CAmReport AI

Analysis software for thermal camera

Measure up

CONTENTS

The **CAmReport AI** analysis software is designed for use with Chauvin Arnoux thermal camera.

It allows you to process images taken with the camera and generate reports.

Symbol used in this user manual:

Useful information or tip.

1. INSTALLATION

1.1. SYSTEM CONFIGURATION

The minimum system requirements for installing the CAmReport AI software are as follows:
- Windows® 11
- 2 GB of RAM
- Required hard disk space: 110 MB for a 64-bit system.
- NET Framework 4.8 or higher (free download from the Microsoft site)
- Monitor: super VGA (800 x 600) or higher
- Internet connection required for AI option

1.2. TO GET THE SOFTWARE

You can download the latest version from our website:
www.chauvin-arnoux.com

Go to the **Support** tab, then **Download our software**.
Then search on the name of your instrument.
Download the software

1.3. SOFTWARE INSTALLATION

To install it, run the **CamReport.exe** file, then follow the instructions on screen.

| **i** | You must have administrator rights on your PC to install the software. |

1.4. LANGUAGE SELECTION

To select your language, click on ABC in the menu bar, in the **Display** section.

1.5. SOFTWARE REMOVAL

You can uninstall CAmReport AI from the Control Panel / Programmes and Features.

1.6. TRANSFERRING IMAGES FROM THE CAMERA TO THE PC

The camera saves images to its micro SD card.

| **i** | Do not modify the files on the micro SD card, as the camera will no longer recognize them. |

1.6.1. USING THE MICRO SD MEMORY CARD

The camera's micro-SD memory card is removable. You can, therefore, remove it from its slot and insert it into a micro SD/USB adapter that you can connect to your PC.

The image files can then be transferred like any other file and copied to another directory.

1.6.2. USING THE USB LEAD

Connect the camera to your PC using the USB lead.

The contents of the micro SD memory card will then be directly accessible. Images can be transferred by copying them from one folder to another.

If you add or delete images from the camera, you will need to disconnect and reconnect the USB lead to update the file explorer.

2. USE

CAmReport AI has two operating modes:
- Analysis mode, which allows you to analyse infrared images.
- Report mode, which allows you to create and format inspection reports.

To switch between modes, click on [Analysis | Report] in the toolbar.

2.1. OPENING IMAGES

To open an image, click on 📁 in the toolbar.
You can open one or more images. You can resize the windows as you wish.

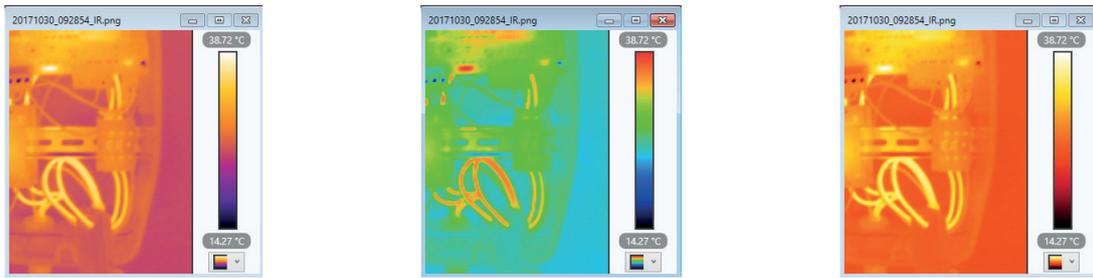You can also change the colour palette by clicking on 🎨 below the temperature scale.

Figure 1

If an audio file is associated with your image, you can listen to the file by clicking on 🔊 next to the palette.

2.2. ANALYSIS MODE

Analysis mode allows you to analyse infrared images.

The Analysis mode screen is as follows:

Figure 2

①   Toolbar

②   Location on the disk where the working images are located

③   Configurable physical quantities

④   Summary table of measurements specific to the IR image or a specific area of it: temperatures, emissivity, humidity, distance.

⑤   General information about the image: thermogram, operator, date, etc.

⑥   Work area for viewing images to be included in the report

2.2.1. SHAPES

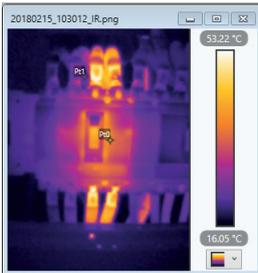The **Shapes** section of the toolbar allows you to place the following on the IR image:
- A point, to obtain information at that point.
- A line or polyline, to obtain a graph of distribution.
- An ellipse, rectangle or polygon, to obtain a histogram.

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i   If you have several images open. First click on the image before clicking on the shape to ensure that the shape is placed on the correct image.

2.2.2. SHAPE - POINT

Once the point has been placed, you can move it around the image.
The summary table displays information related to this point.
You can place several points on the image.

Figure 3

2.2.3. SHAPE - LINE/POLYLINE

Once the line has been drawn, you can move it using the points at both ends.
To stop a polyline, click the right mouse button. You can modify it using the points at the ends of the line.
The summary table displays information related to the line/polyline.
You can create a **Graph of distribution** that will change if you modify the position of the line.
You can place several lines on the image.
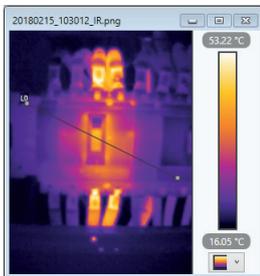
Figure 4

2.2.4. SHAPE - VERNIER SCALE

By clicking on **Vernier**, you can place a cursor on a line.
The cursor is transferred to the graph of distribution.
When you move the cursor on the line, it also moves on the graph.
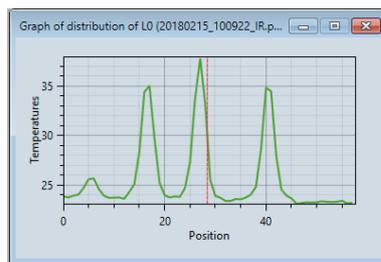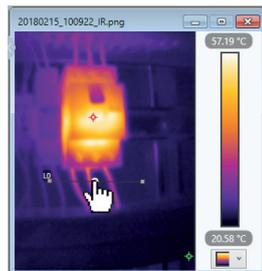

