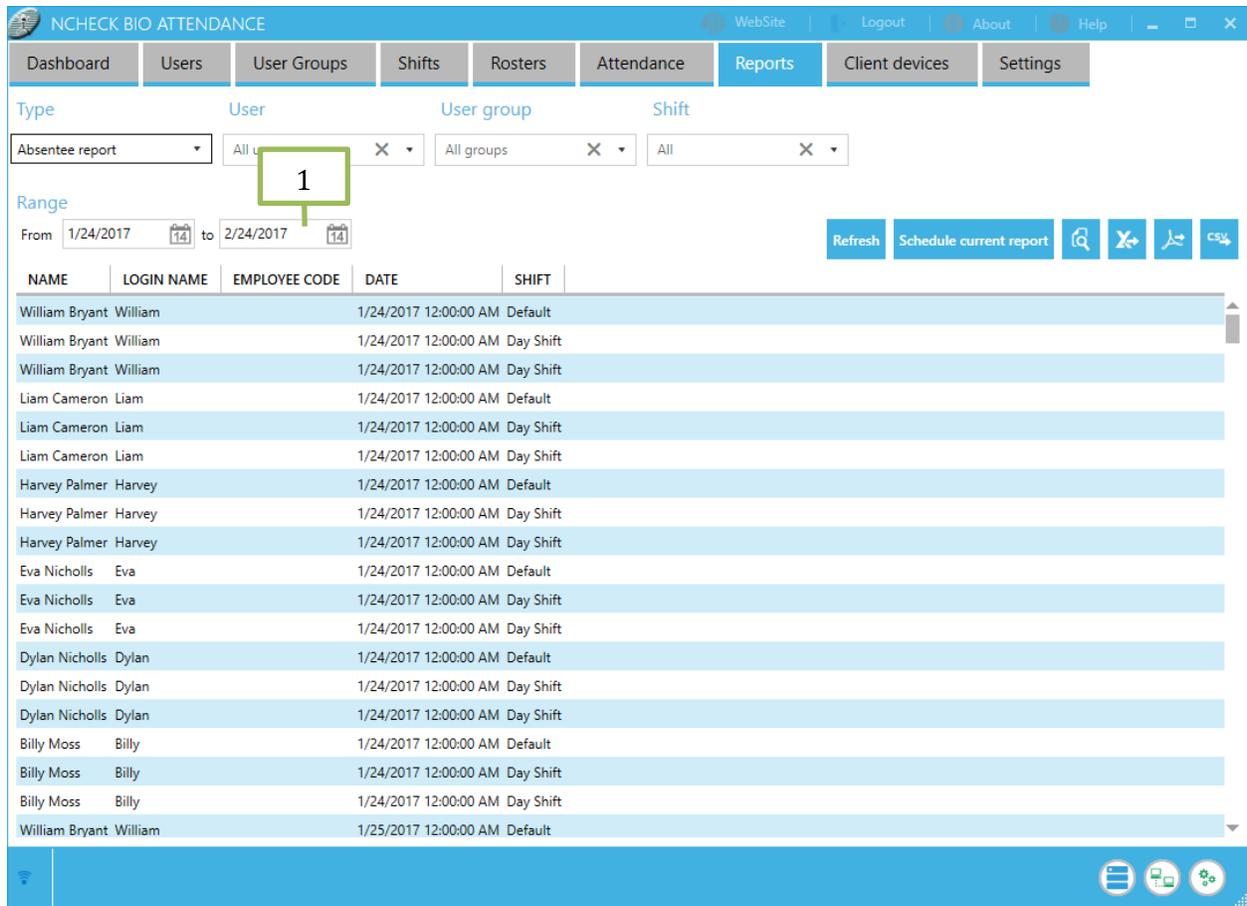


Figure 67: NCheck control panel- Reports - Absentee report

5.2.7.9 Late check-out report

Late check-out report contains details about late check-out time. Late check-out time calculation is based on shift end time.

The screenshot shows the 'Reports' section of the NCheck Bio Attendance system. The navigation bar includes 'Dashboard', 'Users', 'User Groups', 'Shifts', 'Rosters', 'Attendance', 'Reports', 'Client devices', and 'Settings'. The 'Reports' tab is active. Below the navigation bar, there are filter options for 'Type' (set to 'Late check-out report'), 'User' (set to 'All users'), 'User group' (set to 'All groups'), and 'Shift' (set to 'All'). A 'Range' selector shows dates from '1/24/2017' to '2/24/2017'. Action buttons include 'Refresh', 'Schedule current report', and several icons for search, zoom, and print. The main content is a table with the following columns: NAME, EMPLOYEE CODE, DATE, SHIFT, SHIFT/OT END, CHECK-OUT TIME, and LATE HOURS. The table lists 18 records of late check-outs for various employees including William Bryant, Harvey Palmer, Billy Moss, Liam Cameron, Dylan Nicholls, and Billy Moss, with dates ranging from 2/1/2017 to 2/22/2017.

NAME	EMPLOYEE CODE	DATE	SHIFT	SHIFT/OT END	CHECK-OUT TIME	LATE HOURS
William Bryant		2/1/2017 12:00:00 AM	Day Shift		2/1/2017 6:00:00 PM	01:00:00
Harvey Palmer		2/1/2017 12:00:00 AM	Day Shift		2/1/2017 6:00:00 PM	01:00:00
Billy Moss		2/1/2017 12:00:00 AM	Day Shift		2/1/2017 5:10:00 PM	00:10:00
Liam Cameron		2/1/2017 12:00:00 AM	Day Shift		2/1/2017 5:00:00 PM	00:00:00
William Bryant		2/2/2017 12:00:00 AM	Day Shift		2/2/2017 5:49:00 PM	00:49:00
Liam Cameron		2/2/2017 12:00:00 AM	Day Shift		2/2/2017 5:15:00 PM	00:15:00
Harvey Palmer		2/2/2017 12:00:00 AM	Day Shift		2/2/2017 5:10:00 PM	00:10:00
Dylan Nicholls		2/2/2017 12:00:00 AM	Day Shift		2/2/2017 5:06:00 PM	00:06:00
Billy Moss		2/2/2017 12:00:00 AM	Day Shift		2/2/2017 5:03:00 PM	00:03:00
Harvey Palmer		2/3/2017 12:00:00 AM	Day Shift		2/3/2017 6:20:00 PM	01:20:00
William Bryant		2/3/2017 12:00:00 AM	Day Shift		2/3/2017 5:30:00 PM	00:30:00
Liam Cameron		2/3/2017 12:00:00 AM	Day Shift		2/3/2017 5:15:00 PM	00:15:00
Billy Moss		2/3/2017 12:00:00 AM	Day Shift		2/3/2017 5:10:00 PM	00:10:00
Billy Moss		2/7/2017 12:00:00 AM	Day Shift		2/7/2017 5:10:00 PM	00:10:00
Billy Moss		2/8/2017 12:00:00 AM	Day Shift		2/8/2017 5:00:00 PM	00:00:00
Billy Moss		2/21/2017 12:00:00 AM	Day Shift		2/21/2017 5:00:00 PM	00:00:00
Billy Moss		2/22/2017 12:00:00 AM	Day Shift		2/22/2017 6:25:31 PM	01:25:31

Figure 68: NCheck control panel- Reports - Late check-out time

5.2.7.10 Late check-in report

Late check-in report contains details about late check-in time. Late check-in time calculation is based on shift start time.

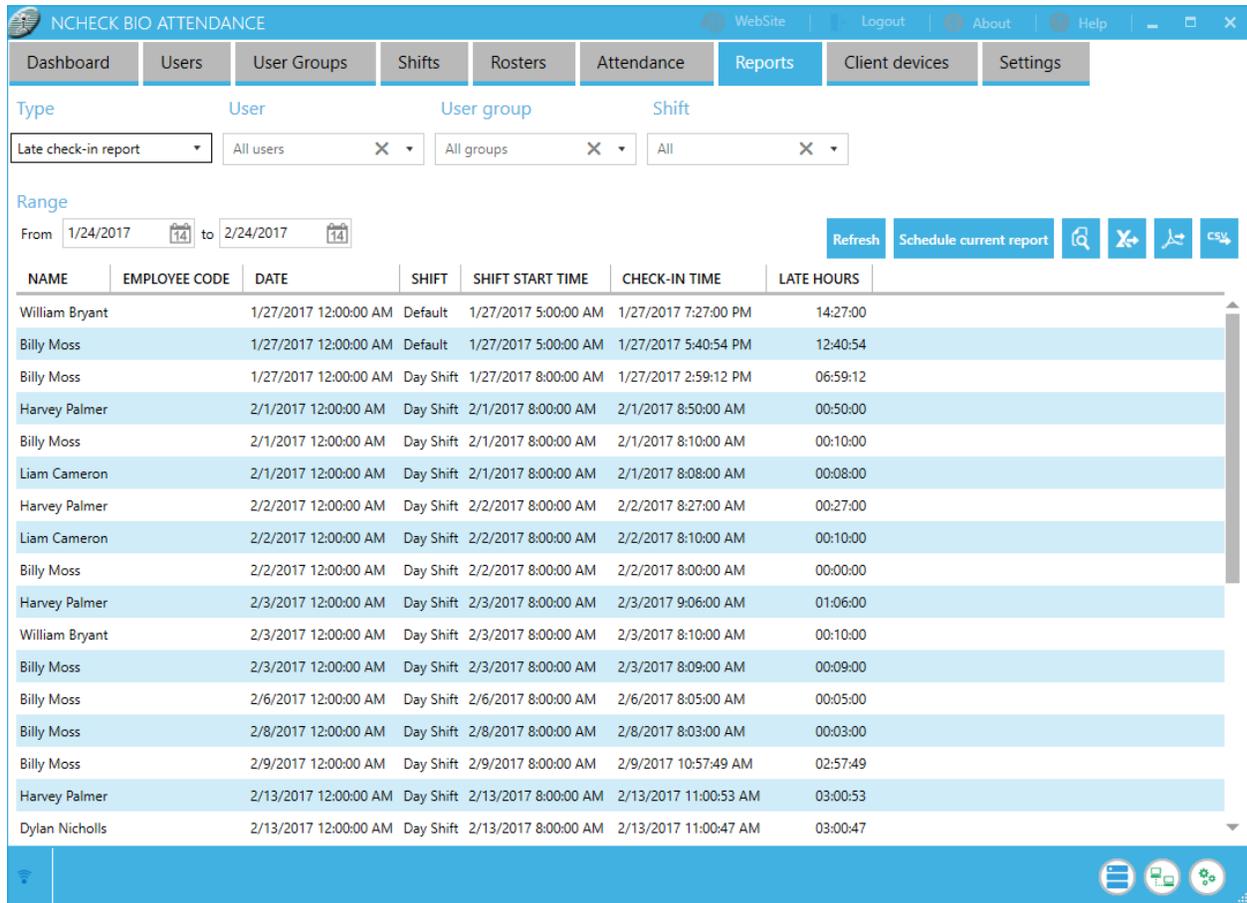


Figure 69: NCheck control panel- Reports - Late check-in time

5.2.7.11 User worksheet report

The User worksheet report provides working hours details for a selected date range and these details are grouped by user.

NAME	EMPLOYEE CODE	START DATE	CHECK-IN TIME	END DATE	CHECK-OUT TIME	WORKED HOURS	OVERTIME HOURS
Billy Moss							
Billy Moss		1/7/2019	08:00:00	1/7/2019	17:00:00	09:00:00	01:00:00
Billy Moss		1/8/2019	07:48:25	1/8/2019	17:03:56	09:15:31	01:15:31
Billy Moss		1/9/2019	08:01:11	1/9/2019	17:00:29	08:59:18	00:59:18
Billy Moss		1/10/2019	07:52:04	1/10/2019	17:04:00	09:11:56	01:11:56
Billy Moss		1/11/2019	08:00:20	1/11/2019	16:42:56	08:42:36	00:42:36
Billy Moss		1/14/2019	08:00:00	1/14/2019	19:16:17	11:16:17	03:16:17
Billy Moss		1/16/2019	10:45:40	1/16/2019	10:45:53	00:00:13	00:00:00
Dylan Nicholls							
Dylan Nicholls		1/7/2019	08:05:00	1/7/2019	17:10:00	09:05:00	01:05:00
Dylan Nicholls		1/8/2019	08:05:42	1/8/2019	17:06:22	09:00:40	01:00:40
Dylan Nicholls		1/9/2019	08:01:11	1/9/2019	17:02:00	09:00:49	01:00:49
Dylan Nicholls		1/10/2019	07:49:00	1/10/2019	17:00:45	09:11:45	01:11:45
Dylan Nicholls		1/11/2019	07:53:00	1/11/2019	17:15:00	09:22:00	01:22:00
Dylan Nicholls		1/14/2019	17:41:30	1/14/2019	17:43:10	00:01:40	00:00:00
Eva Nicholls							
Eva Nicholls		1/7/2019	07:50:00	1/7/2019	16:55:00	09:05:00	01:05:00
Eva Nicholls		1/8/2019	08:00:00	1/8/2019	17:00:00	09:00:00	01:00:00

Figure 70: NCheck control panel- Reports – User worksheet

5.2.8 Clients devices

Client devices tab allows managing NCheck Clients connected to the NCheck server. Client specific configuration can be edited by double clicking on a record of client in console.

1. *Total* - Total clients that registered with server.
2. *Connected* - Number of total connected clients.
3. *Disconnected* - Number of total disconnected clients.
4. *Search* - You can search client by description.
5. Client details - This table shows list of clients.
 1. Select – Double click on client list item to change client configuration.

2. *Select* – Double click on client list item to change client configuration.

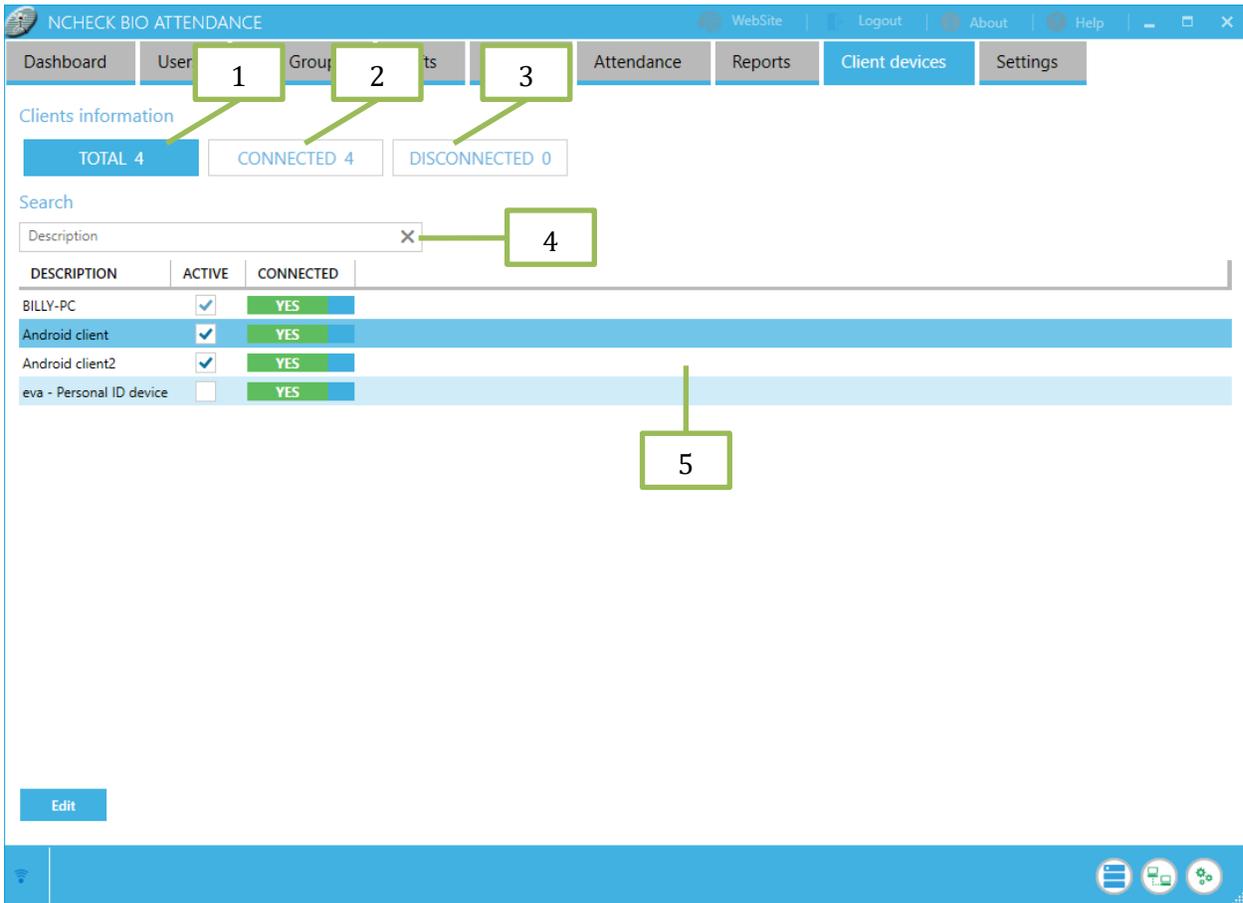


Figure 71: NCheck control panel- Client devices tab

5.2.8.1 Client configuration

A client configuration window can be used for following operations.

1. *Description* - Client description. It shows computer name by default.
2. *Client code* - This is the unique identification code for the client.
3. *User group* – Attach a user group to the device.
 - 3.1. *Attach to a user group* – This enables attach a user group to the device.
 - 3.2. *Group* – Select user group to attach to the device.
4. *Configuration* – Client configuration
 - 4.1. *Devices* - Configuration of devices attached to the client.
 - 4.1.1. *Devices Panel* – List of devices connected to the client.
 - 4.1.2. *Edit* – Edit selected device configuration.
 - 4.1.3. *Remove* – Delete selected device.
 - 4.1.4. *Refresh* – Refresh the device list.
 - 4.2. *Events* – Configure the events associated with the client.
 - 4.3. *External Executables* - Execute a program when a check-in or a check-out event happens.

- 4.4. Pair devices – Pair devices together to perform user verification.
5. *Save* – Save Client configuration.
You can edit selected device by clicking *Edit* button.
6. *Cancel* – Cancel client configuration without saving.

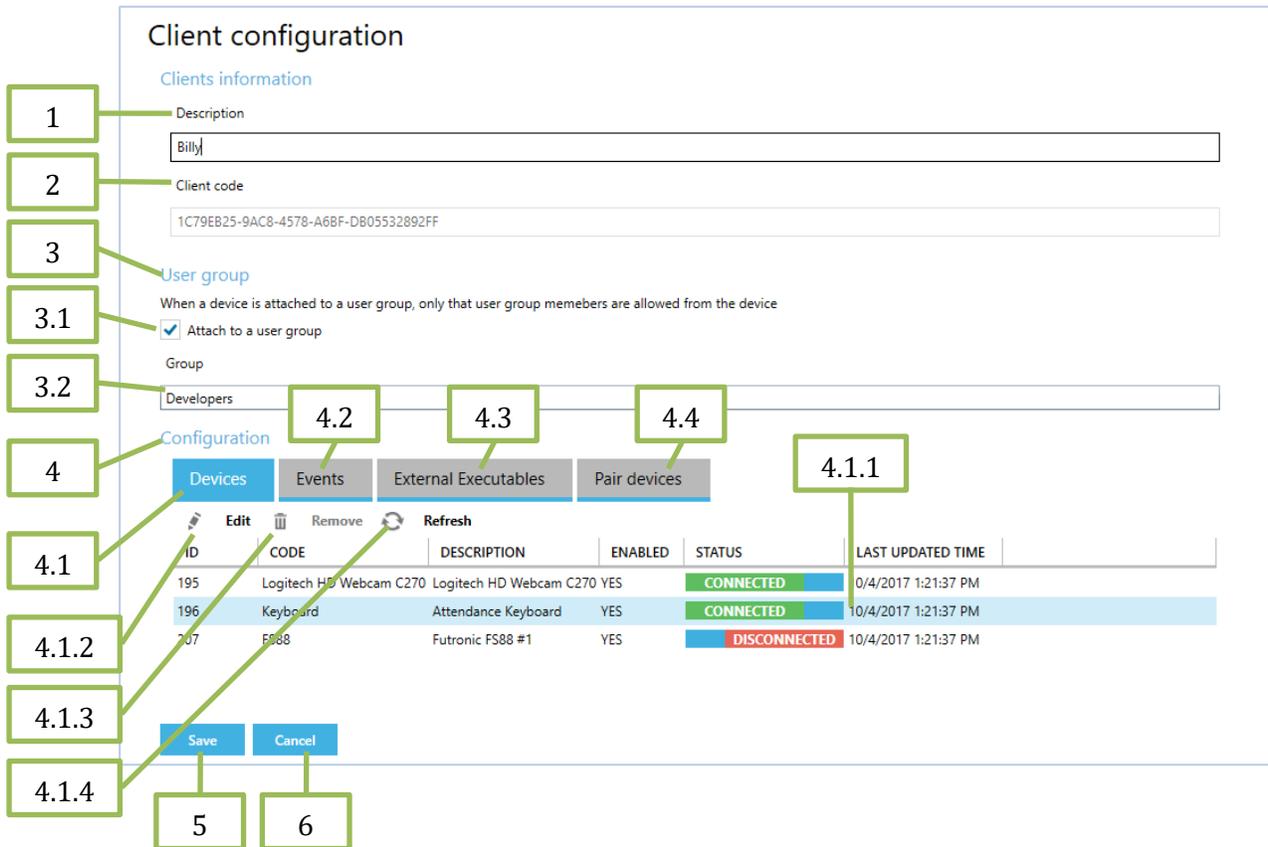


Figure 72: NCheck Control panel - Client Configuration – Devices

5.2.8.1.1 Device configuration

This device configuration window provides all information of device and enable or disable selected device. This window has following details.

1. *Enable* - You can enable or disable device.
2. *Device code* – Client device identification code.
3. *Description* - Description of the device.
4. *Status* – Connectivity status of the device.
5. *Type* – Device type.
6. *Registered date* – Device registered date with the NCheck.
7. *Connected date* – Device connected date.
8. *Events* – Supported events.
9. *Save* - Save changes.

10. *Cancel* - Exit without saving changes.

The screenshot shows the 'Device configuration' page in the NCheck Control panel. It features a back arrow icon and the title 'Device configuration'. The page contains several form fields and a table, with numbered callouts (1-10) pointing to specific elements:

- 1: Back arrow icon
- 2: 'Enable' checkbox (checked)
- 3: 'Device code' text input field (value: Keyboard)
- 4: 'Description' text input field (value: Attendance Keyboard)
- 5: 'Status' dropdown menu (value: Connected)
- 6: 'Type' dropdown menu (value: Password)
- 7: 'Registered date' date input field (value: 1/27/2017)
- 8: 'Connected date' date input field (value: 2/15/2017)
- 9: 'Save' button
- 10: 'Cancel' button

Below the date fields is a table with two columns: 'DESCRIPTION' and 'ENABLE'.

DESCRIPTION	ENABLE
Check In	<input checked="" type="checkbox"/>
Check Out	<input checked="" type="checkbox"/>

Figure 73: NCheck Control panel- Device Configuration

5.2.8.1.2 Events Configuration

Select events tab in client configuration to configure events allowed in the relevant client. A client can be configure to allow Check In or Check out or Both events.

Client configuration

Clients information

Description
BILLY-PC

Client code
1881E64D-F634-4DD2-BB68-A183BF928F5C

Configuration

Devices Events External Executables Pair devices

Only enabled events will be supported by the client

DESCRIPTION	ENABLE
Check In	<input checked="" type="checkbox"/>
Check Out	<input checked="" type="checkbox"/>

Save Cancel

Figure 74: NCheck Control panel- Client Configuration - Events

5.2.8.1.3 External executables management

System can be configured to run external programs during user identification. For an example, an automatic door opening program can be executed upon successful user identification. Following setting should be specified to configure external programs.

1. *Add* - Add external executable.
2. *Edit* - Edit selected external executable.
3. *Remove* - Remove selected external executable.

Client configuration

Clients information

Description
Billy-Pc

Client code
896492669b693bb2

Configuration

Devices Events **External Executables** Pair devices

+ Add Edit Remove

DESCRIPTION	DEVICE	EVENT	EXECUTABLE PATI
1			
2			
3			

Save Cancel

Figure 75: NCheck Control panel- Client Configuration- External executables

5.2.8.1.3.1 Add executables

Adding external executables can be done by setting display name, device, event and path of executable. If need even passing parameters to executables also available.

1. *Description* – Display name of executable.
- Device* – Device which is relate to run the executable.
- Event* – Event which is triggers the specified executable.
- Path or URI* – Path of external executable or web Uri to invoke.
- Parameters* – Can be passed to executable.
- Save* – Save changes.

Cancel – Exit without saving.

Add Executable

Description

Device

Event

Path or web URI

If client is running in a separate computer, make sure executable is in the correct location

Pass following parameters to the executable

- Login name and login direction
- Employee name
- Employee Id
- Latitude and longitude of the login location
- Capture device id
- User group
- Address of the login location

The image shows a web form titled "Add Executable". It contains several input fields and a list of checkboxes. Numbered callouts (1-7) are placed around the form to highlight specific elements: 1 points to the "Description" text box; 2 points to the "Device" dropdown menu which is currently set to "Logitech HD Webcam C270"; 3 points to the "Event" dropdown menu which is currently set to "User not found"; 4 points to the "Browse" button next to the "Path or web URI" text box; 5 points to the section of checkboxes under the heading "Pass following parameters to the executable"; 6 points to the "Save" button; and 7 points to the "Cancel" button.

Figure 76: Add an executable

5.2.8.1.4 Pair devices

Keyboard or a RFID scanner can be paired with a face or fingerprint capturing device to perform user verification. User identification will be disabled on paired face and fingerprint scanners.

1. *Add* – Create a new device pair.
2. *Remove* – Remove an existing device pair.

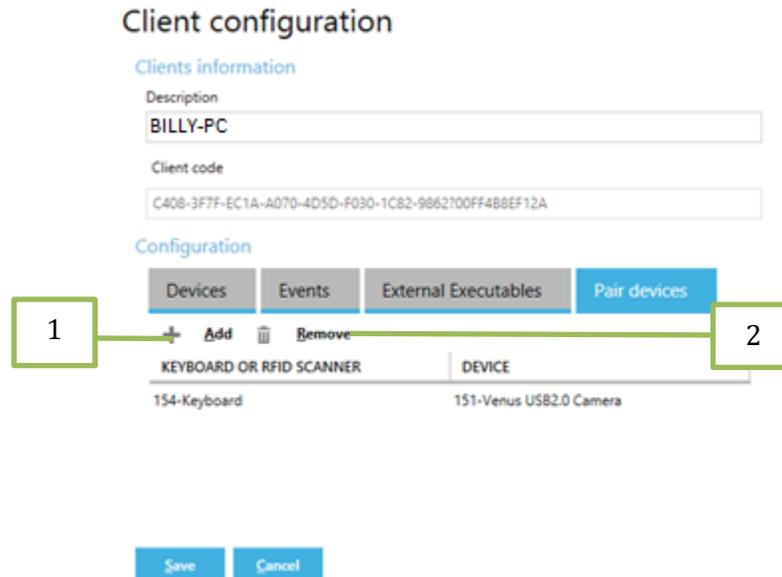


Figure 77: Pair devices – Perform user verification by pairing devices

5.2.8.1.5 Creating a new device pair

New device pair can be created by selecting the relevant devices from *Pair Device* window.

1. *Keyboard or RFID scanner* – Select the keyboard or the RFID scanner.
2. *Device* – Select the camera or fingerprint scanner.
3. *Apply* – Apply changes.

4. *Close* – Close form without saving changes.

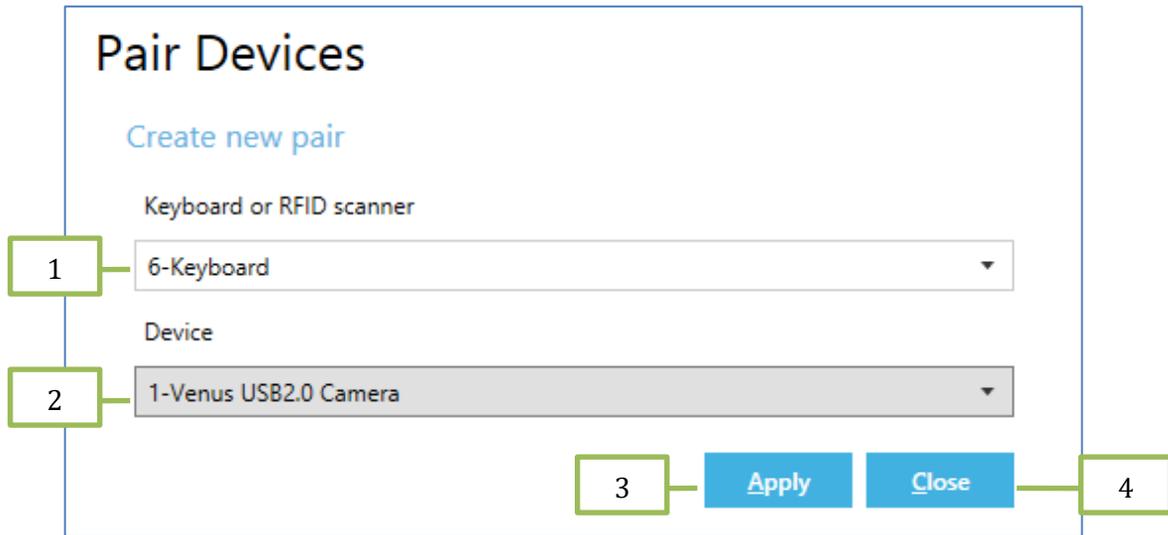


Figure 78: Pair devices – Pair devices form

5.2.9 General Settings

You can navigate to Settings by Settings tab. Settings has below categories.

1. *Notification* - Information about error events (occurs when user does not check-out after a check-in or check-out without a check-in) are sent to users via email.
2. *Reports* - Configuration related to report generation.
3. *Clients* - Settings related to NCheck clients attached to NCheck Server.
4. *Scanning devices* - Register scanning devices attached to the local PC.
5. *Misc* - Settings related to system configuration.
6. *Biometrics* - Settings related to biometric capture and matching.
7. *Administrator* - Administrator password configuration.

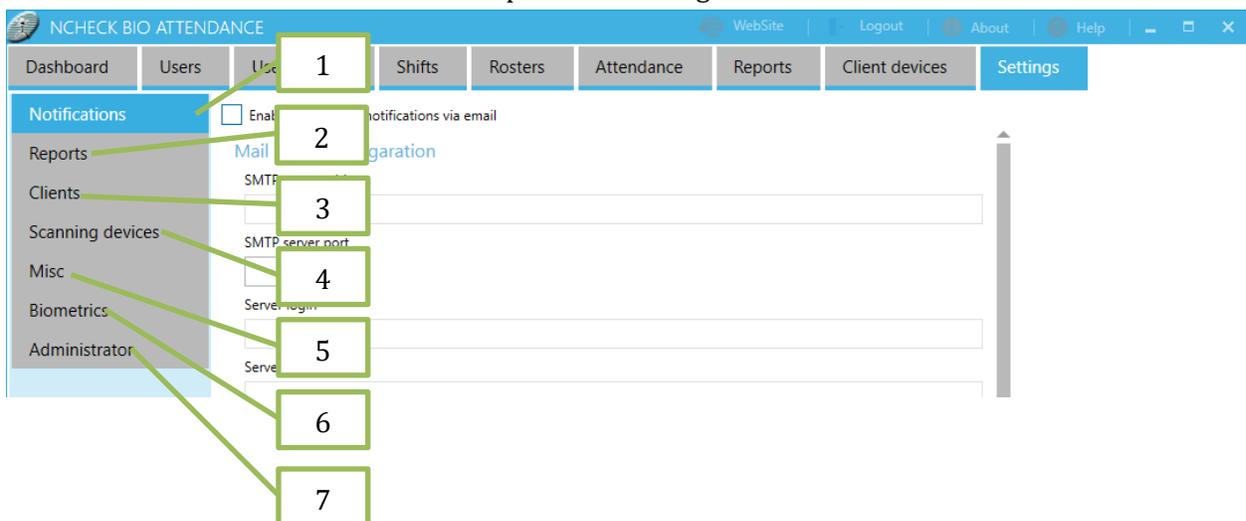


Figure 79: NCheck control panel - General settings

5.2.9.1 Notification Settings

System can be configured to send an e-mail automatically to a particular person and system administrator when error events are happened. Error events are happened when there is no check-out after a check-in or check-out without a check-in.

Following settings are there in the Notification section of the settings.

