



HIKMICRO

HIKMICRO Analyzer Client V1.7.1
Release Notes

TABLE OF CONTENTS

1	Introduction	3
1.1	Version information	3
1.2	Multilanguage type	3
1.3	Running environment	4
2	New features	5
2.1	Library and task list	5
2.1.1	Quick access folders are added in the library	5
2.1.2	Files in my favorites can be categorized by asset ID and fault rating	5
2.1.3	New ways of adding and managing files in task list	6
2.1.4	Thermal images in task list can be grouped	6
2.2	Image analysis	7
2.2.1	Image and measurement parameter synchronization rule for files in task list updated	7
2.2.2	Batch modifying tag notes of multiple thermal images is supported	8
2.2.3	Importing custom palettes to render images is supported	8
2.2.4	UI adjusted for palette parameter settings and function adjusted for insulation	9
2.2.5	Continuous drawing of temperature measurement tools is supported	9
2.2.6	Visual picture note of thermal images will be displayed	10
2.2.7	Temperature distribution chart and line chart can be exported in images and csv data	10
2.3	Report generating and exporting	11
2.3.1	Template library is added to manage system and custom templates	11
2.3.2	Image groups and templates	12
2.3.3	Regional image enhancement of the measurement tools	13
2.3.4	Thermal images are allowed to edit and overlay information in the report	13
2.3.5	Linking visual picture note and other image to report are supported	14
2.4	Video and live analysis	15
2.4.1	Finger video is supported	15
2.4.2	Resetting parameters in image and video analysis is supported	16
2.4.3	Scheduled capture is available during live analysis	16
2.4.4	Burning-prevention prompt is supported	16
2.4.5	SuperIR is available for low IR resolution videos	17
2.4.6	Thermal video resizing is supported	17
2.4.7	Thermal video is allowed to rotate	17
2.4.8	GPS and location information will be refreshed during video playing	17
2.4.9	Total 32 temperature curves are supported for a chart	18
2.5	Device connection operation optimized for live analysis	18
2.5.1	Connecting the device by network is available	18
2.5.2	Identifying and reading a USB 3.0 device are available	19
2.5.3	The client is able to recognize multiple USB devices and switch streaming among them	19
2.6	New device settings are available	20
2.6.1	Manual image calibration is supported	20
2.6.2	Temperature range adjustment is supported	21
2.6.3	Focusing control is available	21
2.7	Overlay measurement results in analysis window	21
3	Optimization	23
4	Product compatibility	24

1 Introduction

The HIKMICRO Analyzer client is used to view the temperature information contained in thermal images and radiometric videos, and perform temperature measurement data analysis.

Thermal images taken by a thermal camera can be imported to the client for file management and analysis.

The client provides file management functions including file tagging, categorization, etc. In addition, file analysis can be performed, including image editing and temperature measurement data analysis. Multiple operations can be performed for the analysis, including configuring measurement tools, adjusting measurement parameters, switching image display mode, setting color alarms, etc. After the analysis, you can view the measurement results and charts, and save the images or export the report as required.

Radiometric videos recorded by a thermal camera can also be imported to the client for analysis. You can obtain the measurement results by configuring measurement tools, adjusting measurement parameters, etc. At the same time, the time-temperature curves and temperature distribution histograms will be displayed for you to check the temperature changes and distributions.

A thermal camera can be connected to the client for live view, and the real-time temperature measurement analysis can be performed for the live view image. You can obtain the measurement results by configuring measurement tools, adjusting measurement parameters, etc.

1.1 Version information

Version	Date
HIKMICRO Analyzer V1.7.1	2024-09

1.2 Multilanguage type

Type	Chinese, Czech, Danish, Dutch, English, Finnish, French, Germany, Hungarian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Russian, Romanian, Slovak, Spanish, Swedish, Turkish, Traditional Chinese
------	--

1.3 Running environment


Operating System	Microsoft® Windows 7 (64-bit operating system) Microsoft® Windows 10 (64-bit operating system) Microsoft® Windows 11 (64-bit operating system)
CPU	i5-4590 or above
RAM	4G or above
Graphics Card	RADEON X700 series 256M or above

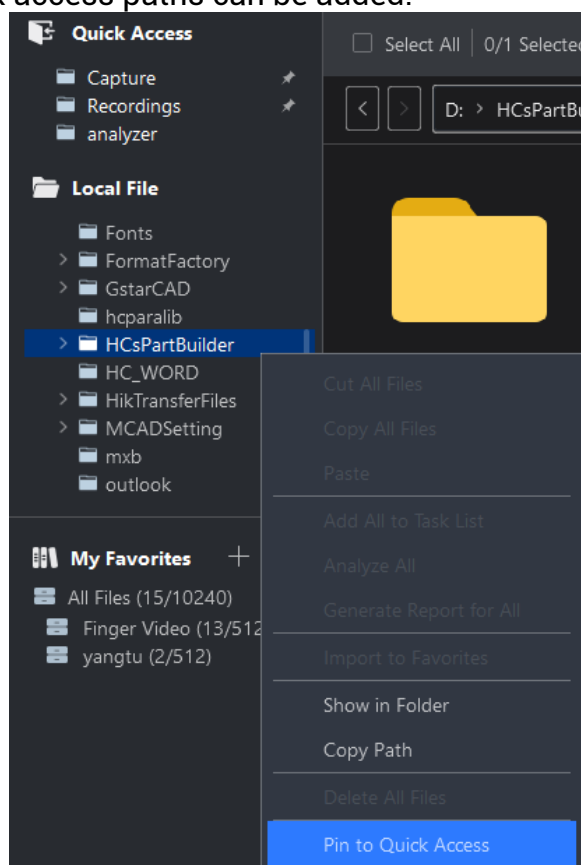
2 New features

This chapter introduces the new features of HIKMICRO Analyzer Client V1.7.1.

2.1 Library and task list

2.1.1 Quick access folders are added in the library

- Two default folders: capture and recordings are used to store the images and videos from video analysis and live analysis. Edit default path through  > **Location** to edit the default path.
- Users can pin frequently visited folders n folders to quick access path. Right click on a folder from local files and select **Pin to Quick Access**. Up to 5 quick access paths can be added.

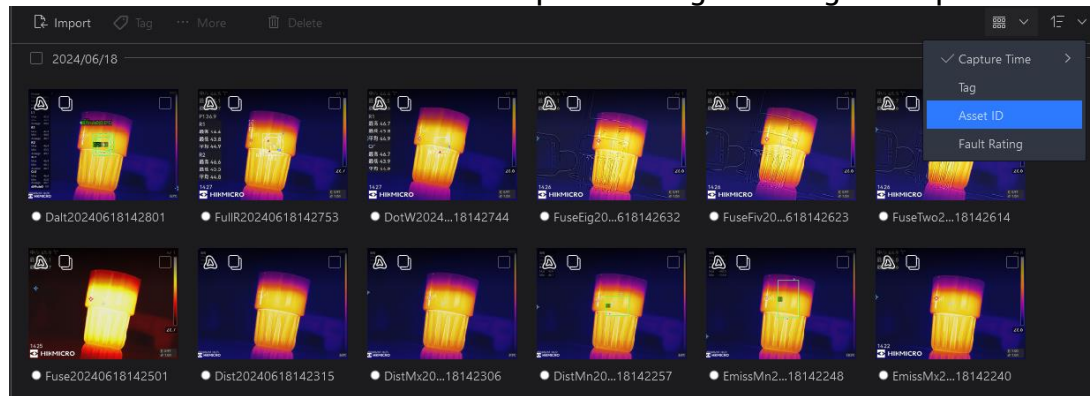


2.1.2 Files in my favorites can be categorized by asset ID and fault rating

The files in My Favorites can be categorized by **Asset ID**, and **Fault Rating**.