Figure 5

2.2.5. SHAPE - ELLIPSE, RECTANGLE, POLYGON

Once you have placed the ellipse, rectangle or polygon, you can move or distort it using the handles at the ends.
The summary table displays information about this shape.
You can create a histogram that will change if you modify the shape. You can choose the number of segments in the histogram.
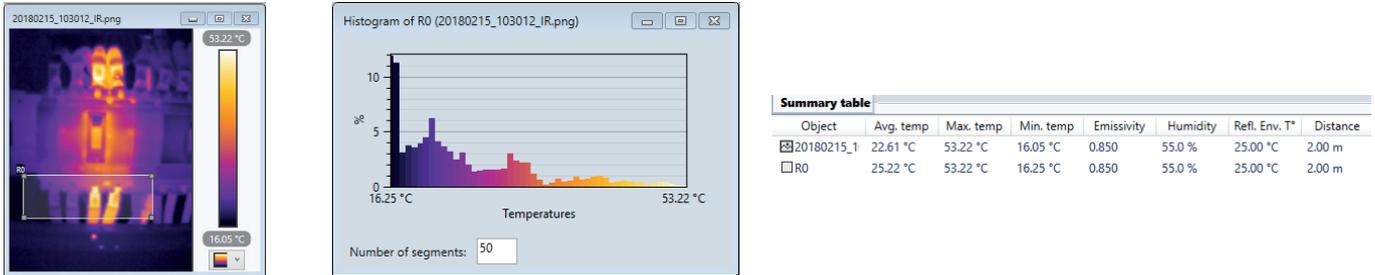You can place multiple shapes on the image.

Figure 6

2.2.6. DELETING A SHAPE

You can delete a selected shape by clicking **Delete shape** or pressing the **Delete** key on your keyboard.
You can delete all shapes by clicking **Delete shape** / **Delete all shapes**.

2.2.7. PREVIOUS / NEXT

You can undo your last action by clicking **Previous** or redo the undo by clicking **Next**.

2.2.8. IMAGE MERGING

To merge an infrared (IR) image and its corresponding visible image, click on [icon] in the **Action** section of the toolbar.
This action opens a new window containing the visible image, and you must overlay the IR image on top of it to correctly locate the elements that are heating up.

To make overlaying easier, you can adjust the opacity of the IR image and/or add outlines. You can also click on [icon] to do this automatically.
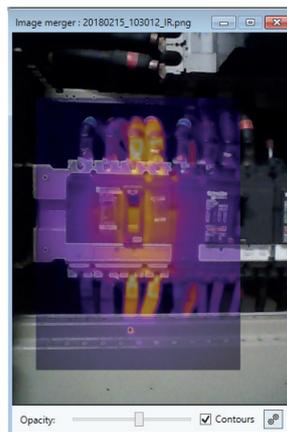

Figure 7

2.2.9. TEMPERATURES - MIN/MAX, CURSOR

In the **Temperature** section of the toolbar, click on **Min** and a green cursor will appear on the minimum temperature in the image.
Click on **Max** and a red cursor will appear at the maximum temperature in the image.
Click on **Cursor**, the mouse will become a cursor and the temperature of the point will be displayed.
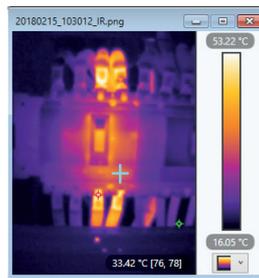

Figure 8

2.2.10. TEMPERATURES - ISOTHERM

Click on **Isotherm** to establish an isotherm on your IR image. Choose the temperature using the cursors.
You can adjust the opacity and colour of the isotherm.
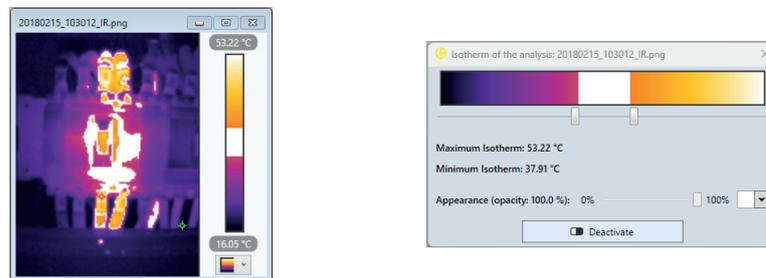
Figure 9

2.2.11. TEMPERATURES - ADJUSTMENTS

Click on **Adjustments** to change the temperature scale of the IR image. Move the minimum and maximum cursors. Colours corresponding to temperatures below the minimum will change to black and colours corresponding to temperatures above the maximum will change to white.
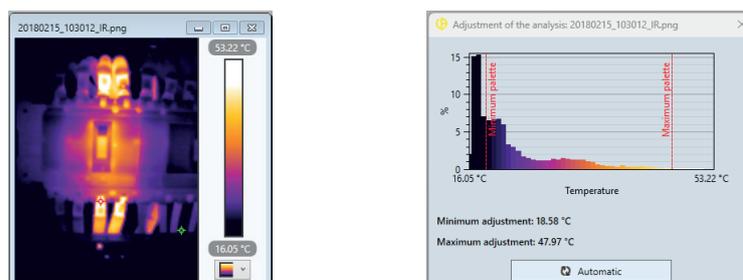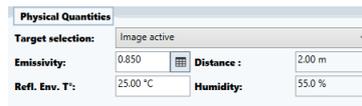

Figure 10

Click on **Automatic** to return to the initial setting.

2.2.12. TEMPERATURES - UNITS

You can change the temperature and distance units by clicking **Units**.

2.2.13. PHYSICAL QUANTITIES

When you open an image, the associated physical quantities are filled in the corresponding table.
You can modify them manually.

Figure 11

2.2.14. INFORMATION

You can complete the information about the image so that it appears in your report:
- Thermogram (name of the IR image file)
- Operator
- Locations
- Date
- Camera
- Comments
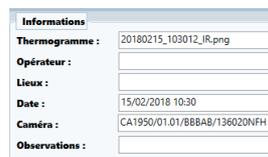
Figure 12

2.2.15. RECORDING

You can record everything you do in an image by clicking on 💾.
The image will be saved in .rap format.
When you open it, it will come with its **Shapes**, its **Graphic tools** (histogram and graph) and its **Temperatures** (isotherm, adjustments).

2.2.16. EXPORT

To export the temperature data from the IR image, click on **Export** in the **Image** section of the toolbar and choose the output file type: txt or csv.
The image is divided into 96 x 160 squares, and each square is assigned a temperature.

2.3. REPORT MODE

Report mode allows you to create and format inspection reports.
You can include:
- thermograms,
- digital images,
- analysis tools or functions,
- tables,
- text boxes.

