

SKIN TEMPERATURE MONITOR SOFTWARE USER MANUAL VERSION 5.4 - 5.6

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AN INFRARED CAMERA SYSTEM GENERATES AN IMAGE BASED ON THE HEAT (ENERGY) SIGNATURE OF THE TARGET SCENE WITH ALL THE ERROR ASSOCIATED WITH NON-CONTACT RADIOMETRIC MEASUREMENTS. A THERMAL INFRARED CAMERA CANNOT DETERMINE OR DIAGNOSE FAULTS, PROBLEMS, OR AILMENTS IN ANY FORM. THAT DETERMINATION MUST BE MADE BY THE TECHNICIAN APPLYING THE CAMERA TECHNOLOGY IN HIS/ HER SPECIFIC APPLICATION.

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THE CAMERA IS CONTROLLED BY THE SOFTWARE APPLICATION AND SHOULD NEVER BE UNPLUGGED FROM THE COMPUTER WHILE THE SOFTWARE IS RUNNING. THE USER SHOULD EXIT THE SOFTWARE PROGRAM NORMALLY BEFORE THE CAMERA IS UNPLUGGED. THIS WILL SAFELY SHUT THE CAMERA DOWN. THIS IS ANALOGOUS TO TURNING YOUR COMPUTER OFF THROUGH THE WINDOWS SOFTWARE VERSUS JUST HITTING A SWITCH TO TURN IT OFF. FAILURE TO FOLLOW THIS PROCESS MAY RESULT IN THE NEED FOR THE MANUFACTURER TO RE-CALIBRATE THE CAMERA SYSTEM AND THIS FAILURE IS NOT COVERED UNDER THIS WARRANTY.

Technical support is offered free of charge to all registered users of Infrared Cameras, Inc. system for one year from date of invoice. Whenever you require technical support you may be asked to provide the serial number of your package before support is granted. We suggest you thoroughly read the User's Manual before you call for assistance. If the User's Manual does not answer your questions please call Infrared Cameras, Inc. If you are having problems with the software please note any errors messages you receive and have them available at the time of your call.

User support is available by phone, email or in person at the offices of Infrared Cameras, Inc. during normal working hours. User support is free of charge on issues relating to interpretation of the help files, the proper operation of the software, routine maintenance and warranty service. Consultation is generally not available through this user support service on computer and operating system problems, image interpretation problems, fault diagnosis, system modifications or application specific issues, particularly those outside the field of this program.

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1. Changes in Version 5.4 - 5.6

1-1 Additional Features

- Added access control.
- Added the ability to change the count down timer, i.e. the time between screening and time to pause after display the alarm notification in kiosk mode.
- Added the sound for pass alarm notification.
- Increased the font size of right window in Portrait mode.

1-2 Bug Fixes

- Fixed a bug where the software froze randomly on startup.
- Fixed a bug where the general Settings Menu was not selected when the user first opened the Settings Menu.

2. General Description

IR Flash STM is a professional software used to capture infrared images and videos for thermal analysis. The software has features for correcting radiometric data and imaging parameters. It is widely used in the medical field and for temperature screening applications. The user shall determine the particular use to which the product shall be applied.

THIS SOFTWARE CANNOT TREAT OR DIAGNOSE DISEASES. IT IS INTENDED FOR ADJUNCTIVE USE WITH OTHER DIAGNOSTIC METHODS.

3. Safety Information

- Do not attempt to install the software without following the installation instructions provided in this manual. Improper installation may cause the program to become unresponsive, crash, or not function properly.
- User must not tamper with files or alter the program in any way. Altering the program may cause the software to become unresponsive, crash, or not function properly.
- Any software application provided in this package is provided "as is" without warranty of any kind, expressed or implied. The entire risk lies with the user for the accuracy and performance of the program.
- The camera is controlled by the software application and should never be unplugged from the computer while the software is running. The user should exit the software program before the camera is unplugged. This will safely shut the camera down. Failure to follow this process may result in the need for the manufacturer to re-calibrate the camera system. Failure to adhere to this tenant may void the camera warranty.
- Infrared Cameras, Inc. reserves the right to determine, at its sole discretion, the extent of user support made available to any user.
- The user shall determine the particular use to which the product shall be applied, and ICI excludes and disclaims any warranty that the product is fit for that use. Infrared Cameras, Inc. accepts no liability in the use and application of the camera.
- It is the responsibility of the user to obtain proper training in the use of the camera for their particular application, including a working knowledge and understanding of any inaccuracy that is typically attributed to radiometric measurements.
- The software package is self-contained and requires no maintenance beyond maintaining the viability of the machine on which it resides, etc. Future updates for the software may or may not be made available to users at ICI's discretion.
- We suggest the user thoroughly read this manual before calling for assistance.
- When using the software for medical purposes, the technology presented here should be used to measure only one subject at a time.
- Measurements should not be solely, or primarily, relied upon to diagnose or exclude a diagnosis of any disease.
- Elevated body temperature should be confirmed with secondary evaluation methods (e.g., an NCIT or clinical grade contact thermometer).

4. Features

- Built-in touch screen functionality
- Intuitive menu design and navigation
- Easy-to-use level and span functions
- Audio/visual alarms for quick detection
- Alarms configuration
- Bias controls for unknown and known temperature values
- Email notifications

- Relay control
- Remote access for customer service
- Ability to easily switch between thermal color palettes
- Choice between Celsius and Fahrenheit scales
- Al face tracking
- Electronic zoom function for electronic zoom cameras

GRAY PAGES INDICATE A DEVIATION IN DEVICE FEATURES. APPLICABLE DEVICES ARE NOTED IN THE PAGE TITLE. IF THE USER'S DEVICE IS NOT LISTED IN THE TITLE, THE USER MAY SKIP OVER THESE PAGES. CALL CUSTOMER SERVICE WITH QUESTIONS.

5. Intended Use

IR Flash STM is a professional software intended to be used by trained thermographers to capture as well as analyze thermal images, videos, and data. The user shall determine the particular use to which the product shall be applied.

THIS SOFTWARE CANNOT TREAT OR DIAGNOSE DISEASES. IT IS INTENDED FOR ADJUNCTIVE USE WITH OTHER DIAGNOSTIC METHODS.