- The asset ID is added manually or by scanning QR code when the thermal image was taken by the device.

- The fault rating is the fault level tag added manually or by auto-identification when the device captures images during an inspection.



2.1.3 New ways of adding and managing files in task list

- Support adding files by dragging a folder from my favorites to the task list.
- The files in the task list support dragging to adjust the order.

2.1.4 Thermal images in task list can be grouped

The images in task list supports grouping, and a group contains up to four images.



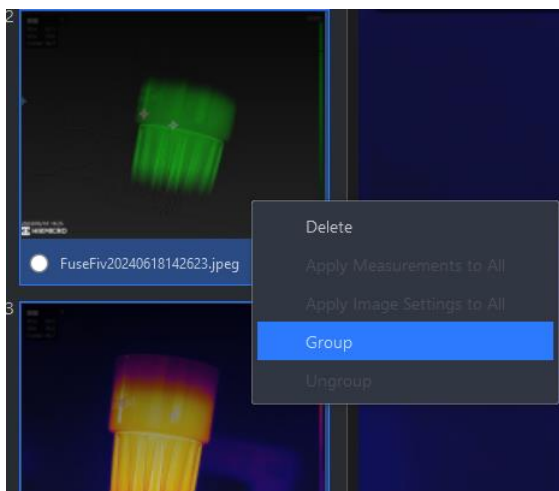
Users can only add group in the Analysis page.

Influence of Image Groups:

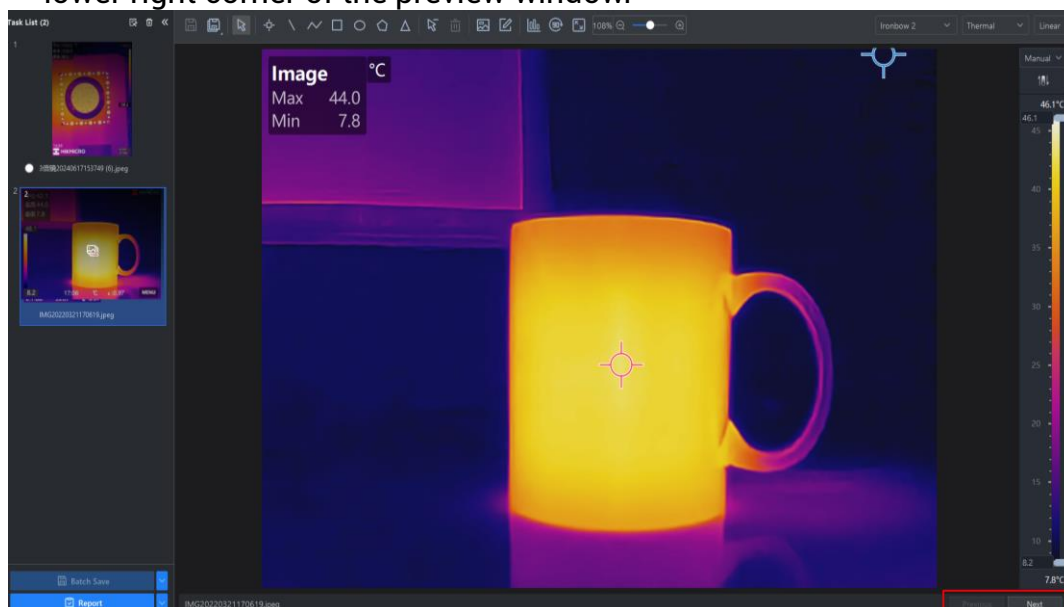
- Measurement and image parameter synchronization in task list. Please refer to 2.2.1
- When generating a report, if the report template contains a page with the same thermal image number as in a group, you can quickly import images by group. Please refer to 2.3.2

Create/Ungroup an Image Group:

1. Select files you want to group in task list. Images or groups are allowed. Up to 4 images are allowed in one group. Hold the Shift key and left click to select continuously, or hold the Ctrl key and left click to select one by one.



2. Select **Group** from right-click menu. The number of images in the group is shown in the upper-left corner of the group thumbnail.
3. View images in the group. Select a group, and click **Previous**, **Next** in the lower right corner of the preview window.



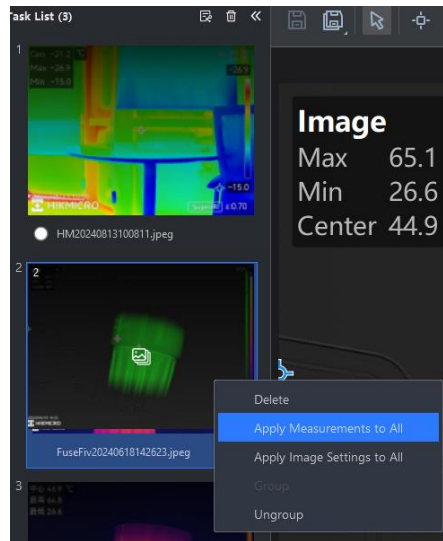
4. Ungroup. Select a group, right click and select Ungroup.

2.2 Image analysis

2.2.1 Image and measurement parameter synchronization rule for files in task list updated

This version modifies the logics of synchronizing image parameters and measurements.

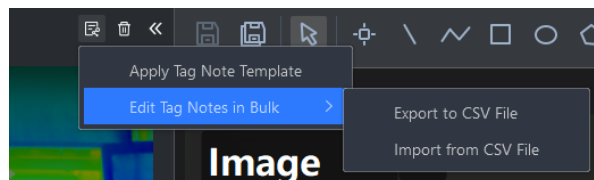
Select one image or one group in the Task List, and right-click to select **Apply Measurements to All** and **Apply Image Settings to All** to batch set the image parameters or measurements in the Task List.



- Select one thermal image and synchronize parameters or measurements. The parameters and measurements of all non-grouped thermal images and the first thermal image of grouped thermal images in the Task List are synchronized.
- Select one group and synchronize parameters or measurements. When you select an image group to start applying, all individual thermal images will be applied with the parameter and measurements settings of the first image in the group, and the settings of images in other groups are synchronized according to the image order in selected group.