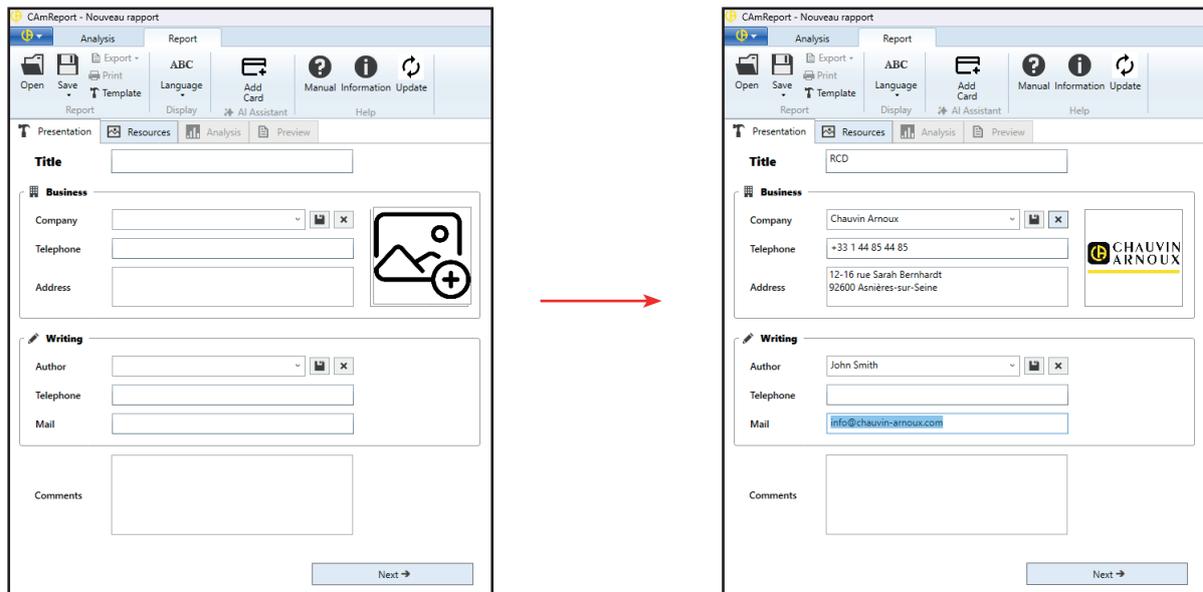### 2.3.1. DESCRIPTION

The report mode screen looks like this:

Figure 13

Fill in the fields.
You can also add your logo image.

By clicking on 💾, you can save information about the **Business** and **Writing** for your future reports. You can also delete them by clicking on ✖ . You will find the saved information in the drop-down menu.

Then click on **Next**.

2.3.2. RESOURCES
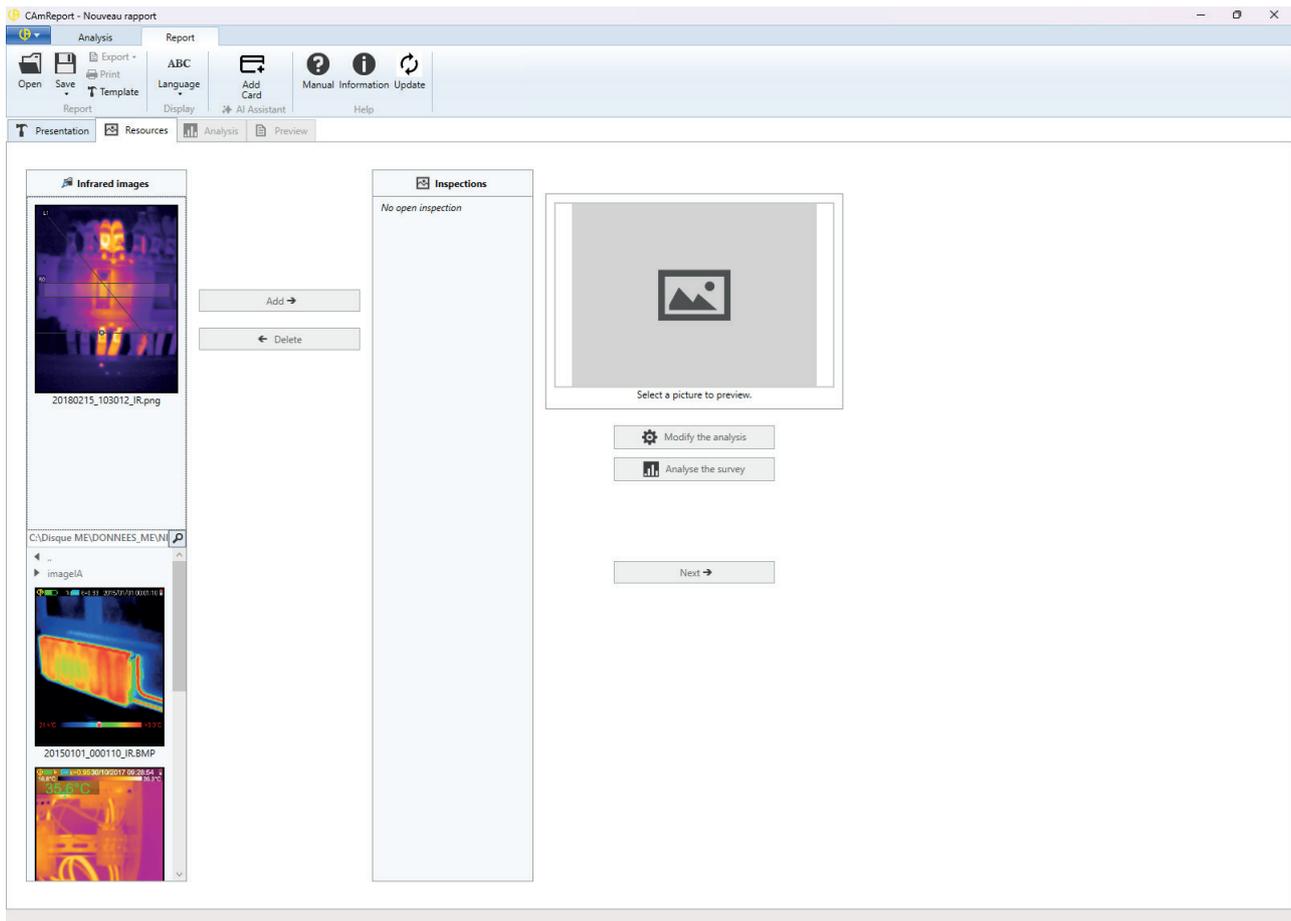
Figure 14

Add the images you want to include in the report.

