



**MILESTONE**  
H E L P I N G  
P A T I E N T S



## **MacroVIEW**

Macro Imaging System for anatomy/forensic studies

*Operator Manual - MM179*



Thank you for choosing one of our systems and welcome to the increasingly crowded club of Milestone laboratory instrumentation users.

We feel confident that you will be fully satisfied adding this new device to your laboratory.

We recommend you read this operator manual carefully and always keep it within reach for convenient and quick referencing.

For any clarification or request for assistance, please contact our representative in your country:

You can also contact us directly at:

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**Read this manual carefully before using the instrument.**

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The manufacturer reserves the right to change and/or improve specifications without notice and without incurring in any obligation.

# 1. INTRODUCTION

## 1.1. Symbols used



The instructions marked with this symbol are important and must be read carefully.



An instruction accompanied by this **WARNING** symbol means you need to proceed with caution. Failure to follow the instruction may endanger the user or cause damage to the instrument.



When an instruction comes with this symbol, take great care as there is the risk of an electric shock. Carefully follow the instruction in order to avoid this kind of accident.



Biological hazard: pay attention when performing a procedure marked with this symbol, as there is a biological contamination hazard.



CE Logo: this device complies with European Community directives.



Specifies the manufacturer's serial number.



Temperature limits.



Symbol of the European WEEE directive (2002/96/EC): electric/electronic material – do not disperse in the environment.



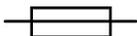
Fragile.



Manufacturer.



Hand crushing symbol.



Replaceable fuse

## 1.2. Designated use

The purpose of MacroVIEW and its optional parts is to capture and store digital images, audio comments and short videos of the whole body, body parts and organs examined at autopsy, grossing room and forensic pathology.

The system has been designed for laboratory use and can therefore withstand the harshest laboratory conditions. The instrument is intended for laboratory use (indoor use) only.

MacroVIEW is a system that must be operated by trained personnel, such as: laboratory technicians and pathologists.

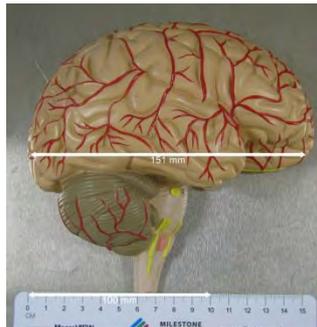
Read this manual carefully before using MacroVIEW.

A camera is installed on the unit with MacroVIEW software, which is designed to capture images of the whole body and to have a complete, safe and reliable manipulation of them.



**MacroVIEW measurement function is strictly linked to the calibration performed by the operator and is not controlled by the unit's software. This is why the measurements obtained with MacroVIEW CANNOT be taken into account for diagnostic purposes. These values are purely indicative.**

**In fact, it is necessary to position a ruler near the sample (see picture below) or use a gauge to get a diagnostic value.**



**Every picture taken by the manipulator must be calibrated, as described in chapter 3.7.2.**

## 1.3. Technical specifications

### **- MacroVIEW complete system**

- CODE 372751: MacroVIEW 100V~ 50/60Hz
- CODE 372750: MacroVIEW 110-120V~ 50/60Hz
- CODE 372700: MacroVIEW 220-240V~ 50/60Hz
- Footprint (minimum): 800 mm (31.5") x 900 mm (35.4")
- The fully extended arm can extend 1220 mm (48") beyond the unit footprint
- Minimum overall height of the unit (fully lowered stand): 1910 mm (75.2")
- Maximum overall height of the unit (stand raised to the maximum and manipulator raised to the maximum): 2630 mm (103.5")
- Height of stand raised to the maximum: 2300 mm (90.5")
- Weight: 219kg (482lb) complete with battery

The complete system includes:

### **- Hardware (PC)**

- CPU: Intel® Core™ i7 Processor 2.6 GHz
- RAM: 8GB DDR-4
- Hard disk: 500GB (SSD)
- Touch-pen: USB cable, tip of 1.5 mm diameter  
there are two small black buttons on the touch-pen for the enter command and right click of the mouse
- Screen: 19" TFT LCD 1280X1024 16.7M Colour  
IP 65 front panel
- Fanless
- Wi-Fi 802.11 A/B/G with Bluetooth v4.1 (\*)
- (\*) subject to restrictions of use according to local radio frequency regulations to be checked before enabling this function.
- Available I/O:
  - 2x RS-232/422/485 Serial ports
  - 2x Gigabit Ethernet LAN ports (RJ-45)
  - 6x USB 2.0 ports
  - 2x USB 3.0 ports
  - 1x HDMI (max resolution 4096x2304@24Hz)
  - 1x DP Display port (max resolution 4096x2304@60Hz)
  - 2 X built-in 2W speakers
  - Audio Mic-in 3.5mm jack input
  - Audio 3.5mm jack output
- Dimensions: LxHxD 470.5 x 415.2 x 75.6 mm (18.52" x 16.34" x 2.97")
- Weight: 7.4kg (16.3lb)
- Panel PC power supply (built in) 18V DC 5.55A MAX
- Power supply inlet: 100-240V~ 47/63Hz, 1.35-0.5A

### **- MacroView 5 proprietary license and software**

- Operating System: Windows 10 Enterprise 64 bit
- Software: MacroView 5 including the pre-activated Milestone license
  - image capture in JPEG format
  - video capture in AVI format (4k resolution and 60 f/s)
  - Streaming video capability 1280x720 15fp
  - voice recording in mp3 format
- Microsoft Windows 10 and Microsoft Word are registered Trademarks of Microsoft Corporation
- MacroView 5 software: Installed (complete with FULL license)

### **- 1x 80cm (31") sizing ruler**

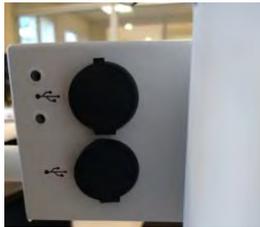
### **- 3x 15cm (6") sizing rulers**

**- Imaging unit (manipulator)**

- Camera with splash case
- Resolution: up to 20 MPixels
- Optical Zoom: 12x
- Focus: Automatic
- White balance: Automatic
- Close-up lens: +2
- Neutral lens
- Built-in microphone
- LED light
- Keyboard for manual control of the camera: zoom, save image, video and audio recording, LED activation,

**- Display monitor 5" - LCD - Resolution 800x480****- Mobile support for imaging unit (trolley)**

- Wheeled trolley with battery for up to 8 hours of autonomous operation, depending on the conditions of use
- 2xUSB 2.0



- Spring arm with maximum extension of 1460 mm (57.5") and rotation lock
- The minimum height at which the manipulator can be set is 730 mm (28.7") - to the lens
- The maximum height at which the manipulator can be set is 2180 mm (85.8") - to the lens

**- Waterproof disinfectable keyboard with Touchpad**

- IP68 protection.

**- USB Barcode reader**

2D (includes holder).

**Environmental Conditions:**

- Operating temperature: 15°C (59°F) – 30°C (86°F)
- Relative humidity: 10% - 80% without condensation
- Altitude: up to 2000m

**1.4. Transport and storage conditions**

- Temperature: –20°C up to +60°C (-4°F up to 140°F)
- Humidity: up to 80% (up to 50% at 40°C (104°F)) non-condensing

**1.5. Warning information**

REACH regulation (EC) N. 1907/2006 - Information on Substances of Very High Concern (SVHC).

The battery in the device contains SVHC substances:

- Lead, Number: CAS 7439-92-1, EC Number: 231-100-4.



**Using the equipment in ways other than those specified may void the warranty provided by the manufacturer.**

**DO NOT open the camera box. If you do, this shall void the warranty.**

The MacroVIEW system must only be connected to a 3-pole earthed main socket outlet (ground connection protection must be provided).

Disconnect the main plug from the socket and turn off the system with the appropriate button (see chapter 3.8) before assembling the system, connecting the optional parts and cleaning.

Equipment must be connected to the main socket outlet, which is accessible and visible by the operator.