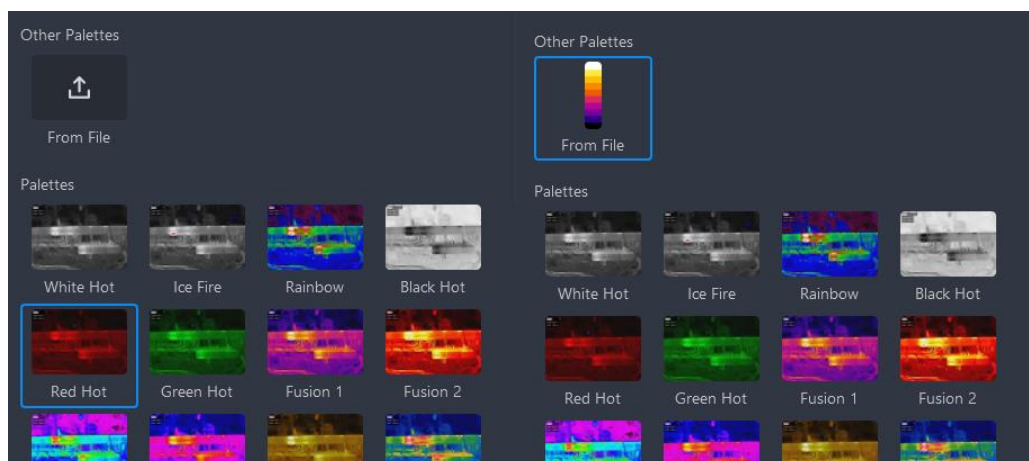
2.2.2 Batch modifying tag notes of multiple thermal images is supported

The tag notes of all images in the task list are supported to batch modify by exporting and importing CSV file.



2.2.3 Importing custom palettes to render images is supported

- It is supported to import one custom palette file (*.pal) through **From File**. After you import it, the new palette is displayed in Other Palettes.

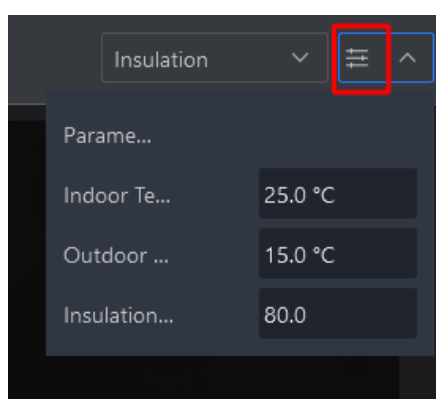


- If the imported image has a non-built-in palette, its palette will be displayed in Other Palettes. The palette is only available to this imported image, and is not available to others in the Task List.

2.2.4 UI adjusted for palette parameter settings and function adjusted for insulation

Select color alarms or focus mode palettes. In the upper-right corner of Analysis page, click the parameter drop-down list to set the parameters of the selected focus or alarm type.

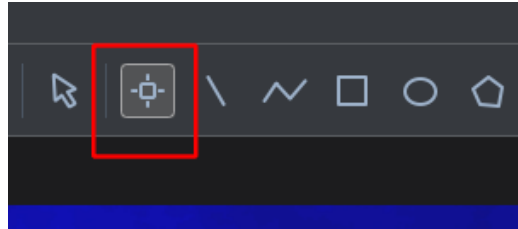
The parameters of insulation alarm changed. This version of insulation palette is commonly used for analyzing the insulation performance of buildings. Set the indoor temp. and outdoor temp., and the insulation level (It is recommended to set the insulation level between 60 and 80. The higher the insulation level is, the higher the requirement for insulation demands). The area with detected insulation level lower than the set value is marked in cyan.



2.2.5 Continuous drawing of temperature measurement tools is

supported

In the toolbar, double click on an icon to draw tools continuously. Or enter the continuous drawing state through shortcut keys. Click the rule icon again, or press the ESC key to exit the continuous drawing state.



The newly supported shortcut keys for continuous drawing are as follows:

Spot: Shift + Ctrl + q

Line: Shift + Ctrl + w

Polyline: Shift + Ctrl + e

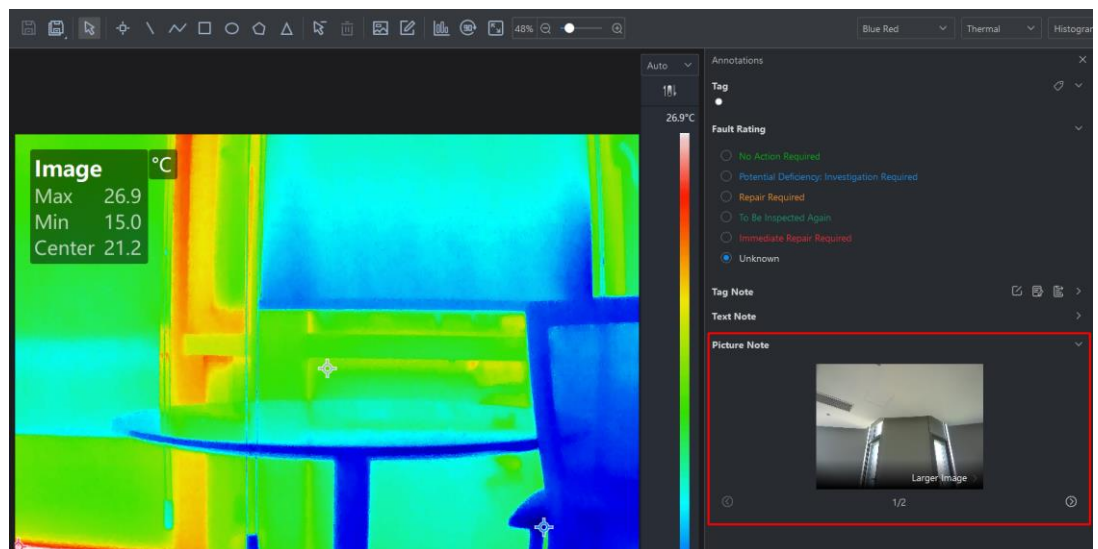
Rectangle: Shift + Ctrl + r

Circle/Ellipse: Shift + Ctrl + t. In this version, the elliptical rule and circular rule are merged. In the drawing state, hold the Shift key to draw the circles.

Polygon: Shift + Ctrl + y

2.2.6 Visual picture note of thermal images will be displayed

Support viewing the picture note of thermal image. When the image contains multiple picture notes, they can be viewed through ⏪ and ⏩.



2.2.7 Temperature distribution chart and line chart can be

exported in images and csv data

When analyzing files, temperature distribution chart and line chart support exporting images or CSV format data through the right-click menu.