Only images that have been opened in **Resource** can be added. However, you can change this by clicking **Modify the analysis**.
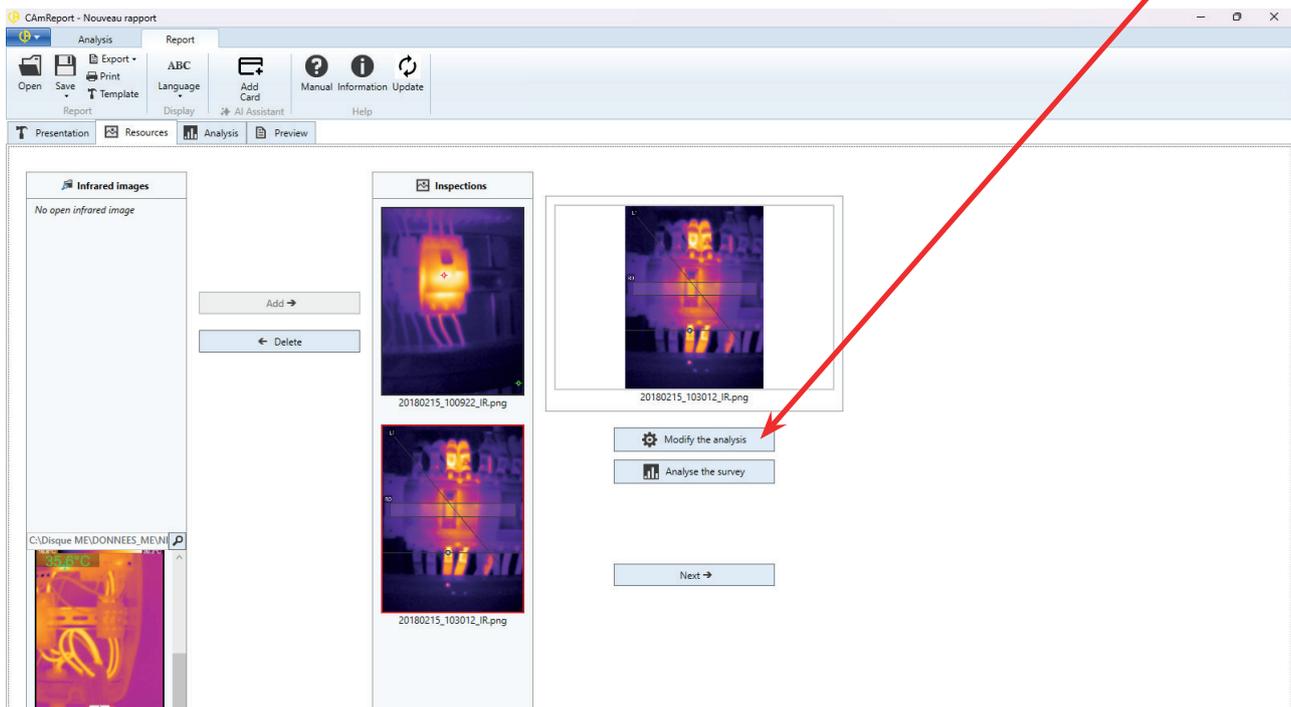
Figure 15

2.3.3. ANALYSES

By clicking on **Analysis**, you can:

■ Complete the image information, including the criticality level (**Repair priority**) between 1 and 5.
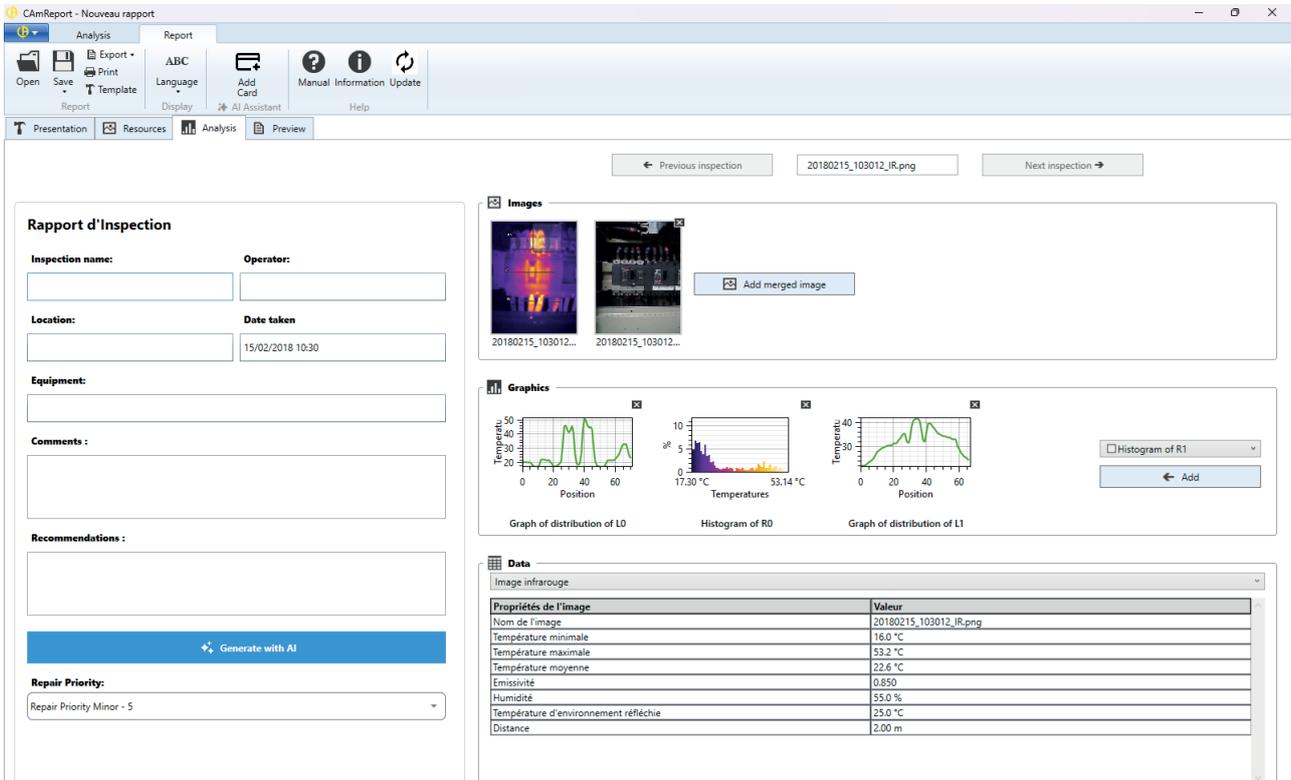■ Add the fusion or visible image if they are not there.
■ Add or remove graphs of distribution and histograms.