1. *Enable e-mail notifications* – if checked email notifications are enabled.
2. *Mail server*
 - 2.1. *SMTP server address* –SMTP (Simple mail transfer protocol) server address.
 - 2.2. *SMTP server port* – Port of SMTP server.
 - 2.3. *Enable SSL* – Enable encrypted connection.
 - 2.4. *SMTP server login* – Username to connect SMTP server.
 - 2.5. *SMTP server password* –Password of SMTP server.
 - 2.6. *Notifications Sending Time* – Notifications Sinding time (notifications are sent only one time per day).
 - 2.7. *Email from address* – Sender’s email address.
3. *Recipients*
 - 3.1. *System administrator E-mail address* – Administrator’s email address.
 - 3.2. *CC*– Email address to send a copy of all notifications about events.
4. *Content*
 - 4.1. *Email subject*– Email “Subject” field text.
 - 4.2. *Email body*– Email body text.
5. *Send test email* – This allows to send a test email.
6. *Save* – This allows saving email settings.

Note: To configure Gmail as your mail server for NCheck you have to give “*smtp.gmail.com*” as SMTP server address and port is 587 and also enable the “Less secure apps” and disable “2-Step Verification” on your Gmail account settings.

To configure Microsoft Office365 as your mail server for NCheck you have to give “*smtp.office365.com*” as SMTP server address and port is 587.

Figure 80: NCheck Control Panel - Notification Settings

5.2.9.2 Report Settings

This window allows to change below reporting specific parameters.

1. *Month start date* – Start date of the month in calculating monthly reports.
2. *Week start day* – Starting day of the week in weekly report.
3. *Day start time* – Start time of the day in reports.
4. *Worked hour calculation for users not checked out* - Specify the system automatic check out correction strategy.
 - 4.1. *Ignore from calculation* – Check in without check out is ignored.
 - 4.2. *Use shift end time* – Shift end time is taken as check out time when check out is missing.

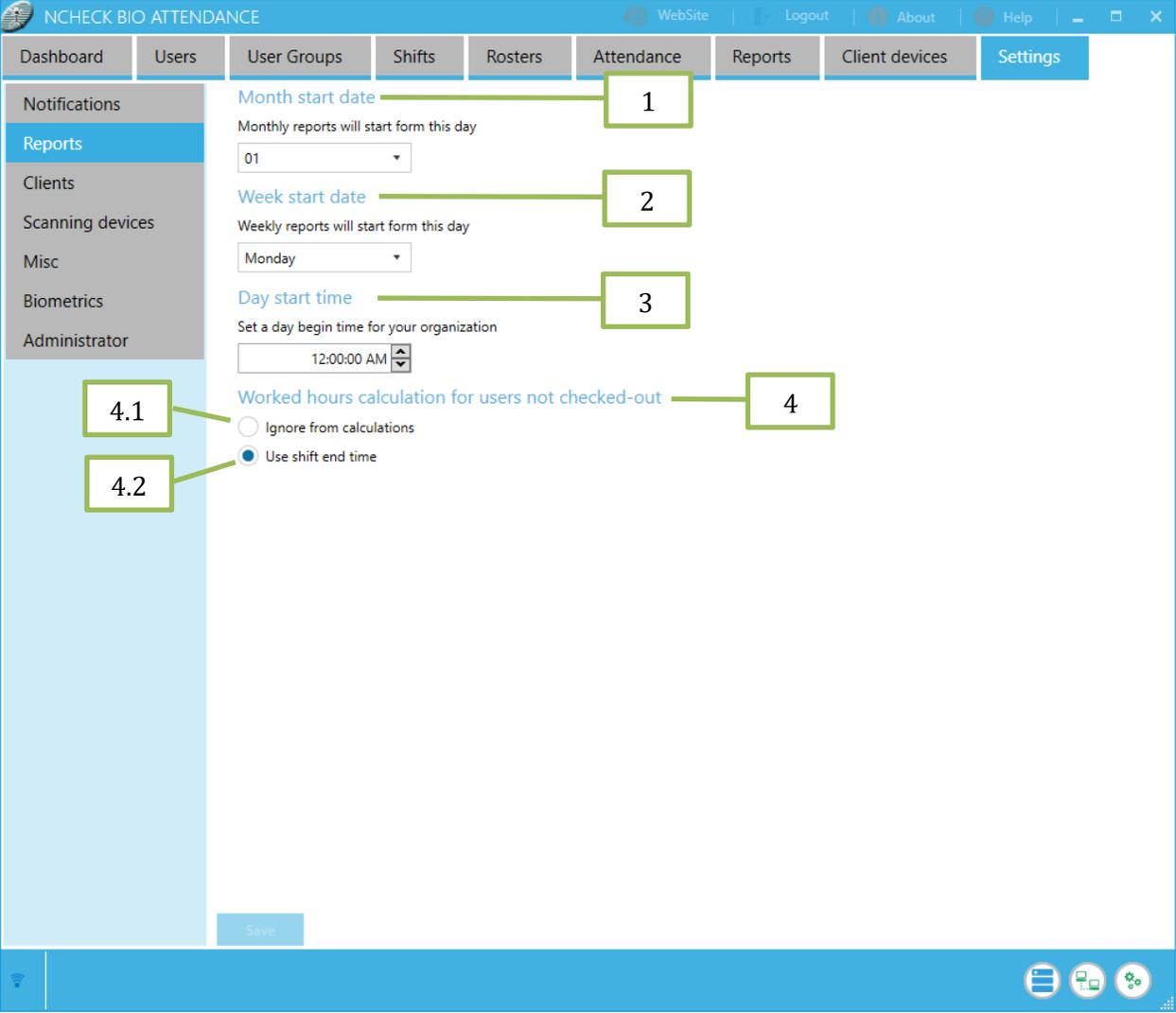


Figure 81: NCheck Control Panel - Report settings

5.2.9.3 Client Settings

Client settings controls the client connections to the system. Below settings are available under client settings.

1. Client Devices
 - 1.1. *Client devices always on* - Makes capturing devices always active.
 - 1.2. *Client devices on by user request* – When this setting is selected, all devices in clients are disconnected to save power if the client was there *Client device shutdown timeout* without any user interaction. This option is a power saving option. When devices are disconnected, users are given an “Activate” button to activate devices manually by the user.
 - 1.3. *Client device shutdown timeout* – Set timeout value to disconnect devices in clients with not user interaction during the time out period. This value is applied when *Client devices on by user request* is enabled.
 - 1.4. *Client device on period* –Also it is useful to make devices always active during general wok time. Option *Client devices on period* allow to set device activation time. On the specified time period device will not be stopped.
2. Start new clients automatically - When client is conected to the server at the first time, it can be automatically enabled to connect with the server if this setting is enabled.
3. Start cameras automatically – When this setting enabled, cameras connected to the client starts automatically and ready to perform user identification or verification.
4. Start fingerprint scanners automatically – Same as cameras, when this is enabled, fingerprint scanners get started automatically.
5. Shift selection – Decides to which shift user will be enrolled on check-in/check out
6. Configuration for check-in only devices – If the device configured as check-in only, this setting will define the policy for check-in records.
7. Configuration for check-out records – If the device configured as check-out only, this setting will define the policy for check-out records.

- News – If enables, given message is shown in NCheck clients. This feature is used to deliver useful notifications to the system users.

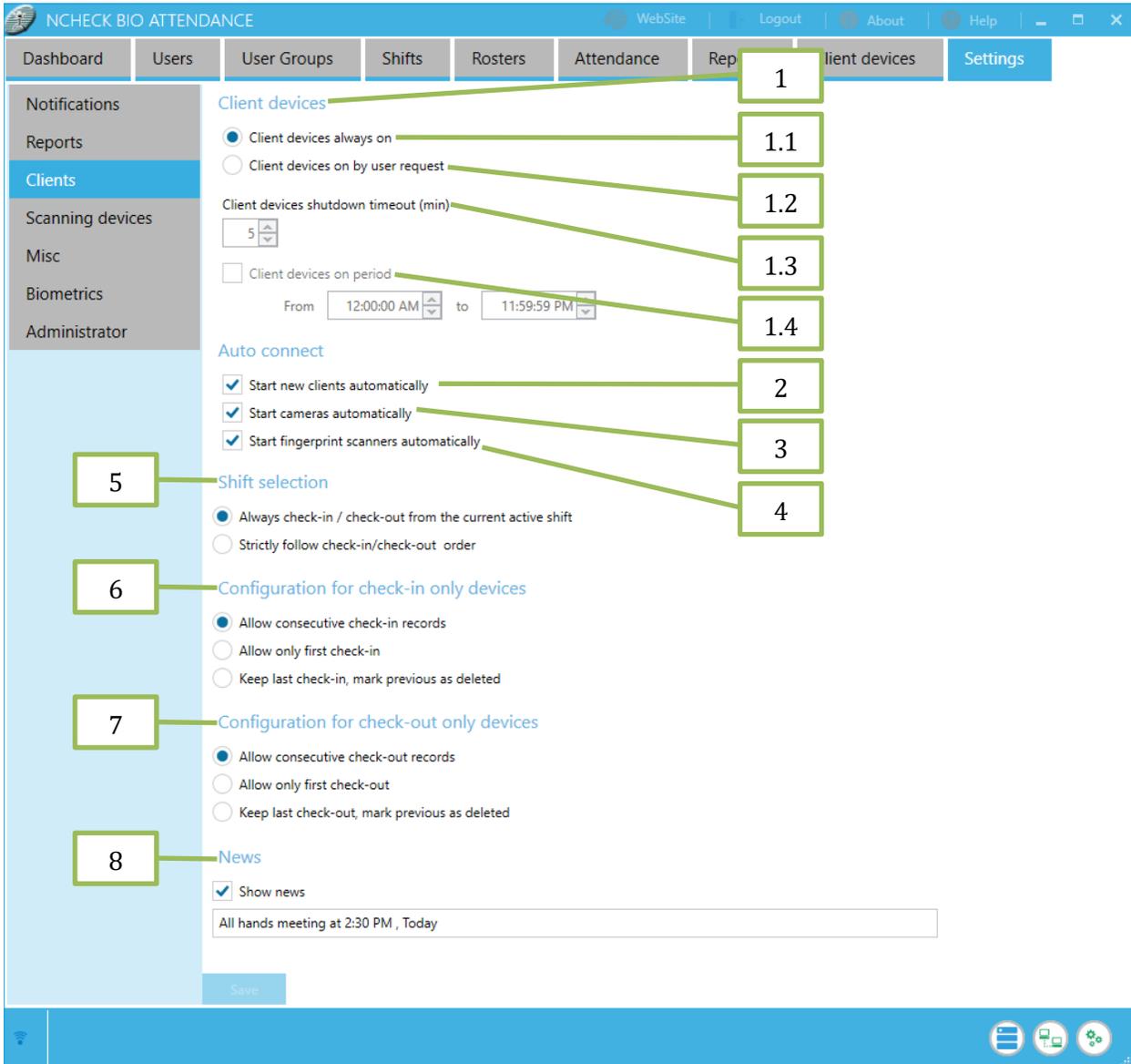


Figure 82: NCheck Control panel - Client Settings

5.2.9.4 Scanning Devices

- USB Scanners* – Allows to register attached USB devices as RFID or barcode readers. When clicked, NCheck will scan for attached USB devices and display them. There, the device can be configured as RFID or barcode scanner.
- Serial Scanners* – Allow to register attached Serial devices as RFID or barcode readers.
- Third party Scanners* – Allow to register third party scanners by integrating third party scanner plugins.

Note: If not configured explicitly, HID devices connected to the system will behave as normal HID devices (E.g.: Keyboard).

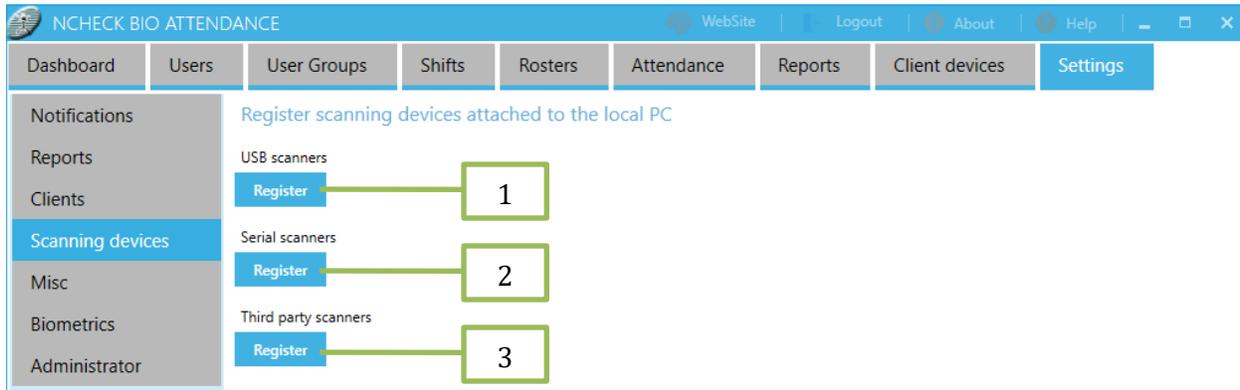


Figure 83: NCheck Control panel - Scanning devices

5.2.9.4.1 Registering new USB device

1. Trigger your USB scanner and make it send an input to the system. System will identify your device and it will ask you to select scanner type.
2. Give a name to the device and click save. Now it's registered as a selected type device (RFID or barcode).

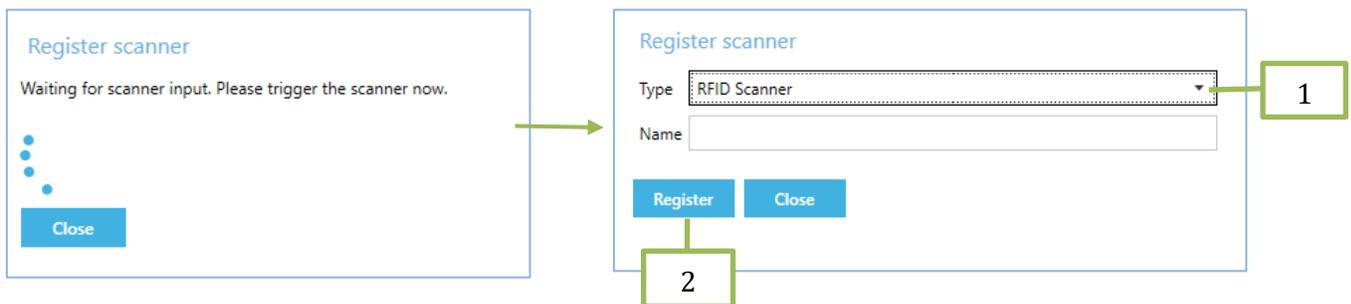


Figure 84: NCheck control panel - Register new USB device

5.2.9.4.2 Registering new Serial device

In serial scanners registering prompt,

1. Select the communication port (COM port) that your scanner is connected.
2. Select the scanner type.
3. Choose correct settings for the device (You may find this information on device manufacturer's documentation)

Give a name to the device and click save. Now your device is registered in the system with the correct type.

Figure 85: NCheck control panel - Register serial devices

5.2.9.4.3 Registering third party scanners

To register a third-party scanner, select the third-party scanner “.dll” plugin. Which plugin is developed by using NCheck SDK. After selecting correct plugin then register it.

- 1. Type – Select the scanner type.
- Browse – Open the third-party scanner plugin.
- Register – Register the selected third-party scanner plugin.
- Cancel – Cancel the third-party scanner plugin dialog.

Figure 86: Register third-party scanner

Note: NCheck SDK provides Windows API for develop a third-party scanner dll and integrate with NCheck Windows to control and capture fingerprint using third party fingerprint scanners. For more details unzip the “NCheckSDK.zip” file in NCheck installation directory and read the “NCheck Windows Third Party Fingerprint Scanner Integration Manual.docx” from “\NCheckSDK\API\Doc\Windows”.

5.2.9.5 Miscellaneous Settings

- 1. User Attendance
 - 1.1. Allows to keeping check in and check out image of users in history – Store identified biometric images in the system history.

- 1.2. *Allows setting time out period of keeping above images in date* – Valid duration for store identified biometric images.
 - 1.3. *Allows to keeping unidentified user details in history* - Store unidentified biometric images in the system history.
 - 1.4. *Set maximum unidentified user count to keep in history* – Number of different users allowed in unidentified images in history.
 - 1.5. *Set time out period of keeping unidentified images in history* - Valid duration for store unidentified biometric images.
2. *Users*
- 2.1. *Automatically check out users at end of the day* – Automatically check out checked in users at the end of the day.
 - 2.2. *Return worked hours for check-in and check-out events* – Show the worked hours summery on the result view.
 - 2.3. *Set interval between a check in and check out for a user for face or finger login* – Check in Minimum duration between two consecutive face or finger login of same user to avoid accidental event recoding.
 - 2.4. *Profile image size* – Set the user profile image size to be used.
3. *Advanced*
- 3.1. *Write performance measures to log file* – Appends information regarding face and finger print extraction time and the template size to the log file.

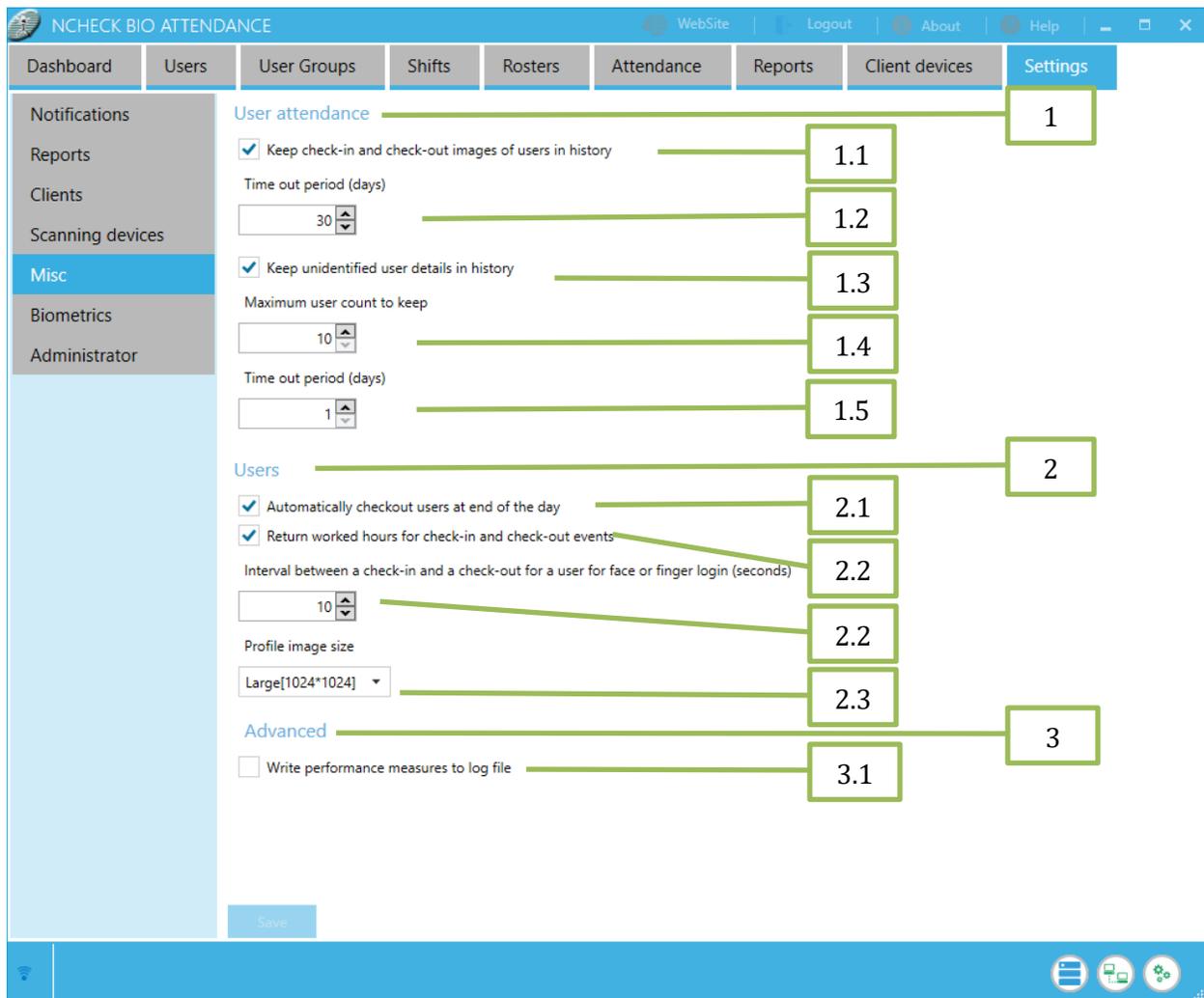


Figure 87: NCheck Control Panel - Miscellaneous Settings

5.2.10 Biometric Settings

1. *Face Liveness check* – Face liveness check parameter configuration
 - 1.1. *Mode* – Set face liveness checking mode. Possible modes are “None”, *Passive*, “Active”, “PassiveAndActive”, “Simple” and “Custom”.
 - 1.1.1. *None* - In this mode face liveness check is not performed.
 - 1.1.2. *Passive* - In this mode user should hold his head still for a few seconds. Face recognition algorithm calculates the score and checks if the face is live.
 - 1.1.3. *Active* - In this mode user should follow the commands on the screen by moving his head or blinking eyes. Face recognition algorithm checks if the face is live.
 - 1.1.4. *PassiveAndActive* - A sequence of passive and active liveness detection modes. Active mode is used only if passive mode fails.
 - 1.1.5. *Simple* - In this mode user should follow commands on the screen and turn face from side to side. It is simplified version of active liveness recognition.

- 1.1.6.*Custom* - Customizable liveness action sequence. By default, requires user to turn head according to instructions.
- 1.2. *Threshold* – Set Face liveness threshold values from 1 to 100.
2. Face template size – Choose the appropriate template size for your needs. Medium size templates give faster performance while large size templates give more accuracy.
 3. *Recognition accuracy* – Set biometric matching accuracy from lowest to high. Possible values are “*Lowest*”, “*Low*”, “*Default*” and “*Custom*”. Higher the value will use better quality biometric images for accurate matching.
 4. *Enrollment accuracy* – Set biometric enrollment accuracy from lowest to high. Possible values are “*Default*”, “*Medium*”, “*High*” and “*Custom*”. Higher the value will use better quality biometric images for user biometric enrollment.
 5. *Face Confidence Threshold* – Sets the face confidence used in face is capturing. Possible values are “*Default*”, “*Moderate*” and “*High*”.
 6. *Face Quality Threshold* – Set the face quality threshold used in face extraction. Possible values are “*Lowest*”, “*Default*”, “*Moderate*” and “*High*”.
 7. *Finger Quality Threshold* – Set the finger quality threshold used in fingerprint extraction. Possible values are “*Default*”, “*Moderate*” and “*High*”.
 8. *Iris Quality Threshold* – Set the iris quality threshold used in iris extraction. Possible values are “*Default*”, “*Moderate*” and “*High*”.

Note: Under specific situations, custom values might be required for recognition and enrollment accuracies. If you encounter frequent issues in user identification, please consult support team.

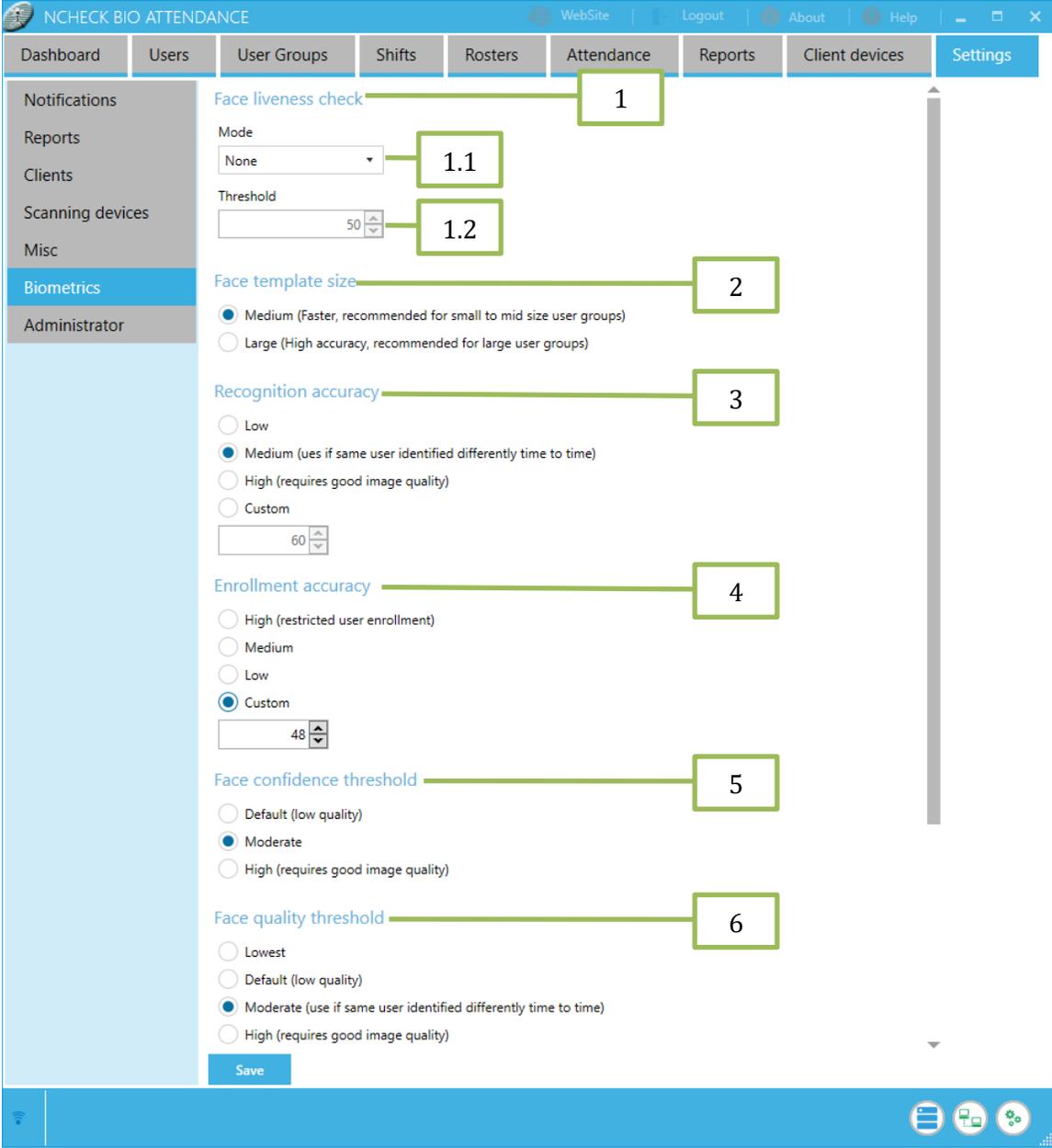


Figure 88: NCheck Control Panel – Biometric Settings

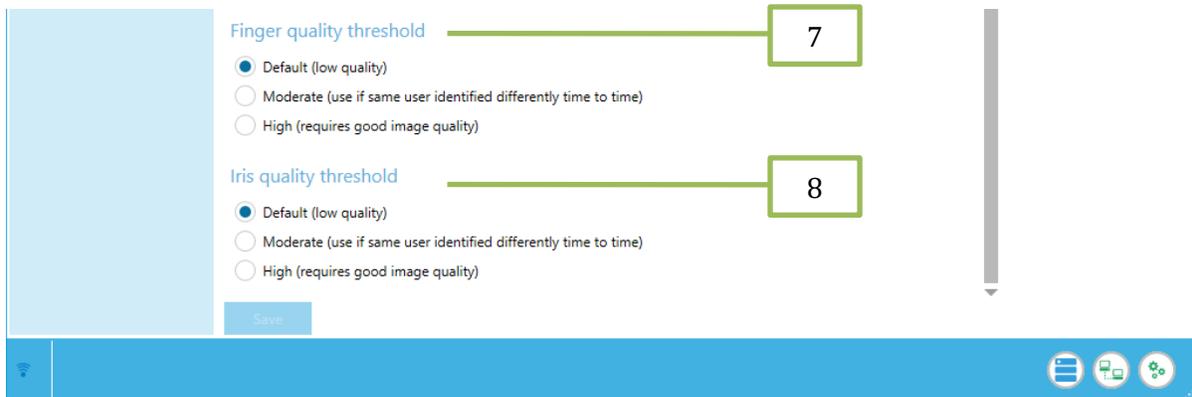


Figure 89: NCheck Control Panel – Biometric Settings (continue)

5.2.11 Administrator Settings

NCheck administrator settings provides an option to change authentication detail of NCheck admin user.

1. *Use empty password* – When user check this use empty password, then no need of admin password for perform administrator tasks.
2. *Current password* – Current NCheck admin password.
3. *New password* – New NCheck Admin Password.
4. *Confirm password* – Confirmation of new admin password.
5. *Save* – Change NCheck admin password to new password.
6. *Power user account*
 - 6.1. *Disable power user account* – Power user account is disabled by default. To enable power user account, uncheck the checkbox and set the password for power user.

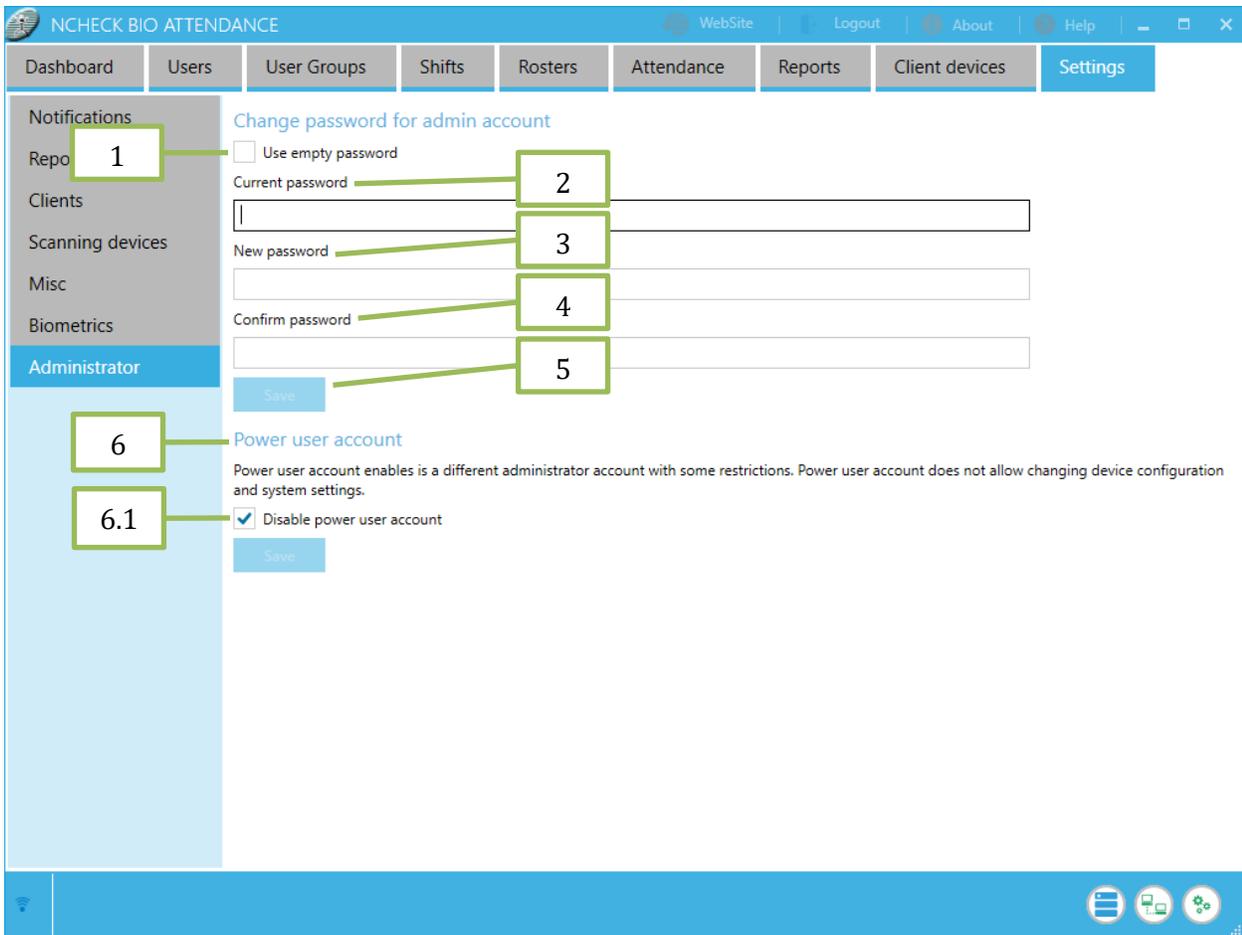


Figure 90: NCheck Control Panel - Administrator Settings

6. NCheck Web Site

NCheck website is available only in the network mode. It can be used to check employee past attendance records. NCheck administrator can login to the web site. After logged in, Administrators can manage user attendance, view reports and manage users.

Users can click on the *WebSite* link provided in NCheck Bio Attendance to access NCheck web.