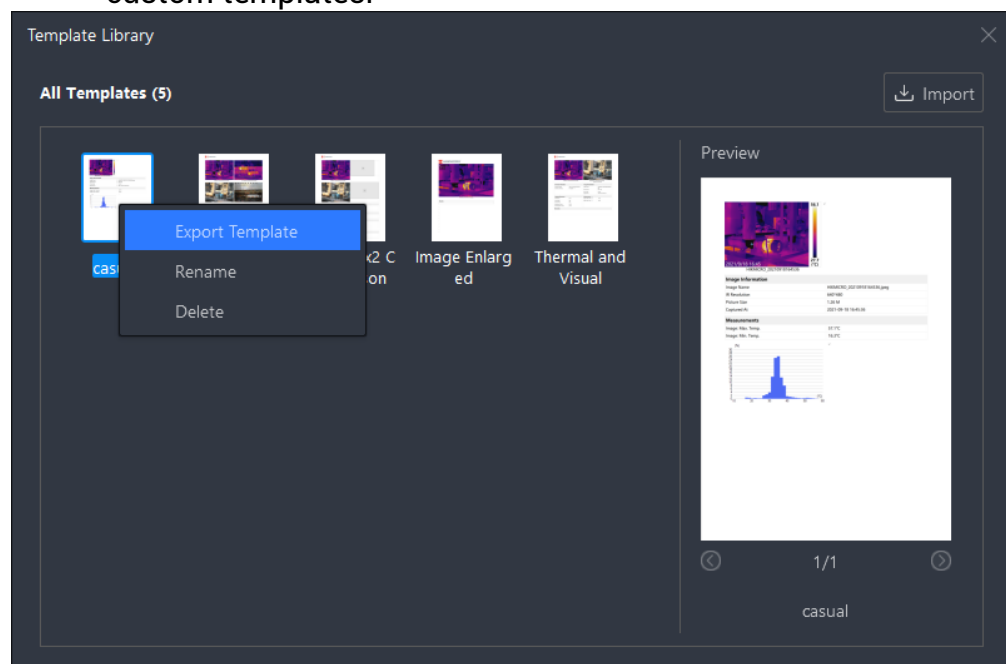


2.3 Report generating and exporting

2.3.1 Template library is added to manage system and custom templates

This version has a template library to manage system and custom templates. Enter the library by clicking the **Template Library** button in the upper right corner.

- Support built-in templates preview in library.
- Support importing, previewing, exporting, deleting, and renaming custom templates.



Built-in template adjustment

- Four commonly used page templates are saved as built-in templates.
- Deleted Appendix Page.
- Users can add cover page and overview page by right-clicking menu when editing the report

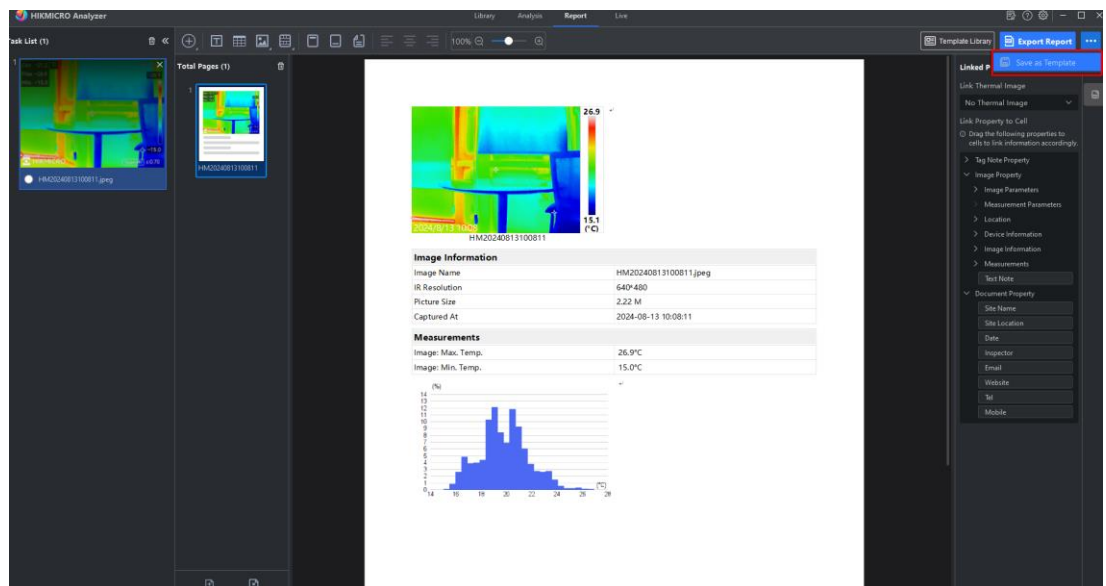
Support saving custom report template

Support saving, importing, and exporting report templates (including a cover page, content pages, and an overview page). It is compatible with templates from previous versions of the client.

After completing editing of a report, users can save it as a template by clicking **Save as Template** on the top right corner of the page.

The content saved in a report template includes:

- Pages without thermal images.
- Pages with different number of thermal images, one page for each number. If there are several pages contains the same amount of thermal images, the first page will be saved in the report template as a page template.



2.3.2 Image groups and templates

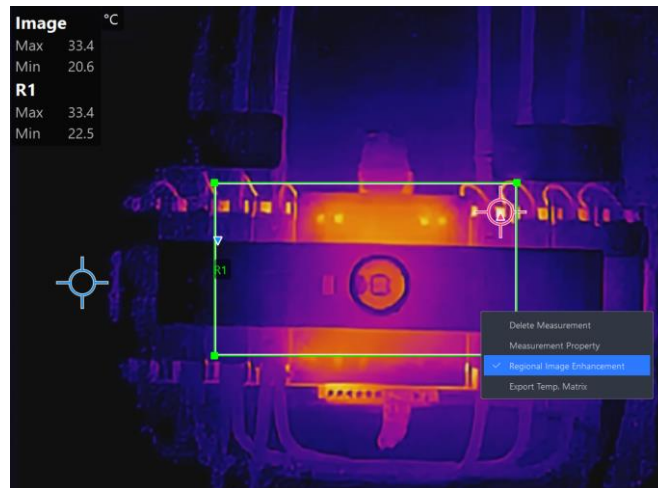
When generating a report using a report template, the client will automatically match the images groups to the page templates with corresponding number of images based on the file grouping in the task list.

If the number of images in a group does not correspond to any page template in the report template, the client selects the page template according to the principle of displaying pictures in the group as many as possible. For example, if there is a 3-image group in task list, and there are

only 4-image and 2-image page templates in the report, the client will choose the 4-image page template for the group.

2.3.3 Regional image enhancement of the measurement tools

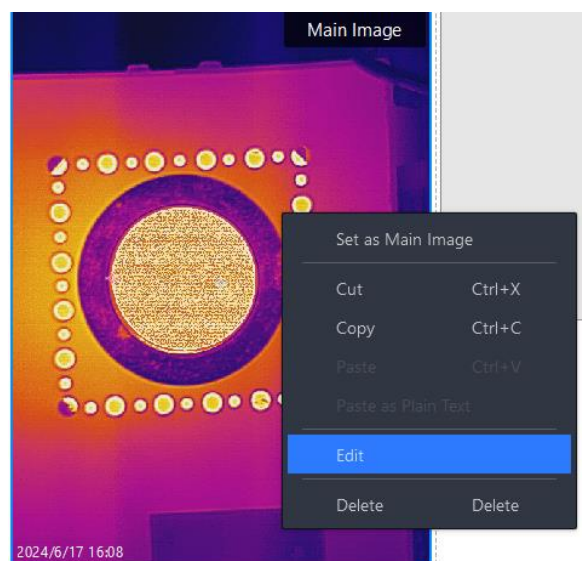
In thermal video, finger video, and LIVE analysis, right-click menu and select Regional Image Enhancement to refresh the color distribution to provide more details of the selected measurement tools (ellipse, circle, rectangle, or polygon).