Figure 16

2.3.4. PREVIEW

Click on the **Preview** tab to view the report.
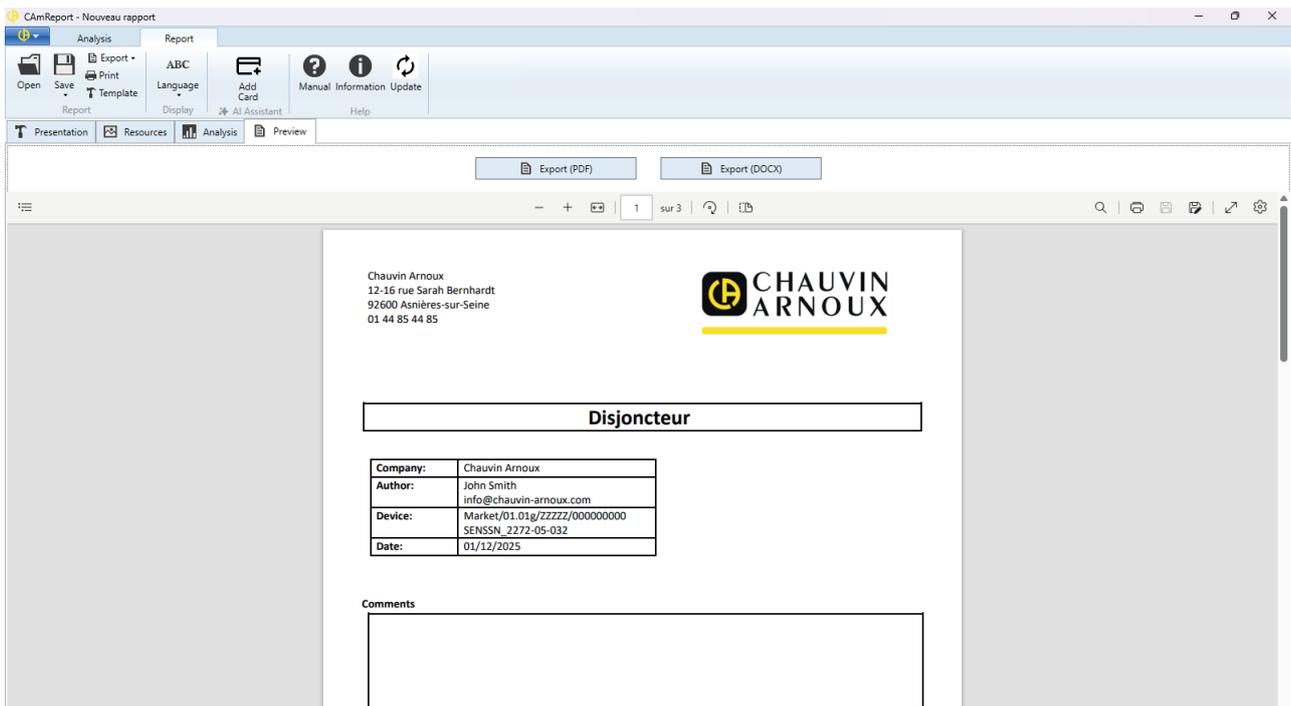
Figure 17

You can choose from several report templates.

You can also return to each of the previous tabs to make changes.

Once the report has been finalized, you can export it in PDF or DOCX (Word) format.

2.4. AI REPORT MODE (OPTIONAL)

You can use AI (Artificial Intelligence) to fill in the **Comments**, **Recommendations** and **Repair priority** during the **Analysis**.

To do this, you need to buy an AI activation card. There are two types of cards:
■ The Starter card, which allows you to perform 1,000 analyses.
■ The Pro card, which allows you to perform 4,000 analyses.

These cards are valid for 12 months from first use.

You can also benefit from 10 free analyses per camera, valid for one month.

2.4.1. FREE ANALYSES

In **Analysis**, click **Generate with AI**.
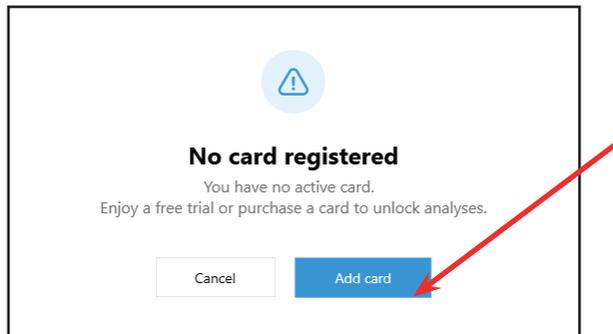
Figure 18

Click on **Add a card**, **Try for free** and then **Activate my free trial**.
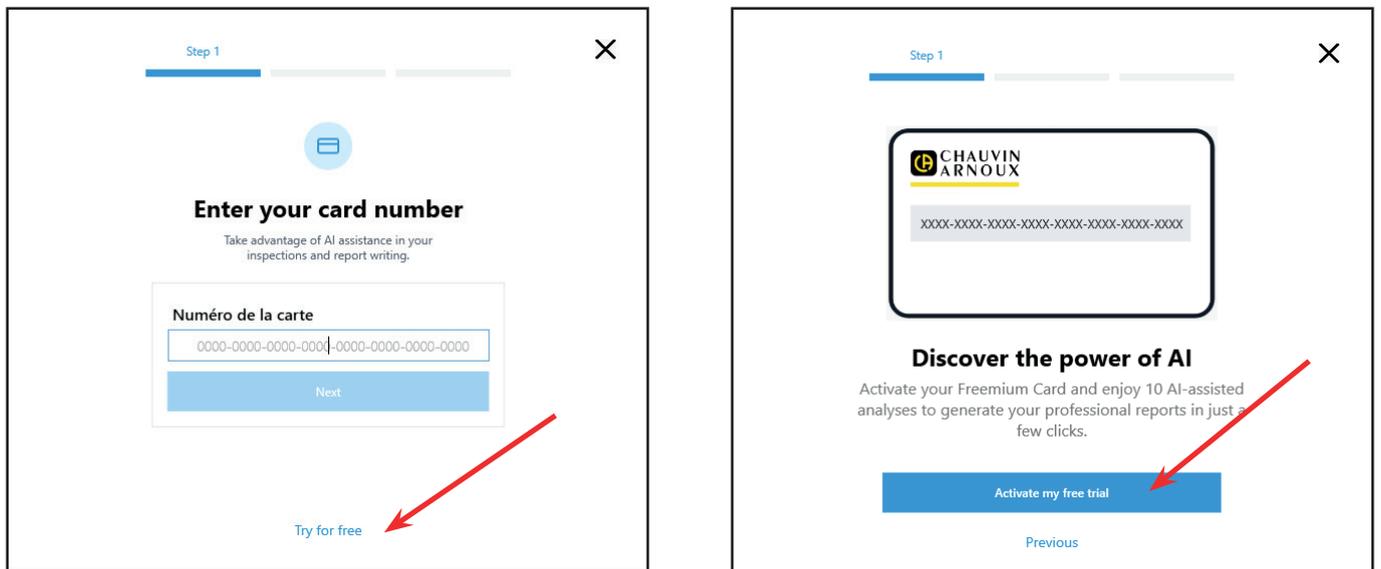
Figure 19