NCheck web site can also access directly by typing NCheck web site URL in the browser address bar. Format of the NCheck web site URL is `https://{NCheck Server Machine}:{Server port}/NCheck/Index.html` Server Machine can be NCheck server name or IP address and Server port is NCheck Server port. If NCheck Server is configured with a separate NCheck web HTTP port, it should be used as server port and protocol should be http. As an example, if the NCheck Server installed machine IP address is 192.168.2.117 and port is 8443 you can launch web site by `https://192.168.2.117:8443/NCheck/index.html`



Figure 91: NCheck Bio Attendance - Link to web site

6.1 Home Page

NCheck web *Home* Page displays latest Activities of Employees. NCheck administrator can use *Administrator/Power user Login* to login to the web site to perform additional functions.

Name	Login name	Status	Available	Last event time	Email
Billy Moss	Billy	Active	OUT	5/6/2016 6:13:00 PM	
Dylan Nicholls	Dylan	Active	OUT	5/6/2016 9:59:54 AM	
Eva Nicholls	Eva	Active	OUT	7/1/2016 3:52:45 PM	
Harvey Palmer	Harvey	Active	OUT	3/2/2016 8:00:00 PM	
Liam Cameron	Liam	Active	OUT	5/6/2016 1:26:44 PM	
William Bryant	William	Active	OUT	7/1/2016 3:53:09 PM	

Figure 92: NCheck web site - Home page

6.2 User

NCheck web can be used to view attendance detail of individual users. To view detail, a user can be selected from the last activity report in home page. After selecting a user, it shows

1. *Attendance* - Daily attendance of current user can be viewed by selecting the calendar dates. User's arrival and departure times relevant to the selected date will be displayed on the time sheet.
2. *Reports* - Display attendance summary detail of current user.

6.2.1 User Attendance

Attendance tab is allowed to check daily attendance by selecting the calendar dates. User's check in and check out times relevant to the selected date will be displayed on the time sheet. Event log status also show on the table. If that data has an error, user can check it and report to administrator. Attendance tab provides following features.

1. *Calendar* – Select the date to view user attendance record events.
2. *Show deleted events* – Include deleted attendance events in the time sheet.
3. *Time sheet* – Shows attendance record events for selected date and other settings.

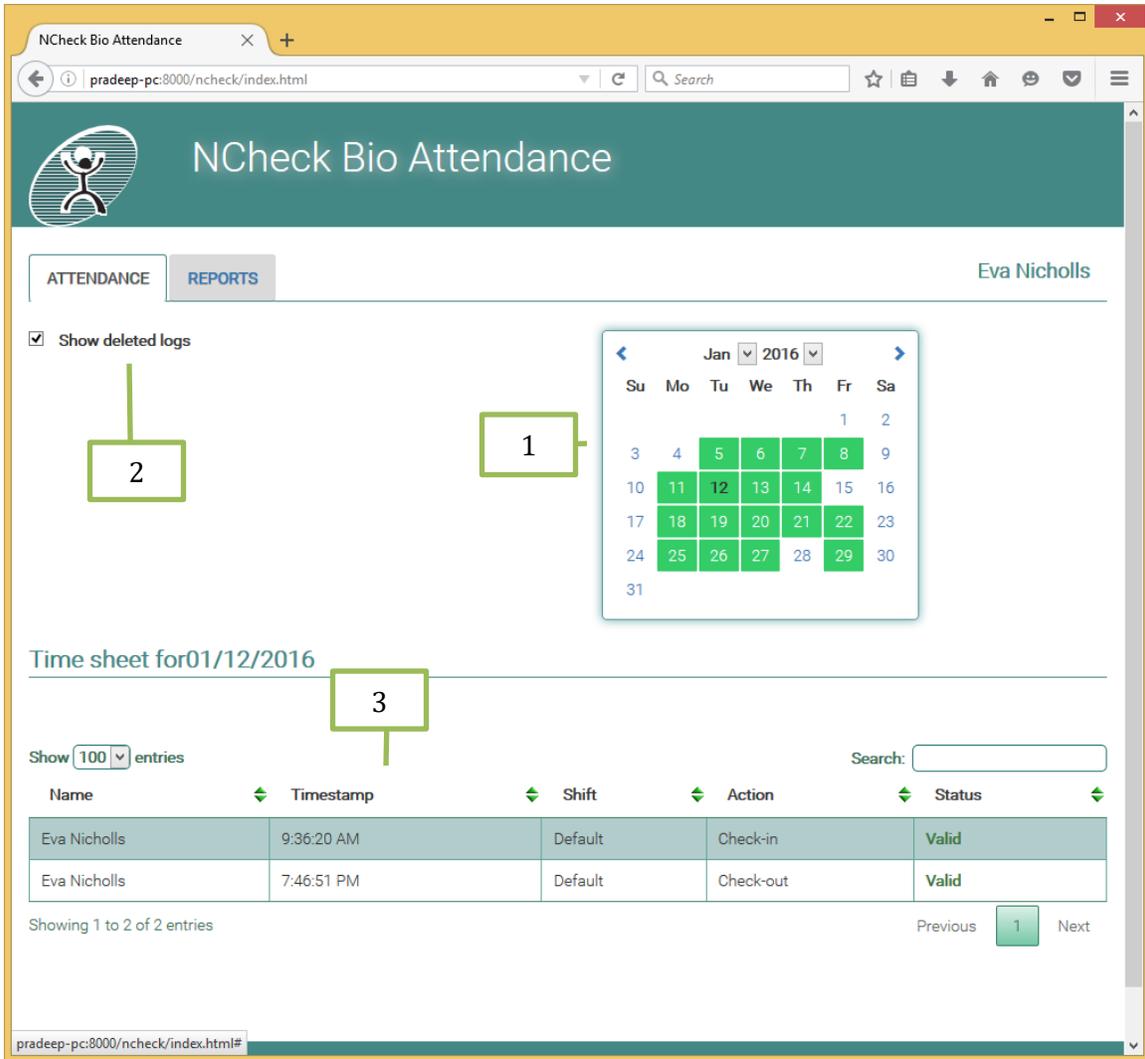


Figure 93: NCheck Web Site – User attendance

6.2.2 User Reports

Report tab show user working details summary report. Following is the report tab view for the user.

1. *Shift* – Show report for selected shift.
2. *Calculated by* – Group user attendance detail summary by *Daily, Weekly, monthly or for selected range*.
3. *From* – Report start date.
4. *To* – Report end date.
5. Number of entries per page in the User working detail summary report.
6. *Search* – Provides text search in current user working detail summary report.
7. User working details report data table.

The screenshot shows the NCheck Bio Attendance web application interface. The browser address bar displays 'pradeep-pc:8000/ncheck/index.html'. The page title is 'NCheck Bio Attendance' and the user name 'Billy Moss' is visible in the top right. The interface has two tabs: 'ATTENDANCE' and 'REPORTS'. The 'REPORTS' tab is active.

Filters and controls include:

- Shifts:** A dropdown menu set to 'All' (labeled 1).
- Calculate by:** Radio buttons for 'Daily' (selected), 'Weekly', 'Monthly', and 'Selected range' (labeled 2).
- From:** A date input field containing '6/4/2016' (labeled 3).
- To:** A date input field containing '7/4/2016' (labeled 4).
- Show:** A dropdown menu set to '100' entries (labeled 5).
- Search:** A search input field (labeled 6).

The main data table displays working hours and overtime for the period from 6/4/2016 to 6/12/2016. The columns are: Start, End, Worked hours, Worked hours (D), Overtime hours, and Overtime Hours (D). The data shows zero hours worked and zero overtime hours for all days in the range.

Start	End	Worked hours	Worked hours (D)	Overtime hours	Overtime Hours (D)
6/4/2016	6/5/2016	00:00:00	0	00:00:00	0
6/5/2016	6/6/2016	00:00:00	0	00:00:00	0
6/6/2016	6/7/2016	00:00:00	0	00:00:00	0
6/7/2016	6/8/2016	00:00:00	0	00:00:00	0
6/8/2016	6/9/2016	00:00:00	0	00:00:00	0
6/9/2016	6/10/2016	00:00:00	0	00:00:00	0
6/10/2016	6/11/2016	00:00:00	0	00:00:00	0
6/11/2016	6/12/2016	00:00:00	0	00:00:00	0

Figure 94: NCheck Web Site – User working details summary report

6.3 Administrator login/Power user

Provides following operations.

1. *Attendance* – Shows users attendance detail and allows to manage them.
2. *Reports* – Provides user attendance reports.
3. *Users* – Provides user management features.

4. Logout - Logout admin user.

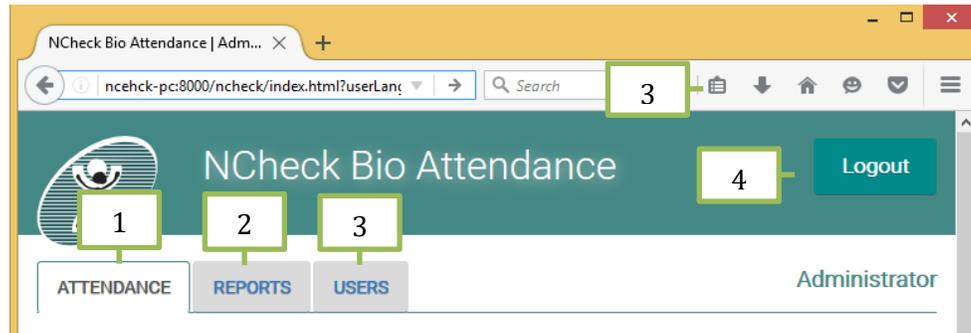


Figure 95: NCheck web site - Admin window

6.3.1 User Attendance

Attendance details of employees can be check with after admin login into NCheck web site. You can perform below operations to filter attendance record or correct any attendance discrepancy

1. *Name* - Filter attendance records by user name.
2. *Shift* - Filter attendance records by shift.
3. *Group* - Filter attendance records by groups.
4. *Show event of all users* or events of users with *Error events* only.
5. *Show deleted events* – Include deleted attendance events in the time sheet.
6. *Calendar* – Select date.
7. *New* – Create new attendance record.
8. *Reevaluate* – Reevaluate the user status according to changes made in to the event log.
9. *Auto fix* – Automatically apply missing check-in or check-out event logs to complete user attendance.
10. *Timesheet* – Shows the attendance events.
11. *Edit* – Edit the relevant attendance event.

12. Delete – Delete the relevant attendance event.

The screenshot displays the NCheck Bio Attendance web application interface. The interface includes a navigation bar with tabs for 'ATTENDANCE', 'REPORTS', and 'USERS', and a 'Logout' button. Below the navigation bar, there are several dropdown menus for filtering: 'Name' (All users), 'Shifts' (All), 'Group' (All groups), and 'Show' (All events). There is also a checkbox for 'Show deleted logs'. Below these filters are three buttons: 'New', 'Reevaluate', and 'Auto fix'. A calendar widget is visible, showing the month of April 2016. At the bottom, there is a table of attendance records with columns for Name, Timestamp, Shift, Action, Status, and a link to 'Edit / Delete'. The table contains two rows: Dylan Nicholls (8:25:11 AM, Default, Check-in, Valid) and Billy Moss (10:51:51 AM, Default, Check-in, Valid). Numbered callouts (1-12) point to various UI elements: 1 (Name dropdown), 2 (Shifts dropdown), 3 (Group dropdown), 4 (Show dropdown), 5 (Show deleted logs checkbox), 6 (Calendar), 7 (New button), 8 (Reevaluate button), 9 (Auto fix button), 10 (Show entries dropdown), 11 (Edit / Delete link), and 12 (Delete link).

Figure 96: NCheck web site - Attendance

6.3.1.1 Add/edit user attendance

To add or edit event log following information should be given.

1. *User name* – User associated with the event record. It is not allowed to change in editing.
2. *Shift* - Shift associated with the event record. It is not allowed to change in editing.
3. *Event* - Select event action. It can be check in or check out.
4. *Timestamp* – Set event time.
5. *Description* – Set event description.
6. *Create/Update* – Save attendance event to the system.

7. *Close* - Close from this window without saving changes.

The screenshot shows a web form titled "Time attendance record" with a close button (X) in the top right corner. The form contains the following fields and controls:

- 1**: Name (Dropdown menu, value: Billy Moss)
- 2**: Shifts (Dropdown menu, value: Default)
- 3**: Radio buttons for Check-in and Check-out
- 4**: Time (Text input field, value: 11:42:45 AM)
- 5**: Description (Text input field, empty)

At the bottom right of the form are two buttons: "Create" and "Close".

Numbered callouts (6 and 7) point to the "Create" and "Close" buttons respectively.

Figure 97: NCheck web site – Add/Edit attendance record

6.3.2 Reports

Report tab allows generate the report of this system. Report *Type* can be selected to view Employee details, Log details and Employee working details report.

6.3.2.1 Employee details report

The Employee Details report provides a list of employee information that enrolls with the system. You can use it to obtain all employee name, status, employee code, email, and join date.

1. Type – Select report type “*Employee details*”.
2. Employee details report – Shows the employee details.

The screenshot shows the NCheck Bio Attendance web application interface. The browser address bar indicates the URL is `ncheck-pc:8000/ncheck/index.html?userLang=e`. The application header includes the NCheck Bio Attendance logo and a 'Logout' button. The navigation menu has three tabs: 'ATTENDANCE', 'REPORTS', and 'USERS', with 'REPORTS' being the active tab. The user is logged in as 'Administrator'. The main content area features a 'Type' dropdown menu set to 'Employee details', which is highlighted with a green box labeled '1'. Below this are buttons for 'CSV', 'Excel', and 'Print', and a search input field. A table displays employee details with columns for Name, User Id, Employee code, Email, Status, and Created date. The table contains six rows of data. At the bottom of the table, there is a pagination control showing 'Showing 1 to 6 of 6 entries' and a 'Previous' button with a green box labeled '2' next to it, and a 'Next' button.

Name	User Id	Employee code	Email	Status	Created date
Billy Moss	79			Active	1/1/0001 12:00:00 AM
Dylan Nicholls	78			Active	1/1/0001 12:00:00 AM
Eva Nicholls	77			Active	1/1/0001 12:00:00 AM
Harvey Palmer	76			Active	1/1/0001 12:00:00 AM
Liam Cameron	75			Active	1/1/0001 12:00:00 AM
William Bryant	74			Active	1/1/0001 12:00:00 AM

Figure 98: NCheck web site – employee details report

6.3.2.2 Log details report

The Log Details report provides a list of latest activities of Employees' (Check in and Checkout details). You can use it to obtain all employee latest activities. In this report employee last activities can be filter by user and shift. Also this report can be generated for the specific date range.

1. *Name* – Restrict report data to selected user.
2. *Shift* – Restrict report to selected shift.
3. *Group* – Restrict report data to selected user group.
4. *From* - Set report start date.
5. *To* - Set report end date.

6. Log details report

The screenshot displays the NCheck Bio Attendance web application interface. The browser address bar shows the URL: `ncheck-pc:8000/ncheck/index.html?userLang=en`. The application header includes the NCheck Bio Attendance logo and a 'Logout' button. The navigation menu has three tabs: 'ATTENDANCE', 'REPORTS', and 'USERS', with 'REPORTS' selected. The user role is identified as 'Administrator'.

The 'Log details' report configuration is shown with the following fields:

- Type: Log details
- Name: All users
- Shifts: All
- Group: All groups
- From: 6/4/2016
- To: 7/4/2016

Below the configuration are buttons for 'CSV', 'Excel', and 'Print', and a search field. The results table is displayed with the following data:

Name	User Id	Employee code	Check-in	Check-out
Eva Nicholls	77		7/1/2016 3:52:45 PM	Missing
William Bryant	74		7/1/2016 3:53:09 PM	Missing

The page footer indicates 'Showing 1 to 2 of 2 entries' and a pagination control with 'Previous', '1', and 'Next' buttons.

Figure 99: NCheck web site – Log details report

6.3.2.3 Employee working details report

Employee working details report provides total work hours' detail for employees. This report can be calculated by daily, weekly, monthly or selected range.

1. *Name* – Restrict report data to selected user.
2. *Shift* – Restrict report to selected shift.
3. *Group* – Restrict report data to selected user group.
4. Calculated by - Calculate report data by *daily*, *weekly*, *monthly* or *Selected range*
5. *From* - Set report start date.
6. *To* - Set report end date.
7. Employee working details report.

NCheck Bio Attendance | Adm... X

ncheck-pc:8000/ncheck/index.html?userLang=en

NCheck Bio Attendance

Logout

Administrator

ATTENDANCE REPORTS USERS

Type: Work details

Name: All users

Shifts: All

Group: All groups

Calculate by: Daily Weekly Monthly Selectedrange

From: 6/4/2016

To: 7/4/2016

CSV Excel Print

Search:

Name	User Id	Start	End	Worked hours	Worked hours (D)	Overtime hours	Overtime Hours (D)
Billy Moss	79	6/4/2016	6/5/2016	00:00:00	0	00:00:00	0
Billy Moss	79	6/5/2016	6/6/2016	00:00:00	0	00:00:00	0
Billy Moss	79	6/6/2016	6/7/2016	00:00:00	0	00:00:00	0

Figure 100: NCheck web site – Employee working details report

6.3.3 Users

Users tab displays NCheck Bio Attendance system users and provides options to manage them. It has following features.

1. *New* - Add new users to users to NCheck
2. *Upload* – Import users from a CSV file.
3. *Photo* – Add or change user photo.
4. *Faces* – Add or delete faces used for user identification.
5. *Edit / Remove / Block*.
 - 5.1. *Edit* – Edit user details.
 - 5.2. *Remove* – Delete user from NCheck.

5.3. Block – Block user from accessing NCheck.

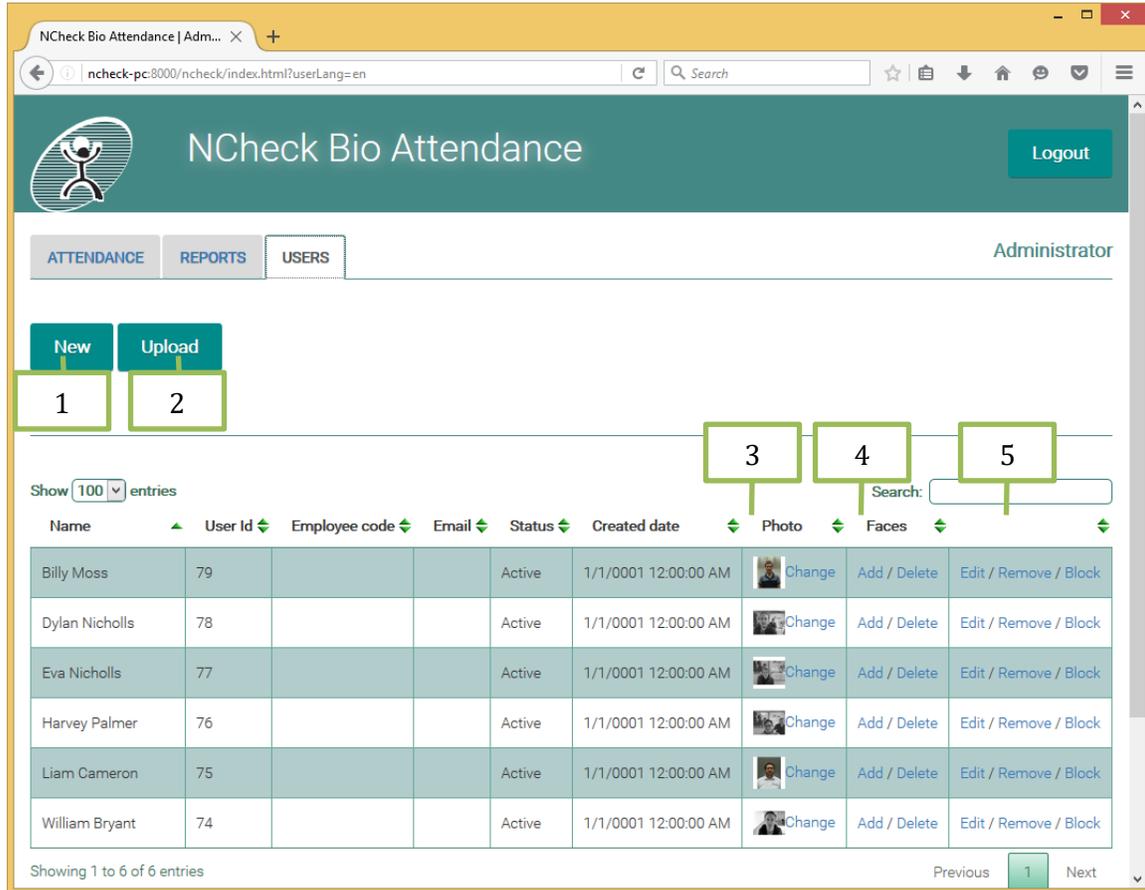


Figure 101: NCheck web site – Users tab

6.3.3.1 New/Edit users

User management window allows adding or editing user details. New/Edit user facilitates to enter following information.

2. *First name*

Last name

Email (Optional)

Employee code (Optional)

Login name

Enable Password Login – Enable or disable password login. Allows empty password

The image shows a 'User management' dialog box with the following fields and callouts:

- 1: *First name
- 2: *Last name
- 3: Email
- 4: Employee code
- 5: *Login name
- 6: Enable password login

Below the callouts are three more input fields: Password, Confirm password, and two buttons: Update and Close.

Figure 102: NCheck web site – New/Edit users

7. Integration with 3rd party systems

7.1 NCheck API

NCheck API can be used to integrate data from external system to NCheck Bio Attendance Server. API provides JSON REST API methods for following functions,

- User data management
- User identification data management
- Event log management

7.1.1 User Management

7.1.1.1 API Call

<https://{SERVER:PORT}/ncheck/api/users?code={code}&refField={refField}>

ex: <https://testpc:8443/ncheck/api/users?code=007&refField=0>

7.1.1.2 Parameters

Code	A unique code to uniquely identify the user
<i>refField</i>	Field represented by first parameter <i>code</i> Permitted values: <ul style="list-style-type: none"> • 0 - Employee code • 1 - Login name

7.1.1.3 API Status codes

Status field can be one of the following:

- Success - 0
- UserNotFound, - 1
- DuplicateLoginName, - 2
- DuplicateEmployeeCode -3
- InvalidData - 4
- OperationFailed, - 5
- InvalidCode, - 6
- InvalidReferenceField, - 7
- SystemError - 8

7.1.1.4 HTTP Methods

Method	Payload data	Response data
PUT-performs	{ "FirstName": "",	{ "Status": 0,

user add or update	<pre> "LastName": "", "EmployeeCode": "", "LoginName": "", "Email": "", "Status": 2 } </pre> <p>Status can be one of the following:</p> <pre> Blocked - 1 Active - 2 </pre>	<pre> "User": null } </pre>
GET		<pre> { "Status": 0, "User": { "Email": null, "EmployeeCode": "002", "FirstName": "Pm", "LastName": "A", "LoginName": "Pm", "Status": 0 } } </pre> <p>User status can be one of the following:</p> <pre> NotDefined - 0 Blocked - 1 Active - 2 Deleted - 3 </pre>
DELETE		<pre> { "Status": 0, "User": null } </pre>

		}
--	--	---

7.1.2 User Identification data management

Allows adding, deleting and retrieving face images and templates

7.1.2.1 API Call

<https://{SERVER:PORT}/ncheck/api/user/identification?code={code}&refField={refField}>

7.1.2.2 Parameters:

Code	A unique code to uniquely identify the user
<i>refField</i>	Field represented by first parameter <i>code</i> Permitted values: <ul style="list-style-type: none"> • 0 - Employee code • 1 - Login name

7.1.2.3 API Status Codes

Status:

- Success - 0
- UserNotFound - 1
- InvalidCode - 2
- InvalidReferenceField - 3
- OperationFailed - 4
- SystemError - 5

RecordResult status:

- Success - 0
- NullImageAndTemplate - 1
- TypeNotSupported - 2
- InvalidImage - 3
- InvalidTemplate - 4
- OperationFailed - 5
- ExtractionFailed - 6
- DuplicatesFound - 7

7.1.2.4 HTTP Methods

Method	Payload data	Response data
PUT- performs user identification data update. Existing identification	{ "records": [{ "Status": 0, "RecordResults": [

<p>data is replaced with new data</p>	<pre> {"IdType": 2, "Image": "", "Template": ""}, {"IdType": 2, "Image": "", "Template": ""}] } </pre> <p>IdType - "2" for face images.</p> <p>Image - Base64 encoded face image.</p> <p>Template - Base64 encoded NTemplate for face.</p> <p>*When Template is available, Image is optional and vice versa.</p>	<pre> { "Status": 0 }, { "Status": 1 }], "Records": [] } </pre>
<p>GET</p> <p>Get User identification data</p>		<pre> { "RecordResults": [], "Records": [{ "IdType": 2, "Image": null, "Template": null }], "Status": 0 } </pre>
<p>DELETE</p> <p>Delete user identification data</p>		<pre> { "RecordResults": [], "Records": [], } </pre>

(face only)		"Status":0 }
-------------	--	-----------------

7.1.3 Event Management

Allows adding, deleting and retrieving employee attendance events.

7.1.3.1 API Call

PUT /DELETE

<https://{SERVER:PORT}/ncheck/api/events?code={code}&refField={refField}×tamp={timestamp}>

GET

<https://{SERVER:PORT}/ncheck/api/events?code={code}&refField={refField}&from={from}&to={to}>

7.1.3.2 Parameters:

<i>Code</i>	A unique code to uniquely identify the user
<i>refField</i>	Field represented by first parameter <i>code</i> Permitted values: <ul style="list-style-type: none"> • 0 - Employee code • 1 - Login name
<i>Timestamp/from/to</i>	String formatted according to yyyy-MM-dd'T'HH:mm:ss.ffffff characters marked in red color are optional yyyy: year MM: Month dd: Day 'T': Time separator, can be replaced with a space. HH: hours in 24 hour format mm: minutes ss: seconds ffffff: fractions of seconds (Optional)

	ex: 2017-08-7 19:21:12
--	----------------------------------

7.1.3.3 API Status codes

- Success - 0
- UserNotFound - 1
- InvalidTimeStamp - 2
- InvalidEventType - 3
- EmptyEventData - 4
- DuplicateTimeStamp - 5
- OperationFailed - 6
- CheckInRestricted - 7
- CheckOutRestricted - 8
- CheckInCheckOutRestricted - 9
- DuplicateRecord - 10
- ShiftNotFound - 11
- RestrictedTimestamp - 12
- InvalidCode - 13
- InvalidReferenceField - 14
- RecordNotFound - 15
- SystemError - 16

7.1.3.4 HTTP Methods

Method	Payload data	Response data
PUT- Add / Update event log	<pre>{ "EventType":-1, "Shift":"Default" }</pre> <p>EventType:</p> <p style="padding-left: 20px;">AutoDetect - -1</p> <p style="padding-left: 20px;">In, - 1</p> <p style="padding-left: 20px;">Out - 2</p> <p>Shift:</p> <p style="padding-left: 20px;">Name of the shift</p> <p>If AutoDetect is -1, In out direction and Shift will be automatically decided for the timestamp. If not, Shift must be provided.</p>	<pre>{ "Event": null, "Status": 0 }</pre>

GET		<pre>{ "Events": [{ "Address": null, "Alt": "0", "EventType": 1, "Lat": "0", "Lon": "0", "Shift": "Default", "TimeStamp": "2017-08-07T05:00:00.0000000" }, { "Address": null, "Alt": "0", "EventType": 2, "Lat": "0", "Lon": "0", "Shift": "Default", "TimeStamp": "2017-08-07T19:21:12.2548700" }], "Status": 0 }</pre>
DELETE		<pre>{ "Event": null, "Status": 0 }</pre>

7.2 Payroll systems

7.2.1 Tally ERP

Tally ERP uses Attendance Voucher to record employees' attendance data, based on Attendance/Production types (i.e., present or absent days, overtime hours and so on).

An Attendance Voucher allows you to record the attendance/ production units for employees. Tally ERP gives you the flexibility to enter the attendance records through a single attendance voucher for a payroll period, or through multiple attendance vouchers as and when required within a payroll period. You also have the option of recording one attendance/ production voucher per employee per day or collectively for a month or any other variation thereof for all the employees.

NCheck Bio Attendance can export attendance records in daily, weekly or monthly using [Total Work Hours report](#). A Total Work Hours Report data can be imported to tally as a single Attendance Voucher. If the attendance data is imported in daily basic, it will create multiple attendance vouchers for a given pay period. If Attendance data is imported weekly, monthly or user selected period, it will create a single attendance voucher for a given pay period.

NCheck Bio Attendance can export Total Work Hours report in to an Excel file. Tally provides a TDL extension for Importing Payroll Data which includes a User Manual. Total Work Hours exported to excel from NCheck Bio Attendance can be imported to Tally Payroll Vouchers using this Payroll Data Import TDL extension from Excel files. Please use following procedure to export attendance data to Tally ERP system.

1. Make sure that Tally System attendance/Production Payroll units are defined in hours.
2. Configure Total Work Hours report based on you pay cycle and payroll data import cycle to the tally system.
 - a. Select daily report and one date period in "From" and "To" fields to import attendance data in daily basis as multiple attendance vouchers per pay cycle in Tally System.
 - b. Select Weekly, Monthly or Selected Range (For fortnight) to import attendance one in a pay cycle as a single Attendance Voucher.
3. Make sure that all employees in exported excel are configured properly in the Tally ERP System.
4. Manually adjust the exported excel file to make ready for import in to Tally
 - a. Open exported Work Hours Report.
 - b. Delete columns other than "Name" and "Work Hours (DEC)" columns.

-
- c. Add new “Attendance/Production Type” column after “Name” column. Assign Attendance/Production Type name defined in the Tally System. Ex: Attendance.
 - d. Rename “Name” column to “Employee Name” (Optional).
 - e. Rename “Work Hours (DEC)” column to “Attendance Value” (optional).

Note: Use “Overtime Hours (DEC)” Column instead of “Work Hours (DEC)” column to import overtime hours.

5. Import Payroll data according to the User Manual – Import Payroll Data.

	A	B	C	D	E	F	G	H
1	Name	Employee code	Start date	End date	Worked hours	Worked hours (dec)	Overtime hours	Overtime Hours (D)
2	William Bryant		1/25/2017	2/25/2017	37:08:55	37.13	05:09:00	5.15
3	Liam Cameron		1/25/2017	2/25/2017	27:18:52	27.30	03:12:00	3.20
4	Harvey Palmer		1/25/2017	2/25/2017	27:13:26	27.22	03:07:00	3.12
5	Eva Nicholls		1/25/2017	2/25/2017	23:30:04	23.50	00:20:00	0.33
6	Dylan Nicholls		1/25/2017	2/25/2017	26:21:41	26.35	02:15:00	2.25
7	Billy Moss		1/25/2017	2/25/2017	98:37:49	98.62	09:11:00	9.18

Delete unnecessary columns

	A	B
1	Name	Worked hours (dec)
2	William Bryant	37.13
3	Liam Cameron	27.30
4	Harvey Palmer	27.22
5	Eva Nicholls	23.50
6	Dylan Nicholls	26.35
7	Billy Moss	98.62
8		

Add new column and rename remaining columns

	A	B	C
1	Name	Attendance/Production Type	Worked hours (dec)
2	William Bryant	Present	37.13
3	Liam Cameron	Present	27.30
4	Harvey Palmer	Present	27.22
5	Eva Nicholls	Present	23.50
6	Dylan Nicholls	Present	26.35
7	Billy Moss	Present	98.62
8			

Figure 103: Preparing excel sheet to import in to Tally ERP

7.2.2 QuickBooks

NCheck Bio Attendance reports allow you to export Daily total work hour report in “Intuit Import File” (IIF) format. To import daily work hours of employees (Employee worksheet) in to QuickBook Desktop follow below steps.

The screenshot shows the configuration for a 'Total work hours' report in QuickBooks. The 'Type' is set to 'Total work hours'. The 'User' is 'All users', 'User group' is 'All groups', and 'Shift' is 'All'. Under 'Calculate by', 'Daily' is selected. The 'Range' is from '05/01/2017' to '06/01/2017', and 'Group by' is set to 'Date'. A 'QB' icon is highlighted in the bottom right corner.

Figure 104: Total work hours report for QuickBooks

- Login to NCheck control panel and go to reports
- Choose report type as “Total work hours” and “Calculated by” as “Daily”
- Then you can see the “QB” button under Export buttons.
- Select the required date range and refresh the report.
- Select “QB” button to export worksheet in IIF format.

The result file look like as following Figure. Once it is done then the Report is ready to be imported.