6. Technical Specifications, Accessories, and Documentation

Camera specifications, accessories, and documentation can be found online:

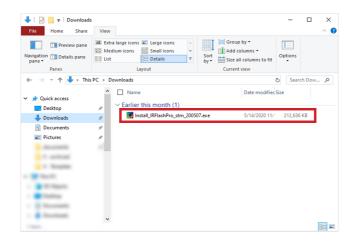
https://infraredcameras.com/product-resources/

6-1 Recommended System Requirements

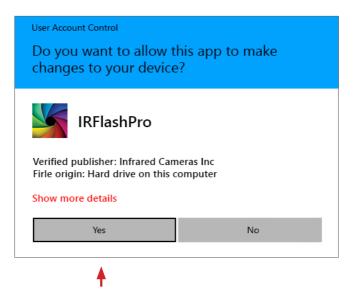
Processor: i5 or above (Quad Core or better) RAM: 4 GB or above OS: Windows 8/8.1/10 Hard Drive: 256 GB or above Resolution: 1920 × 1080

7. Installation

1. Launch .exe by double-clicking File.



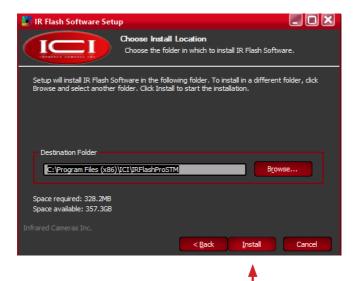
2. Grant system permission. Click Yes.



3. Choose Components. Click Next.



4. Optionally change installation location by clicking Browse. Click Install.



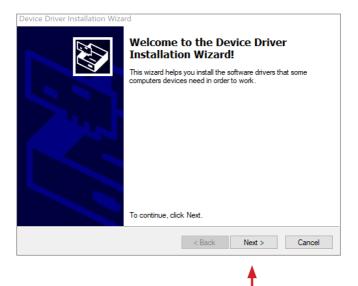
5. Please wait while IR Flash software installs. Pop-ups will occur. Do not close or cancel the installation.

K Flash Software Setup		×
Installing Please wait while	: IR Flash Software is being installed.	
Extract: Bytescout.PDFRenderer.XML 100%		
Show <u>d</u> etails		
Infrared Cameras Inc.		
	< Back Close Cancel	

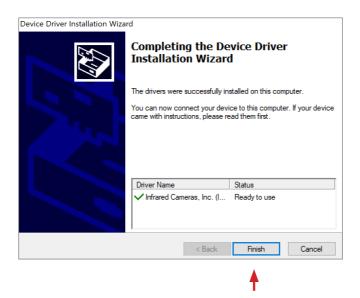
6. Please wait while C++ configures. Pop-ups will occur. Do not close or cancel.



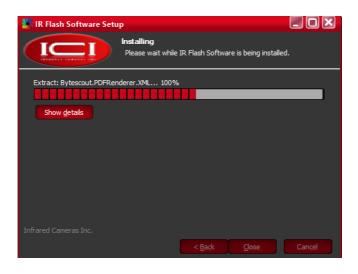
7. Device Driver Installation Wizard will open. To continue with installation, click Next.



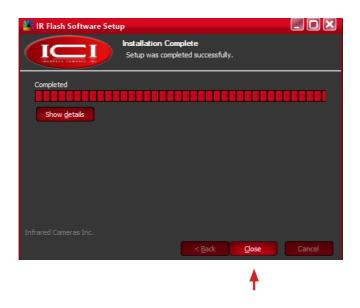
8. Click Finish.



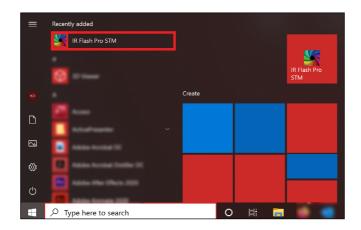
MORE THAN ONE DRIVER MAY NEED TO BE INSTALLED. REPEAT STEPS 7 AND 8 AS REQUIRED. 9. Allow IR Flash software to finish installing.



10. Click Close.



11. Launch IR Flash Pro STM from the Start Menu.



8. Launch STM on Startup

After installing IR Flash STM, the icon to manually launch the software will appear on the desktop and in the Start Menu. Users can set IR Flash STM to automatically launch when the computer system is powered on by adding it to the Startup directory.

- 1. Launch the Command Prompt using one of the following methods:
- Find Command Prompt in the Start Menu under Windows Systems (Figure A), or
- Search "Command Prompt" using the Window search bar (Figure B), or
- Press the Win + R keys.

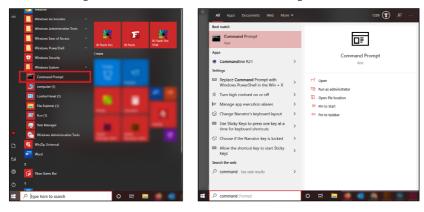


Figure B

Figure A

2. The Command Prompt will launch. Type *shell:startup* into input box. Press OK.

/ Run		Х
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.	
<u>O</u> pen:	shell:startup	~
	OK Cancel <u>B</u> rowse	

3. The Startup directory will open.

- → × ↑ <mark>!</mark>	> ICI-	STM > AppData > Ro	aming > Microsoft	> Windows > Start Menu > Pro	grams > Startup	~ 0	,> Se	arch Startup	
-	_	Name		Date modified	Туре		Size		
🖈 Quick access									
Desktop	*				This folder is empty				
🐥 Downloads	1								
Documents	*								
Notures 1	*								
OneDrive									

4. Click and drag IR Flash STM icon from desktop to Startup directory.

← →		re View	Application Tools pData > Reaming	> Microsoft > Windows	> Start Menu > Programs	> Startup ~	ර් , Search Startup	~ 0
	Ack access	Nan	ie î		Date modified	Туре	Size	
	aick access Desktop	, 💵	RFlashProSTM		5/6/2020 7:06 AM	Application	13,125 KB	
		2						
		2						
		*						
	veDrive							
. 9 Th	is PC							
🥩 Ne	etwork.							
0000								

9. FM+ Series Firmware Update

A firmware update is required for FM 320+/FM 640+ devices to use IR Flash STM. If you do not have an FM+ series device you may skip this section.

- 1. Set up the device according to its quick start guide and manual.
- 2. Download the firmware update utility:

https://www.dropbox.com/s/v84t1sbyyhr1o9q/Firmware_20200826.zip

- 3. Launch upgrade_ici.exe by double-clicking File.
- 4. Click Modify.
- 5. Enter the camera IP address (Default: 192.168.1.102).
- 6. Click Ok.
- 7. Click Browse button (...).
- 8. Select the ICI-20200826_restart.upg file.
- 9. Click Open.
- 10. Click Update.
- 11. "Finished" will show in the message box once the update is finished installing.
- 12. Click "X" in top-right corner to exit.

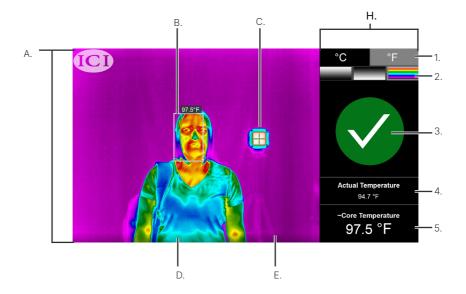
✤ ICI FM Series Firmware Upgrade Utility	_		\times	
Update Firmware		Update		Indented Hood
Device Info				(* (©) FM 320+ P-Series
IPAddr 192 . 168 . 1 . 102 Port 199 Username Password	99	Modify		

FM+ SYSTEMS MEASURE 192 MM X 135 MM X 85 MM (L X W X H \pm 0.5 MM) AND HAVE AN INDENTED HOOD.