2.3.4 Thermal images are allowed to edit and overlay information in the report

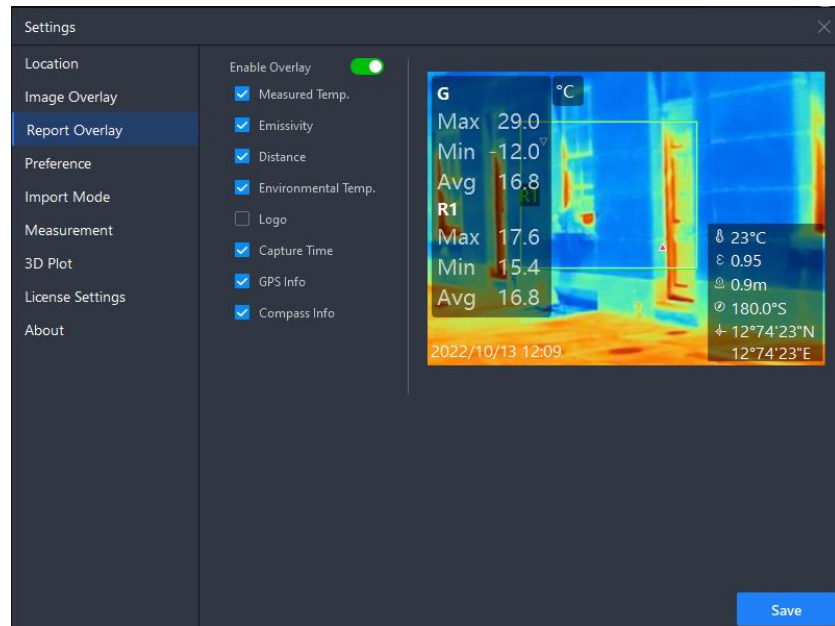
Analyze thermal image within the report

In the Report page, double-click on a thermal image or right-click and select **Edit** to start editing and saving the image.



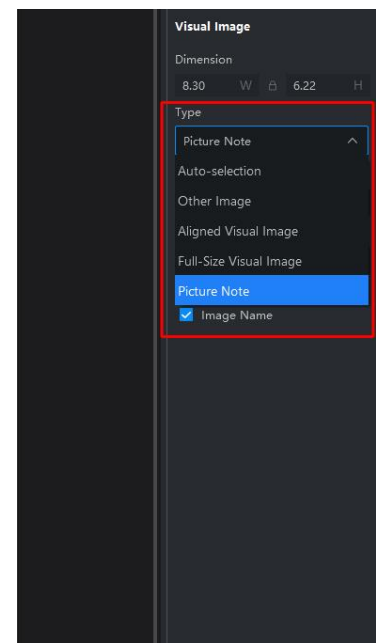
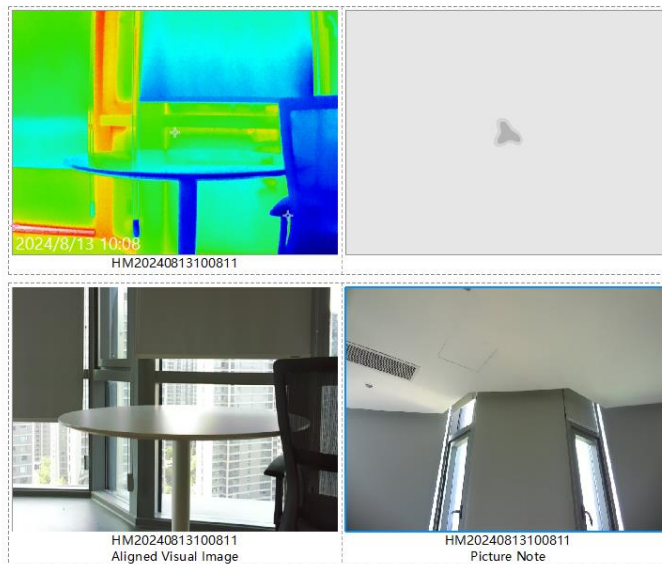
Information overlay

Go to  Settings > Report Overlay to enable the function and set overlaid information.

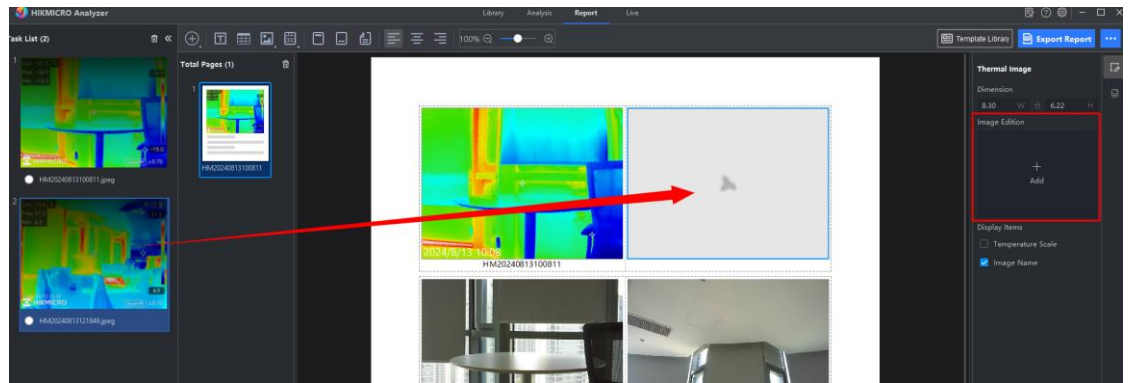


2.3.5 Linking visual picture note and other image to report are supported

- Linking picture note of a thermal image to the visual image object in report is supported.



- Linking non-thermal images (Other Image from type selection) to the visual image object in report is supported. Non-thermal images include all JPEG, JPG, PNG, and BMP format images. After selecting **Save to Template**, the image can be saved in the template when saving the page or report as a template.

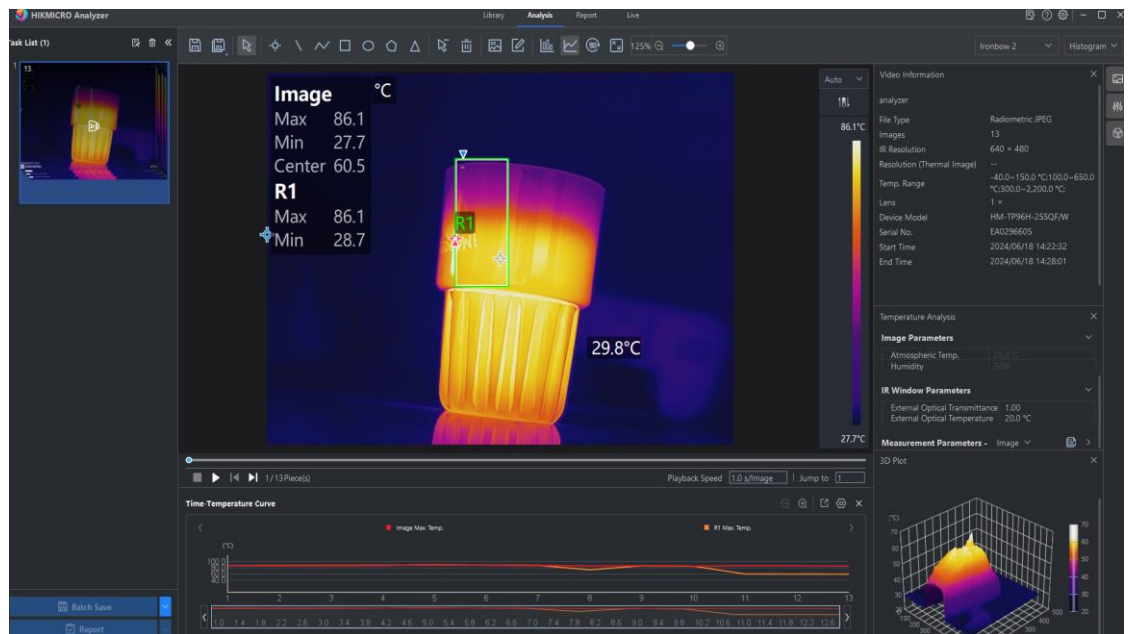


- When adding non-thermal images through visual images, you can add them through the image unit settings panel on the right, or drag images from the task list to the image object on the page.