1	ITIMERHDR	VER	REL	COMPANYNAME	IMPORTEDBEFORE	FROMTIMER	COMPANYCREATETIME				
2	ITIMERHDR		8	YOUR COMPANY	N	Y	1208544781				
3	IHDR	PROD	VER	REL	IIFVER	DATE	TIME	ACCNTNT	ACCNTNTSPLITTIME		
4	HDR	QuickBooks Pro for Windows	Version 6.0D	Release R4P		1	4/18/2008	1208545205	N		0
5	ITIMEACT	DATE	JOB	EMP	ITEM	PITEM	DURATION	PROJ	NOTE	BILLINGSTATUS	
6	TIMEACT	2/1/2017	Customer	William Bryant	Work		10:00				0
7	TIMEACT	2/2/2017	Customer	William Bryant	Work		9:49				0
8	TIMEACT	2/3/2017	Customer	William Bryant	Work		9:20				0
9	TIMEACT	2/1/2017	Customer	Liam Cameron	Work		8:52				0
10	TIMEACT	2/2/2017	Customer	Liam Cameron	Work		9:05				0
11	TIMEACT	2/3/2017	Customer	Liam Cameron	Work		9:15				0
12	TIMEACT	2/1/2017	Customer	Harvey Palmer	Work		9:10				0
13	TIMEACT	2/2/2017	Customer	Harvey Palmer	Work		8:43				0
14	TIMEACT	2/3/2017	Customer	Harvey Palmer	Work		9:14				0
15	TIMEACT	2/1/2017	Customer	Eva Nicholls	Work		8:10				0
16	TIMEACT	2/2/2017	Customer	Eva Nicholls	Work		7:03				0
17	TIMEACT	2/3/2017	Customer	Eva Nicholls	Work		8:10				0
18	TIMEACT	2/1/2017	Customer	Dylan Nicholls	Work		8:39				0
19	TIMEACT	2/2/2017	Customer	Dylan Nicholls	Work		9:06				0
20	TIMEACT	2/3/2017	Customer	Dylan Nicholls	Work		8:30				0
21	TIMEACT	2/1/2017	Customer	Billy Moss	Work		9:00				0
22	TIMEACT	2/2/2017	Customer	Billy Moss	Work		9:03				0
23	TIMEACT	2/3/2017	Customer	Billy Moss	Work		9:01				0

Figure 105: QuickBook exported IIF file

Before start importing worksheet to Quickbook, you need to do following changes in the exported IIF file

1. Change the Company name and company file create time (Highlighted in yellow color)

you can find the company name and company file create time from an IIF file exported from your Quickbook system. For example, you can export Timer List from Quickbook using File>Utilities>Export>Timer Lists. Exported Timer List IIF file header will have the company name and company file created time.

2. Make sure that the values in JOB, ITEM, PROJ, NOTE and BILLINGSTATUS columns are acceptable values for your QuickBook system. You can change those values according to your QuickBook system. Short description of those column data is below.
 - JOB -The name of the customer (or job). If you're entering the name of a job, enter the customer's name followed by a colon followed by the name of the job. Both the customer and the job names must also be on your Customers & Jobs list (CUST).

- ITEM-The name of the service item. The service item must also be on your Item list (INVITEM).
- PROJ - The QuickBooks class assigned to the activity (classes give you a way to group activities in meaningful ways in time reports). The Class must also be on your Class list (CLASS).
- NOTE –You may enter up to 1000 characters.
- BILLINGSTATUS-Indicates the billing status. Enter one of these values: 0 – not billable, 1 – Not billed, 2 – Billed

Now your worksheet IIF is ready to import in to QuickBook. Go to File>Utilities>Import>Timer Activities to import the worksheet IIF file. Once data is imported, a Timer Import Data report will be shown the data which was extracted.

7.3 Payroll System Integration Service API

NCheck provides a payroll system integration service API for developers. This API can be used to develop attendance data integration .NET DLL with external systems such as payroll system.

Attendance data integration DLL should be deployed in to **NCHECK_INSTALLATION_DIRECTORY\ExternalAPISupport**. NCheck Server automatically loads data integration dll on server startup and publish attendance data.

Note: “PayrollIntegrationAPISample” is the sample application of payroll system integration service API. This sample project can be found at **NCHECK_INSTALLATION_DIRECTORY\Samples**. This sample dll developed to write attendance records to a file. Set DLL identifier

7.3.1 INCheckPayrollIntegrationAPI Interface

Namespace: NCheck.Core.Services

Assemblies: NCheck.Core.dll

Provides functionality to receive available user event logs from NCheck server.

7.3.1 Properties

String Name – Unique identification for the integration DLL.

7.3.2 Methods

SynchronizeEventData

7.3.2.1 Input parameters

IList<List<KeyValuePair<String, String>>> eventLogs

List of event logs. Each event log in the list is a list of key value pairs as described below.

Key	description	Data format
EmployeeId	Associated employee ID	String value

UserName	Associated employee full name	String value
LoginName	Associated employee login name	String value
EventId	Event Direction	String 1- Check In, 2- Check Out
EventLogId	Unique reference for an eventlog	String reference id
TimeStamp	Attendance event time stamp	Date time formatted as MM/DD/YYYY HH:MM:ss AM/PM

7.3.2.2 Return value

Return true if all events are processed. Otherwise it is false. If it returns false, NCheck resend same event logs again.

8. Support

Write email to support@ncheck.net if you unable to resolve some problems related to NCheck Bio Attendance.

NCHECK ANDROID

1. NCheck Android

1.1 Scope and Purpose

This document provides procedures for using the software features of NCheck Android. It describes necessary system prerequisites, supported fingerprint scanners, installation & configuring application, user enrollment & management, user group management, work shift management, attendance record management and generating & exporting reports.

This guide is intended for system administrators and other personnel who are assigned to work with attendance system administration.

1.2 Overview

NCheck Android is the Android version of NCheck Bio Attendance. NCheck Bio Attendance is a modest and effective attendance management system designed to manage employees' time and attendance to the company. The system is characterized by quick and concise data analyzing and processing.

1.3 What's New

- Bug fixes.

1.4 System Requirements

To install NCheck Android your system should meet the following minimal requirements:

Resource	Minimum requirements
Processor	1 GHz ARM-based CPU
RAM	512 MB
Operating system	Android 4.4 (or higher)
Software	NCheck Bio Attendance Server (Optional)
Other	A camera device supported by Android operating system. Optional: USB host mode supported android device for attach External fingerprint scanners.

1.5 Supported fingerprint scanners

Fingerprint scanners can be used to perform user check-in/check-out in NCheck Android. Following is the list of fingerprint scanning devices supported

Fingerprint Scanner	Description
DigitalPersona (UPEK) Eikon Solo	*
DigitalPersona (UPEK) EikonTouch 300	*
DigitalPersona (UPEK) EikonTouch 500	*
DigitalPersona (UPEK) EikonTouch 700	* FIPS 201 certified
Futronic eFAM (FS84)	Ethernet or serial connection.
Futronic FS28	Bluetooth connection
Futronic FS88	PIV / FIPS 201 certified
Futronic FS88H	PIV / FIPS 201 certified
Futronic FS90	
Integrated Biometrics Columbo	PIV and Appendix F Mobile ID FAP 30 certified.
Integrated Biometrics Sherlock	Two finger scanner. PIV and Appendix F Mobile ID FAP 45 certified.
Integrated Biometrics Watson	Two finger scanner. PIV and Appendix F Mobile ID FAP 45 certified.
Integrated Biometrics Watson Mini	Two finger scanner. PIV and Appendix F Mobile ID FAP 45 certified.
Miaxis SM-201 Bluetooth	Bluetooth connection
Miaxis SM-201 Wi-Fi	Wi-Fi connection
NEXT Biometrics NB-3010-U	385 ppi resolution
SecuGen Hamster IV	PIV / FIPS 201 certified; FBI IAFIS IQS compliant.
SecuGen Hamster Plus	

SMUFS Biometric SMUFS BT	Bluetooth connection.
	PIV / FIPS 201 compliant fingerprint sensor.
Suprema BioMini	
Suprema BioMini Plus	FIPS-201 (PIV) compliant
Suprema BioMini SFU-S20	PIV and Appendix F Mobile ID FAP 20 certified.
Suprema BioMini Slim	PIV and Appendix F Mobile ID FAP 20 certified.
TazTag TazPad	A tablet with integrated fingerprint reader, 2 cameras for face capture and microphone
TopLink Pacific BLUEFiN	Bluetooth connection
UPEK Eikon	*
UPEK Eikon To Go	*
UPEK TouchChip TCRU1C	*
UPEK TouchChip TCRU2C	*

(*) requires root access to the device.

Note: Fingerprint scanners can be purchased from [Biometric Supply](#).

1.6 Supported Iris scanners

Following list contain the supported iris scanners.

[IriShield USB MK 2120U](#)

[IriShield USB BK 2121U](#)

2. Usage scenarios

The application can run on two different modes according to the configuration.

1. *Local* - Standalone mode (default)
2. *Remote* - Networked mode

To select the mode of operation go to the *Settings* menu from the main activity and select the mode required using *Application Mode* switch.

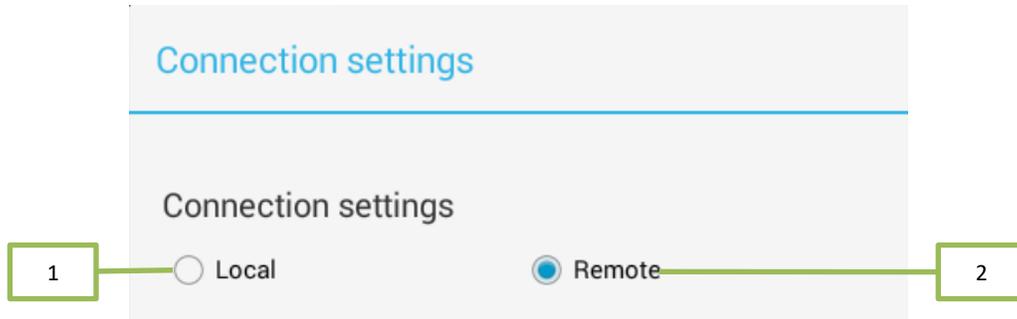


Figure 106: Application Mode

2.1 NCheck Android in standalone mode

NCheck Android can be installed and used without any network support enabled. NCheck Android uses a local database to store all data and settings.

2.2 NCheck Android Network mode

NCheck Android can be connected to an NCheck Bio Attendance server in networked mode. In this scenario the NCheck Server is installed in separate machine in the network. NCheck Android connects to the server through network and provides UI for Control Panel and Client. NCheck Android client supports offline mode and records user attendance when it is disconnected from the server and synchronize those record after the connection is established in next time.

2.2.1 Offline operation

Offline support can be enabled from the *Settings* page by selecting the *Connection settings* item.

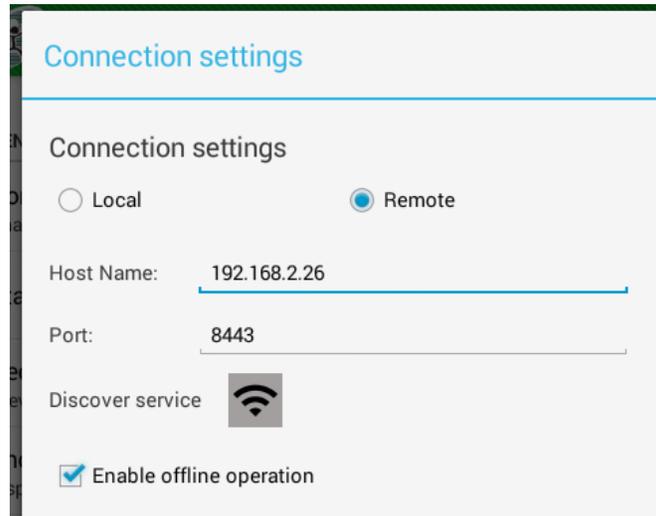


Figure 107: Network Settings

When offline mode is enabled, client synchronizes user data in client cache with the Server. When device is disconnected, it can still perform employee identification and record the attendance. When the device connected back, client synchronizes the collected attendance records with the server

Client synchronizes with server in the background and shows the progress indicator while synchronizing

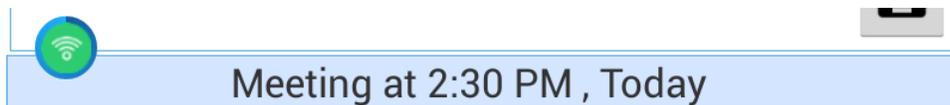


Figure 108: Message Panel

Note: Control panel is not allowed to access while client is disconnected from the server

3. Installation

Before installation make sure that your device meets minimum [requirements](#) for NCheck Android.

3.1 NCheck Android Application

NCheck Android is installed using *NCheck4.apk*. The following steps should be performed to install software:

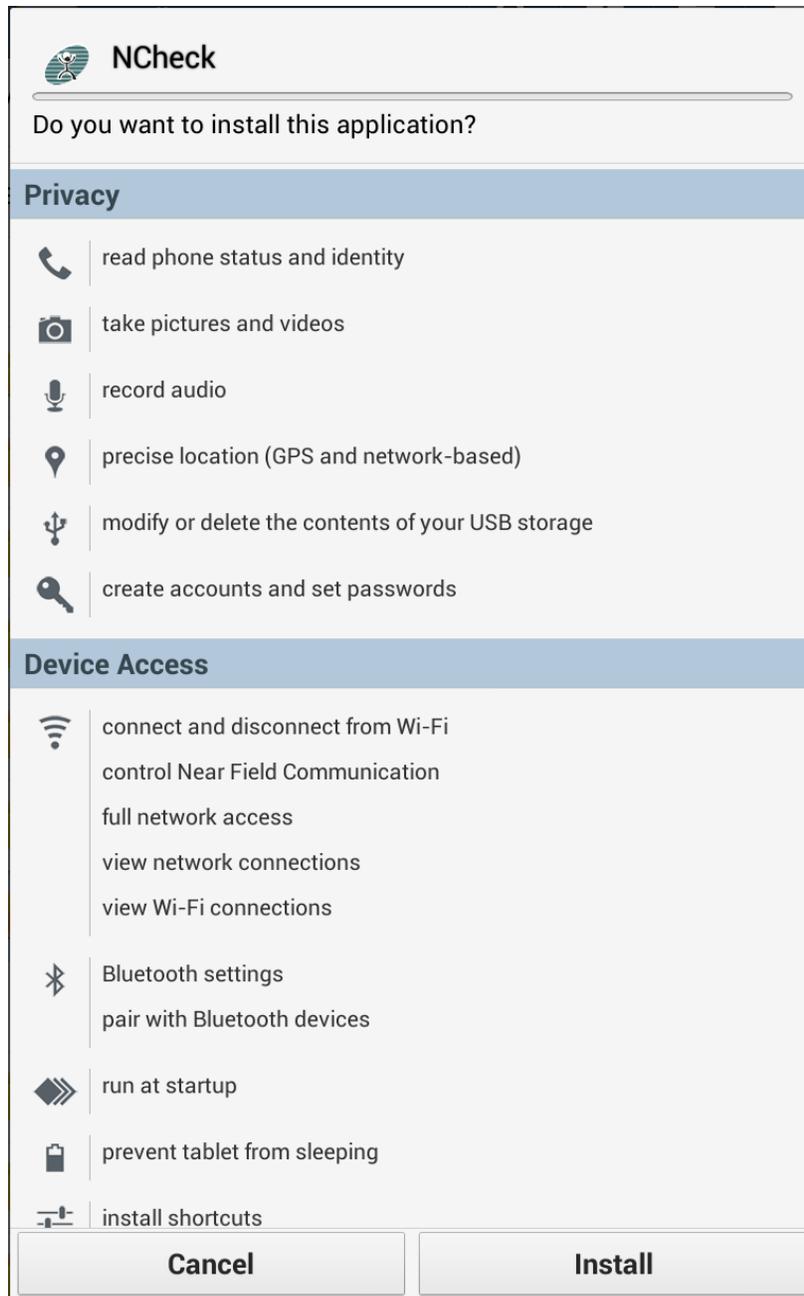


Figure 109: Installation Permissions

3.1.1 Run the apk

Download and install NCheck4.apk. It will show the permission request dialog. Accept the permissions requested.

When the application is run for the first time, application will create a shortcut to the application on the front screen.

In Application startup, startup screen is shown where the application starts to obtain licenses and initialize the services. Once those processes completed it will directly open the NCheck Client.

NCheck Android Application runs in standalone mode by default. It can be configured to run in networked mode in the settings.

3.2 License activation

3.2.1 Production Licenses

When a production version couldn't obtain licenses, *Licenses Manager* option will be shown.

1. *License Manager* - Launch *License Manager* Activity to install licenses.

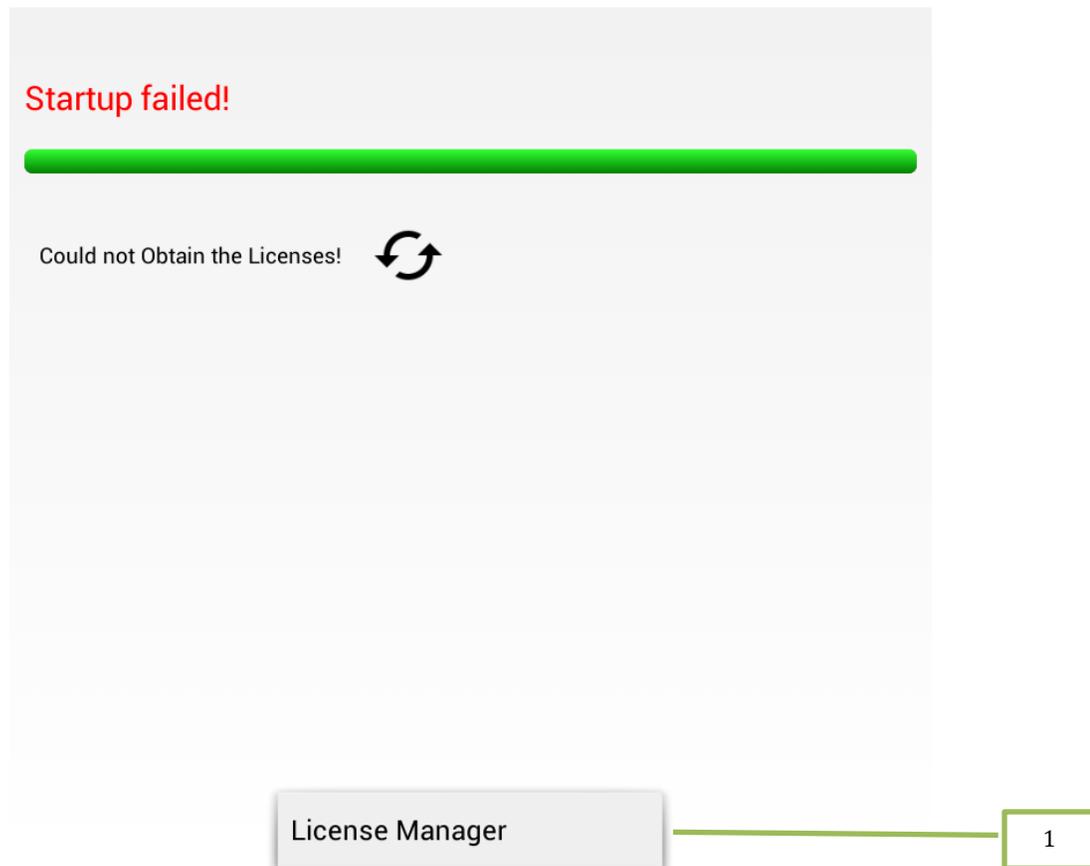


Figure 110: Licenses not obtained

3.2.2 License Manager

1. Serial Number – Open a dialog box to enter the serial number.
2. Browse - Open the serial number file or internet license file. Serial numbers will be automatically activated and saved to the local folder.
3. *License file list* – Available Licenses.
4. *Continue*- Complete license activation.

Note:

NCheck Android Client should be available during user arrival and departure. It is recommended to connect to a power source always.

Configuration files Database files and logs are stored in NCheck directory inside the Android device storage

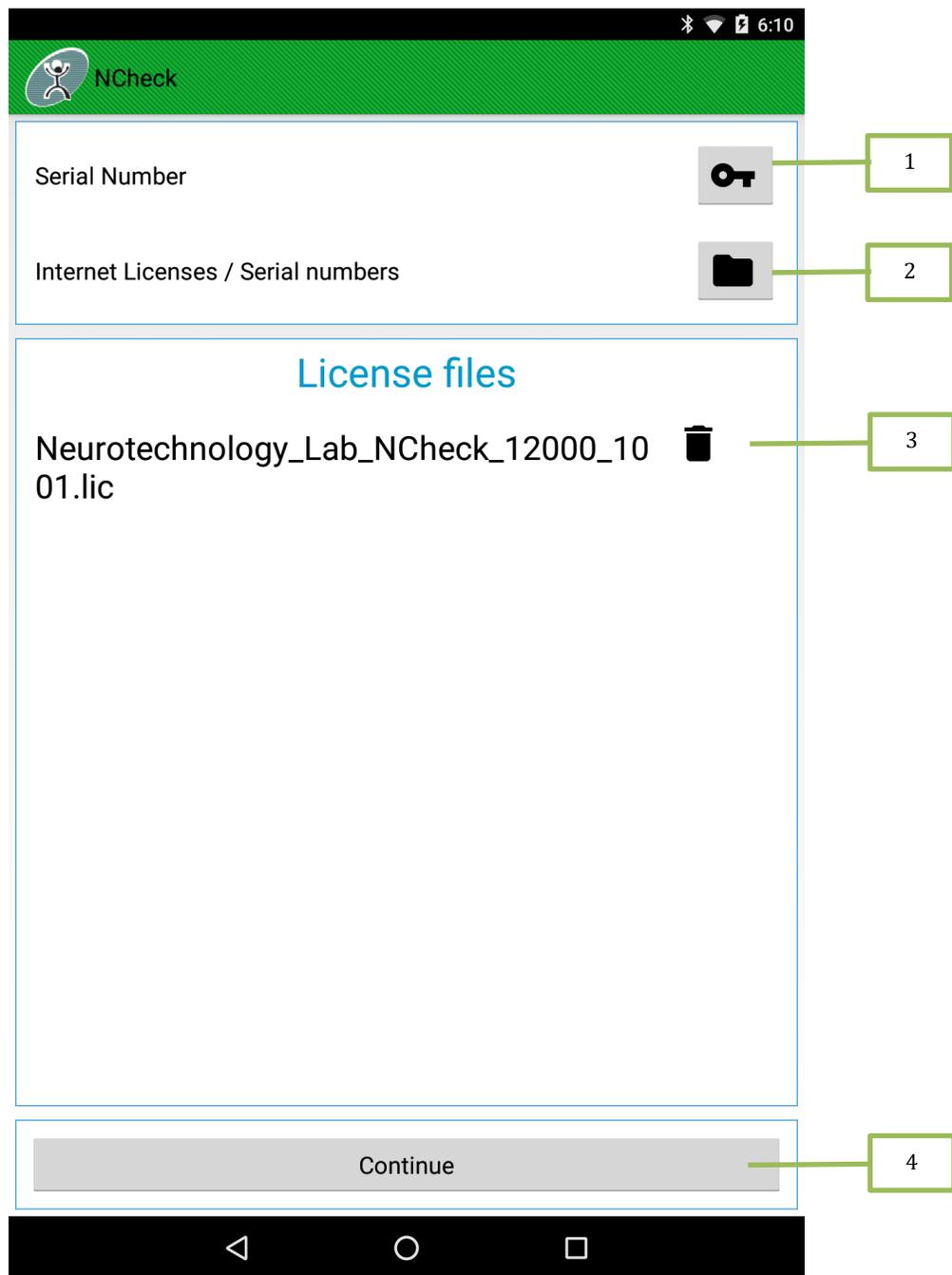


Figure 111: Licensing Activity

3.2.2.1 Serial Number

This allows enter the serial number and activated the license and saved to the local folder.

1. Serial number – Enter the serial number.
2. Add - activate the serial number and save the license file in the local folder.

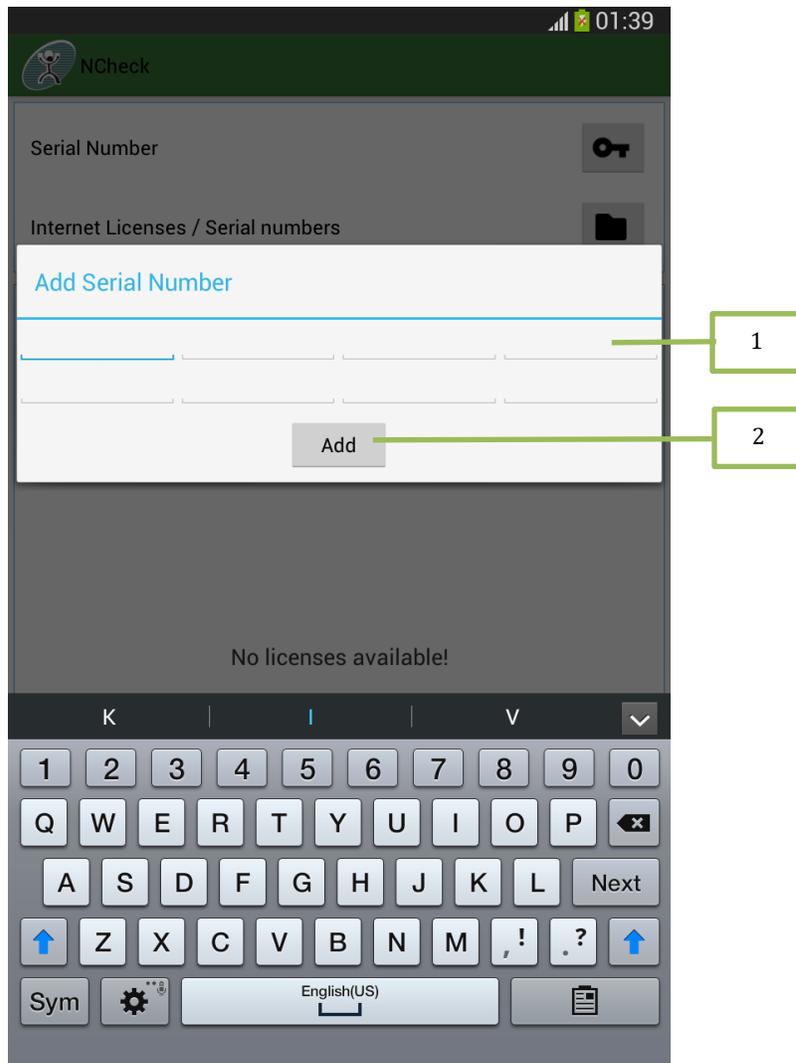


Figure 112: Add Serial Number

4. Settings

Settings are used to configure NCheck Android mode of operation, network mode server, backup, restore and power saving options.

1. General settings – These settings are applied for both remote server and standalone server modes.
 - 1.1. Connection Settings – Provide server connection settings.
 - 1.2. Start application on device startup – Enables application startup sync with system boot
 - 1.3. Keep screen on - Enable to prevent device going to sleep mode.
 - 1.4. Show user list - Display the user list in the main screen.
 - 1.5. Delay extraction – Skip few frames for having good quality image.
 - 1.6. External scanner – Navigate to external scanner service configuration.
 - 1.7. Bluetooth fingerprint - Provide Bluetooth fingerprint connection settings.
 - 1.8. Licenses - Navigates to [License Manager](#) which allows to activate or de-activate the licenses
2. Standalone settings - These settings are applied only for standalone server modes.
 - 2.1. Barcode and Face - Paired the barcode with face biometry only for Standalone mode.
 - 2.2. RFID and Face - Paired the RFID with face biometry only for Standalone mode.
 - 2.3. Backup database - Backup the standalone database to another location by clicking the Backup database.
 - 2.4. Restore database - Restore the data from previous backup database file.
 - 2.5. Diagnostic mode – Show the diagnostic information on camera preview.

Note: Restore will automatically restart the application after completion.

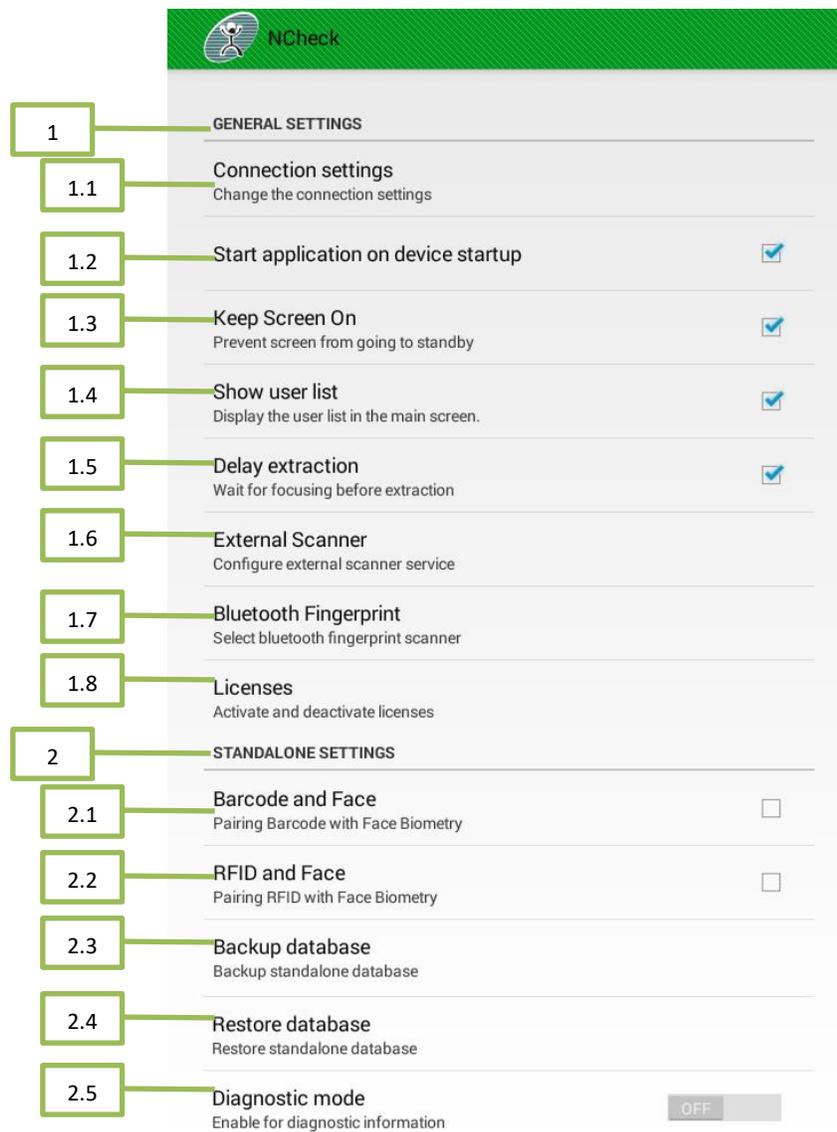


Figure 113: NCheck Settings

4.1 Connection settings

4.1.1 Mode

From the “Connection settings” user can select either “Local” or “Remote” mode to change the application connection settings between standalone server and remote server.

4.1.1.1 Local connection settings

When selected the local connections mode then NCheck Android Client run as a standalone server.

Connection settings

Connection settings

Local Remote

Available peripherals

Face Keyboard

Finger Barcode

Iris RFID

Login Name

Password

Save

Figure 114: Local connection settings

4.1.1.2 Remote connection settings

When selected the “Remote” mode you can configure the NCheck Android client to be connected with remote NCheck Bio Attendance server.

1. Host Name – Enter the NCheck server IP address.
2. Port – Enter the NCheck server port.
3. Discover service - Search available NCheck servers in the local area network.
4. Enable offline operation - Enable or disable the offline support in networked mode.

The screenshot shows the 'Connection settings' screen. At the top, there are two radio buttons: 'Local' and 'Remote', with 'Remote' selected. Below this are four input fields: 'Host Name' with the value '192.168.2.6', 'Port' with '8443', 'Discover service' with a Wi-Fi icon, and a checked checkbox for 'Enable offline operation'. A section titled 'Available peripherals' contains six checked checkboxes: Face, Finger, Iris, Keyboard, Barcode, and RFID. Below this are two text input fields: 'Login Name' with 'admin' and an empty 'Password' field. At the bottom is a blue 'Save' button with a floppy disk icon.

Figure 115: Remote connection settings

4.1.2 Available peripherals

You can have select the required peripherals to perform check-in/check-out user events with NCheck Android client by selecting the peripherals from the available peripheral list. Currently NCheck Android client has supported 6 peripherals including Face, Finger, Iris, Keyboard, Barcode and RFID.

This is a close-up of the 'Available peripherals' section from the settings screen. It shows a list of six peripherals, each with a checked checkbox: Face, Finger, Iris, Keyboard, Barcode, and RFID.

Figure 116: Available peripherals

4.1.3 Authentication

To complete the connection with remote or local server with configured peripherals you have to authenticate the NCheck Android client by providing the password.

1. Login name – Enter the login name for server configuration.
2. Password – Enter the password.
3. Save – Complete the connection configuration settings.



The image shows a user authentication interface. It consists of a light gray rectangular box containing two input fields and a button. The first input field is labeled 'Login Name' and contains the text 'admin'. The second input field is labeled 'Password' and is empty. Below these fields is a blue button with the text 'Save' and a small black floppy disk icon. Three green boxes with numbers 1, 2, and 3 are positioned to the left of the form. A line connects box 1 to the 'Login Name' label, box 2 to the 'Password' label, and box 3 to the 'Save' button.