Figure 20

Choose an image and fill in the requested information. Tick the two boxes at the bottom and click on **Next**.
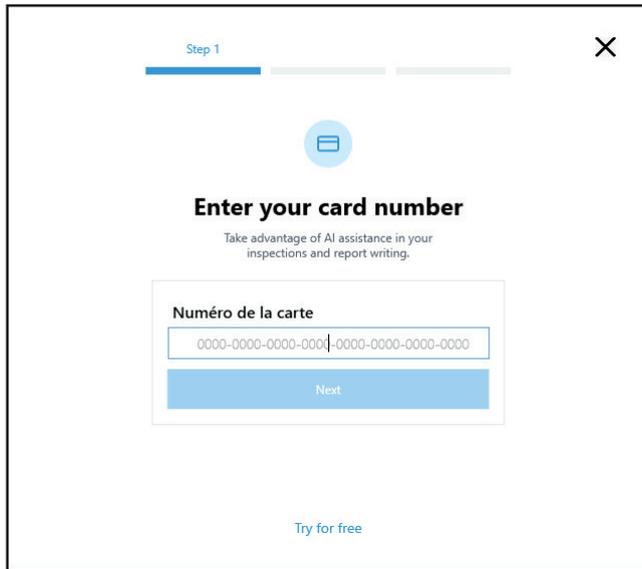

Figure 21

Enter the validation code received by email and click on **Verify**.

You will receive a card for 10 free analyses by email. Enter the 32-character card number. Your card is now activated. Click on **Finish**.

Keep the card, as you can use it on other PCs. Simply remove the card from one PC and activate it on another.

2.4.2. ADD A CARD

Click on [icon] to **Add a card**.
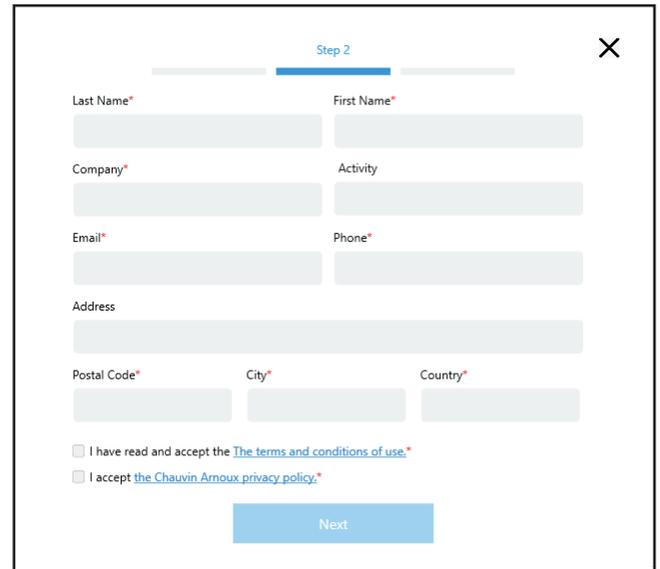
Figure 22

Enter the card number (32 characters) and click on **Next**.
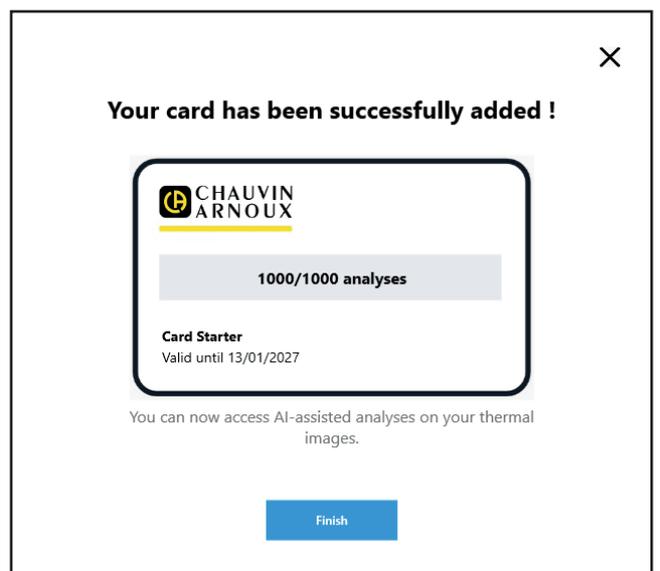Fill in all the requested information, tick the two boxes at the bottom and click on **Next**.
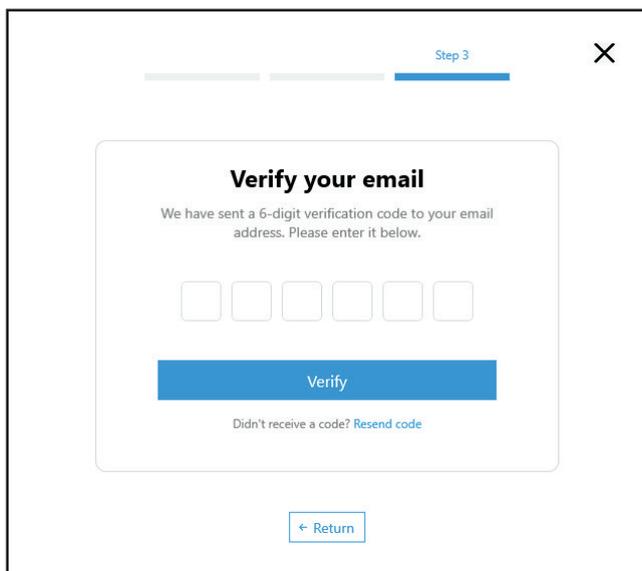
Figure 23

Enter the validation code received by email and click on **Verify**.
Click on **Finish**.

In the CAmReport AI toolbar, in the AI Assistant section, two new icons appear: **History** [icon] and **My card** [icon].

2.4.3. USING AI

ℹ	AI is a decision-making tool and not a substitute for critical thinking, professional judgement or legal obligations. It must be used with discernment, as a complement to human skills, and with constant respect for individuals.

ℹ	Chauvin Arnoux cannot be held liable in any way for misuse of CAmReport AI or for any damage resulting from an error, omission, inaccuracy, inconsistency or imprecision in the content of the information provided by the Customer.