The use of naked flames that can cause accidental sparks in the areas adjacent to the unit is prohibited.

The instrument is supplied with replaceable fuses, but their replacement must be effected by trained and authorized SERVICE personnel. If the system is still not properly working, contact the local authorized and trained SERVICE representative or the manufacturer.

If the system is not working properly, contact your local representative or the manufacturer (always provide the serial number of the unit, see label at the back of the unit).

All parts of the equipment and all the optional parts shall be exclusively supplied by the manufacturer.

In case of malfunction, shutdown the camera, the PC and the entire unit, then restart them again. If the system is still not working properly, contact your local representative or the manufacturer.

In the event of malfunction and return:

1. Turn the camera off.
2. Turn off the PC.
3. Turn off the system with the ON/OFF button on the trolley (chapter 3.8).
4. Unplug the power supply cable from the main socket.
5. Disconnect the keyboard, barcode reader and anything else, if present.
6. Disconnect the battery (chapter 2.3.2).
7. Clean and disinfect all parts of the unit as described in chapter 6.
8. Disconnect the PC and place it in the appropriate packaging.
9. Put all parts of the equipment into the package supplied by the manufacturer (original package).
10. Send the unit to the manufacturer for repair (see chapter 7.5).

**It is very important to turn OFF the camera and the MacroVIEW PC before disconnecting the equipment.**



**Milestone provides two USB keys for every unit, containing the MacroView 5 software in digital format, the operating system and the relevant drivers. We strongly recommend storing the USB keys in a safe place, as Milestone is not in a position to supply other USB keys or copies thereof.**

### 1.5.1. Personal data safety

The Device described herein is not intended for managing personal data of natural persons. Personal data of natural persons shall not be inserted into the Device during the use of the Device. The organization that uses the Device shall implement appropriate measures to ensure that no personal data of natural persons are inserted into the Device. All the data referred to a person and inserted into the device shall use, at least, the “pseudonymization”, in such a manner that the personal data can no longer be attributed to a specific data subject without the use of additional information, provided that such additional information is kept separately and is subject to technical and organizational measures to ensure that the personal data are not attributed to an identified or identifiable natural person.

## 1.6. Antivirus

Milestone recommends installing an antivirus software. As Milestone does not install antivirus software, the user can choose the preferred version according to their needs.

Pay attention when setting the Antivirus so that the data flow on the USB protocols and accesses to the hard disk are not limited.

## 1.7. Backup of MacroVIEW data



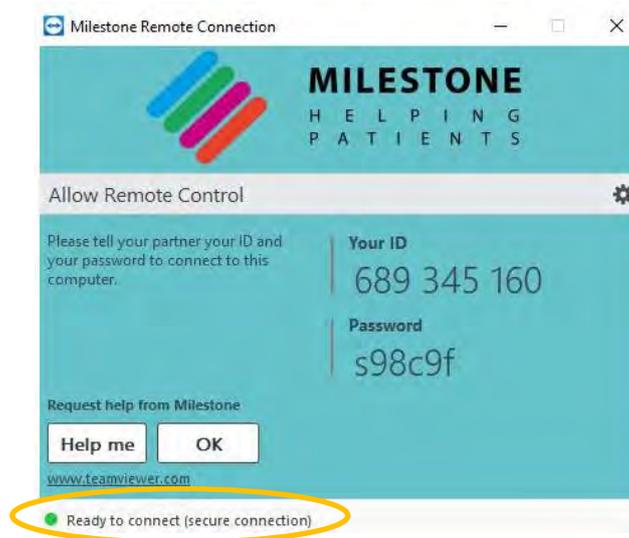
**Milestone strongly recommends storing all cases with relevant images on a server with a backup procedure, as explained in chapter 3.9.4. Contact your local network/IT manager.**

The size of images with the recommended settings is approx. 500Kb/image (refer to chapter 3.6.4).  
The size of a 1-minute video is approx. 40 MB.