Figure 117: Authentication

4.2 External scanner

External scanner configuration is used to configure 3rd party fingerprint scanner plugins. These plugins are developed by using NCheck SDK.

1. Enter the scanner plugin id.

Configure - Complete the configuration of external scanner.

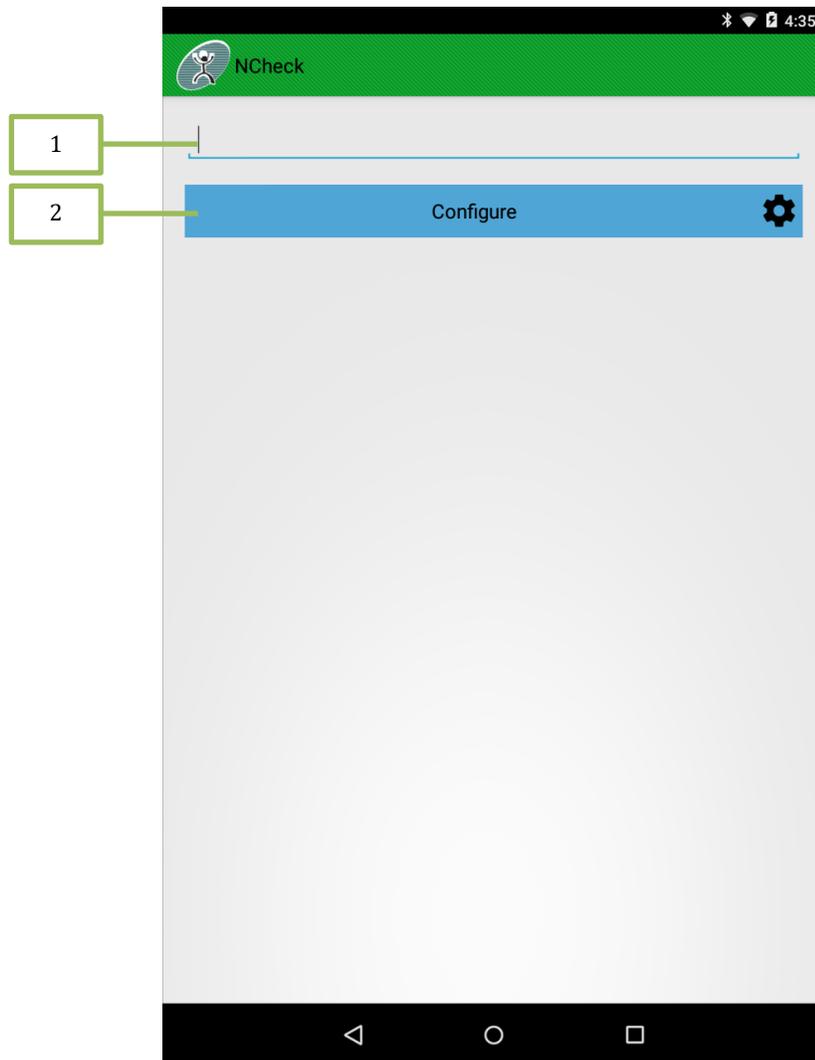


Figure 118: Local connection settings

Note: NCheck SDK provides Android API for develop an Android service and integrate with NCheck Android to control and capture fingerprint using third party fingerprint scanners. For more details unzip the “*NCheckSDK.zip*” file in NCheck installation directory and read the “NCheck Android 3rd Party Fingerprint Scanner Integration Manual.docx” at “*NCheckSDK\API\Doc\Android*”.

5. Control Panel

Control panel can be started by selecting the Control panel option in the NCheck Client option menu. You have to provide NCheck admin user/power user authentication details to log in to Control Panel. User can be logged out from control panel by pressing the back button or by pressing Logout button on the Control panel screen.

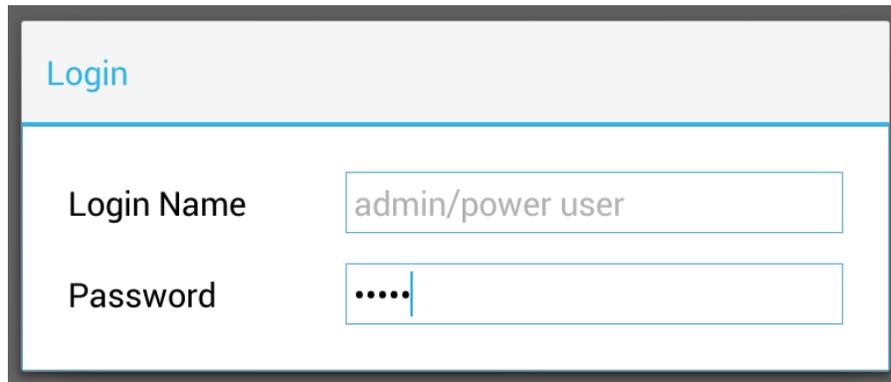


Figure 119: Control panel login

Control panel have following tabs.

1. *Users* – Manage NCheck users.
2. *User Groups* – Mange user groups.
3. *Shifts* – Manage user shifts.
4. *Attendance* – View and manage employee attendance records.
5. *Reports* – Reporting facility including employee worked hours and attendance logs.
6. *Settings* - Configure the Attendance system parameters.

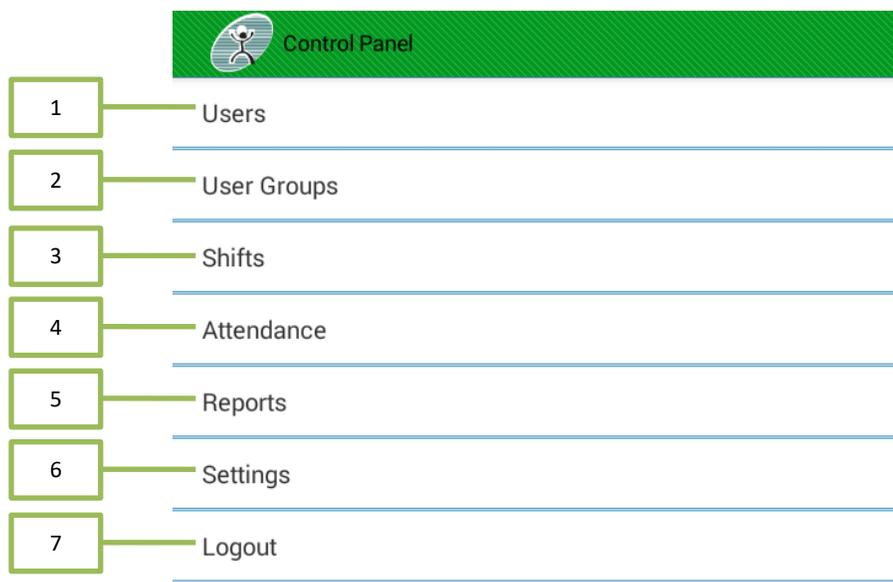


Figure 120: Control panel menu

5.1 Users

Users tab displays NCheck Bio Attendance system users and provides options to manage them. It has following features.

1. *Add new users* – Add new user.
2. *Search* – Search users.
3. *Users* – Shows available users.
 - 3.1 *Status indicator* - Shows whether the user is checked in or out.

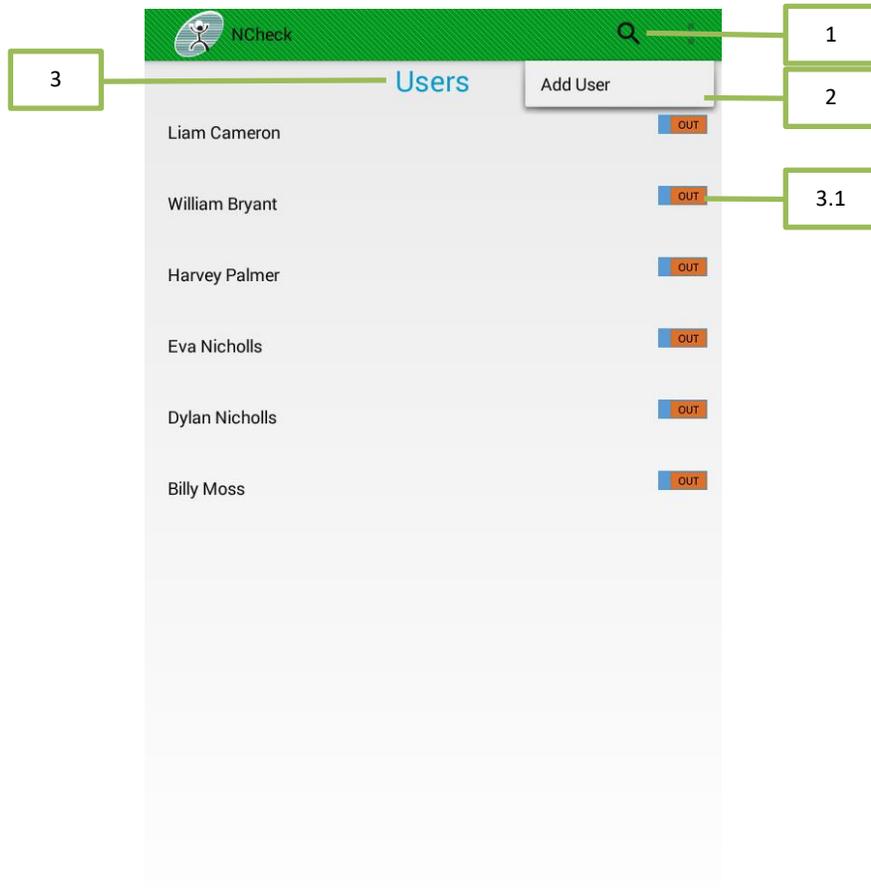


Figure 121: Users list

5.1.1 Manage users

User Management form can be used to change the details or delete user.

5.1.1.1 Add User

Add new user and enroll user biometric to the system.

1. Profile Picture - Select to set a profile picture. (Optional). It will provide an option dialog to select
 - 1.1. *Capture* - Capture a photo using native camera app.

- 1.2. *From File* - Select a photo by browsing file system.
2. *First Name* - Enter first name of the user.
3. *Last Name* - Enter last name of the user.
4. *Login Name* - Login name should be unique. It will be verified once the save button pressed.
5. *Employee ID* - Enter employee ID.
6. *Email* - Email address of the user (Optional).
7. *Status* - Use switch to set user blocked or unblocked.
8. *Enable Password Login* - Enable or disable password login. Allows empty password.
9. *Password* - Enter password to use in username, password login (Optional).
10. *Confirm password* - Confirm the password.
11. *Barcode*- Launch capture barcode screen to capture barcode data for enrollment
12. *RFID*- Launch capture RFID screen to capture RFID data for enrollment.
13. *Biometric* - Press the button to expand/collapse the biometric template view. From the view templates can be attached to or detached from the user.
14. *Save* - Add the user and attach the added templates.

NCheck

User Management



1

First Name

2

Last Name

3

Login Name

4

Employee ID

5

Email

6

Status Active

7

Password

8

9

10

Confirm

 Barcode

11

Scan

 RFID (NFC)

12

Scan

Biometric

13

14

Save 

Figure 122: Add user

5.1.1.1.1 Barcode Scanning

Camera is started to scan the barcode and Android Play Services are used to decode the barcode. Present the barcode in front of the camera to scan a barcode. When barcode capturing is completed capture barcode screen is closed and populate barcode data in the Add/Edit user screen.

1. Switch camera – Toggle the camera between front camera and back camera.
2. Camera preview

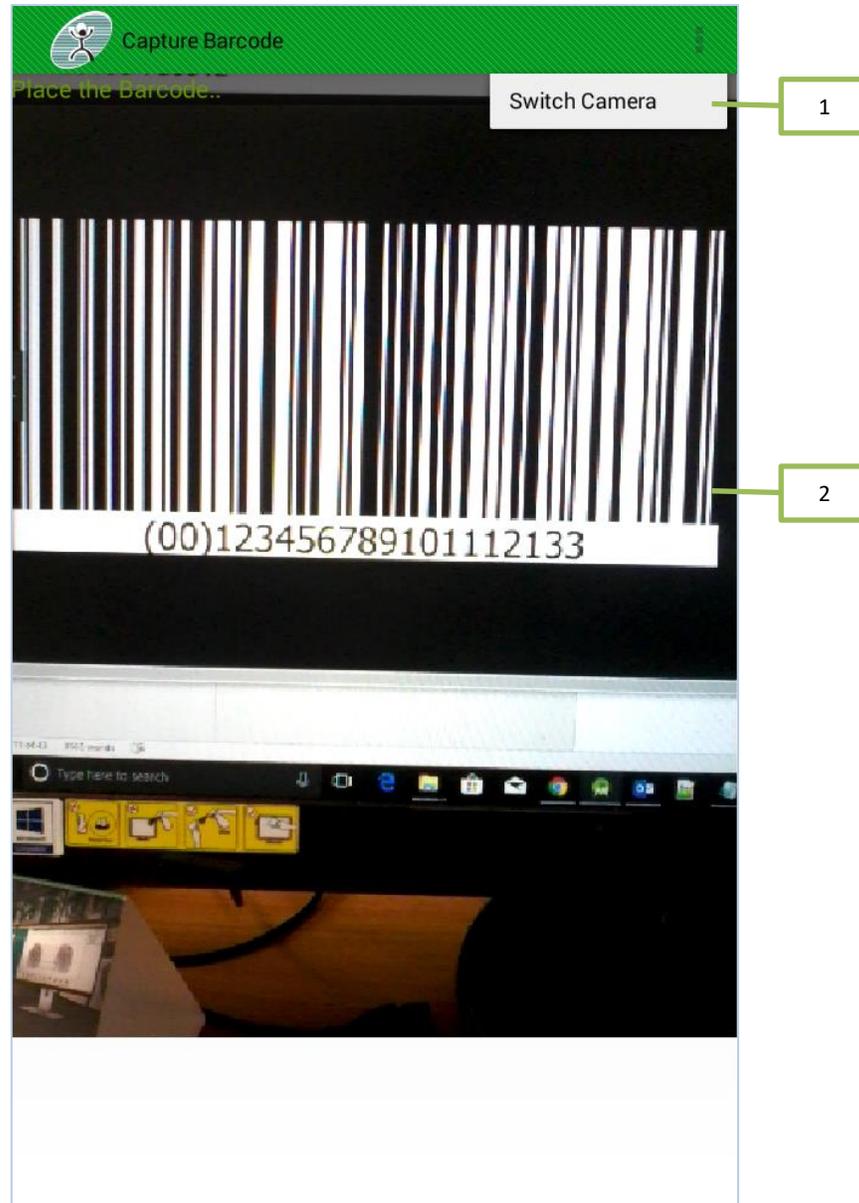


Figure 123: Barcode scanning

5.1.1.1.2 RFID scanning

Android client uses near field communication (NFC) for capturing RFID. Present RFID tag to capture RFID tag data. When capturing RFID is completed, capture RFID screen is closed and populate RFID data in the Add/Edit user screen.



Figure 124: Capture RFID for enrollment

5.1.1.2 Edit User

Edit existing users in the system.

1. *Save* - Update the changes to the user details
2. *Remove* - Delete the user from the system.
3. *Block user* – When user is active user can perform check-in and check-out. If User is blocked, user cannot check in or checkout

Note: If the user has active records in the system, then it is not possible to delete the user. Remove operation will give a suggestion to block the user instead of delete the user

The screenshot shows the 'User Management' interface in the NCheck application. The user being edited is Billy Moss. The form contains the following fields and options:

- First Name: Billy
- Last Name: Moss
- Login Name: Billy
- Employee ID: Optional
- Email: Optional
- Status: Active (indicated by a blue bar and callout box 3)
- Password
- Password: (input field)
- Confirm: (input field)
- Biometric: (dropdown menu with a downward arrow)
- Save: (button, callout box 1)
- Remove: (button with a trash icon, callout box 2)

Figure 125: Edit user

5.1.1.3 Adding Biometric Data

1. *Capture face* - Capture new face using the camera.
2. *Add face from history* - Add face from the unidentified faces in the history.
3. *Capture finger*- Capture new finger image from fingerprint scanner.
4. *Add finger from history* - Add finger from unidentified fingerprints in the history.
5. *Capture iris*: Capture new iris using the iris scanner.
6. *Add iris from history*: Add iris template from unidentified iris.

7. Delete – Delete Biometric.

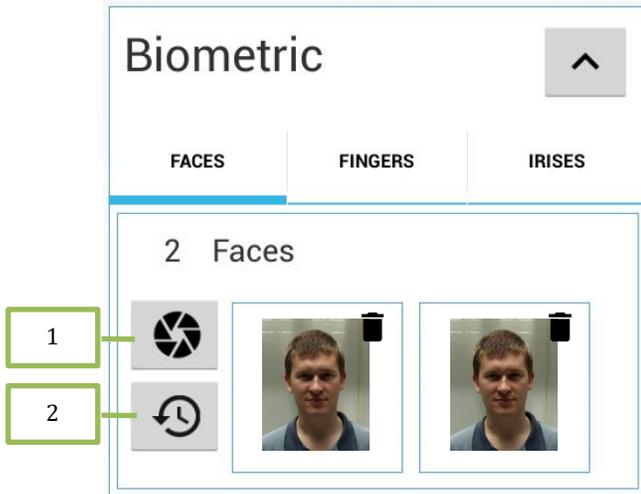


Figure 126: Add biometrics - Faces

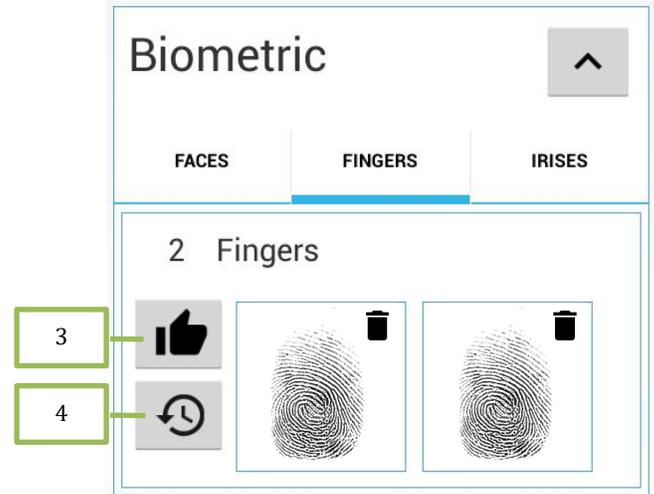


Figure 127: Add biometrics - Fingers

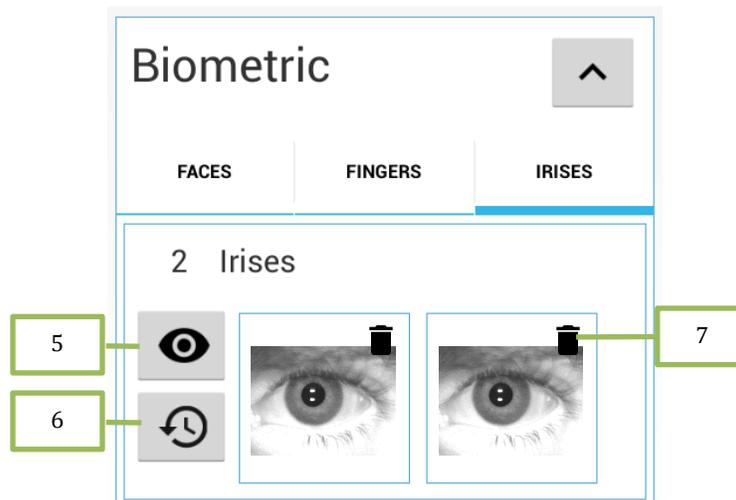


Figure 128: Add biometrics - Irises

5.1.1.3.1 Capture face

User can capture faces using the camera. While user is faced to the camera, press the *Capture* button to capture face from camera. Captured face will be added to the new faces list.

1. *Select Camera* – Select camera to be used for capturing faces.
2. *Capture* – Start detecting faces and capture face picture.
3. *Confirm* - Confirm to add the face.
4. *Cancel* - the operation.

5. Remove – Remove captured image from the list.

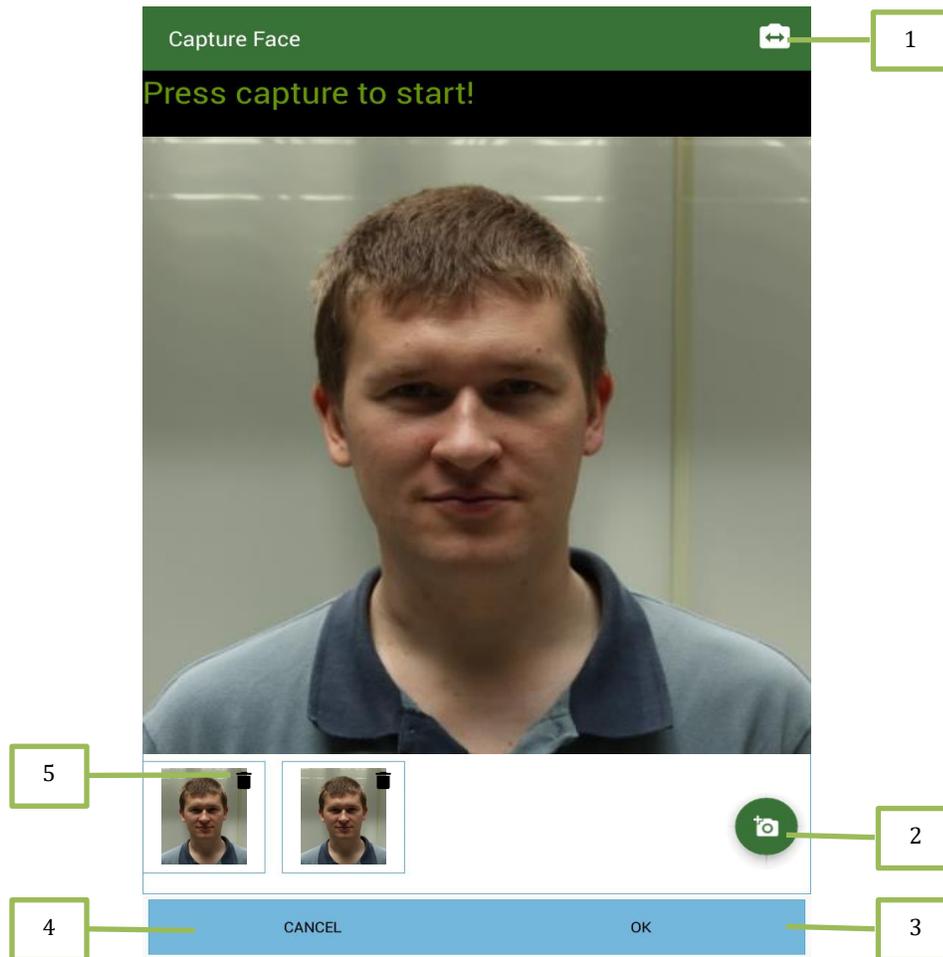


Figure 129: Capture face

5.1.1.3.2 Add face from history

Unidentified faces will be loaded to the list and required faces can be selected by using check box on required image.

1. *Select* – Select face
2. *Cancel* – Ignore selections and go back
3. *OK* – Add selected faces

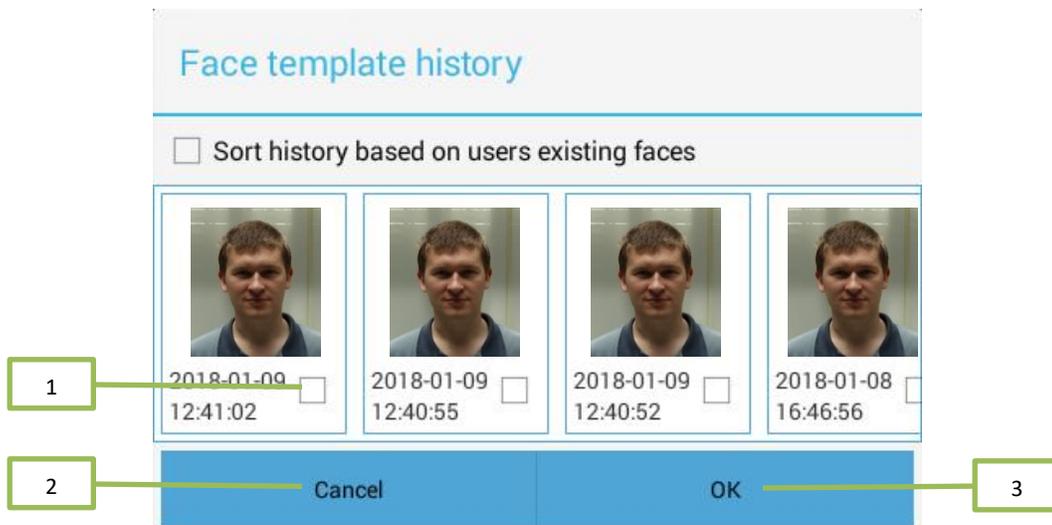


Figure 130: Add face from history

5.1.1.3.3 Scan finger

User can scan finger using the fingerprint scanner. First press scan then placed the finger on fingerprint then automatically scanned the finger. Scanned finger will be added to the new fingers list. To remove a scanned image from the list, press remove button at the right top of the image.

1. *Select the fingerprint scanner*
2. *Remove scanned fingerprint*
3. *Cancel operation*
4. *Confirm the images*

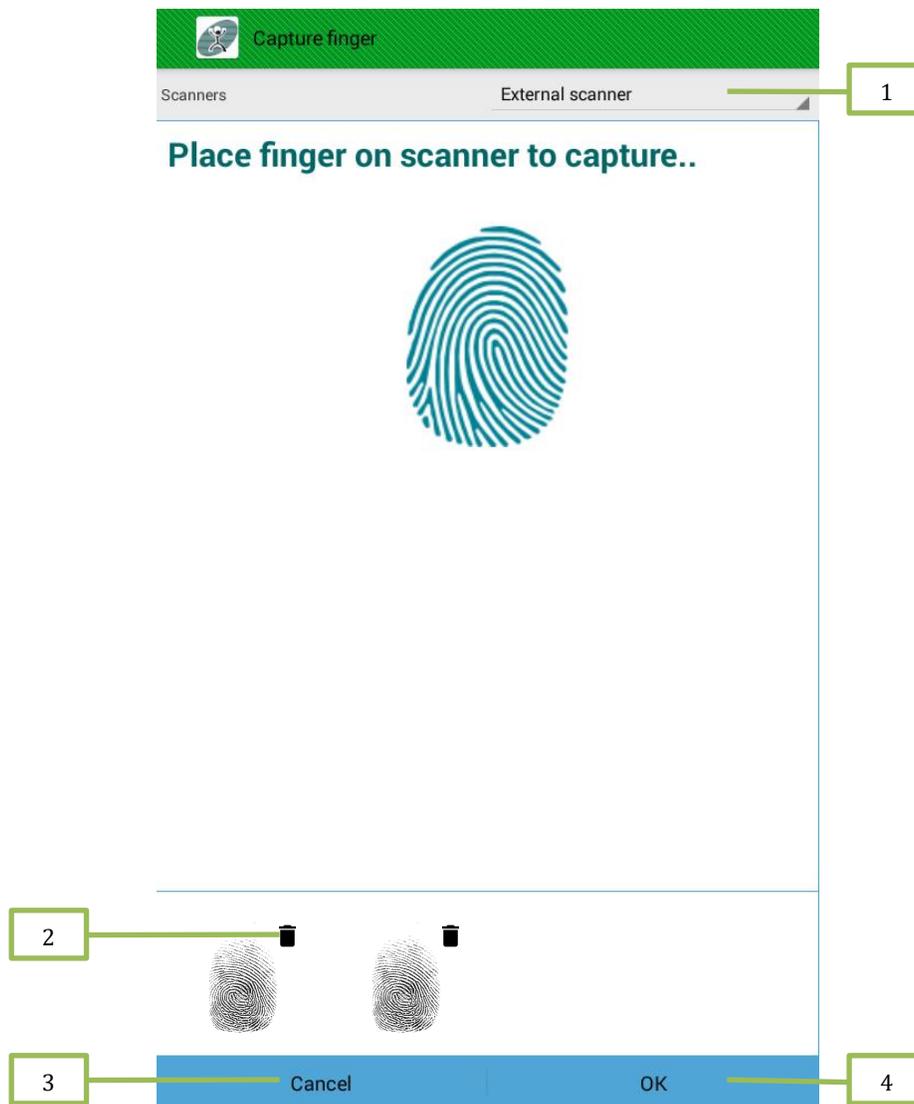


Figure 131: Scan finger

5.1.1.3.4 Add finger from history

Unidentified fingerprint will be loaded to the list and required fingerprints be selected by using check box on required image.

1. *Select the required fingerprints.*
2. *Cancel* - Cancel the operation.
3. *Save* - Save the selection.

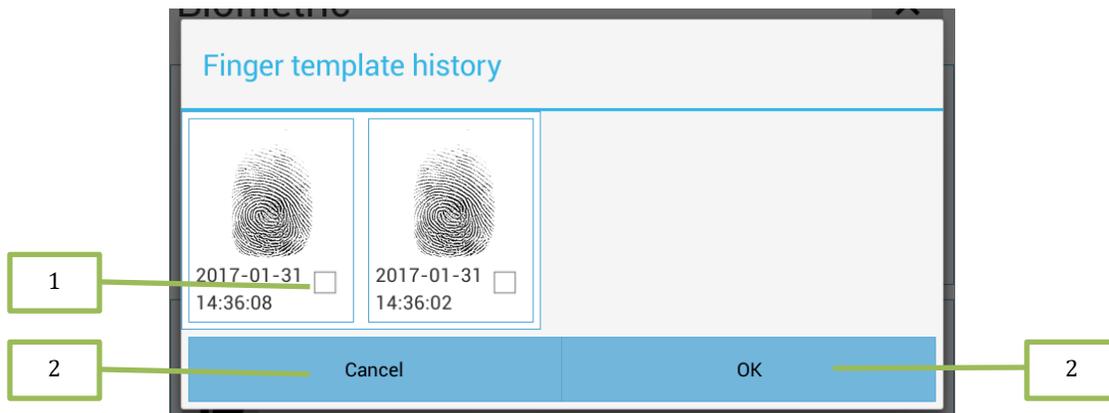


Figure 132: Add fingers from history

5.1.1.3.5 Scan iris

User can capture iris using the iris scanner. First press capture button then scan an iris from iris scanner then automatically captured the iris. Captured iris will be added to the new iris list. To remove a captured image from the list, press remove button at the right top of the image.

1. Start capture.
2. *OK* - Confirm the images.
3. *Cancel* - Cancel operation.
4. Remove captured image.

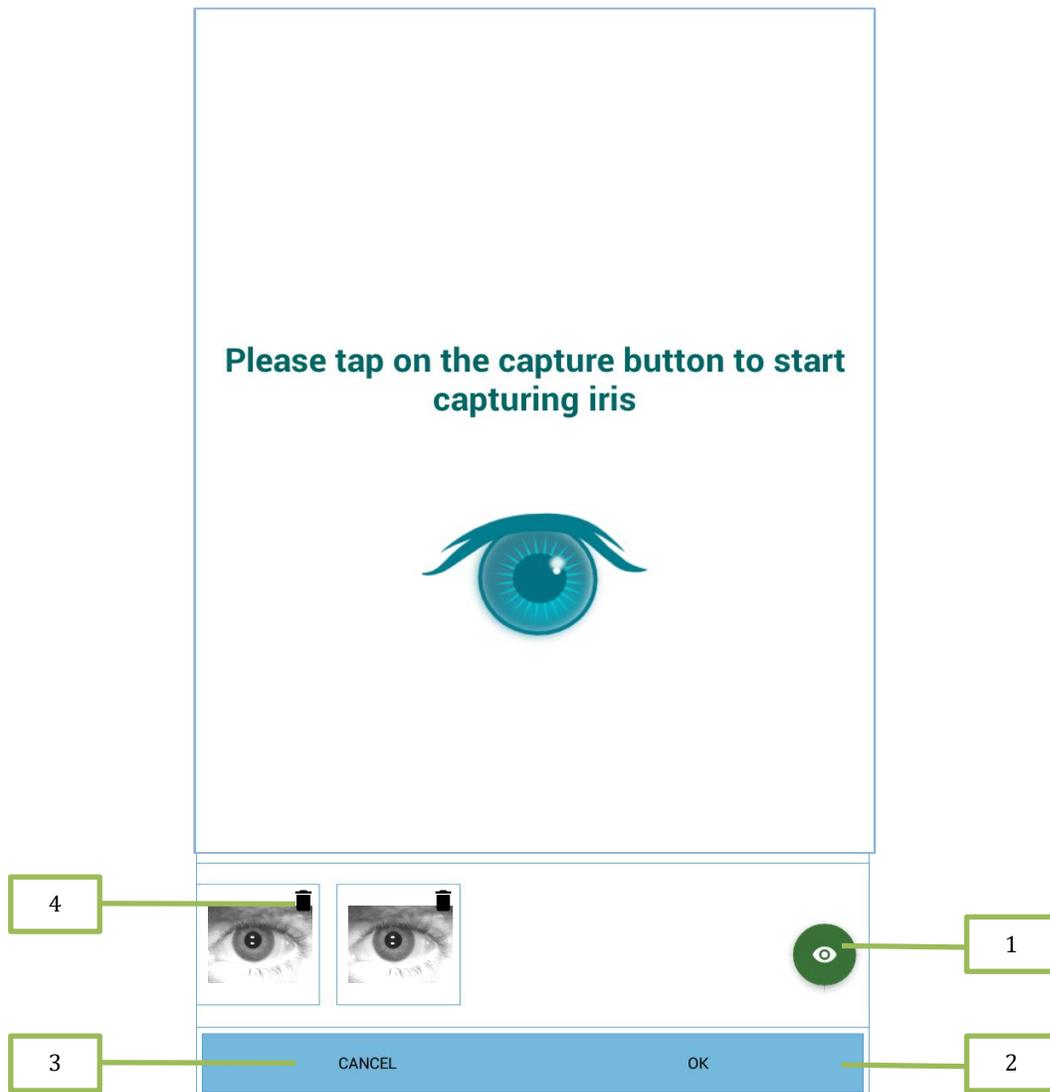


Figure 133: Add Iris

5.1.1.3.6 Add iris from history

Unidentified irises will be loaded to the list and required irises can be selected by using check box on required image.