2.4 Video and live analysis

2.4.1 Finger video is supported

A finger video is a composed collection of multiple thermal images captured by the same device. It can be played and analyzed like a video according to the shooting time.



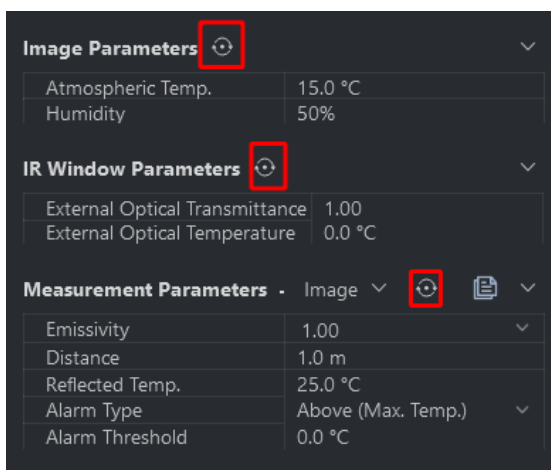
Generating a finger video

1. Put the images that need to be generated as a finger video into the same folder in the Library (Both Local File and My Favorites are supported).
2. In the Library, drag the folder to the Task List. Then the video is generated.

If the folder contains images that are inconsistent with the requirements, they will be deleted in the generated finger video. Up to 512 thermal images can be included in one finger video.

2.4.2 Resetting parameters in image and video analysis is supported

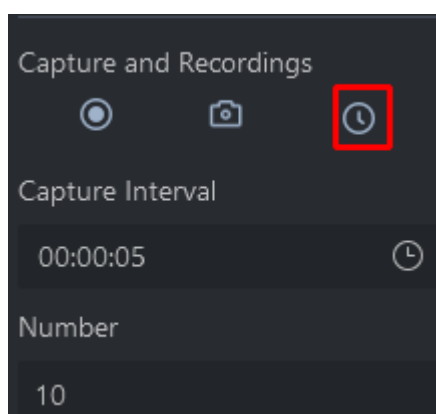
In image and video analysis, the modified Image Parameters, IR Window Parameters, and Measurement Parameters can be reset by clicking .



2.4.3 Scheduled capture is available during live analysis

During LIVE analysis, you can set capture images. Set **Capture Interval** and **Number** in **Capture and Recordings** on the left. Then click **Schedule** to start capturing.

View the saved images in **Capture folder** in **Quick Access** in Library.



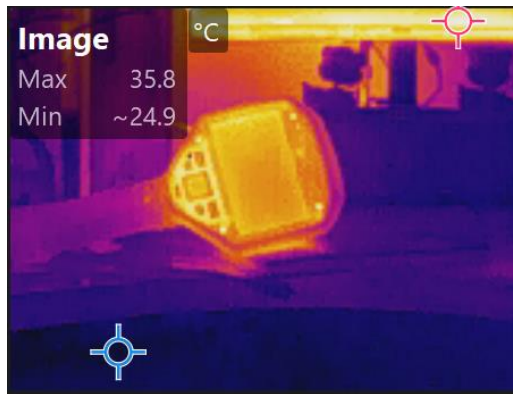
2.4.4 Burning-prevention prompt is supported

If the device enters burning-prevention mode during live analysis or the video analysis plays the recorded image in the burning-prevention state, there will be a prompt reminding users of this situation. When the device observes high-temperature targets that may cause damage to the

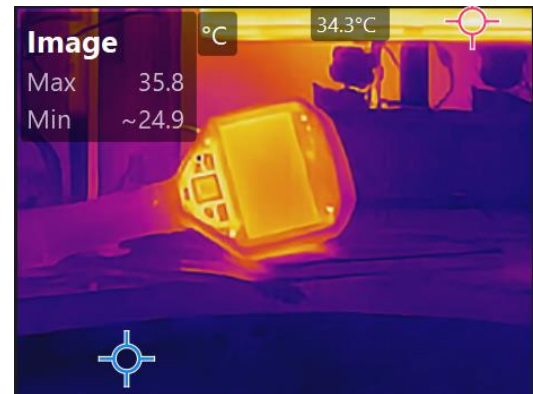
detector, it automatically enters the burning-prevention mode. In this mode, the shutter is closed, which affects imaging and temperature measurement.

2.4.5 SuperIR is available for low IR resolution videos

When the IR resolution of a video is lower than 256×192 , the client offers an option on the upper right corner to turn on SuperIR. It will display more details of the image.




Before SuperIR




After SuperIR


2.4.6 Thermal video resizing is supported

In the toolbar,  86%   to resize the image.

 is the Fit to Window mode. The image size will be auto-adjusted to the window size.

 is the Fixed Size mode. During adjustment, the image size will not change following the window size.

2.4.7 Thermal video is allowed to rotate

In the toolbar, click  Rotate once, and the video will rotate 90 degrees. Click **Save**, the rotation effect will be saved.

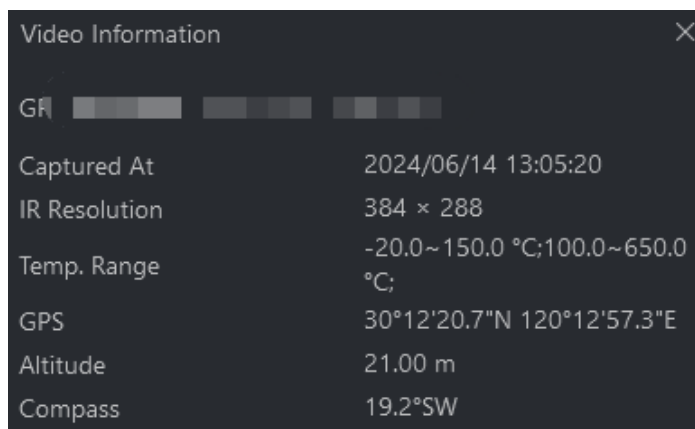


When users add measurements on the thermal images and rotate them, the measurements will be invalid and need to be reset.

2.4.8 GPS and location information will be refreshed during video

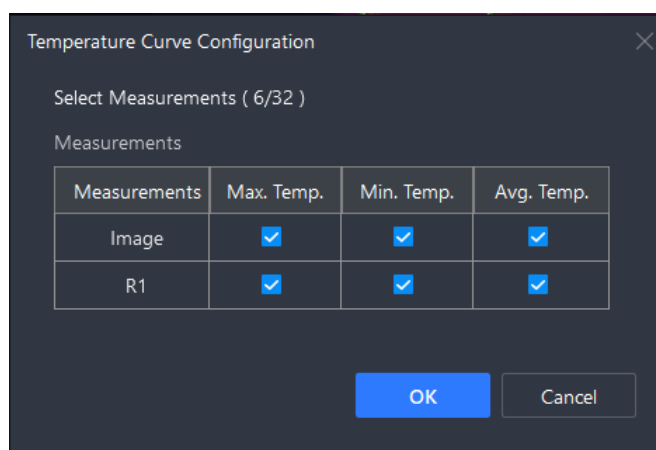
playing

When display the thermal video, if the GPS and location information changed, they will be displayed on the panel.