## 1.8. Milestone remote connection

MacroVIEW is provided with software to connect to the Milestone Customer Service. Access it by connecting

the PC to the internet and launching Milestone Remote Connection using the button on the desktop. The following window opens (the ID and password shown are an example):



Contact the Customer Service at the following e-mail address: [customersupport@milestonemedsrl.com](mailto:customersupport@milestonemedsrl.com) and communicate the ID and password that appear in the previous window.

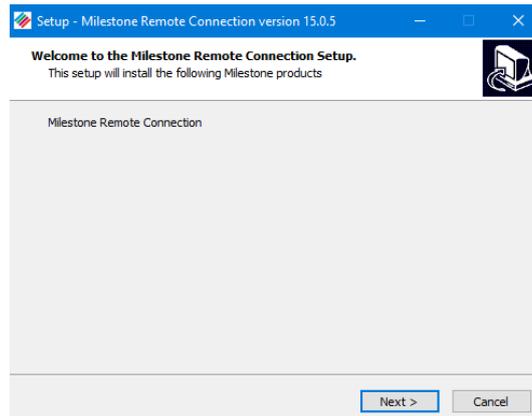
The connection can only be established if the GREEN icon, in the circle in the previous picture, appears.

If Milestone Remote Connection is not found on the PC, install it by following the instructions below:

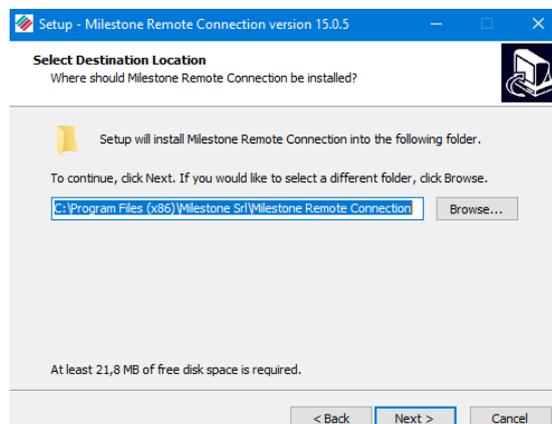
- Uninstall TeamViewer from the PC and the old version of Milestone remote connection, if present.
- Run the following exe (provided with the MacroView 5 software) as Administrator (right click).



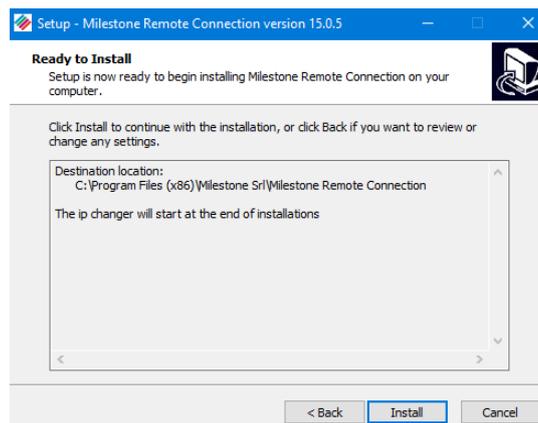
- Click “Next”.



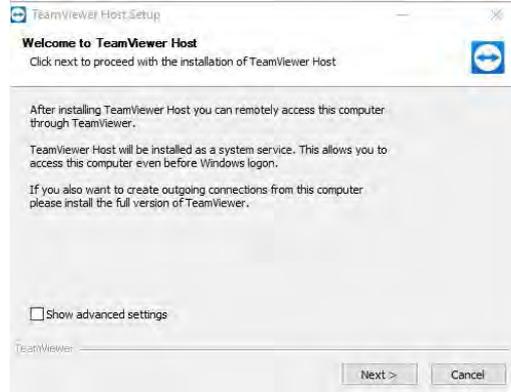
- Click “Next”.



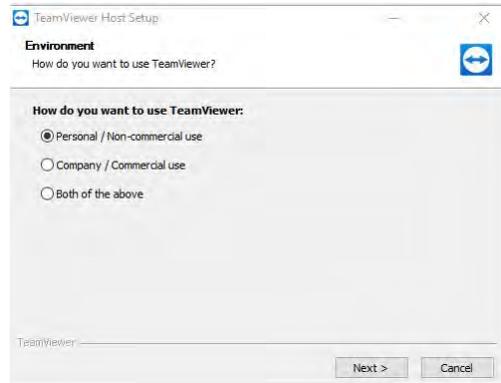
- Click “Install”.