1. Select the required irises.
2. *Cancel* - Cancel the operation.
3. *OK* - Save the selection.

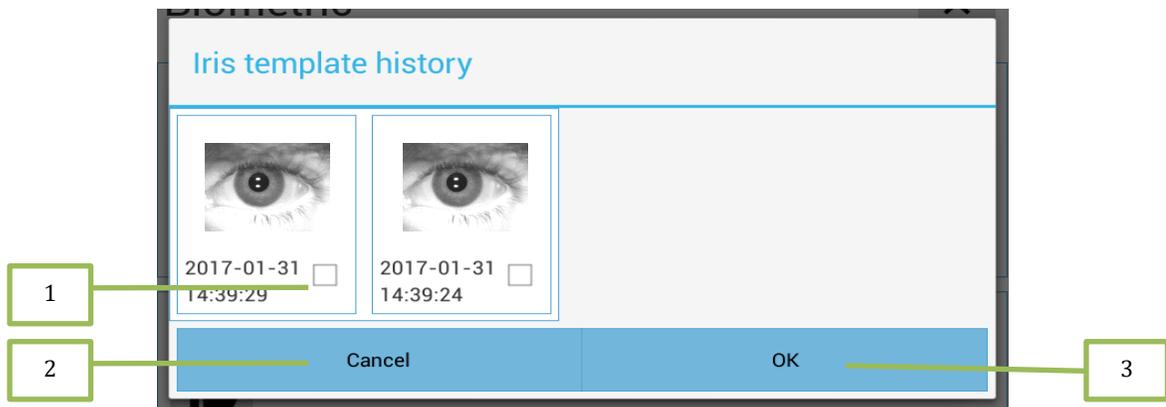


Figure 134: Add irises from history

5.2 User Groups

User group details of the system can be check with *User Groups* tab. You can create a group and can assign employees to the group.

1. *Add* - Add new user group.
2. *User Group* – Shows available user groups.

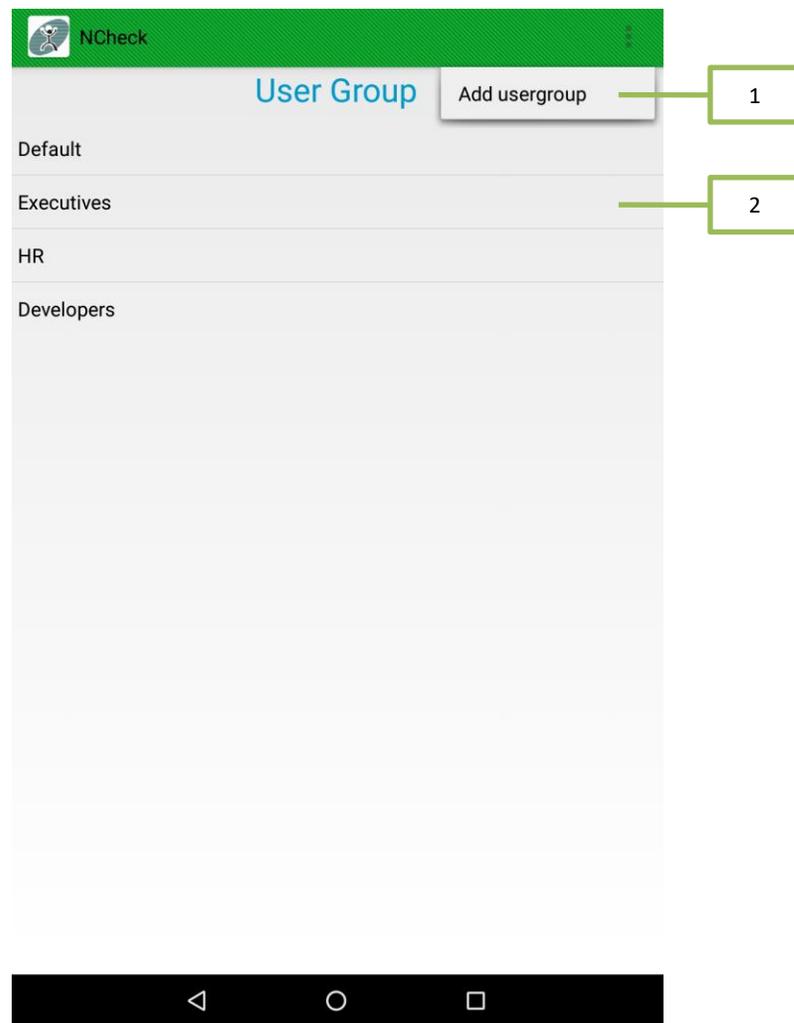


Figure 135: User groups

5.2.1 Add or Edit User Group

Adding and editing user groups can be used to provide a name and a description to a user group. It can also be used to add/ remove users from the group.

1. *Name* - User group name.
2. *Description* - User group description.
3. *Add/Remove user* - Attach or detach user to the user group.
4. *Save* - Update the changes of existing user group or create a new user group.
5. *Remove* - Delete the user group.

NCheck

User group management

Name: Developers

Description: Developers user group

Users

Search

Liam Cameron	<input checked="" type="checkbox"/>
William Bryant	<input checked="" type="checkbox"/>
Harvey Palmer	<input type="checkbox"/>
Eva Nicholle	<input type="checkbox"/>

Save Remove

Figure 136: Add/Edit user

5.3 Shifts

Shift tab represents the shifts available in the system. You can create a shift and assign groups to the shift. Shift tab allows following operations.

1. *Add* - Create new shift.
2. *Shifts* - Show available shifts.

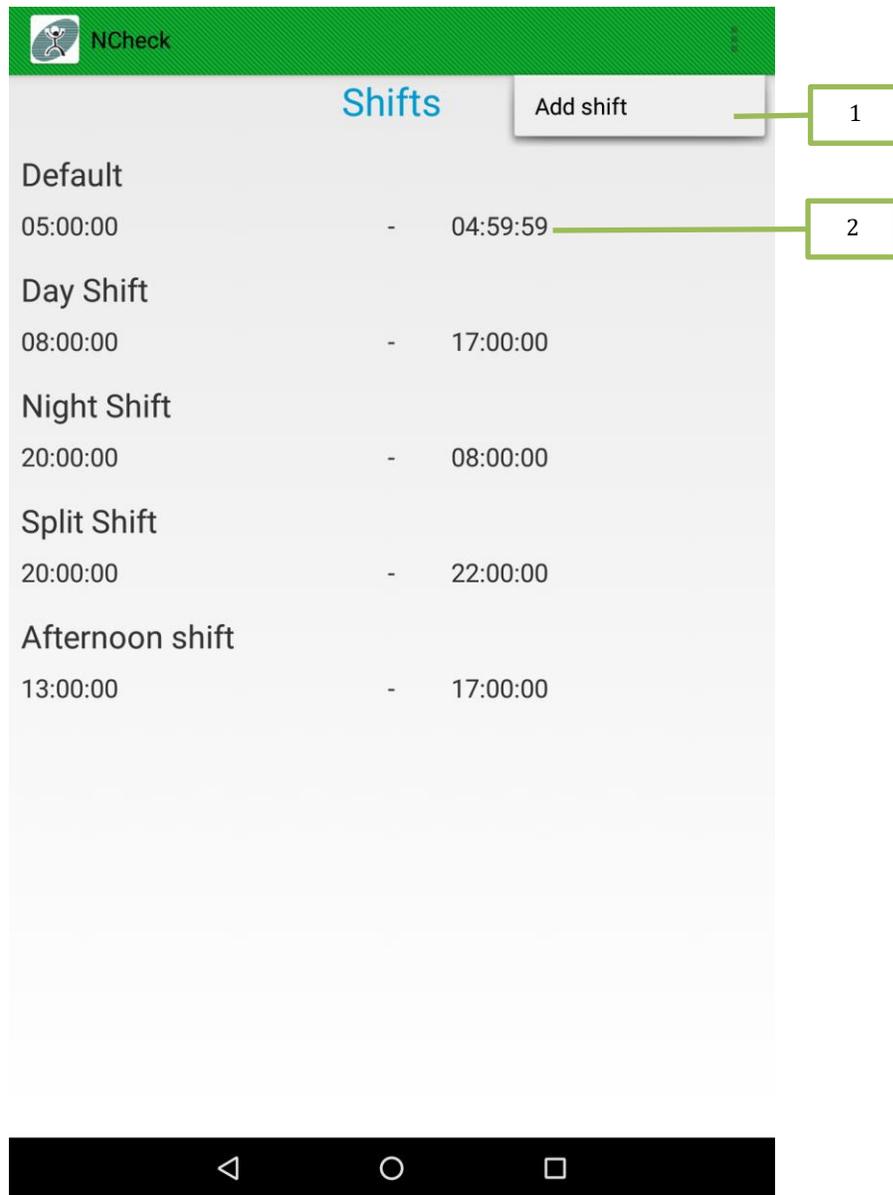


Figure 137: Work shifts

5.3.1 Add or Edit Shift

Shift management window provides following functionality.

1. *Name* - Shift name.
2. *Time range* – Specify the start time and end time.
3. *Minimum hours* - Specific work hours a user should cover in this shift.
4. Optional settings
 - 1.1. *Restrict check in* - User can define specific time interval for the check in. If you uncheck this option check in time is not restricted.
 - 1.2. *Restrict check out* - User can define specific time interval for the check out. If you uncheck this option check out time is not restricted.

- 1.3. *Restrict overtime* - User can define specific time interval for the overtime. If you uncheck this option, over time hours are not restricted.
5. *Apply changes to previous logs* -When saving changes, it can be applied to the previously logged events with the same shift.
 - 5.1. The date to which extent the changes should be applied will be selected from the button.
6. *Save* - Update the modification of existing shift or save the new shift.
7. *Remove* -Remove the existing shift.

NCheck

Shift management

1 Name

2 Time range: -

3 Minimum hours:

4 **Optional Settings**

4.1 Restrict check-in -

4.2 Restrict check-out -

4.3 Restrict overtime -

Apply Settings

5 Apply changes to previous logs

5.1

6

7

Figure 138: Add/Edit Shift

5.3.2 Assign User Groups and Choose Schedule

1. The expand button will expand or collapse the schedule view.
2. User groups can be assigned with schedule by selecting the days which the shift needs to be applied.

Note: Assign User Groups and Choose Schedule is only available on Local (standalone) mode of NCheck Android client.

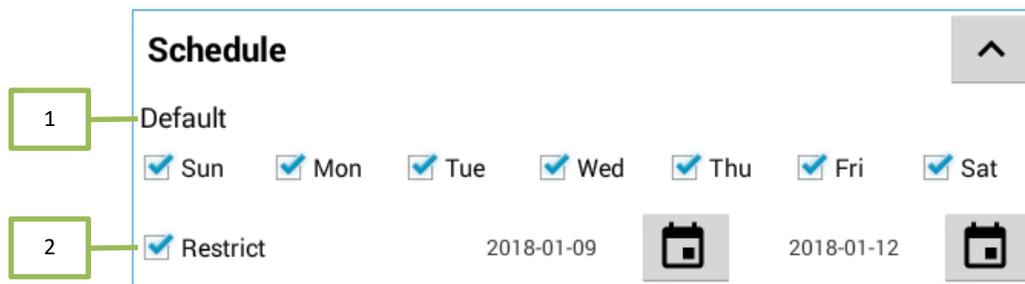


Figure 139: Scheduling shifts

5.4 Attendance

Attendance details of employees can be managed with Attendance Management of the control panel. You can add/edit/delete attendance records if any inaccuracy records are occurred. Attendance management has following sections.

1. *Filter* - Filter attendance record.
 - 1.1. *Shift* - Filter by shift.
 - 1.2. *User* - Filter by user name.
 - 1.3. *Date* - Filter by date.
2. Filter records
3. Add event - Add new attendance record
4. Reevaluate - Reevaluate the user status according to changes made in to the event log. It will reevaluate the shift and date for a particular event log and rearrange them if inconsistencies found.

The screenshot shows the NCheck application interface. At the top, there is a green header with the NCheck logo. Below the header, there is a filter section with the following elements:

- 1**: Filter Eventlogs (header)
- 1.1**: Shift (dropdown menu, currently set to All)
- 1.2**: User (dropdown menu, currently set to All)
- 1.3**: Date (calendar icon, currently set to 09 January 2018)

Below the filter section, there is a table titled "Event Logs" with the following data:

Name	Date	Event Type	Status
Liam Cameron	2018-01-09 12:41:36	Check-in	Valid
Liam Cameron	2018-01-09 12:41:43	Check-out	Valid
Billy Moss	2018-01-09 14:19:23	Check-in	Valid
Billy Moss	2018-01-09 14:21:56	Check-out	Valid

At the bottom of the interface, there are two buttons:

- 3**: Add event
- 4**: Reevaluate

Figure 140: Attendance records

5.4.1.1 Calendar view of event logs

1. Select the month.
2. Daily event status - Each cell will indicate whether there is an error event or not. By selecting the cell, the event log will be filtered and shown only for that date.
 - 2.1. Green - No error events.
 - 2.2. Red - One or more error events.
 - 2.3. Ash - No events.

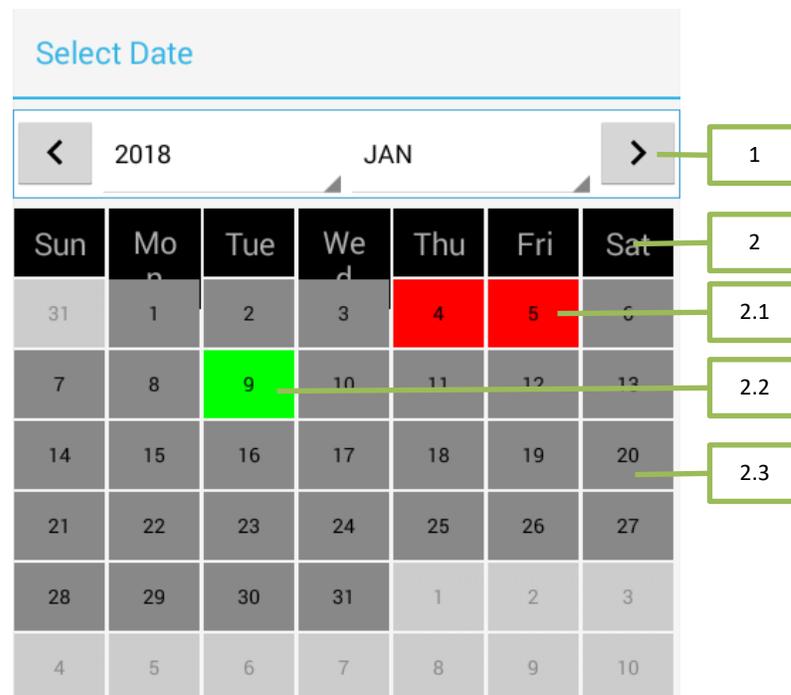


Figure 141: Calendar view

5.4.2 Add or edit attendance record

1. *Shift* - Shift of the record.
2. *User* - User of the record.
3. *Select event type* - Select event type. Possible values are *Check in* or *check out*.
4. *Time* - Event time.
5. *Date* - Event date.
6. *Image* - Captured image from the event.
7. *Description* - Description of the event.
8. *Save* - Save the details of new record or the changes in the existing records.
9. *Remove* - Delete the selected record from the system.

Note: Shift and User fields can't be changed after added or from existing records.

The screenshot shows the 'Time attendance record' form in the NCheck application. The form is titled 'Time attendance record' and is set against a green header with the NCheck logo. The form fields and their corresponding callout numbers are as follows:

- Shift:** A dropdown menu currently showing 'Default', with callout 1 pointing to the dropdown arrow.
- User:** A dropdown menu currently showing 'Billy Moss', with callout 2 pointing to the dropdown arrow.
- Event Type:** Two radio buttons: 'Check-in' (selected) and 'Check-out', with callout 3 pointing to the 'Check-out' option.
- Event Time/Date:** Two input fields: 'Time' (14:19:23) and 'Date' (2018-01-09). Callout 4 points to a clock icon next to the time field, and callout 5 points to a calendar icon next to the date field.
- Employee Photo:** A photo of a man in a blue polo shirt, with callout 6 pointing to the photo area.
- Description:** A text input field, with callout 7 pointing to the text area.
- Buttons:** At the bottom, there are two buttons: 'Save' (callout 8) and 'Remove' (callout 9), each with a corresponding icon (a floppy disk and a trash can).

Figure 142: Add/Edit attendance record

5.5 Reports

Employee working details report can be generated from NCheck Control panel. Reports can be viewed, or exported to CSV file. It can also group by daily, weekly and monthly.

5.5.1 Total Worked Hours Report

1. *Group by* - Select the option to group the report rows.
2. *Date Range* - Select date range for report generation.
 - 2.1. *From* - Select the start date for report generation.
 - 2.2. *To* - Select the end date for report generation.
3. *Filter* - Filter report data.
 - 3.1. *Shift* - Filter data by shift.
 - 3.2. *User Group* - Filter data by user group.
4. *Generate* - Generate report.

The screenshot shows the 'NCheck' interface for generating a report. It has a green header with the 'NCheck' logo. Below the header, there are four main sections, each with a numbered callout box on the left:

- 1 Group By:** Contains three radio buttons: 'Daily', 'Weekly', and 'Monthly'. The 'Monthly' option is selected.
- 2 Date Range:** Contains two date pickers. The first is labeled 'From' and has the date '1.12.2017'. The second is labeled 'To' and has the date '25.1.2018'. Each date picker has a calendar icon to its right.
- 3 Filter:** Contains two dropdown menus. The first is labeled 'User Group' and has 'All' selected. The second is labeled 'Shift' and has 'All' selected. Both dropdowns have a downward arrow icon to their right.
- 4 Generate:** A blue button with the text 'Generate' and a circular refresh icon to its right.

Figure 143: Generate report

Generate report will generate the report and show in report view. Report view can be user id to

1. Export the report the CSV file.
2. Scroll view to display generated report.
3. Page buttons to navigate between pages.

Name	Start Date	End Date	Worked Hours	OT Hours
William Bryant	2018-02-01	2018-02-01	00:00:00	00:00:00
William Bryant	2018-02-02	2018-02-02	00:00:00	00:00:00
William Bryant	2018-02-03	2018-02-03	00:00:00	00:00:00
William Bryant	2018-02-04	2018-02-04	00:00:00	00:00:00
William Bryant	2018-02-05	2018-02-05	00:00:00	00:00:00
William Bryant	2018-02-06	2018-02-06	00:00:00	00:00:00
William Bryant	2018-02-07	2018-02-07	00:00:00	00:00:00
William Bryant	2018-02-08	2018-02-08	00:00:00	00:00:00
William Bryant	2018-02-09	2018-02-09	00:00:00	00:00:00
William Bryant	2018-02-10	2018-02-10	00:00:00	00:00:00
William Bryant	2018-02-11	2018-02-11	00:00:00	00:00:00
William Bryant	2018-02-12	2018-02-12	00:00:00	00:00:00
William Bryant	2018-02-13	2018-02-13	00:00:00	00:00:00
William Bryant	2018-02-14	2018-02-14	00:00:00	00:00:00
William Bryant	2018-02-15	2018-02-15	00:00:00	00:00:00

Figure 144: Total work hours report

5.5.1.1 Export report to CSV

By pressing the CSV button and giving the file name the generated report will be stored into a CSV file.

1. Select the location.
Give a name for file.
Save the file

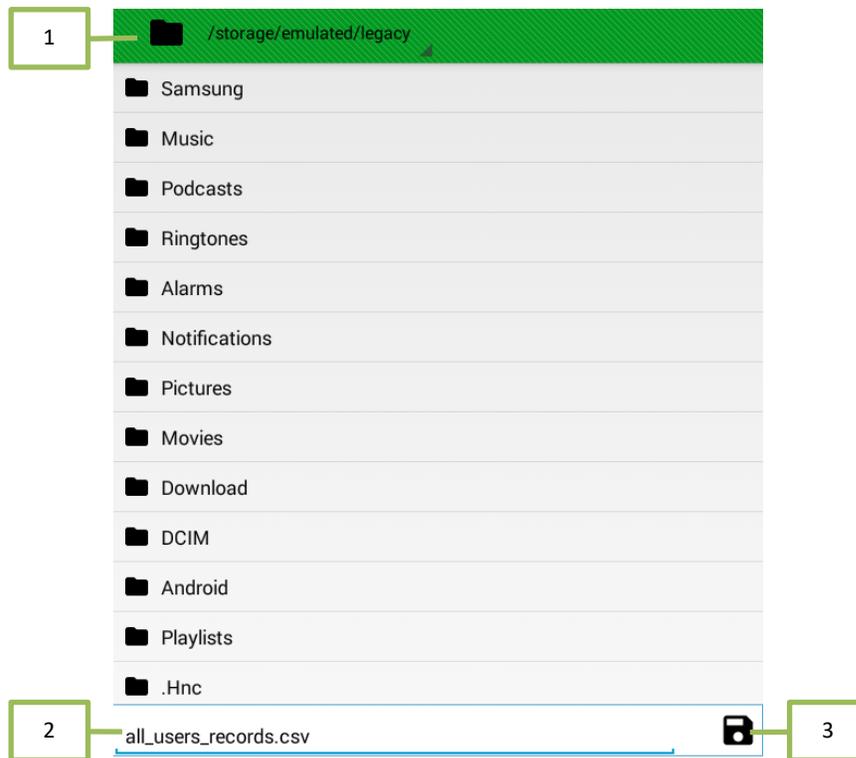


Figure 145: Export to CSV

5.6 Settings

User can configure the *Application parameters* from the Settings activity.

1. Settings Selection Tabs
 - 1.1. *Report* - Report settings.
 - 1.2. *Client* - NCheck Android client mode settings.
 - 1.3. *Miscellaneous* - Template quality and timeout settings.
 - 1.4. *Administrator* - NCheck admin user settings.
2. Settings panel.
3. Save - Save changes.

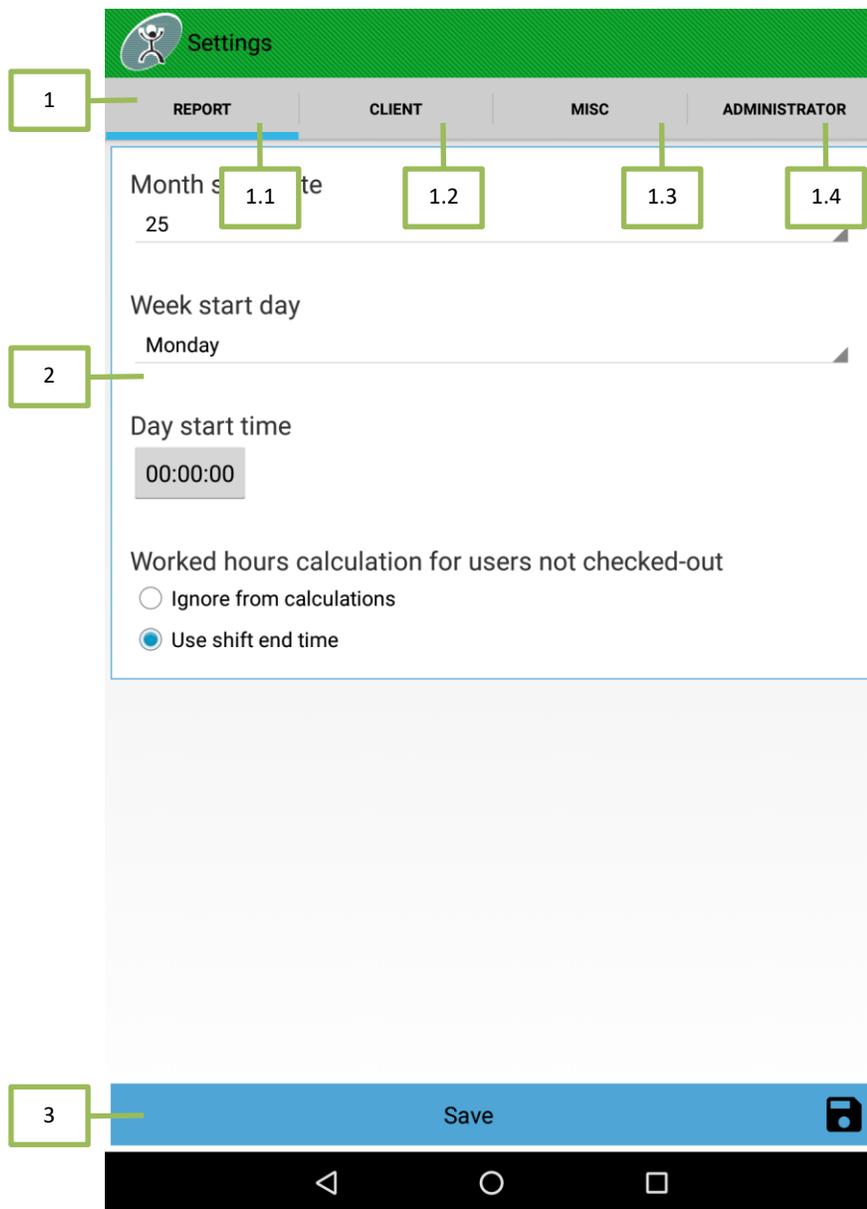


Figure 146: Settings

5.6.1 Report Settings

This window allows to change below reporting specific parameters.

1. *Month start date* – Start date of the month in calculating monthly reports.
2. *Week start day* – Starting day of the week in weekly report.
3. *Day start time* – Start time of the day in reports.
4. *Worked hour calculation for users not checked out* - Specify the system automatic check out correction strategy.
 - 4.1. *Ignore from calculation* – Check in without check out is ignored.
 - 4.2. *Use shift end time* – Shift end time is taken as check out time when check out is missing.

The screenshot shows the 'Settings' application with the 'REPORT' tab selected. The settings are as follows:

- 1. Month start date: 25
- 2. Week start day: Monday
- 3. Day start time: 00:00:00
- 4. Worked hours calculation for users not checked-out:
 - Ignore from calculations
 - Use shift end time

A 'Save' button is located at the bottom of the settings panel.

Figure 147: Report settings

5.6.2 Client Settings

Allow users to configure the NCheck Android client.

1. Show news – Enabling this option will show the entered user message on NCheck Android client main UI.
 - 1.1. Type the text here to show on client UI.

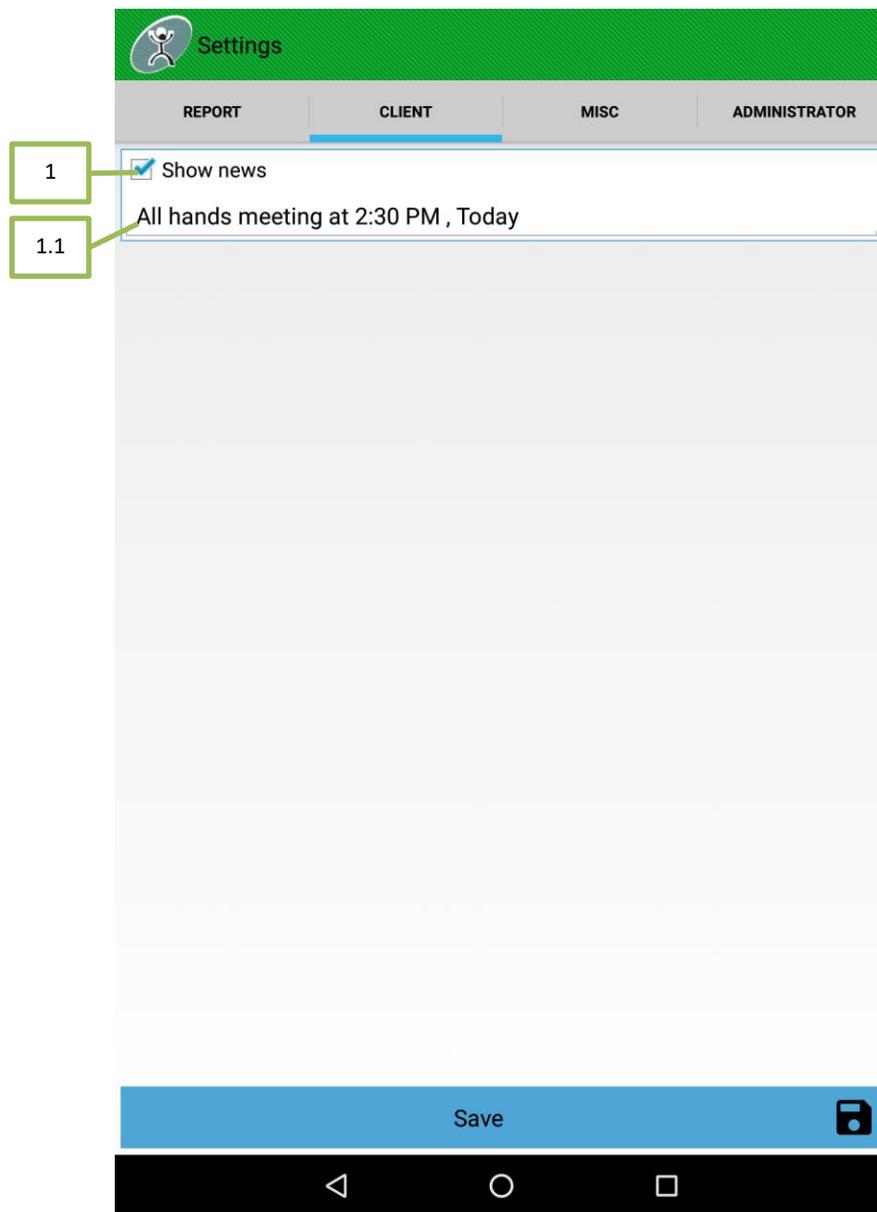


Figure 148: Client settings

5.6.3 Misc Settings

1. User attendance: User can configure event logs and expire time for the logged images
 - 1.1. Allows to keeping check in and check out image of users in history – Store identified biometric images in the system history.
 - 1.2. Allows setting time out period of keeping above images in date – Valid duration for store identified biometric images.
 - 1.3. Allows to keeping unidentified user details in history - Store unidentified biometric images in the system history.

- 1.4. *Set maximum unidentified user count to keep in history* – Number of different users allowed in unidentified images in history.
- 1.5. *Set time out period of keeping unidentified images in history* - Valid duration for store unidentified biometric images.
2. *Users - Automatically check out users at end of the day* – Automatically check out checked in users at the end of the day.
 - 2.1. *Set interval between a check in and check out for a user for face login* – Check in Minimum duration between two consecutive face login of same user to avoid accidental event recoding in face login.
3. *Biometric settings* – Configures biometric settings
 - 3.1. *Face Liveness Mode* – Set face liveness checking mode. Possible modes are “None”, “Passive”, “Active”, “PassiveAndActive”, “Simple” and “Custom”.
 - 3.1.1. *None* - In this mode face liveness check is not performed.
 - 3.1.2. *Passive* - In this mode user should hold his head still for a few seconds. Face recognition algorithm calculates the score and checks if the face is live.
 - 3.1.3. *Active* - In this mode user should follow the commands on the screen by moving his head or blinking eyes. Face recognition algorithm checks if the face is live.
 - 3.1.4. *PassiveAndActive* - A sequence of passive and active liveness detection modes. Active mode is used only if passive mode fails.
 - 3.1.5. *Simple* - In this mode user should follow commands on the screen and turn face from side to side. It is simplified version of active liveness recognition.
 - 3.1.6. *Custom* - Customizable liveness action sequence. By default requires user to turn head according to instructions.
 - 3.2. *Face Liveness threshold* – Set Face liveness threshold value. Possible values are “Low”, “Medium” and “High”.
 - 3.3. *Face template size* - Choose the appropriate template size for your needs. Medium size templates give faster performance while large size templates give more accuracy.
 - 3.4. *Recognition accuracy* - Set biometric matching accuracy from lowest to high. Possible values are “Lowest”, “Low”, “Default” and “Custom”. Higher the value will use better quality biometric images for accurate matching.
 - 3.5. *Enrollment accuracy* - Set biometric enrollment accuracy from lowest to high. Possible values are “Default”, “Medium”, “High” and “Custom”. Higher the value will use better quality biometric images for user biometric enrollment.
 - 3.6. *Face confidence Threshold* - Sets the face confidence used in face is capturing. Possible values are “Default”, “Moderate” and “High”. “High” requires a camera capable of capturing good quality images.
 - 3.7. *Face Quality Threshold* - Set the face quality threshold used in face extraction. Possible values are “Lowest”, “Default (Low Quality)”, “Moderate” and “High”.
 - 3.8. *Finger Quality Threshold* - Set the finger quality threshold used in fingerprint extraction. Possible values are “Default”, “Moderate” and “High”.
 - 3.9. *Iris Quality Threshold* - Set the iris quality threshold used in iris extraction. Possible values are “Default”, “Moderate” and “High”.