2.4.9 Total 32 temperature curves are supported for a chart

Maximum 32 curves can be displayed in a time-temperature curve chart for the thermal video, finger video, and LIVE analysis.




2.5 Device connection operation optimized for live analysis

2.5.1 Connecting the device by network is available

Connecting your thermal camera by wired or wireless network for live analysis is supported.

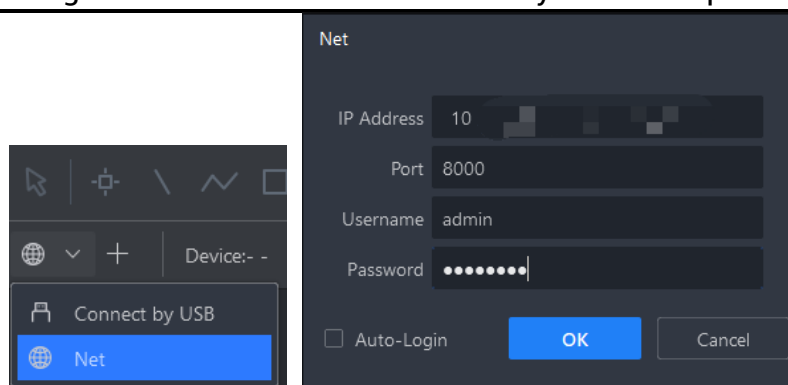
For this way of connecting, 1) the camera and the PC should be in the same local network in wired or wireless way; and 2) the user name and password of the camera should be acquired in advance.

You can use HIKMICRO Studio (available on our website) to search for the IP address and port of your camera in local network, and activate the camera by setting an admin password when necessary.

1. In the top-left corner, click  > Net > +
2. Input IP Address, Port, Username, and Password. Click OK.
3. Click **Connect** to start streaming. Click **Disconnect** to stop live view.



- Check **Auto-Login** to save the parameters in the client. When the client restarts, it will search for the camera and auto log in to it if it is online.
- After logging in, device model displays in the device connection area. The green dot in front of device model means logging in normally. For the meanings of dot in other colors, refer to the screen information.
- If you use a different computer account to run the client, the client will not auto log in to the camera remembered by other computer accounts.



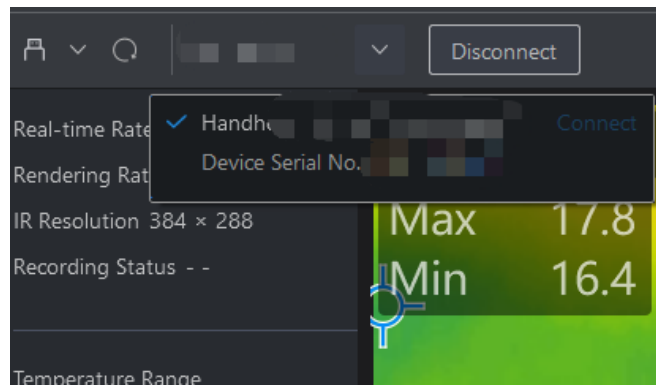
2.5.2 Identifying and reading a USB 3.0 device are available

The client supports to identify whether the device supports USB 3.0. It is recommended to connect with USB 3.0 port and cable if your PC and device support the function.

If your camera supports USB 3.0, follow the prompts on client to change USB port. Comparing to USB 2.0, USB 3.0 allows higher frame rate settings to ensure smoother streaming for certain high IR resolution model.

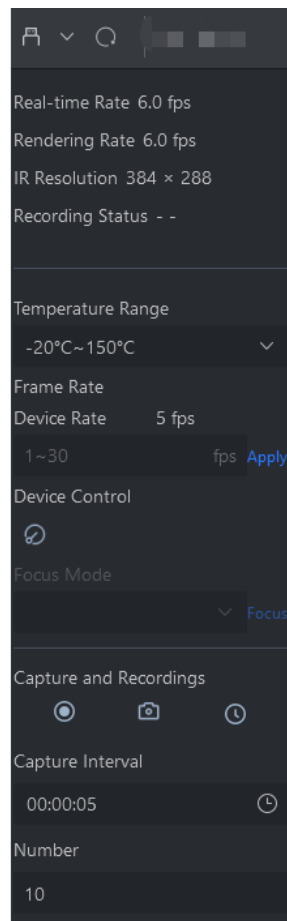
2.5.3 The client is able to recognize multiple USB devices and switch streaming among them

Identified devices are listed in the device list on left. Select a device and click **Connect** to start live view.




2.6 New device settings are available

The newly added settings require support from the device. The settings supported by different access methods (USB or network) also vary, please refer to the client.



2.6.1 Manual image calibration is supported

Due to its own limitations, the device need to calibrate the image from time to time to ensure the imaging effect and temperature measurement

accuracy. Normally, the camera calibrates image automatically. Users can also click  on the left to manual calibrate image once.

2.6.2 Temperature range adjustment is supported

The client supports to set Temperature Range of the device. Supported ranges are different in different models.

2.6.3 Focusing control is available

The function is only available for devices that support auto focus and are connected by USB. Available focus mode varies according to camera models, please refer to the client.

Select a Focus Mode and operate according to the following instructions.

Auto Focus

Focus on the center area or a user-selected area.

- In this mode, click Focus on the right side, and then the device focuses the center area once.
- Click any place in image, and select Focus in the right-click menu.
- Click a measurement tool (circle, ellipse, rectangle, or polygon) in image, and select Focus on Tool in the right-click menu.

Continuous Autofocus

In this mode, the device decides the focusing area according to the observation scene. It refocuses when the observation scene changes.

Users can not change focusing area in this mode.

Laser-Assisted Focus

In this mode, click Focus on the right side, and the device emits a laser beam to measure the distance to the center area of the scene. The device focuses precisely according to the distance.

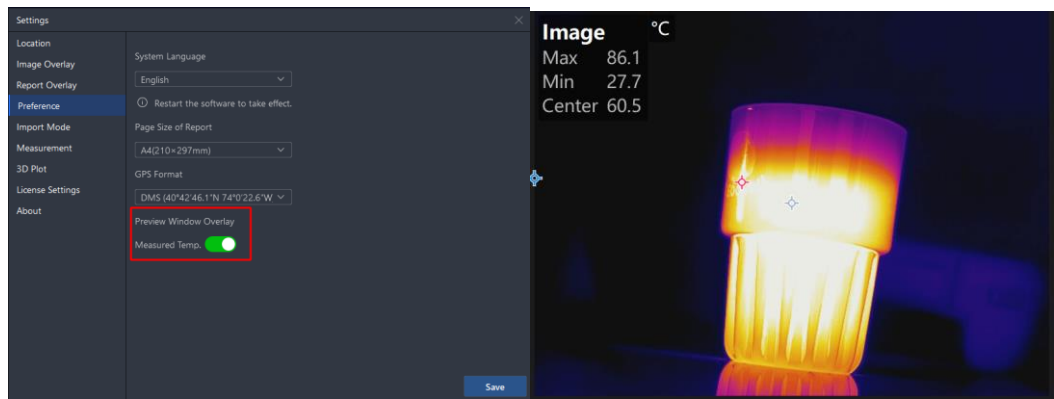


Caution

When using laser-assisted focus, make sure there is no human staying at the focusing area to avoid possible injury caused by exposure to laser beam.