10. Main Display

10-1 Main Interface

- A. Default screen
- B. Al face targeting (with temperature reading)
- C. Temperature/temperature reference cross-hair
- D. Settings Menu (hold and release or right-click)
- E. Subject
- H. Heads-up Display



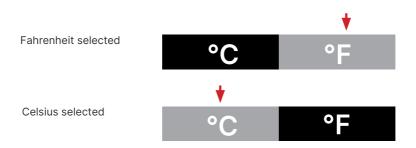
10-2 Heads-up Display

- 1. Temperature scale selection (°C or °F)
- 2. Thermal polarity (white hot, black hot, or rainbow)
- 3. Green light/Red light zone (Pass/Fail Zone)
- 4. Actual Temperature reading
- 5. ~Core Temperature reading

11. Heads-up Display Settings

11-1 Selecting a Temperature Scale

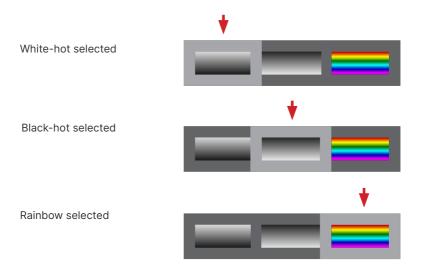
Left-click or tap the box of the desired measurement scale. The box will turn gray.



SCALE SELECTION WILL DETERMINE OUTPUT READINGS AND MENU SETTINGS.

11-2 Selecting Thermal Polarity

Switch between polarities by left clicking or tapping the desired gradient rectangle. Active palettes will have a gray outline.



11-3 Understanding the Green Light/Red Light System

Temperature data is gathered automatically and translated into a green light (pass) or red light (fail).



A green light indicates a $\sim\!\!$ core temperature measurement that does not exceed the alarm threshold.



A red light informs the user the device has detected an elevated ~core temperature. An audio alarm may also sound on red light fails (see Alarm Settings). Review your company's policy regarding pass or fail readings.

GREEN/RED COLORBLIND INDIVIDUALS CAN REFERENCE THE "<" AND "X" ICONS FOR PASSES/FAILS, RESPECTIVELY.

11-4 Understanding Actual and ~Core Temperature

The actual temperature reading reflects the hottest value detected in the target zone. ICI's proprietary software uses this number to approximate the core temperature of the subject. The red light/green light system uses the ~core temperature to determine a pass or fail.

Default settings:

~Core temperature readings < 37.5 °C (99.5 °F) will trigger a green light (pass).*</p>
~Core temperature readings ≥ 37.5 °C (99.5 °F) will trigger a red light (fail).*

Actual Temperature 94.7 °F ~Core Temperature 97.5 °F

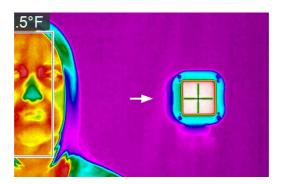
11-5 AI Face Targeting

Al face targeting happens automatically and indicates the area being measured. This area is outlined with a border. The border will be green for a pass and red for threshold fails. The ~core temperature reading is shown above the outlined area.



11-6 Temperature Reference Cross-hair

Move the temperature reference cross-hair by left clicking and dragging it to the center of the temperature reference. Touch-hold and drag on touch enabled devices.



THE TEMPERATURE REFERENCE CROSS-HAIR IS GREEN AND SHOWS ON THE MAIN DISPLAY WHEN A KNOWN FIXED TEMPERATURE IS DEFINED IN THE SETTINGS MENU.

12. Settings Menu

The Settings Menu gives the user an extended range of customizable options. Access the Settings Menu by right clicking on the program window. For touch enabled devices, touchhold and release to open the menu.



- A. Settings Menu
- B. General sub-menu
- C. Data Capture sub-menu
- D. Email sub-menu
- E. Display sub-menu
- F. Modbus sub-menu
- G. Relay sub-menu

- H. Face Detection
- I. Heads-up Display
- J. Root Access sub-menu
- K. Remote Access
- L. Focus Controls *^
- M. Close/Cancel changes
- N. Apply settings

* THE FOCUS CONTROLS BUTTON ONLY EXISTS IF YOU HAVE AN FMX 400 CAMERA. ^ BECOMES AN IR/VIS ALIGNMENT BUTTON FOR FM/FM+ SERIES CAMERAS.

12-1 Opening/Closing the Settings Menu

- 1. Access the Settings Menu by right clicking on the program window. For touch enabled devices, touch-hold and release the screen to open the menu.
- 2. Close menu by clicking or tapping Cancel or Apply.

12-2 Apply Settings

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login to make changes (see Gaining Root Access (Login)).
- 3. Click Apply to apply the changes and close the menu.

APPLY

12-3 Cancel Settings

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. To cancel any changes and close the menu, click or tap Cancel.

CANCEL

THE MAIN MENU IS NOT ACCESSIBLE WHILE THE SETTINGS MENU IS OPEN.

13. Setting a Password

Changes to the settings can only be made if the user has Root Access. On first usage, the software allows the user to set a new password. After setup, users will need to input the password to change settings.

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Click on the Root Access sub-menu button.
- 3. Click Login.
- 4. A warning box will indicate the absence of a password on file.
- 5. Click Ok.
- 6. Set and confirm a password using the input fields.
- 7. Decide if the user should be logged out upon exiting the menu (checked by default).
- 8. Click Apply to save settings or select Cancel to discard changes.

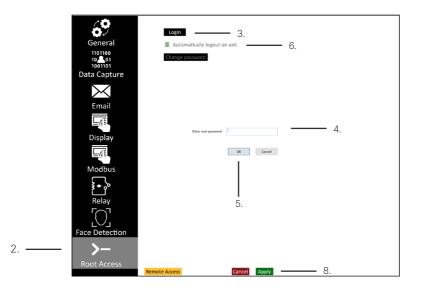


TO ACCESS GRAYED OUT FEATURES EITHER LOGIN OR ENABLE PARENT SETTINGS.

14. Gaining Root Access (Login)

Changes to the settings can only be made if the user has Root Access:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Click on the Root Access sub-menu button.
- 3. Click Login.*
- 4. Use the input field to enter the current password.
- 5. Click Ok.
- 6. Decide if the user should be logged out upon exiting the menu (checked by default).
- 7. Change any other desired settings.
- 8. Click Apply to save settings or select Cancel to discard changes.

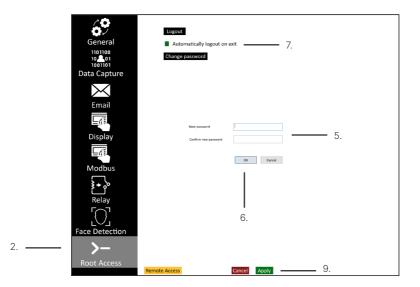


* ONCE THE CORRECT PASSWORD IS ENTERED THE LOGIN BUTTON WILL BECOME THE LOGOUT BUTTON.