- Click “Next”.



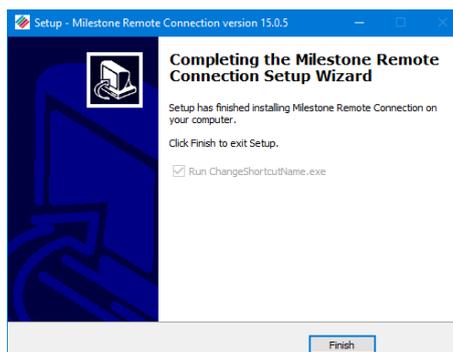
- Select “Personal/Non-commercial use”, then click “Next”.



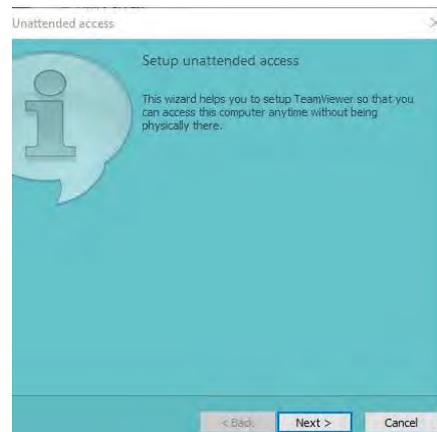
- Select the two boxes in the picture, then click “Next”.



- Click “Finish”.



- Click “Cancel”.



- Click “Allow and finish”.



- The Milestone Remote Connection will launch automatically.



Two buttons will appear on the desktop:

- 1) The Milestone Remote connection button.



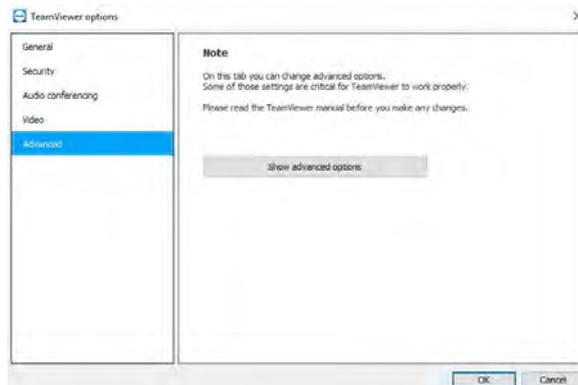
- 2) The TeamViewer host button (this actually does not exist; it disappears when the desktop is first refreshed or when the PC is first restarted).

Should you wish to uninstall it, two programs must be uninstalled from the Control panel: Milestone remote connection and Team Viewer Host.

- Then enter the settings by clicking as follows:



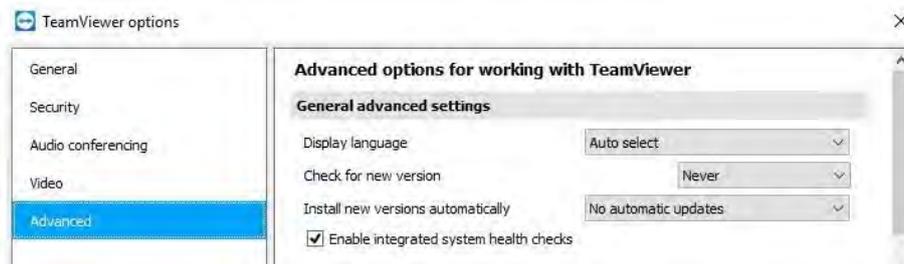
- Click “Advanced” – “Show advanced options”.