Note: Under specific situations, custom values might be required for recognition and enrollment accuracies. If you encounter frequent issues in user identification, please consult support team.

Settings

REPORT CLIENT **MISC** ADMINISTRATOR

1 **User Attendance**

1.1 Keep check-in and check-out images of users in history

Time out period

1.2 30 Days

1.3 Keep unidentified user details in history

Maximum user count to keep

1.4 10 Users

Time out period

1.5 10 Days

2 **Users**

2.1 Automatically checkout users at end of the day

Interval between a check-in and a check-out for a user for face login

2.2 1 Seconds

3 **Biometric Settings**

3.1 Face liveness mode

Disabled

Passive

Active

Passive and Active

Save 

Figure 149: Misc settings

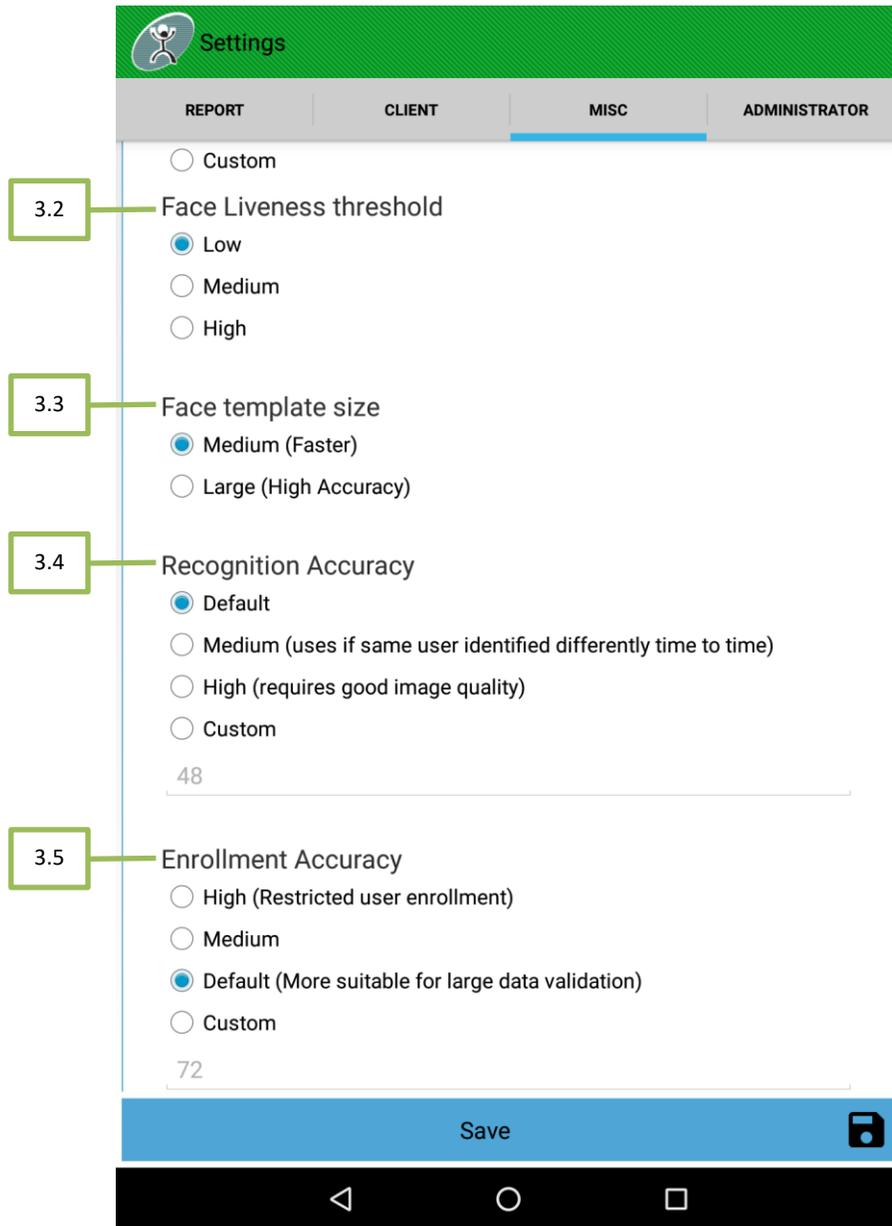


Figure 150: Misc settings continue



Figure 151: Misc settings continue

5.6.4 Administrator Settings

NCheck administrator settings provides an option to change authentication details of NCheck admin user/power user.

1. Admin user

- 1.1. *Use empty password* – When user check this use empty password, then no need of admin password for perform administrator tasks including control panel login.
- 1.2. *Current password* – Current NCheck admin password.
- 1.3. *New password* – New NCheck Admin Password.
- 1.4. *Confirm password* – Confirmation of new admin password.
- 1.5. *Save* – Save the admin account password.

2. Power user

- 2.1. Disable power user account – Power user account is disabled by default. To enable power user account, uncheck the checkbox and set the password for power user.
- 2.2. New password – New NCheck power user password.
- 2.3. Confirm password – Confirmation of new power user password.
- 2.4. Save – Save the power user account password.

Settings

REPORT CLIENT MISC ADMINISTRATOR

1 **Change password for admin account**

Use empty password

1.1 Current password

1.2 New Password

1.3 Confirm Password

1.4

1.5 Save

2 **Power user account**

Power user account enables is a different administrator account with some restrictions. Power user account does not allow changing device configuration and system settings.

Disable power user account

2.1 New Password

2.2 Confirm Password

2.3 Save

2.4

Figure 152: Administrator settings

6. NCheck Client

Main window of NCheck Android is performed as the NCheck Client. The main window will contain views for displaying face, provide interface to login through password, facilitate fingerprint login and show the identification results.

A user can try to identify by

1. Showing the face to the camera.
2. Place the finger on fingerprint reader.
3. Enter the login details.

Once a person successfully identified, the results will be shown with a working hour summary.

1. Overflow menu – Select to view the overflow menu. Overflow menu has following options.
 - 1.1. Control panel – Go to control panel screen
 - 1.2. Switch camera – Toggle front and back cameras
 - 1.3. Settings – Configure settings
 - 1.4. About – show about dialog
2. RFID indicator – If visible, RFID is working.
3. Barcode indicator – If visible, barcode is working.
4. Fingerprint indicator – If visible, fingerprint reader is connected.
5. Iris indicator – If visible, Iris scanner is connected.
6. Face rectangle will track the face.
7. Connection status indicator when on Network mode
 - 7.1. Online: Green indicator.
 - 7.2. Offline: Red indicator.
8. Current time of the client time zone.
9. Message about camera capture status.
10. Password login button: Press the button to open password login dialog.
11. Advertisement area – Show messages from server. This is use to show public notifications to employees.

Note: *RFID is not working when camera is capturing, in some Android devices. Tap on the "RFID" icon to scan RFID in such devices.*

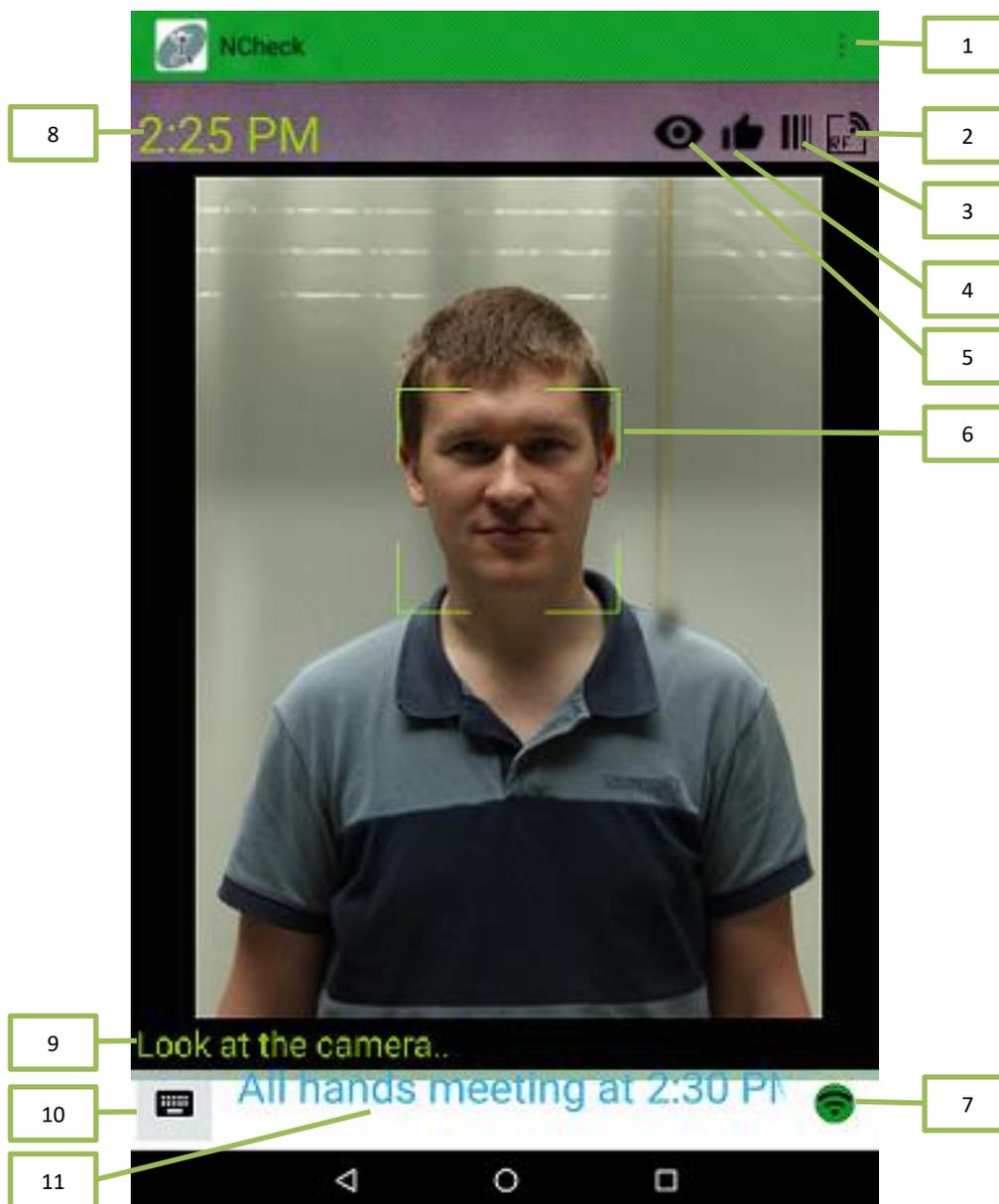


Figure 153: NCheck Android client

6.1.1 Password Login

1. *Login name* – User login name.
2. *Password* – User password.
3. Login - Verify the username and password.
4. Cancel – cancel the password login.



Figure 154: NCheck Android password login

6.1.2 Results view

Event detail – Shows check in and check out status

1. Event type – Shows event type either ccheck-in or check-out.
2. *Event Time* – Time of the event occurred.
3. *Name* – Name of the employee.
4. *Profile picture* – Profile picture. Captured image for the event is used in case of profile picture is not available.
5. *Worked hours*– Summary of work hours.
6. Cancel event – Deleted the event.

Note: Work hour summary visibility can be changed from [control panel](#)

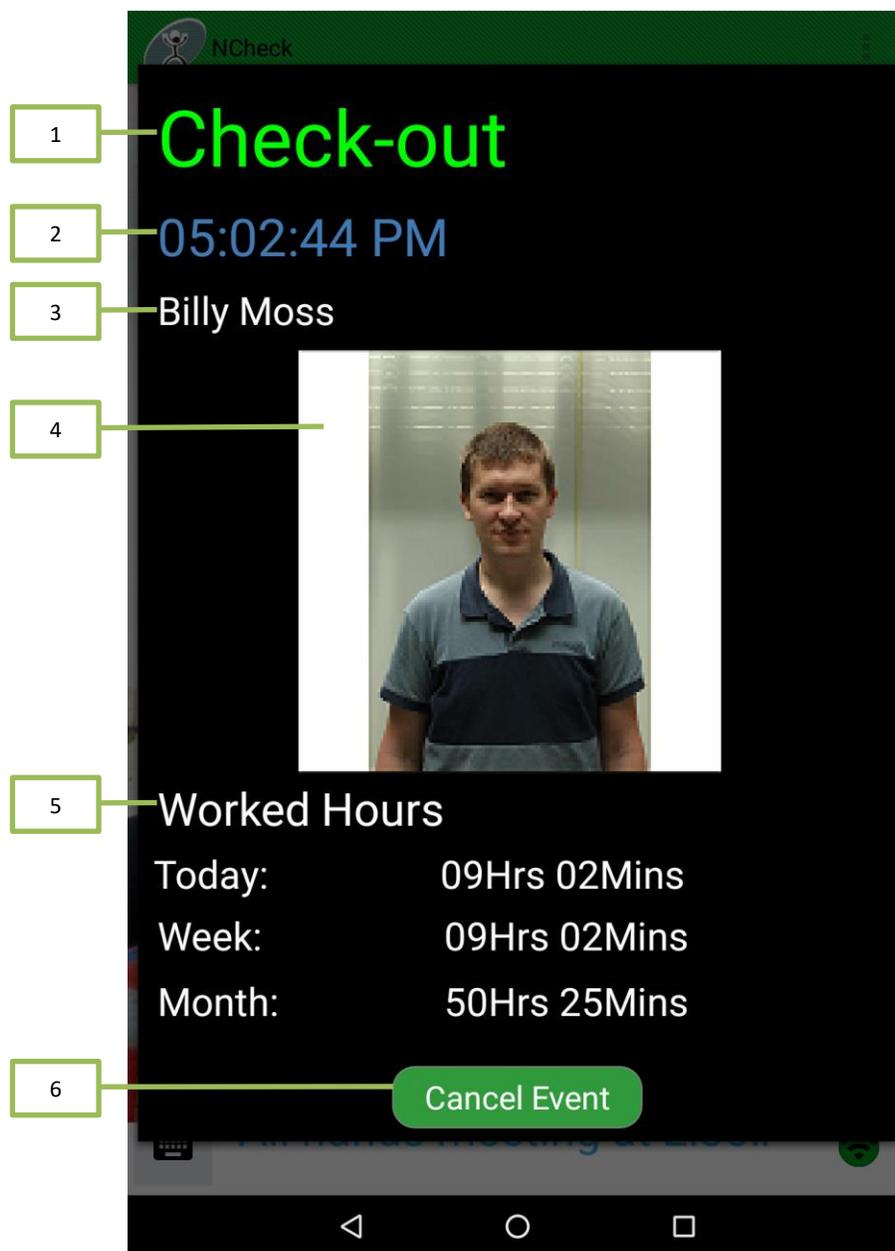


Figure 155: Result view

6.2 User List

User list is a List of users in a drawer view. You can access the user list by sliding the drawer from right side of the screen. User list also shows the number of users checked-in, checked-out and total users.

1. Total number of users.
2. Number of current checked in users.
3. Number of current checked out users.
4. The ring outside of the picture will indicate whether the person is checked in or checked out. If user is checked-in then the ring color green and if user is checked-out then the ring color is red.

5. Full name of user.
6. Last event date and time.

Note:

In portrait mode the list can be opened by swiping from right edge of the screen.

Instead of typing the login name in password login dialog a user can select his name on the user list and it will automatically fill the login name field.

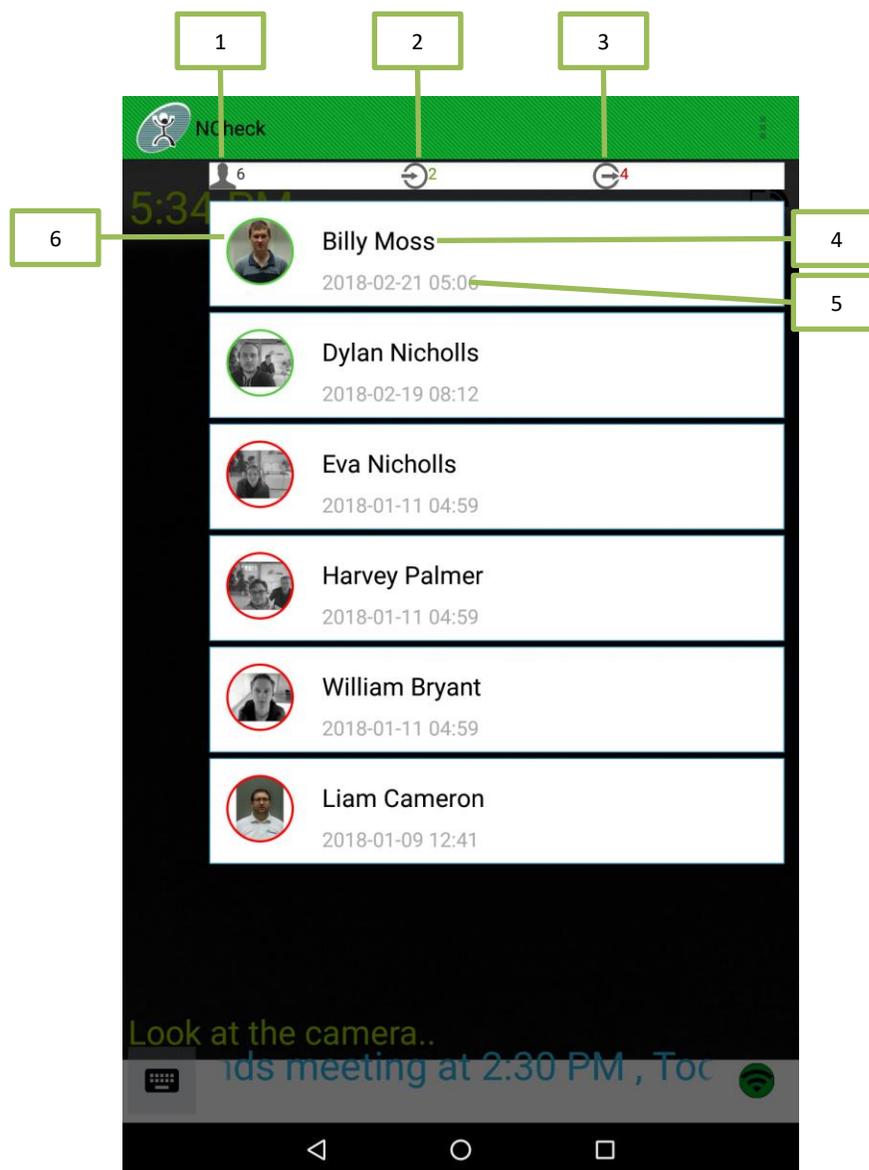


Figure 156: User list

7. Support

Please write email to support@ncheck.net if you unable to resolve some problems related to NCheck Bio Attendance.

8. Known Issues

Issue	Description	Workaround
Camera Service not connected	Application won't work on some devices when the camera is not properly released by other applications.	<ol style="list-style-type: none">1. Stop other camera applications by remove them from the task list.2. Restart the Device.
Application Crash on Device Restart	Application will automatically start to run on startup. If the screen is locked by default on startup, or Screen locked before application start to run, it won't allow application to use Camera.	<ol style="list-style-type: none">1. Don't allow device to lock screen until Application starts.

NCHECK PERSONAL ID

1. NCheck Personal ID

1.1 Scope and Purpose

This document provides procedures for using the software features of NCheck Personal ID. It describes necessary system prerequisites, installation & configuring application, user device registration, recording user attendance events and generating user attendance reports.

This guide is intended for NCheck Personal ID users and NCheck administrators.

1.2 Overview

NCheck Personal ID uses an employee smart device to provide a dedicated time attendance recording terminal for the employee. Employees can use their own smart device to install and use NCheck Personal ID. NCheck Personal ID perform two factors authenticate using user's smart device information as a unique identifier for the user and face verification in attendance event recording.

Note: For iOS please refer the [NCheck Bio Attendance for iOS section](#)

1.3 Features

NCheck Personal ID has introduced following features.

- Face biometric attendance
- Registration of a device for an individual.
- Multifactor user authentication with registered user device and face verification.
- Employee attendance reports.
- Geo Fencing support
- Works with both NCheck Bio Attendance server and NCheck Cloud subscriptions

1.4 System Requirements

To install NCheck Personal ID your system should meet the following minimal requirements:

Resource	Minimum requirements
Processor	1 GHz ARM-based CPU
RAM	512 MB
Operating system	Android 4.0 (or later)

Software	NCheck Bio Attendance 4.1/ NCheck Cloud
Other	A camera device supported by Android

2. Installation

Before installation make sure that your device meets minimum requirements for NCheck Personal ID. NCheck Personal ID installation can be done through online. NCheck Personal ID is available on [Google Play Store](#) for Android.

Once the installation completed, application will create shortcut to the application.

Following permissions are necessary for proceed using NCheck Personal ID.

- Location – To get the accurate GPS coordination of current user location for perform check-in/check-out.
- Photos/Media/Files– To store application logs.
- Camera – To get the user face images location for perform check-in/check-out.
- DeviceID – To get device id for create unique id for device.

3. Registration

If the device is not registered, Device Registration is launched. It is also launched when the user selects “*Change Registration*” from the capture screen menu. First screen of the device registration is server selection screen. NCheck Personal ID can be registered for either Standard NCheck Server or with NCheck Cloud subscription. Select standard server in server selection screen to register NCheck Personal ID application with a standard NCheck Sever.

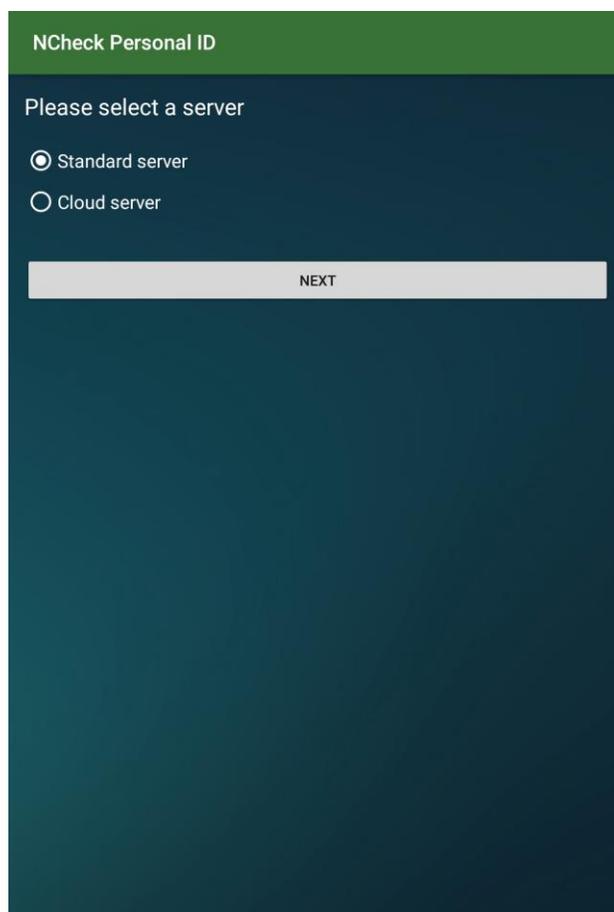


Figure 157: Server registration options

3.1 Standard server

It should provide server detail and user authentication details to perform the registration. If you do not have server details and authentication details, request them from NCheck administrator.

1. *Server URL* - Server URL which includes the server name or the address and port. Ex: 192.168.2.24:8443.
 - 1.1. *Discover service* - Search available NCheck servers in the local area network.
2. *User name* – NCheck user login name.
3. *Password* – NCheck user password.

4. Register/Done – Submit detail for device registration.

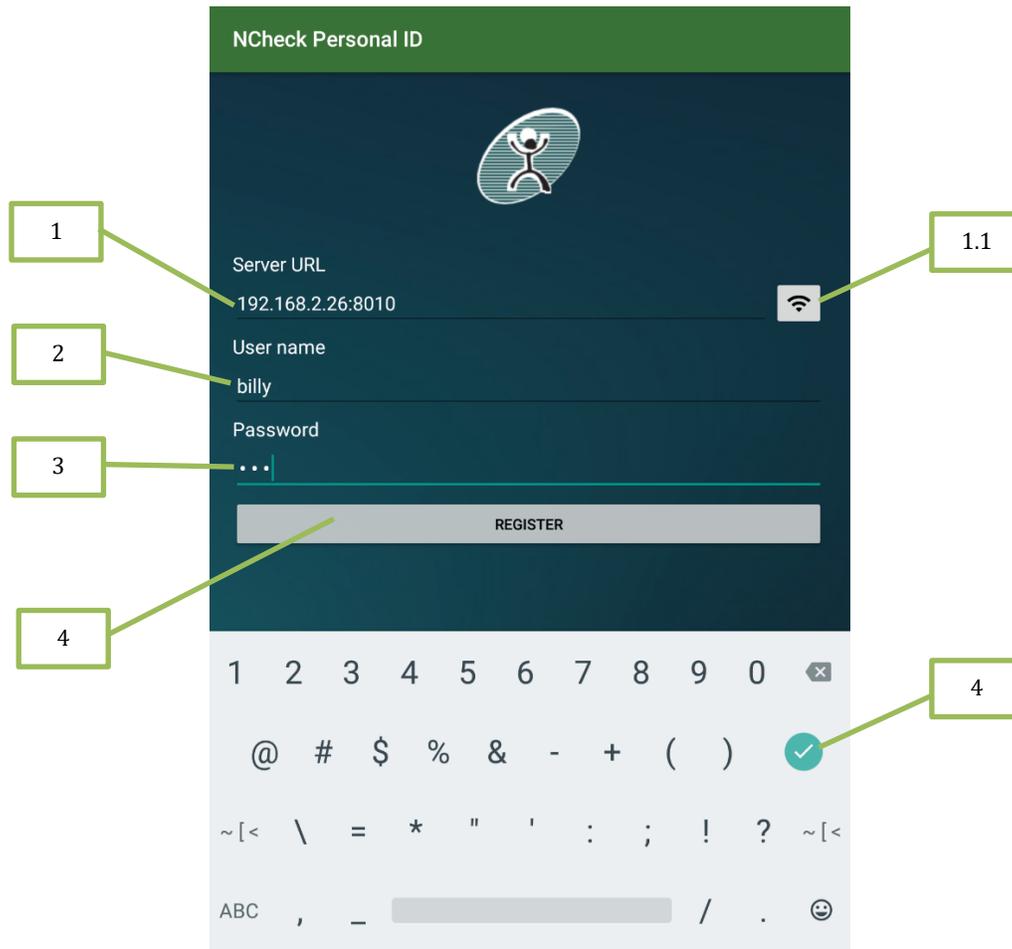


Figure 158: Standard server- server settings configuration screen

Note: When device is registered with NCheck server and if you get “Server rejects, Device is blocked” message which message means registered device is not activated by the NCheck server. Therefore, please contact the NCheck Administrator to get device activated.

3.2 Cloud server

To Register NCheck Personal ID with a NCheck Cloud subscription, it needs a user device registration code. Your NCheck Cloud subscription administrator can generate this registration code and provide you. If you do not have device registration code, request them from your NCheck Cloud subscription administrator.

1. Device registration code – Enter the device registration code
2. Register – to complete the registration

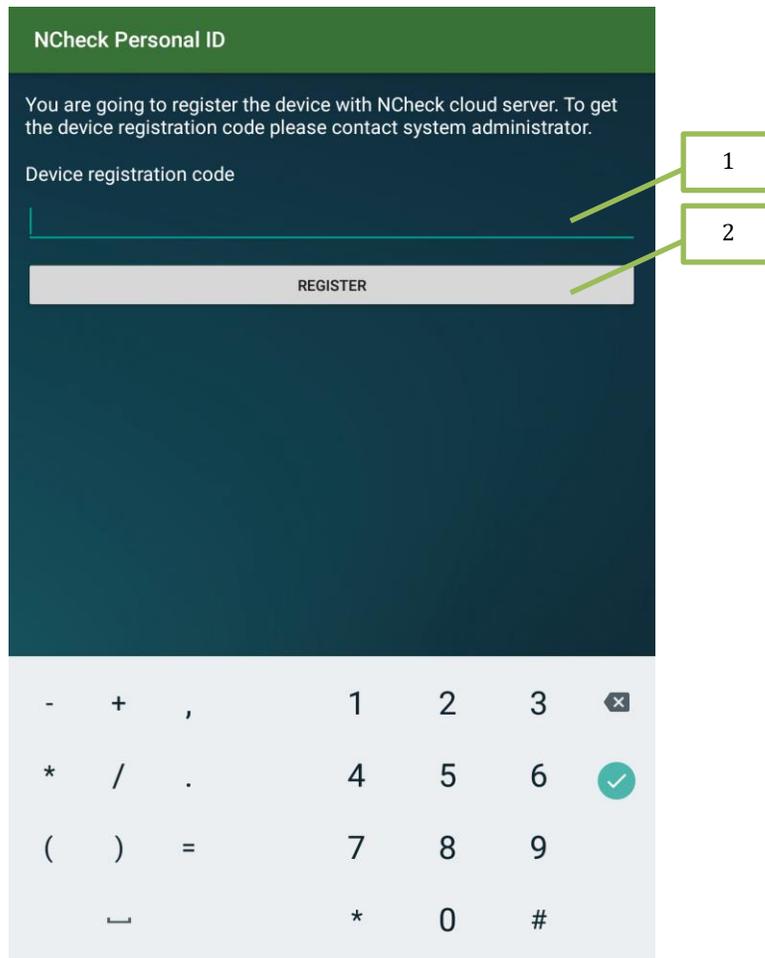


Figure 159: Cloud server- server settings configuration screen

4. Attendance

If the device is registered with a Server, Application goes to the capture screen.

1. *Location indicator* – This indicate whether user location is identified or not. This will blink until identifying the user location.
2. *User event type indicator* – This indicate whether user is checked-in or checked-out. If the user is checked-in then showing green color icon otherwise it is showing red color icon.
3. *Capture button* – User need to tap on this button to capture a face image and send it to server to perform an attendance event. Server will verify the user using face biometric and return the attendance event summary and application shows the attendance event summary to user.
4. *Overflow menu* – This show the capture screen's main menu.
 - a. *Change Registration* – Screen is navigate back to server settings configuration screen.
 - b. *Attendance Details* - Screen is navigate to attendance details screen.
 - c. *About* – show the about dialog.