15. Changing a Password

Follow these steps to change the password:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Click on the Root Access sub-menu button.
- 3. Login (see Gaining Root Access (Login)).*
- 4. Click Change Password button which is now unlocked.
- 5. Set and confirm a new password using the input fields.
- 6. Click Ok.
- 7. Decide if the user should be logged out upon exiting the menu (checked by default).
- 8. Change other settings if desired.
- 9. Click Apply to save settings or select Cancel to discard changes.



* IF THE PASSWORD BECOMES LOST AND A USER IS UNABLE TO LOGIN, AN AUTHORIZED USER WILL NEED TO CONTACT CUSTOMER SERVICE TO HAVE THE PASSWORD RESET.

16. Enable Kiosk Mode

In Kiosk mode, the software begins a 3 second countdown timer. The individual being screened needs to remain relatively still otherwise the counter resets. At the end of the 3 second countdown, the software displays the temperature screening result, either a pass or a fail based on the temperature threshold set by the user.

Follow these steps to enable Kiosk Mode:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Check the box for Enable Kiosk Mode.
- 5. Change other settings if desired.
- 6. Click Apply to save settings or select Cancel to discard changes.

General 100100 100001 100001 100001 Data Capture Email	 Enable Kiosk Mode Enable Crowd Screer Enable Access Contro Real Time Bias Offset Known Fixed Temp Unknown Fixed Tem Level & Span 	erature (°C)			
Display Display Modbus	■ AGC		□ Fixed Min Max	d (°C)	
Relay	Threshold (°C) Sound on Pass Sound on Fail		37.5 Ves Yes	■ No ■ No	
 > Root Access	Remote Access	Cancel	Apply		5.

IR FLASH STM SUPPORTS VARIOUS PRINTERS. THE SOFTWARE DETECTS THE CONNECTED PRINTER ON BOOT UP, AND PRINTS A LABEL WHENEVER A "PASS" IS DETECTED. THE SOFTWARE NEVER PRINTS A LABEL ON A "FAIL". THERE ARE NO USER INTERFACE SETTINGS TO MAKES ADJUSTMENTS TO PRINTERS. AVAILABLE PRINTERS:

Zebra KR203

2.

- Zebra KR403
- Zebra ZD420
- Zebra ZD410
- Zebra GK420D
- Primera LX500c

17. Enable Crowd Screening

Enabling Crowd Screening lets the user screen multiple people at a time. Follow these steps to enable crowd screening:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Check the box for Enable Crowd Screening.
- 5. Change other settings if desired.

2.

6. Click Apply to save settings or select Cancel to discard changes.

General 101100 1001100 Data Capture Email	Enable Kiosk Mode Enable Crowd Screening Enable Access Control Real Time Bias Offset Known Fixed Temperature (°C) Unknown Fixed Temperature Level & Span	- 4.
Display	■ AGC	Fixed (°C) Min Max
5	Alarm	
پ ب ا	Threshold (°C)	37.5
Relay	Sound on Pass	🗆 Yes 🔳 No
Face Detection	Sound on Fail	□ Yes ■ No
Root Access	Remote Access Cancel	Apply — 5.

IR FLASH STM SHOWS A PASS NOTIFICATION (GREEN " \checkmark ") IF EVERY SCREENED PERSON PASSES. THE SOFTWARE SHOWS A FAIL NOTIFICATION (RED "X") IF ANY SCREENED INDIVIDUAL FAILS TO PASS THE THRESHOLD.

18. Enable Access Control

Access control is only available in Kiosk mode. When enabled, the software begins a 3 second countdown. The individual being screened should remain relatively still or the countdown time will reset. At the end of the countdown, the software displays the temperature screening result. Follow these steps to enable Kiosk Mode:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Check the box for Enable Kiosk Mode.
- 5. Check the box for Enable Access Control
- 6. Change other settings if desired.
- 7. Click Apply to save settings or select Cancel to discard changes.

General 101000 10 001 100100 Data Capture Email IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	 Enable Kiosk Mode Enable Crowd Screenin, Enable Access Control Real Time Bias Offset Known Fixed Tempera Unknown Fixed Temp Level & Span 	5.
Display	■ AGC Alarm	□ Fixed (*C) Min Max
Relay	Threshold (°C) Sound on Pass Sound on Fail	iza ☐ Yes ■ No ☐ Yes ■ No
Root Access	Remote Access	Cancel Apply 7.

If the Kiosk and Access Control modes are enabled, the software shows an ICI logo and waits for the user to swipe the access badge reader. The software then begins temperature screening. If the individual passes the screening then the software will send the badge number to the access control panel. This feature requires the following hardware to be connected to the computer that's running the IR Flash Pro STM:

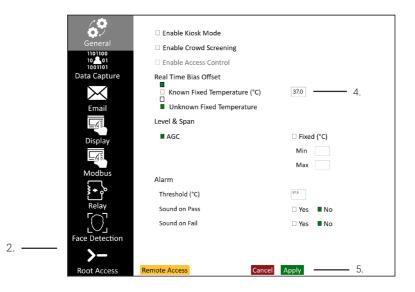
- USB card reader (to collect badge numbers)
- Arduino Nano (to send the badge number to the access control panel in Wiegand 26 or 34 format)

2.

19. Real Time Bias Offset Settings

19-1 Setting a Known Fixed Temperature

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Known Fixed Temperature box is checked by default. Select box if unselected.
- 5. Enter the temperature reading (defined on back of temperature reference source) into the Known Fixed Temperature input field.
- 6. Press Apply to accept settings and exit Menu.
- 7. A green temperature reference cross-hair will be applied to the image. Position the temperature reference cross-hair by left clicking and dragging it to the center of the temperature reference. Touch-hold and drag on touch enabled devices.





Temperature Reference

19-2 Setting an Unknown Fixed Temperature

If the user does not have a temperature reference source, check the box for Unknown Fixed Temperature.

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Check the box for Unknown Fixed Temperature.
- 5. Press Apply to accept settings and exit Menu.

Π

6. A green temperature cross-hair will be applied to the image. Position the cross-hair where there is no action in the scene, e.g. top-left or top-right of the image.

Real Time Bias Offset

Known Fixed Temperature (°C)

Unknown Fixed Temperature

IT IS NOT RECOMMENDED TO MEASURE TEMPERATURE VALUES WITHOUT A TEMPERATURE REFERENCE SOURCE. PLEASE READ THE CURRENT GOVERNMENT REGULATIONS REGARDING TEMPERATURE MEASUREMENTS.

20. Level and Span Settings

20-1 Setting AGC

AGC stands for Automatic Gain Control. This setting is selected by default and automatically adjusts the contrast of the on screen thermal image.