- Set up as shown below:

-Check for new version: Never

-Install new versions automatically: No automatic updates



- Click OK to save the changes.
- Lastly, enter the Windows services and disable the program from starting automatically every time the PC is turned on, as follows:
  - With Remote connection enabled, right-click the TeamViewer icon on the status bar at the bottom right.
  - Select "Exit TeamViewer".
  - Open the start menu of Windows and search for "Services".
  - Open the Windows Services Manager.
  - Right-click "TeamViewer".
  - Select the "Properties" option.
  - In "Startup type", select "manual" from the drop-down menu.
  - Click "Apply" and then "ok".
  - Reboot the PC.

The Milestone Remote Connection can now be used.

### 1.9. Labelling for MacroVIEW

For explanation of symbols see chapter 1.1.



## 2. INSTALLATION of MacroVIEW

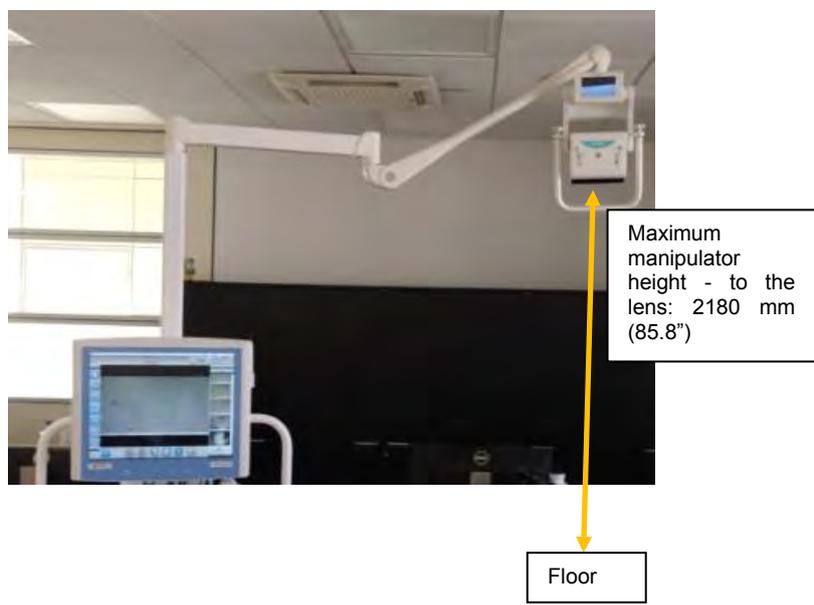
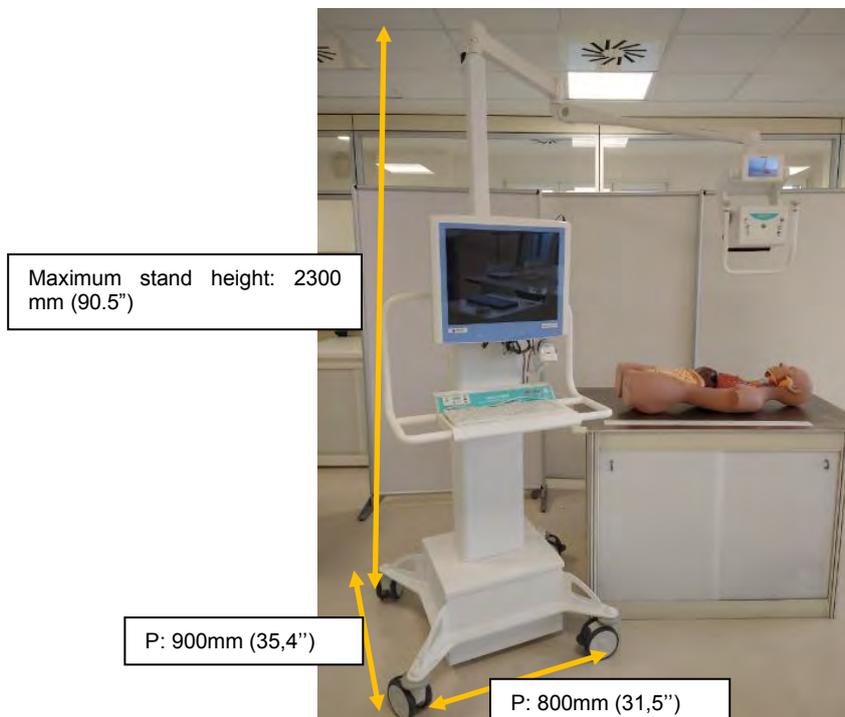
This section describes the installation procedures and preliminary operations. Read the following chapters carefully before operating the MacroVIEW.