Once the card (free or paid) has been activated, you can click on **Generate with AI** when you are analysing the image.
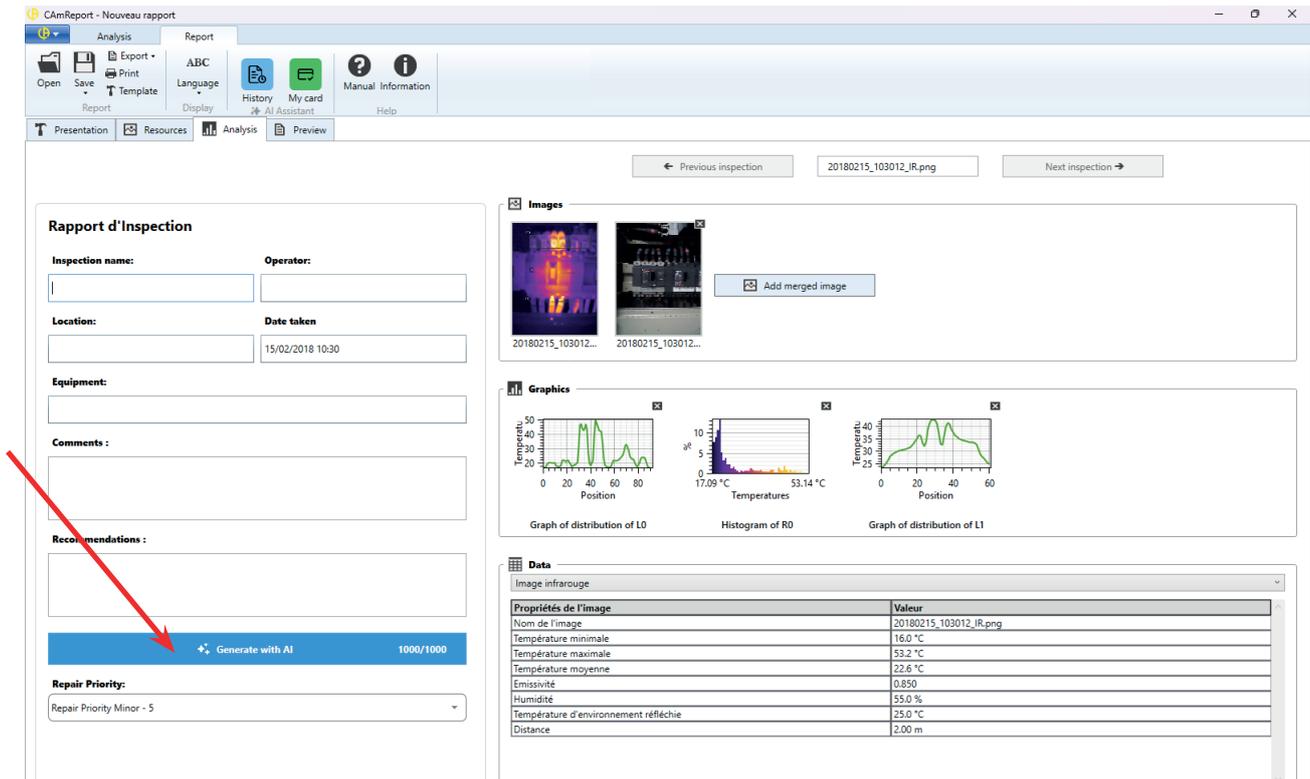
Figure 24
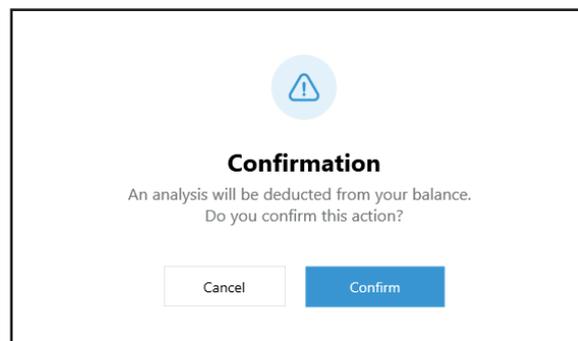
Confirm that you are using an analysis on your card.
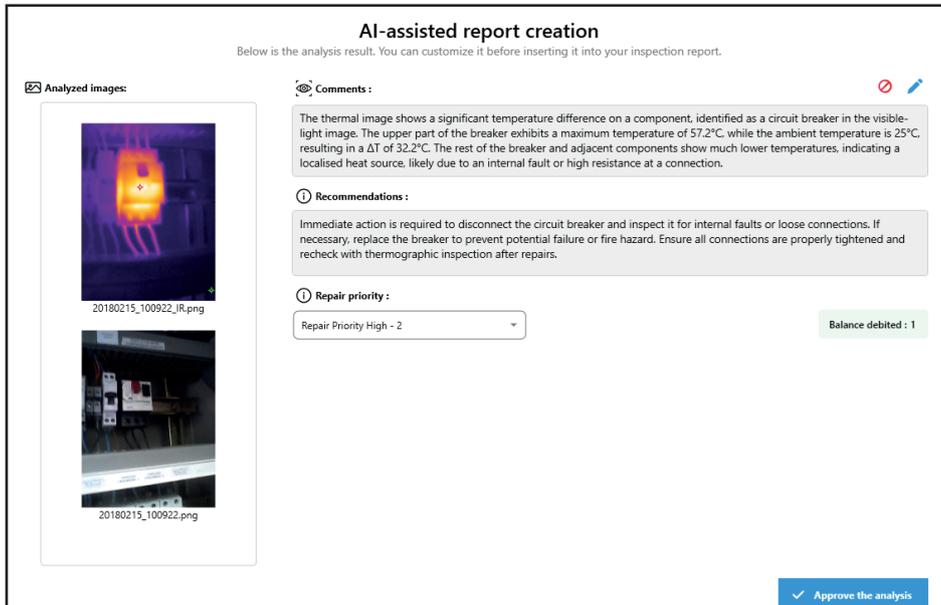

Figure 25

Figure 26

The AI generates **Comments**, provides **Recommendations** and, finally, indicates a **Repair priority**.

Reread the AI analysis.
By clicking on ✏, you can make corrections.
By clicking 🚫, you can reject the analysis.