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Check the box for AGC under Level & Span.
- 5. Press Apply to accept settings and exit Menu.



20-2 Setting an Unknown Fixed Level & Span

Use these setting to gain finer control of the image:

- Min the minimum temperature to be detected in °C or °F
- Max the maximum temperature to be detected in °C or °F

An expanded Min and Max temperature range will allow for a wider range of temperatures to be detected by the imager. A narrow Min and Max will reduce the range of temperatures detected by the imager.

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Check the box for Fixed under Level & Span.
- 5. Type Min and Max temperatures into input fields.
- 6. Press Apply to accept settings and exit Menu.

Fixed (°C)							
Min	36.5						
Max	39.5						

STM THERMAL IMAGERS ARE CALIBRATED FOR A SPECIFIC TEMPERATURE RANGE. EXCEEDING THIS CALIBRATION IN EITHER DIRECTION WILL NOT IMPROVE IMAGE CONTRAST. IT IS BEST TO LEAVE THE SETTINGS ON AGC MODE UNLESS YOU ARE A CERTIFIED THERMOGRAPHER.

21. Alarm Settings

21-1 Setting an Alarm Threshold

The Threshold setting under Alarm is the ~core temperature that triggers a red light (fail). By default the setting is 37.5 °C or 99.5 °F depending on the temperature scale selected (see General Settings).

Raise or lower the setting manually by using the input box.

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Type numerical value into Threshold input field.
- 5. Press Apply to accept settings and exit Menu.

Alarm

Threshold (°C)	37.5	
Sound on Pass	□ Yes	No

21-2 Turning On/Off the Audio Alarm

IR Flash STM features audible alarms. Pass and fail alarms are mutually inclusive and can sound at the same time if both are enabled. Both are disabled by default.

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the General sub-menu button.
- 4. Under Alarm, find the settings for sound. Either check the Yes box to turn on audio alarms, or check the No box to turn off the audio alarms. Both can be controlled independently of one another.
- 5. Press Apply to accept settings and exit Menu.

Alarm

Threshold (°C)	37.5	
Sound on Pass	🗆 Yes	No
Sound on Fail	🗆 Yes	■ No

22. Data Capture Settings

22-1 Enable Data Capture

Data capturing is turned off by default. To turn on data capturing follow these steps:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Data Capture sub-menu button.
- 4. Check the box next to Enable Data Capture. The box will turn green and additional Data Capture settings will become available.
- 5. Press Apply to accept settings and exit Menu.

	General	Enable data capture 4.
3	1101100 10 01 1001101	Enable image capture
	Data Capture	Capture data only on fail
	Email	Delete data after in day(s)
		Display captured images gallery
	Display	Image name prefix
	Modbus	Enable log data to CSV
	*	Path C\Ueen/chek/Documents/UCI/WFash/hos7M/mageData Browse
	Relay	
	Face Detection	
2	>-	
	Root Access	Remote AccessCancelApply5.

22-2 Enable Image Capture

Image capturing is turned off by default. To turn on this feature follow these steps:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Data Capture sub-menu button.
- 4. With Data Capture enabled (see Enable Data Capturing), click the box next to Enable image capture. The box will turn green and additional features will become available.
- 5. Press Apply to accept settings and exit Menu.

69	Enable data capture
General	Enable image capture 4.
Data Capture	Capture data only on fail
Email	Delete data after in day(s)
	Display captured images gallery
Display	Image name prefix
Modbus	Enable log data to CSV
} → Relay	Path CNUMPricheEl/Documents/IC/18FastAPecStM/IntegD04ta Browse
Face Detection	
2 >	
Root Access	Remote AccessCancelApply5.

22-3 Capturing All Data

When Data image capture is enabled, only red lights (failures) are captured by default. To turn on data capturing for every scan follow these steps:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Data Capture sub-menu button.
- With Data Capture enabled (see Enable Data Capturing), click the box next to Enable image capture. The box will turn green and additional features will become available.
- 5. Uncheck the box next to Capture data only on fail.
- 6. Press Apply to accept settings and exit Menu.

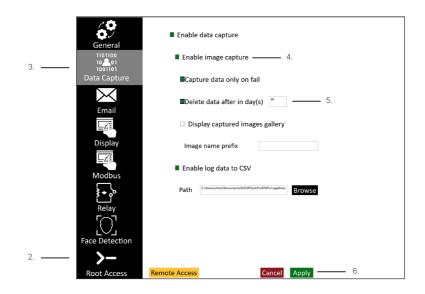
	General	Enable data capture
3	1101100 10 - 01 1001101	Enable image capture 4.
	Data Capture	Capture data only on fail 5.
	Email	Delete data after in day(s)
	-AE	Display captured images gallery
	Display	Image name prefix
	Modbus	Enable log data to CSV
	₹◆ Relay	Path CSDenijdeblijbecumentij(CDBFladhndTW)propDetes Browse
	Face Detection	
2	>-	
	Root Access	Remote Access Cancel Apply 6.

TURNING OFF CAPTURE DATA ONLY ON FAIL MAY CAN CAUSE THE IMAGES TO TAKE UP AN ENORMOUS AMOUNT OF HARD DRIVE SPACE.

22-4 Deleting Data

To protect the privacy of employees, clients, etc., users may wish to delete stored data. Individual records cannot be deleted; however, users can set an expiration date for all stored data:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Data Capture sub-menu button.
- 4. With Data Capture enabled (see Enable Data Capture), click the box next to Enable image capture. The box will turn green and additional features will become available.
- 5. Use the input box next to Delete data after in day... to enter a whole number. Data will expire after this many days.*
- 6. Press Apply to accept settings and exit Menu.



* FOLLOW THE PRIVACY POLICY OF YOUR COMPANY. UNCHECKING THE DELETE DATA BOX WILL CAUSE INFORMATION TO BE HELD INDEFINITELY.

22-5 Display Captured Images Gallery

Image capture file names are auto-generated, but you can assign a prefix:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Data Capture sub-menu button.
- 4. With Data Capture enabled (see Enable Data Capturing), click the box next to Enable image capture. The box will turn green and additional features will become available.
- 5. Click the box next to Display Captured images gallery.
- 6. Define a prefix using the input field next to Image name prefix.
- 7. Press Apply to accept settings and exit Menu.

	General	Enable data capture
3	1101100 10201 1001101	Enable image capture 4.
	Data Capture	□Capture data only on fail
	Email	Delete data after in day(s)
	LAF.	■ Display captured images gallery 5.
	Display	Image name prefix 6.
	Modbus	Enable log data to CSV
	*	Path CUUervicket/Document/VC/WTeadPruSTM1/IncegOdata Browse
	Relay	
	Face Detection	
2	>-	
	Root Access	Remote Access Cancel Apply 7.