2.7 Overlay measurement results in analysis window

To display the measured temperature values on image, video, and LIVE analysis, go to Settings >Preference > Preview Window Overlay to turn on Measured Temp..



3 Optimization

- Optimized the effect of temperature distribution chart and 3D plot.
- Solve the color inconsistency of 3D plot in linear color distribution mode.
- The maximum number of task list files has been increased to 512.
- The maximum file number in one My Favorites folder is adjusted to 512, while the total amount in my favorites remains unchanged.
- Up to 64 report templates/page templates are supported.
- The maximum number of pages in a report is now 512 content pages, 1 cover page, and 1 overview page.
- Optimized the display of OSD overlay for thermal images in report. The overlay size is auto controlled according to the image size.
- Optimized the client startup speed.
- Optimized the speed of reconnecting to a USB device during live analysis.
- User interface rearranged and improved.

4 Product compatibility

Device Capability

✓ Supported

✗ Not supported

Models	Image Analysis*1	Image Report*2	Video Analysis*3	Live Analysis over UVC with Latest Firmware*4	Latest Firmware
SP60(H), SP40(H)	✓	✓	✓ since V5.5.29	✓	V5.5.75
G61(H), G41(H), G31, G60, G40	✓	✓	✓ since V5.5.27	✓	V5.5.54
FT31	✓	✓	✗	✗	V5.5.73
M60	✓	✓	✓ since V5.5.49	✓	V5.5.75
M30	✓	✓	✓ since V5.5.27	✓	V5.5.54
M20(W), M11(W)	✓	✓	✗	✗	V5.5.75
M10	✓	✓	✗	✗	V5.5.19
Mini3	✓	✓	✓	✓	V2.0.19
Mini2, Mini2Plus	✓	✓	✓*5	✓	V2.0.20
Mini2 V2, Mini2Plus V2	✓	✓	✓	✓	V2.0.5
Pocket 2, Pocket C	✓	✓	✓ since V5.5.61	✓	V5.5.72
Pocket1	✓	✓	✗	✗	V5.5.72
B20(S), B10(S), B01(S), B11, B21L(S), BX20, FB21	✓	✓	✗	✗	V5.5.72
B2L, B1L	✓	✓	✗	✗	V5.5.15
E1L	✓	✓	✗	✗	V5.4.47
Eco, Eco(-V)	✓	✓ since V5.5.61	✗	✗	V5.5.72
Pocket E	✓	✓ since V5.5.61	✗	✗	V5.5.72
E01, E02, E03	✓	✓ since V5.5.61	✗	✗	V5.5.62



- Image Analysis: Analysis with radiometric images.
 - Image Report: Report generation with radiometric images.
 - Video Analysis: Analysis with radiometric videos, relying on cameras that support radiometric video.
 - Live Analysis over UVC with Latest Firmware: Live stream and live analysis, relying on cameras that support Radiometric Infrared-Video Streaming with the latest firmware.
 - For Mini Series, the video used in Video Analysis should be a radiometric video recorded in HIKMICRO Analyzer by Mini camera.
-

Legal Information


© Hangzhou Microimage Software Co., Ltd. All rights reserved.

About this Manual

The Manual includes instructions for using and managing the Product. Pictures, charts, images and all other information hereinafter are for description and explanation only. The information contained in the Manual is subject to change, without notice, due to firmware updates or other reasons. Please find the latest version of this Manual at the HIKMICRO website (www.hikmicrotech.com/).

Please use this Manual with the guidance and assistance of professionals trained in supporting the Product.

Trademarks

 HIKMICRO and other HIKMICRO's trademarks and logos are the properties of HIKMICRO in various jurisdictions.

Other trademarks and logos mentioned are the properties of their respective owners.

LEGAL DISCLAIMER

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, THIS MANUAL AND THE PRODUCT DESCRIBED, WITH ITS HARDWARE, SOFTWARE AND FIRMWARE, ARE PROVIDED "AS IS" AND "WITH ALL FAULTS AND ERRORS". HIKMICRO MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE. THE USE OF THE PRODUCT BY YOU IS AT YOUR OWN RISK. IN NO EVENT WILL HIKMICRO BE LIABLE TO YOU FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES, INCLUDING, AMONG OTHERS, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, OR LOSS OF DATA, CORRUPTION OF SYSTEMS, OR LOSS OF DOCUMENTATION, WHETHER BASED ON BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), PRODUCT LIABILITY, OR OTHERWISE, IN CONNECTION WITH THE USE OF THE PRODUCT, EVEN IF HIKMICRO HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES OR LOSS.

YOU ACKNOWLEDGE THAT THE NATURE OF THE INTERNET PROVIDES FOR INHERENT SECURITY RISKS, AND HIKMICRO SHALL NOT TAKE ANY RESPONSIBILITIES FOR ABNORMAL OPERATION, PRIVACY LEAKAGE OR OTHER DAMAGES RESULTING FROM CYBER-ATTACK, HACKER ATTACK, VIRUS INFECTION, OR OTHER INTERNET SECURITY RISKS; HOWEVER, HIKMICRO WILL PROVIDE TIMELY TECHNICAL SUPPORT IF REQUIRED.

YOU AGREE TO USE THIS PRODUCT IN COMPLIANCE WITH ALL APPLICABLE LAWS, AND YOU ARE SOLELY RESPONSIBLE FOR ENSURING THAT YOUR USE CONFORMS TO THE APPLICABLE LAW. ESPECIALLY, YOU ARE RESPONSIBLE, FOR USING THIS PRODUCT IN A MANNER THAT DOES NOT INFRINGE ON THE RIGHTS OF THIRD PARTIES, INCLUDING WITHOUT LIMITATION, RIGHTS OF PUBLICITY, INTELLECTUAL PROPERTY RIGHTS, OR DATA PROTECTION AND OTHER PRIVACY RIGHTS. YOU SHALL NOT USE THIS PRODUCT FOR ANY PROHIBITED END-USES, INCLUDING THE DEVELOPMENT OR PRODUCTION OF WEAPONS OF MASS DESTRUCTION, THE DEVELOPMENT OR PRODUCTION OF CHEMICAL OR BIOLOGICAL WEAPONS, ANY ACTIVITIES IN THE CONTEXT RELATED TO ANY NUCLEAR EXPLOSIVE OR UNSAFE NUCLEAR FUEL-CYCLE, OR IN SUPPORT OF HUMAN RIGHTS ABUSES.

IN THE EVENT OF ANY CONFLICTS BETWEEN THIS MANUAL AND THE APPLICABLE LAW, THE LATTER PREVAILS.



HIKMICRO

See the World in a New Way