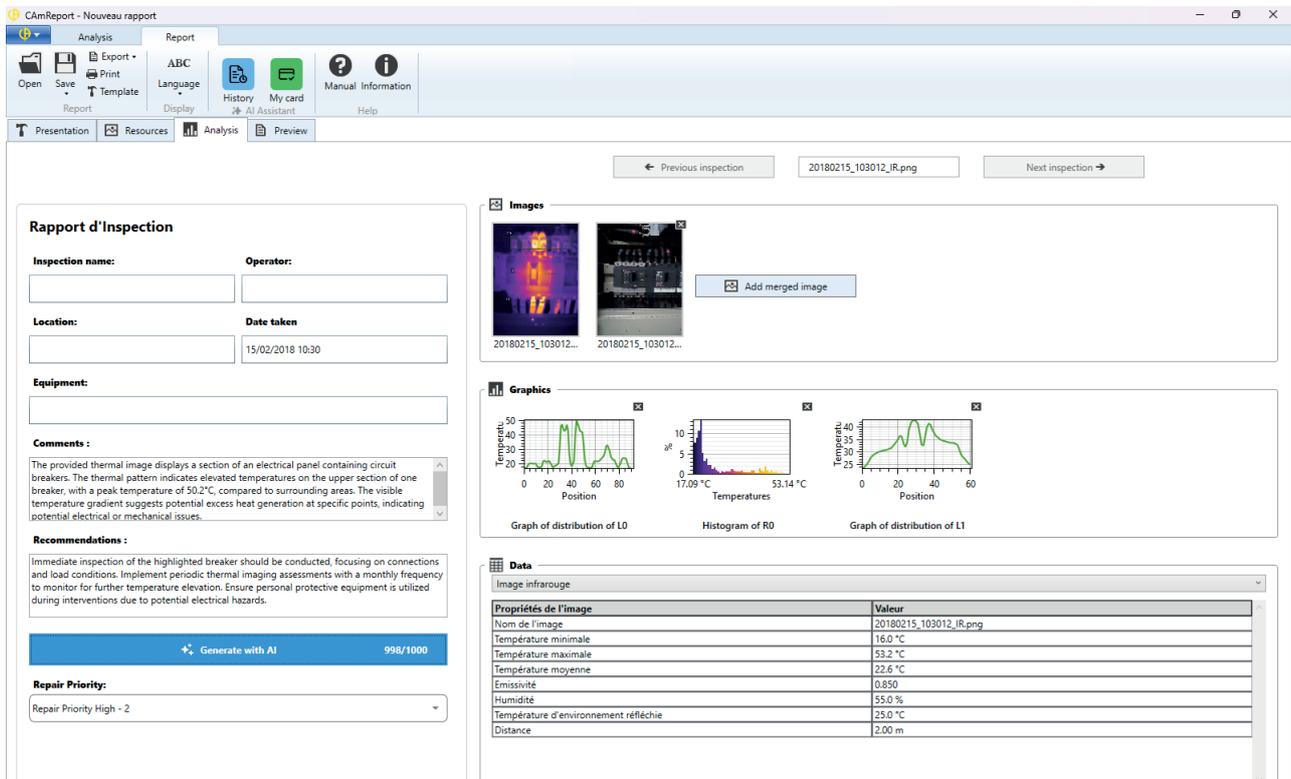Finally, validate the analysis by clicking **Keep analysis** or **Keep changes** if you have made corrections.

Figure 27

If you re-analyse the same image without changing the settings, the previous analysis will be re-proposed without debiting your balance.

2.4.4. CARD USAGE TRACKING

To change your information or remove your card, manage your card, click on **My card** 🔲 .
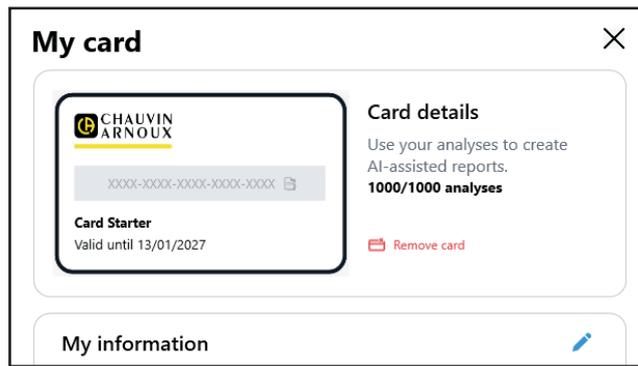
Figure 28

2.4.5. ANALYSIS HISTORY

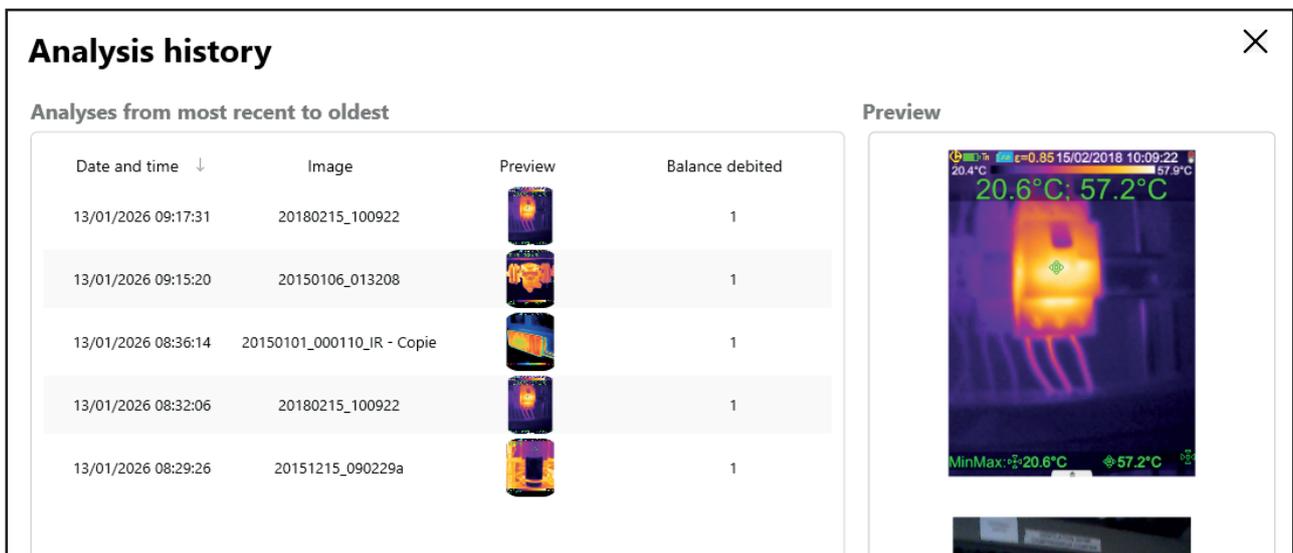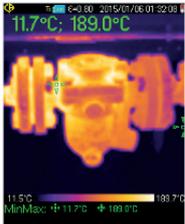You can view the analysis history by clicking on **History** 📄 .

Figure 29

To view an analysis, click on it.
The **ID** button gives you the analysis reference number. This will be useful if you contact support.

Figure 30

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