22-6 Naming Images

Image capture file names are auto-generated, but you can assign a prefix:

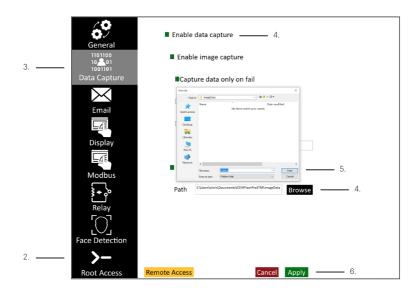
- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Data Capture sub-menu button.
- 4. With Data Capture enabled (see Enable Data Capturing), click the box next to Enable image capture. The box will turn green and additional features will become available.
- 5. Define a prefix using the input field next to Image name prefix.
- 6. Press Apply to accept settings and exit Menu.

60	Enable data capture
General 1101100 10 201 1001101	Enable image capture 4.
Data Capture	□Capture data only on fail
Email	Delete data after in day(s)
<u>L</u> IE	Display captured images gallery
Display	Image name prefix 5.
Modbus	Enable log data to CSV
}→ Relay	Path (CUDentideexi@examentidCUD#TestProsTM)regeOxta Browse
Face Detection	
2 >_	
Root Access	Remote Access Cancel Apply 6.

22-7 Choosing a Save Location for Data

You can choose a save location for data by following these steps:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Data Capture sub-menu button.
- 4. With Data Capture enabled (see Enable Data Capturing), click Browse.
- 5. A dialog box will appear. Choose a save location and click Save.
- 6. Press Apply to accept settings and exit Menu.



22-8 Enable CSV Log Data

CSV data logs can be auto-generated as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Data Capture sub-menu button.
- 4. With Data Capture enabled (see Enable Data Capturing), click the box next to Enable Log Data to CSV.
- 5. Press Apply to accept settings and exit Menu.

	General	Enable data capture
3	1101100 10 01 1001101	Enable image capture
	Data Capture	Capture data only on fail
	Email	Delete data after in day(s)
	<u>L</u> AF	Display captured images gallery
	Display	Image name prefix
	Modbus	Enable log data to CSV 4.
	**	Path CUerrivialed/Decoment/00007/e1/01/07/eareOxie Browse
	Relay	
2	>-	
	Root Access	Remote AccessCancelApply5.

CSV LOGS ARE EXCLUSIVE AND CAN BE USED TOGETHER OR SEPARATELY.

23. Email Settings

Automatic emails can be generated when a red light (fail) occurs.* Set up email as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Email sub-menu button.
- 4. Check the box next to Enable Alarm Email Notification. The box will turn green and additional email settings will become available.
- 5. Decide if you want an image capture attached to the email.
- Enter server information, username, password, send-to email, subject, and a message using the available input fields. This information will vary by email provider and account. Typically, the default SMTP port number is 587, using encryption. The server address is specific to each email provider.
- 7. Press Apply to accept settings and exit Menu.

More settings are available in the Modbus section.

	60	Enable Alarm Email	Notification <u> </u>	
	General	Send image as an a		
	1101100 10 - 01	SMTP Server Address	5	
	1001101	SMTP Port Number		
	Data Capture	Use Encryption	Yes 🗌 No	
3	\sim	Username		
	Email	Password		6.
		To Email Address		
		Subject		
	Display	Message		
	<u>⊢</u> 4⊧			
	Modbus			
	مر د ک			
	Relay		Test Connection	
				_
	Face Detection			
2	>-			
	Root Access			
	Noot Access	Remote Access	Cancel Apply 7.	

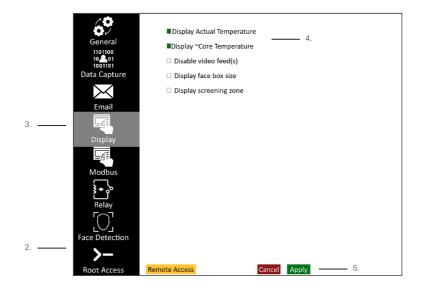
* EMAILS WILL BE GENERATED FOR ALL CAPTURED DATA REGARDLESS OF PASS OR FAIL IF CAPTURE DATA ONLY ON FAIL IS TURNED OFF IN THE DATA CAPTURE SUB-MENU.

24. Display Settings

24-1 Disable Actual and/or ~Core Temperature Data

Users can turn on/off specific interface data. This includes turning off front-end quantitative data such as Actual and ~ Core Temperature. These settings are enabled by default. To disable the data, access the display settings as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Display sub-menu button.
- 4. To disable these settings uncheck the boxes next to Actual and/or ~ Core Temperature.
- 5. Press Apply to accept settings and exit Menu.

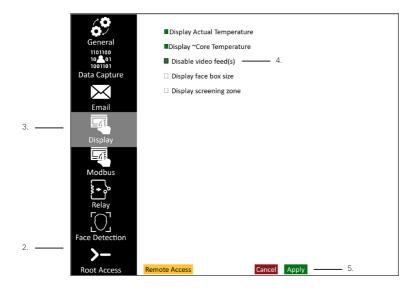


TURNING OFF THE DEFAULT SETTINGS WILL ELIMINATE QUANTITATIVE DATA FROM THE FRONT END, I.E. USERS WILL ONLY RECEIVE VIDEO FEEDS FROM IR AND VISIBLE CAMERAS WITHOUT TEMPERATURE DATA.

24-2 Turning off Video Feed(s)

Video feed(s) are on by default. Turn off the video feed(s) as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Display sub-menu button.
- 4. Check the box next to Disable video feed(s).
- 5. Press Apply to accept settings and exit Menu.

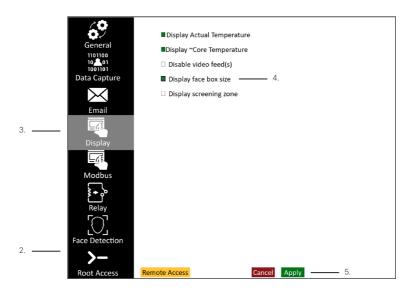


TURN VIDEO FEED(S) OFF BY UNCHECKING THE BOX NEXT TO DISABLE VIDEO FEED(S).

24-3 Display Face Box Size

Users can determine the size of the face box in pixels by enabling the face box size. Display face box size is off by default. Turn on the face box size display as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Display sub-menu button.
- 4. Check the box next to Display face box size.
- 5. Press Apply to accept settings and exit Menu.

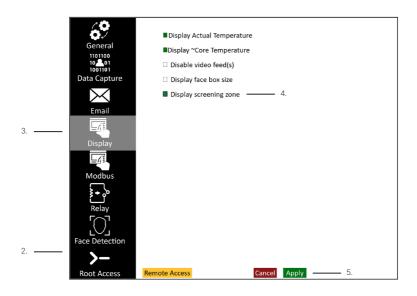


TURN FACE BOX OFF BY UNCHECKING THE BOX NEXT TO "DISPLAY FACE BOX SIZE".