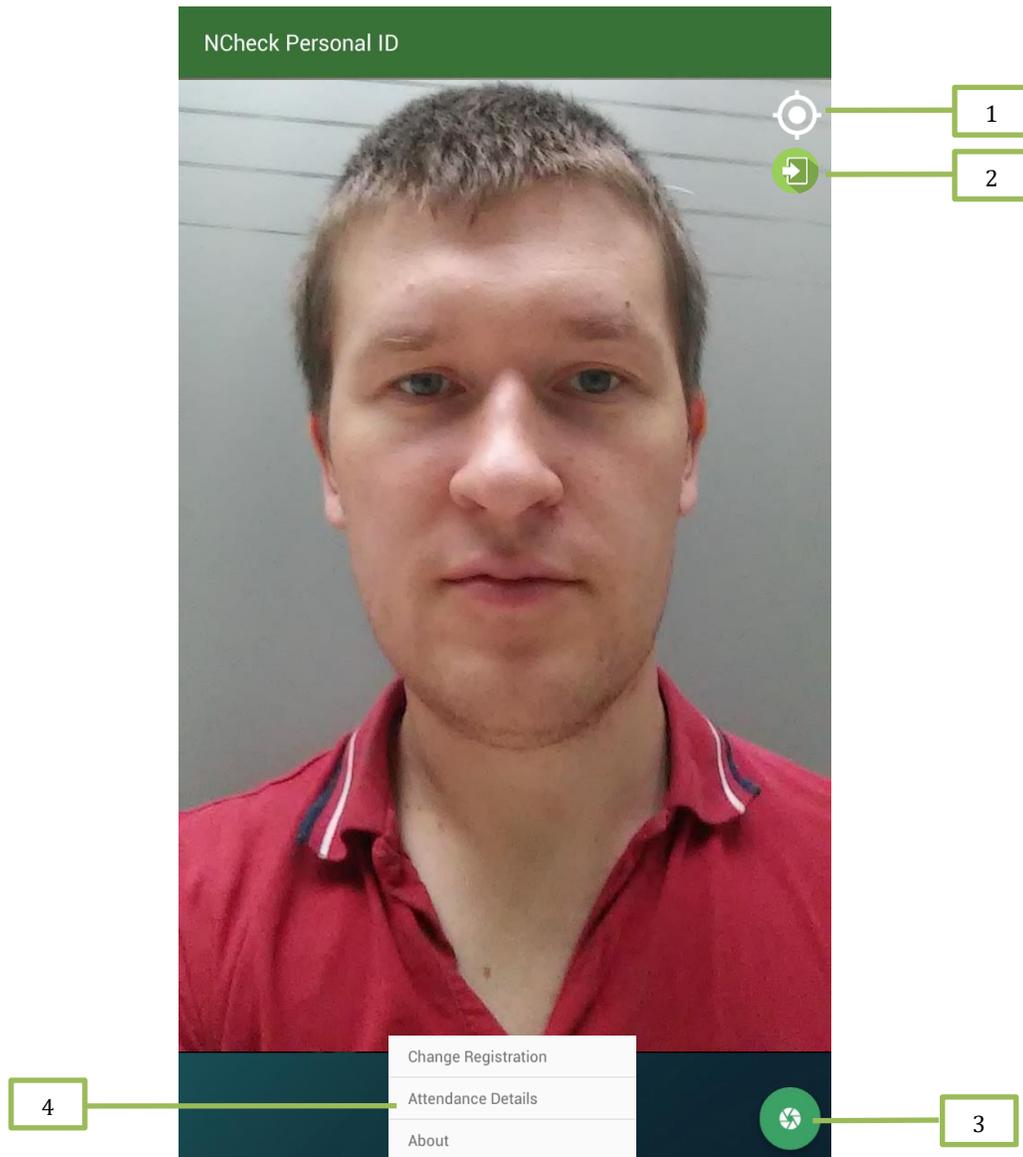


Figure 160: Capture Screen

4.1 Attendance event summary

1. *Welcome/Goodbye message* – Shows the “Welcome” message for check-in “Goodbye” message for a check-out.
2. *Worked hours* – Employee work hour summary.
 - a. *Today* – Work hours of the day
 - b. *Week* – Work hours the week
 - c. *Month* – Work hours the month
3. *User image* – Face image to use for face verification.
4. *Done*– close the application.

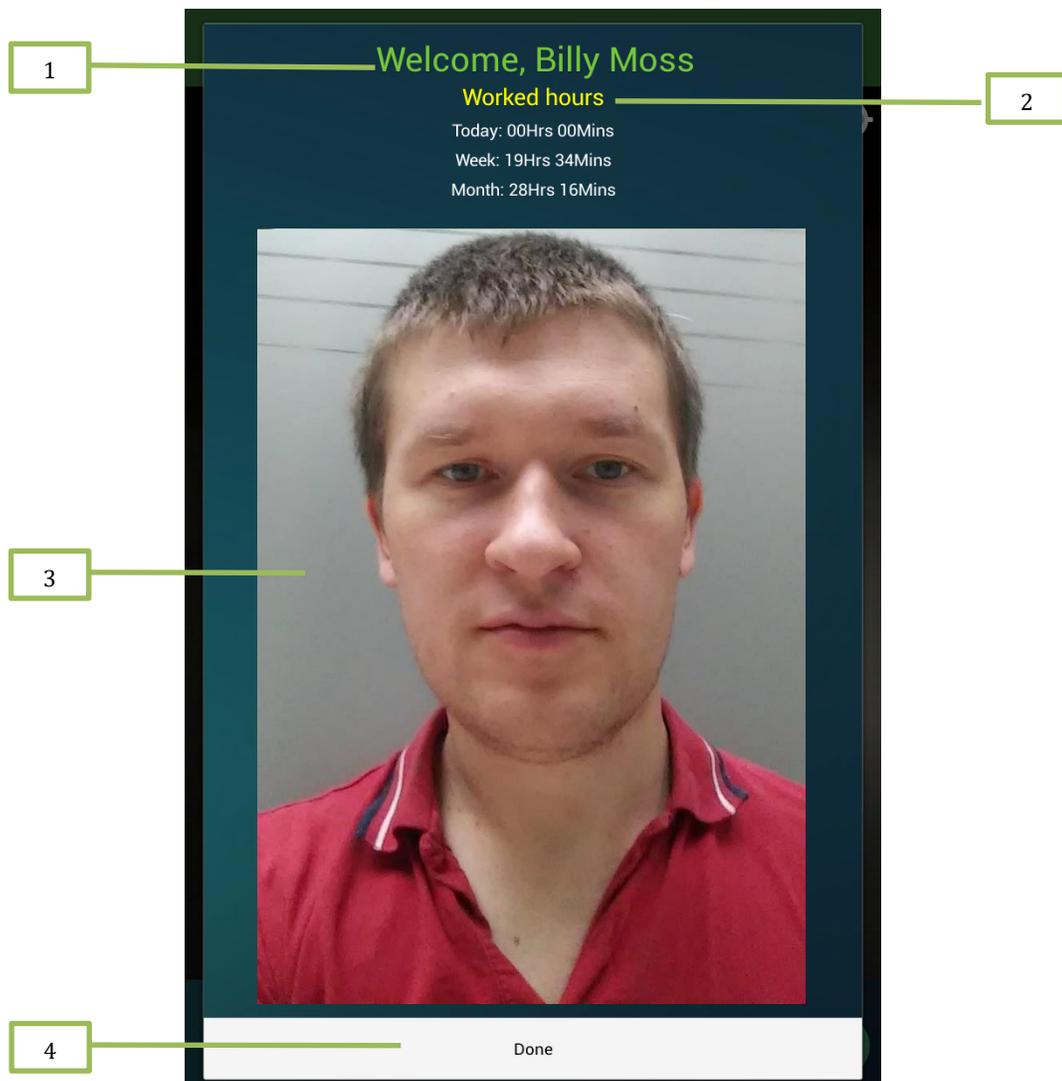


Figure 161: Check-In dialog

Note: Work hour summary visibility can be changed from [control panel](#).

4.2 Location restriction

Location restriction is enforced by NCheck server administrator. NCheck server administrator even can allow users to bypass restricted location by adding comment when they are not in the restricted location. The “Location is out of range” dialog is appears to add comment and bypass the restricted location when user is out of restricted location. When the NCheck server administrator is not set allow bypass in the restricted location then if the use is not in the restricted location then the user cannot check-in/check-out and showing error message.

1. *Comment* – add bypass comment.

Proceed – complete the check-in/check-out event with bypass comment.

Cancel – cancel the check-in/check-out event.

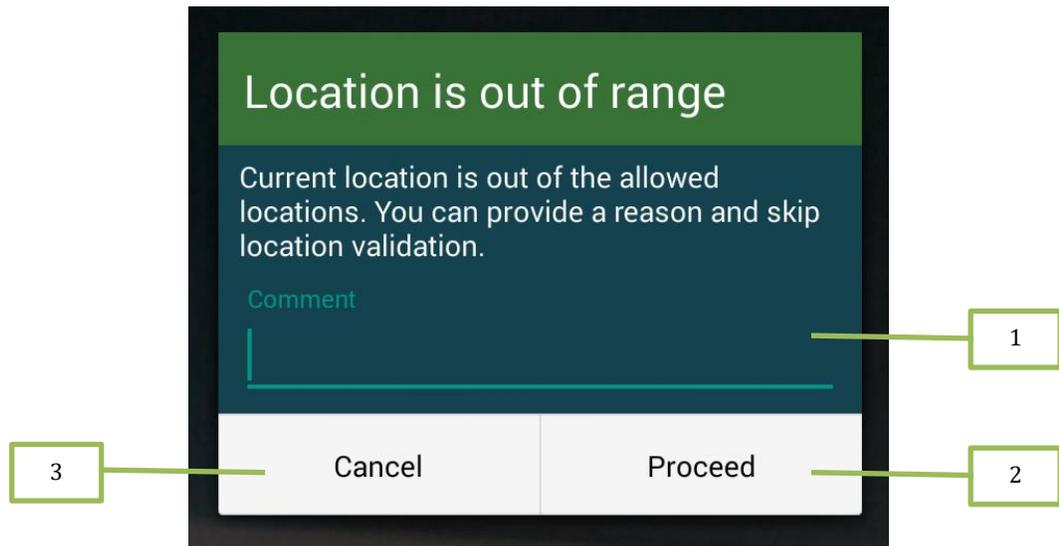


Figure 162: Location restriction bypass comment dialog

5. Attendance Details

Attendance details screen is loaded with attendance data on current day. User can change the date and view attendance data of a selected date.

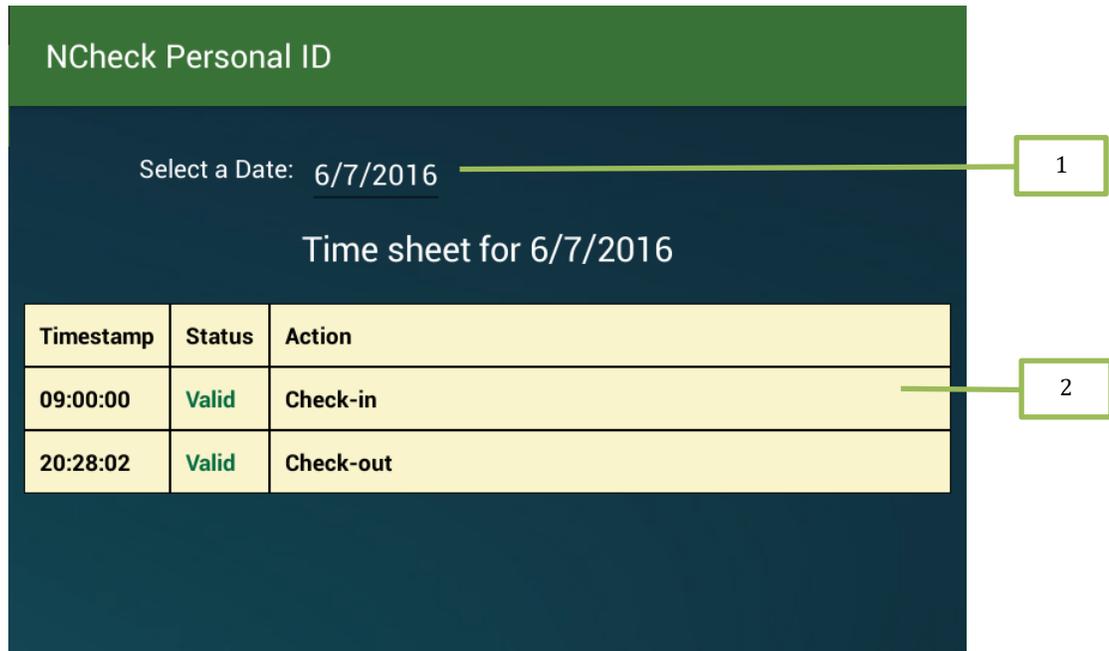


Figure 163: Attendance Details Screen

1. *Select a Date* – User can pick a date. If data is not available for the selected date, it will show “Event records are not available for selected date.”
2. *“Time sheet”* - Show the relevant attendance data to selected date.

6. Support

Please write email to support@ncheck.net if you are unable to resolve some problems related to NCheck Personal ID.

NCHECK BIO ATTENDANCE FOR IOS

1. NCheck Bio Attendance for iOS

1.1 Scope and Purpose

This document provides procedures for using the software features of NCheck Bio Attendance for iOS. It describes necessary system prerequisites, installation & configuring application, user device registration, recording user attendance events and generating user attendance reports.

This guide is intended for NCheck Bio Attendance for iOS users and NCheck administrators.

1.2 Overview

NCheck Bio Attendance for iOS uses registered smart device to provide a dedicated time attendance recording terminal for the employees. NCheck Bio Attendance for iOS can be configured to use by an individual or to use by a group of users

If users' intention is to use NCheck Bio Attendance for iOS for group of users then device should be registered as user group device for that user group. Otherwise device can be registered as a personal device.

1.3 Features

NCheck Bio Attendance for iOS has introduced following features.

- Employee attendance recording with NCheck Bio Attendance Server or NCheck Cloud subscription
- Using Face Biometric for User Identification or Verification
- It can be registered to use by an individual or group of users.
- Geo fencing support
- Employee attendance reports.

1.4 System Requirements

To install *NCheck Bio Attendance for iOS* your system should meet the following minimal requirements:

Resource	Minimum requirements
Operating system	IOS 10.2(or later)
Software	NCheck Bio Attendance 4.4/ NCheck Cloud

Other	A camera device supported by IOS operating system.
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2. Installation

Before installation make sure that your device meets minimum requirements for NCheck Bio Attendance for iOS. *NCheck Bio Attendance for iOS* installation can be done through online. And it available on [AppStore](#) for Apple devices such as iPhone, iPad, and iPod touch.

Once the installation completed, application will create shortcut to the application.

Following permissions are necessary for proceed using *NCheck Bio Attendance for iOS*.

- Location – To get the accurate GPS coordination of current user location for perform check-in/check-out.
- Camera – To get the user face images location for perform check-in/check-out.

3. Registration

Application should be registered with a server before using it. It can be registered with

- Standard server – To register the device with NCheck Bio Attendance server.
- Cloud server – To register the device with NCheck Cloud server.

If the device is not registered, Server selection screen is shown. It can also manually select from the settings.

User can select one of the server option to proceed with application device registration.

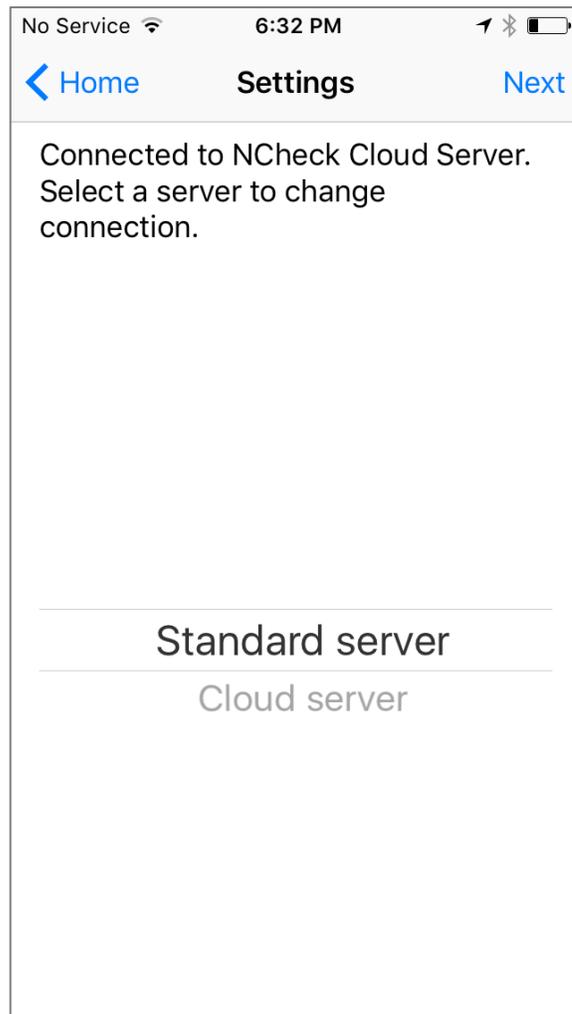


Figure 164: Server registration options

3.1 Standard server

It should provide server detail and user authentication details to perform the registration. If you do not have server details and authentication details, request them from NCheck administrator.

1. *Server URL* - Server URL which includes the server name or the address and port. Ex: 192.168.2.24:8443.
2. *User name* - NCheck user login name.
3. *Password* - NCheck user password.
4. *Done* - Submit detail for device registration.

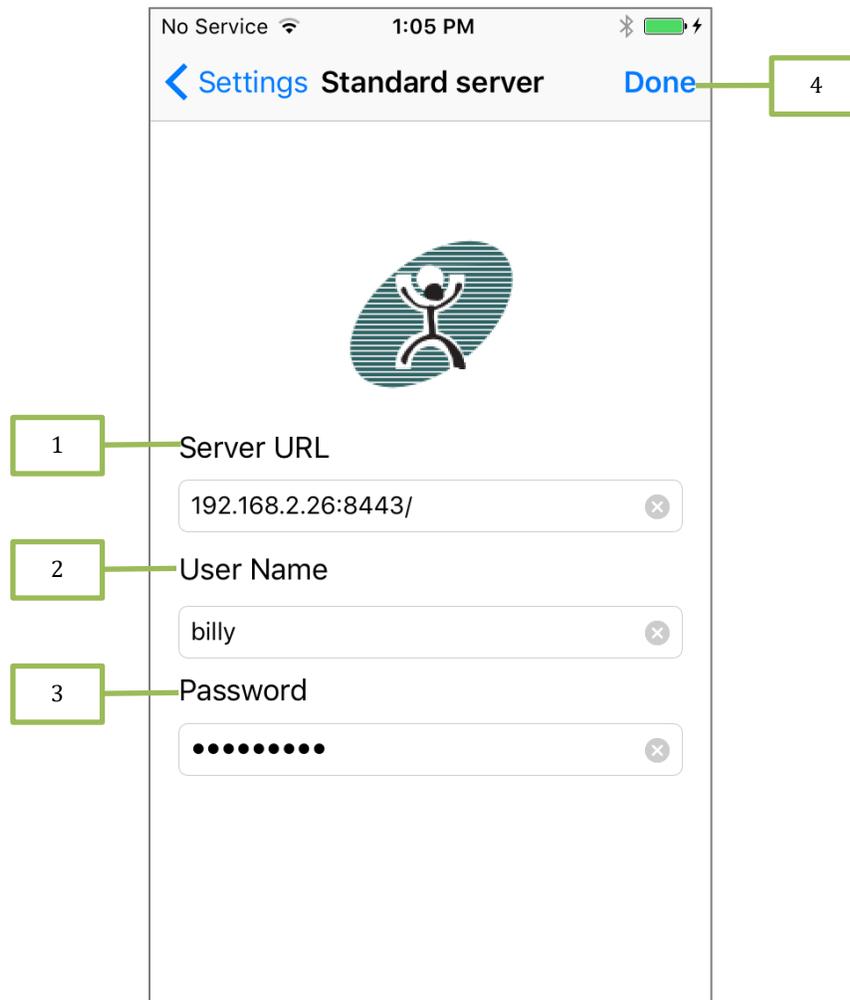


Figure 165: Standard server configuration settings

3.2 Cloud server

To Register NCheck Bio Attendance for iOS with a NCheck Cloud subscription, it needs a device registration code. Your NCheck Cloud subscription administrator can generate this

registration code and provide you. If you do not have device registration code, request it from your NCheck Cloud subscription administrator.

Application device can be registered for an individual or a group of users. NCheck Cloud subscription administrator can generate device registration codes for individual users and groups. When it is an individual registration code, the device will be registered for the relevant user. If the registration code is a group device registration code, the device will be registered for the relevant group.

1. Device registration code – Enter the device registration code
2. Done – to complete the registration

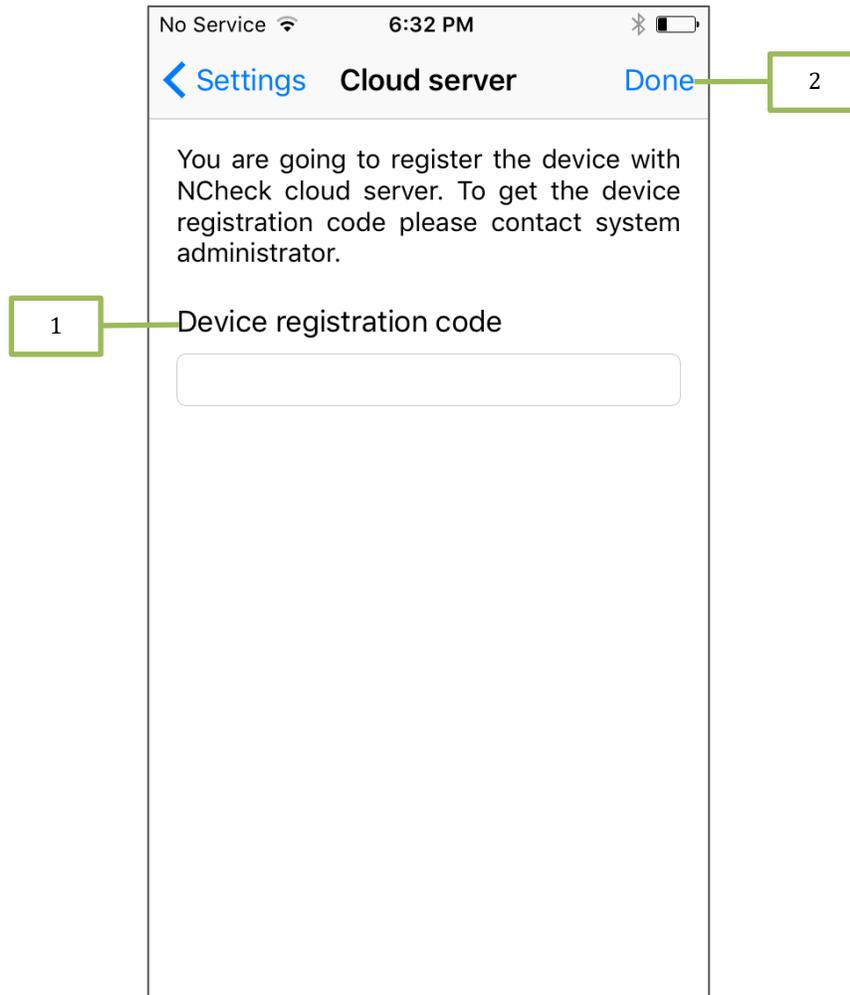


Figure 166: Cloud server configuration settings

4. Attendance

Application goes to the capture screen in registered devices.

1. *Capture button* – User need to tap on this button to capture a face image and send it to server to perform an attendance event. Server will verify the user using face biometric and return the attendance event summary and application shows the attendance event summary to user.
2. *Device registrations settings* – Screen is navigate back to server settings configuration screen.
3. *Attendance Details* - Screen is navigate to attendance details screen. This is available only in individual devices.
4. *About* – show the about dialog.
5. *User event type indicator* – This indicate whether user is checked-in or checked-out. If the user is checked-in then showing green color icon otherwise it is showing red color icon.

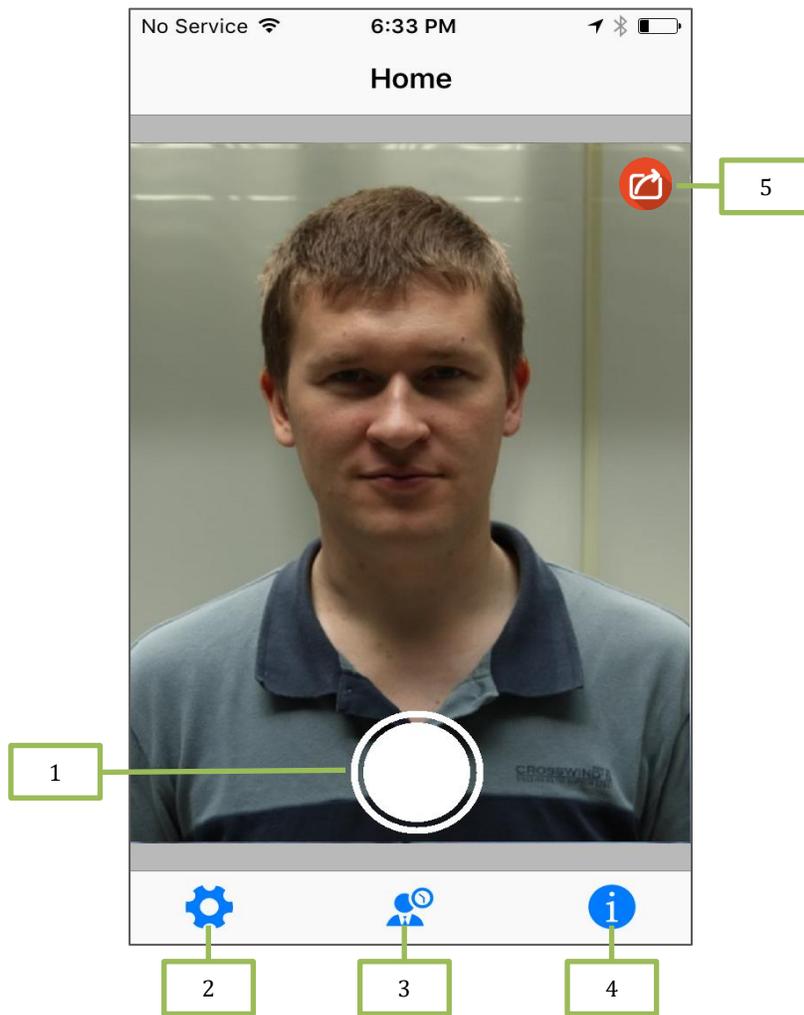


Figure 167: Capture screen

4.1 Attendance event summary

1. *Welcome/Goodbye message* – Shows the “*Welcome*” message for check-in “*Goodbye*” message for a check-out.
2. *Worked hours* – Employee work hour summary.
 - a. *Today* – Work hours of the day
 - b. *Week* – Work hours the week
 - c. *Month* – Work hours the month
3. *User image* – Profile picture of the user.
4. *Exit*– close the application.

Note: Work hour summary visibility can be changed from [control panel](#)

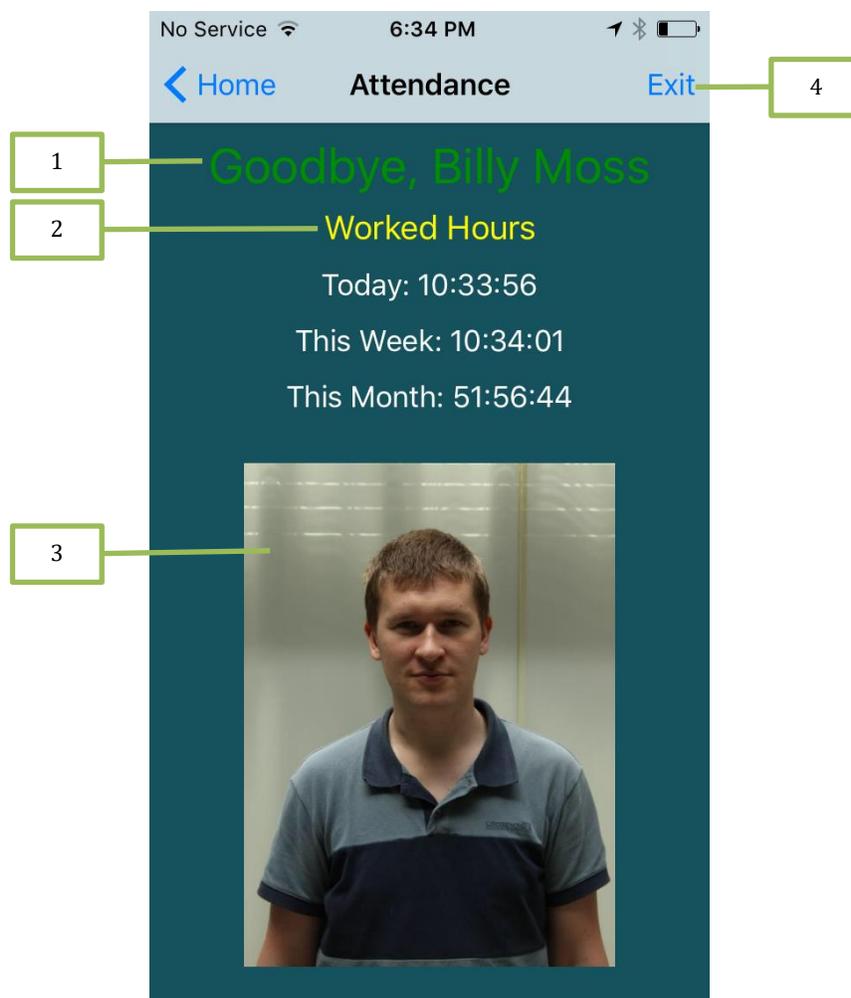


Figure 168: Attendance event result dialog

4.2 Location restriction

Location restriction is enforced by NCheck server administrator. NCheck server administrator even can allow users to bypass restricted location by adding comment

when they are not in the restricted location. The “Location is restricted” dialog is appeared to add comment and bypass the restricted location when user is out of restricted location. When the NCheck server administrator is not set allow bypass in the restricted location then if the use is not in the restricted location then the user cannot check-in/check-out and showing error message.

1. *Comment* – add bypass comment.
2. *Proceed* – complete the check-in/check-out event with bypass comment.
3. *Cancel* – cancel the check-in/check-out event.

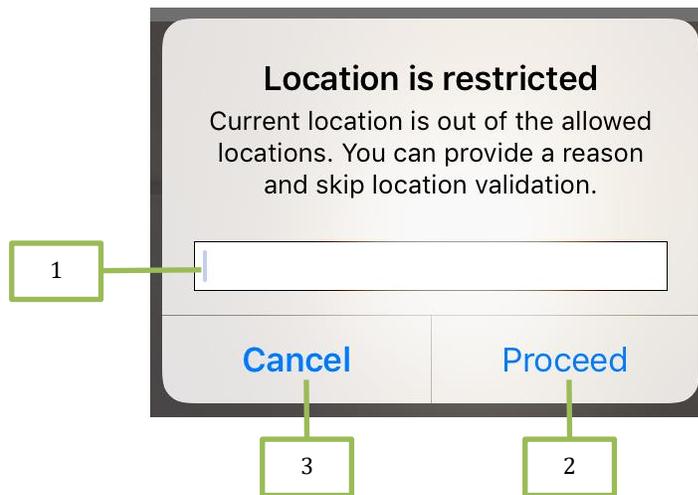


Figure 169: Location restriction bypass comment dialog

5. Attendance Details

Attendance details screen is shown attendance data of the user in devices registered for a user. Therefore, this feature is not visible for devices registered for user group. This report shows the attendance report of the selected date. It shows attendance data for today by default.

1. *Select a Date* – User can pick a date. If data is not available for the selected date, it will show “Event records are not available for selected date.”
2. *“Time sheet”* - Show the relevant attendance data to selected date.

Note: Attendance details is not visible for devices registered for user group.

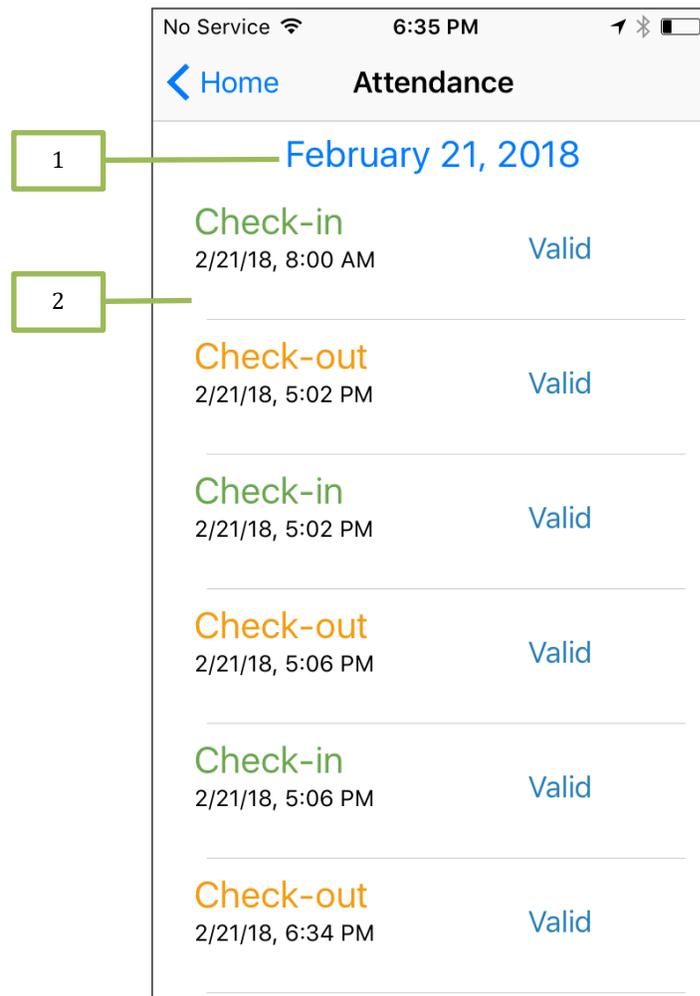


Figure 170: Attendance Details Screen

6. Support

Please write email to support@ncheck.net if you are unable to resolve some problems related to NCheck Bio Attendance for iOS.