24-4 Screening Zone

The screening zone is the area of the screen where temperature information is gathered for skin temperature measurements; this area makes up 70% of the available pixels and assists in preventing false positives. The screen zone is enabled by default and cannot be disabled; however, users can highlight the screening zone as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Display sub-menu button.
- 4. Check the box next to Disable video feed(s).
- 5. Press Apply to accept settings and exit Menu.

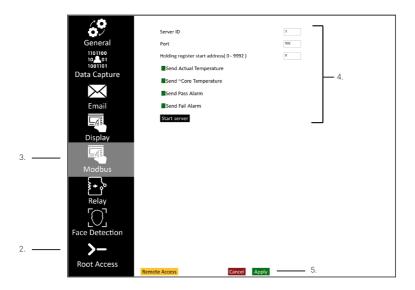


TURN THE SCREENING AREA OFF BY UNCHECKING THE BOX NEXT TO DISPLAY SCREENING ZONE.

25. Modbus Settings

The Modbus settings allow automated messages to be sent in direct response to temperatures screened by the infrared camera. Access the Modbus settings as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Modbus sub-menu button.
- 4. Change settings as desired.
- 5. Press Apply to accept settings and exit Menu.



Emails may contain the following information:

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- Actual Temperature the temperature value detected by the camera
- ~Core Temperature the pass/fail value determined by the algorithm
- Pass Alarm an alarm given when a temperature value is within the accepted threshold
- Fail Alarm an alarm given when a temperature value exceeds the accepted threshold

26. Relay Settings

3.

2.

Access the Modbus settings as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Relay sub-menu button.
- 4. Change settings as desired.
- 5. Press Apply to accept settings and exit Menu.

General 1001000 100101 1001101 Data Capture	Time to keep the Relay ON Moxa ioLogik IP Address	5 Seconds 192 . 168 . 127 . 254 Test Connection	4.		
Email Display					
 Modbus Relay					
 Face Detection	Remote Access	Cancel	Apply	5.	

WE SUPPORT ADVANTECH 4761 BE. THE SOFTWARE ONLY WORKS WITH ADVANTECH 4.0 SDK; THESE ARE THE SIGNALS THAT WILL BE TRIGGERED ON ALARMNOTIFICATIONS.

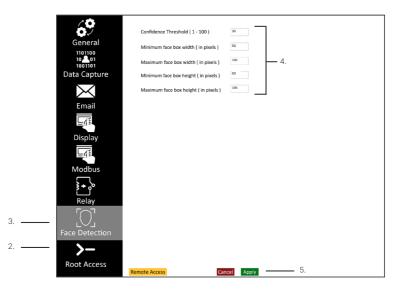
 $\begin{array}{l} \mathsf{PASS} \rightarrow \mathsf{NO0} \\ \mathsf{PAIL} \rightarrow \mathsf{NO1} \end{array}$

27. Face Detection Settings

These settings give users a range of parameters that affect sensitivity and face box size dimensions. The confidence level is a measure of how 'confident' a model is that a face is contained within the image provided to it. The higher the confidence threshold value, the more accurate is the face detector model. In general, the face detector model gives the best results with confidence thresholds between 50 and 70.

Access face detection settings as follows:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Face Detection button.
- 4. Change settings as desired.
- 5. Press Apply to accept settings and exit Menu.



The face box detected by the facial detection model has to be greater than the entered minimum face box value and less than the entered maximum face box value, e.g.

Minimum width = 50 Minimum height = 50 Maximum width = 100 Maximum height = 100

Then the face box detected by the face detection model has to be greater 50×50 and less than 100×100 to be displayed on the front end.

28. FM/FM + Series IR/Visible Camera Alignment

Dual vision cameras require an IR and visible image alignment. If you do not see this button your camera does not require an image alignment and you may skip this section.

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click on the IR/Vis Alignment button.

IR/Vis Alignment

- 4. A thermal infrared image will display over the visible camera image with 75% opacity.
- 5. Move and resize the thermal infrared image to align it with the visible image.
- 6. Once the infrared and visible images are aligned, click the apply icon "✓" in the topright corner.



IR/VISIBLE CAMERAS ALIGNMENT WILL ONLY BE AVAILABLE FOR FM & FM + DEVICES.

29. FMX 400 Focus Controls

The FMX 400 has an electronic focus. This camera will include a Focus Controls menu button. If you do not see this button your camera has manual or automatic focusing and you may skip this section.

28-1 Opening the Focus Controls Menu

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Focus Controls button.

Focus Controls

4. The focus control buttons will appear:

Focus Controls



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29-2 Closing the Focus Controls Menu

Close the Focus Controls menu by clicking or tapping "X" in the upper right corner of Focus Controls menu box.



29-3 Focus Far

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Focus Controls button to open the menu.
- 4. To focus far, press and hold the Focus Far button. The button will temporarily turn green as it focuses.



- 5. Release the button when the scene is in focus.
- 6. Close Focus Controls menu by clicking or tapping "X" in upper right corner.
- 7. Change other settings as desired.
- 8. Press Apply to accept settings and exit Menu.

29-4 Auto Focus

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Focus Controls button to open the menu.
- 4. To reset, click or tap Auto Focus button.
- 5. The button will temporarily turn green until focus is clear.



- 6. Close Focus Controls menu by clicking or tapping "X" in upper right corner.
- 7. Change other settings as desired.
- 8. Press Apply to accept settings and exit Menu.

29-5 Focus Near

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Focus Controls button to open the menu.
- 4. To focus near, press and hold the Focus Far button. The button will temporarily turn green as it focuses.



- 5. Release the button when the scene is in focus.
- 6. Close Focus Controls menu by clicking or tapping "X" in upper right corner.
- 7. Change other settings as desired.
- 8. Press Apply to accept settings and exit Menu.

THE ELECTRONIC FOCUS MENU WILL ONLY BE AVAILABLE FOR FMX 400 DEVICES.

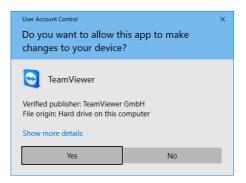
30. Remote Access

Technical support may need access to your computer to assist you in troubleshooting issues. Enable remote access:

- 1. Access the Settings Menu (see Opening/Closing the Settings Menu).
- 2. Login (see Gaining Root Access (Login)).
- 3. Click the Remote Access button.



4. Click Yes to allow the program to make changes to the computer.



5. Give technical support the information provided in the dialog box.

🤤 Infrared Cameras I —		×	
Infrared Camera	sinc		
Allow Remote Control		₽	
Please tell your partner the fo connect to your desktop	llowing ID to		
Your ID XXX	XXXXXX		
Password XXXX	xxxxx		
Ready to connect (secure connection)			
www.teamviewer.com	Cancel		

USERS MUST BE LOGGED IN TO INITIATE REMOTE ACCESS. CONTACT CUSTOMER SERVICE IF THE PASSWORD BECOMES LOST OR UNRECOVERABLE.

31. Maintenance

The software package is self-contained and requires no maintenance beyond maintaining the viability of the machine on which it resides, etc. Future updates for the software may or may not be made available to users at ICI's discretion.

32. Troubleshooting

32-1 Inaccessible Features

Grayed out features are inaccessible and require user permissions.

Solutions:

- 1. Login (see Gaining Root Access (Login)).
- 2. Enable parent settings after logging in (see Gaining Root Access (Login)).

32-2 Error: Temperature reference view seems to be obstructed

The thermal reference source is still warming up, is being blocked from the thermal sensor, or the green cursor is not correctly positioned.

Solutions:

- 1. Wait for the thermal reference source to reach the proper temperature.
- 2. Position the green cursor in the middle of the temperature reference (see Setting a Known Fixed Temperature).
- 3. Do not stand in front of the temperature reference or block the camera's view of the temperature reference.
- 4. Instruct clients to mount the temperature reference source in a higher or lower position while following ISO 13154, which instructs operators to meet specific environmental conditions.

Error: Temperature reference view seems to be obstructed. he difference between the calculated and the temperature reference value is greater than 2 °C Calculated 22.0 °C Actual 37.0 °C

32-3 Abnormal Low/High Temperature Readings

The drivers for the camera are not installed or it is time to re-calibrate the device(s).

Solutions:

- 1. Install driver(s) for the camera(s). Contact ICI with serial number(s) to request missing driver file(s).
- 2. Contact ICI to schedule device re-calibration (see About ICI).

ANNUAL RE-CALIBRATION OF THERMAL DEVICES IS REQUIRED FOR ACCURATE TEMPERATURE MEASUREMENTS AND PROPER MAINTENANCE.

32-4 False Pass: Obstruction

The system incorrectly reports a person has a normal core temperature when the person does not have a normal core temperature. The person being scanned either has eye wear or a head covering that blocks the hottest part of the face. There may also be other obstructions in the scene.

Solutions:

- 1. Instruct the operator to follow ISO 13154, which states the operator must instruct the person being scanned to remove glasses, masks, hats, and any other face coverings during the scan.
- 2. Check screening area for obstructions.

32-5 False Fail: Internal issue

The system incorrectly reports a person has an elevated ~core temperature when the person does not have an elevated ~core temperature due to faulty calibration, incorrect implementation of calibration formula, or inaccurate core temperature estimation. This could also be caused by a faulty piece of hardware.

- 1. Test the IR camera per IEC 80601-2-59-2017.
- 2. Contact customer service.
- 3. Verify ~core temperature by traditional temperature measurement methods.

32-6 False Fail: Dual camera systems (infrared and visible)

The dual camera system incorrectly reports a person has an elevated ~core temperature when the person does not have an elevated ~core temperature due to the misalignment of the infrared and visible images.

Solutions:

- 1. Ensure proper alignment of visible and IR camera images.
- 2. Verify ~core temperature by traditional temperature measurement methods.
- 3. Test the IR camera per IEC 80601-2-59-2017.

32-7 Abnormal Readings: Reflective surfaces

The background of the scene contains a reflective surface such as Plexiglas, a mirror, or shiny metals.

Solutions:

- 1. Remove the reflective surface, or cover it with something non-reflective.
- 2. Check screening area for other obstructions.

32-8 Incorrect position of infrared camera to person being screened.

The infrared camera is too close or too far from the subject as well as the temperature reference source leading to incorrect temperature values.

Solutions:

1. Instruct clients to mount the infrared camera in a higher or lower position while following ISO 13154, which instructs operators to meet specific environmental conditions.

32-9 Subject's face not in the frame despite standing in target location

Faces are not being seen by the system because subject is taller or shorter than expected or there is incorrect framing of the scene which occurred during setup.

- 1. Re-frame scene correctly.
- Instruct clients to mount the camera and temperature reference source in a higher or lower position while following ISO 13154, which instructs operators to meet specific environmental conditions.

32-10 Not able to detect faces

Faces are not being detected by the system because the face box is too small, is absent from the screening area, or the confidence level is too high.

Solutions:

- 1. Check face box size.
- 2. Check screening area.
- 3. Decrease confidence threshold.

NOTE THAT A CONFIDENCE THRESHOLD VALUE < 50 IS NOT RECOMMENDED.

32-11 Blurry Images

Camera is out of focus.

Solutions:

- 1. Adjust camera focus near, or
- 2. Adjust camera focus far.

AUTOMATIC CAMERAS FOCUS AUTOMATICALLY. MANUAL CAMERAS CAN BE ADJUSTED USING THE FOCUS RING ON THE CAMERA. SOME CAMERAS HAVE ELECTRONIC FOCUS (SEE FOCUS CONTROLS).

32-12 Image Feed without Data

Settings are turned off or there is another issue.

- 1. Check display settings (see Display Settings).
- 2. Ensure camera is plugged into an appropriate wall outlet (if applicable).
- 3. If the error is accompanied by an ICI logo, ensure the camera is plugged into the computer properly.

32-13 ICI Symbol without Data

Camera is not connected or lacks power.

Solutions:

- 1. Ensure the camera is plugged into the computer.
- 2. Ensure the camera is plugged into an appropriate wall outlet (if applicable).



32-14 ICI Symbol with Data

Video feed is turned off.

Solutions:

1. Check display settings (see Display Settings).



32-13 Alarms do not sound

Alarms are not enabled.

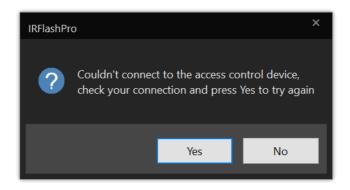
Solutions:

1. Check the sound settings (see Alarm Settings).

32-13 Couldn't connect to the access control device

The access control device is not connected properly or is not being powered.

- 1. Ensure all devices are plugged into an appropriate wall outlet (if applicable).
- 2. Ensure the control access device is connected properly.
- 3. Restart the computer.



33. About ICI

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You may reach a representative by phone or email Monday - Friday 8:00AM - 5:00PM CST.

ICI manufactures complete systems and software. We can provide complete engineering, software, and OEM solutions. Our Fortune 500 clients rely on us for infrared equipment and thermography training (which we offer through the Infrared Training Institute).

In addition to providing custom germanium, silica, and sapphire optics, we also build windows for enclosures, as well as custom pan and tilt units. We can even provide customizable explosion-proof systems.

Our knowledge and experience stems from years of using infrared imaging and temperature measurement instruments to provide solutions to: managers, engineers, scientists, inspectors and operators in space, power companies, medical, pulp and paper, food industry, research and development, and various process industries. You can see our products and services used in industrial, commercial, and government applications worldwide. Originally named Texas Infrared (still DBA), Infrared Cameras, Inc. has been in business since March, 1995.

Thank you for your dedicated and continued support.