### 2.1. Space requirements

MacroVIEW is shipped in a wooden crate with an overall weight of 360kg (793.7lb) with the following dimensions:

Width: 920mm (36.2")	Depth: 1180mm (46.4")	Height: 2110mm (83.1")
----------------------	-----------------------	------------------------

The following figure depicts the MacroVIEW unit. Provide adequate clearance space according to its dimensions. Unpacking and check list



Unit dimensions:

<u>Width:</u> 800 mm (31.5")	<u>Maximum overall height of the unit</u> (stand raised to the maximum and manipulator raised to the maximum): 2630 mm (103.5")	<u>Depth:</u> 900 mm (35.4")
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Weight: 219kg (482lb) complete with battery

The floor must be level (not sloped).

Indoor use only.

Avoid vibrations, direct light and high temperature variations.

When the instrument is in its final position, the trolley can be blocked by using the wheel brakes.

**When the manipulator arm is fully extended and the trolley wheel brakes are engaged, avoid sudden movements of the manipulator to prevent tipping over.**



**Never pull the equipment. Move it by pushing it only from the two side handles. The following picture shows the left handle, there is another handle on the right side.**



The camera can be blocked with the hooks on the left side of the stands when the system is moved.



## 2.2. Unpacking and checking the components

When unpacking check that all the parts are there.



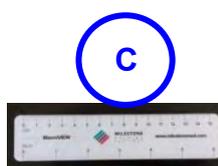
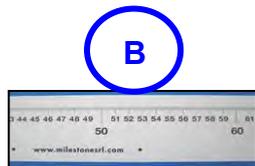
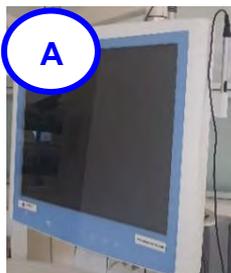
### MacroVIEW

- CODE 372751: MacroVIEW 100V~ 50/60Hz
- CODE 372750: MacroVIEW 110-120V~ 50/60Hz
- CODE 372700: MacroVIEW 220-240V~ 50/60Hz

**Mobile Macro Digital Imaging System for Autopsies and Forensic Studies with stand-alone battery operation.**

**The complete system includes:**

Description	CODE
A) PC with a 19" panel + Pointer stylus	370365MV4K
B) 1x 80 cm sizing ruler	40219
C) 3x 15cm (6") sizing ruler	372441
D) Imaging unit (manipulator)	372600
E) Mobile support for imaging unit (trolley)	372701
F) 2D barcode reader with support The barcode reader is set by default in country mode U.S. To change the setting follow the procedure indicated in the manual supplied with the barcode reader.	102011A
G) Keyboard with touchpad	372352
H) 1 neutral lens and 1 +2 Close up	+2 Close up lens --> 372639 Neutral lens --> 372616
I) Camera support	372752V
J) Bootable 32GB USB key containing: - Operator manual in electronic format - Recovery software	MAN-MACROVIEW
K) 32GB USB key containing: - MacroView 5 installation software with FULL license - Operating system image software	370262MV4KF





For the optional parts, see Chapter 5.



**The images shown are only an example.**

## 2.3. Installation

We recommend reading the following chapter carefully before operating MacroVIEW.



**Before turning the unit on (when coming from a storage chamber), allow the equipment to reach operating environment conditions (at least 30 minutes).**

The MacroVIEW stand is lowered completely during shipment. The following two buttons (top and bottom arrows) on the front of the unit can always be pressed when the trolley is ON and the unit is used, to adjust its height.



### 2.3.1. Installing the PC, keyboard and barcode reader

The PC is shipped separately and must be mounted on the unit during installation.



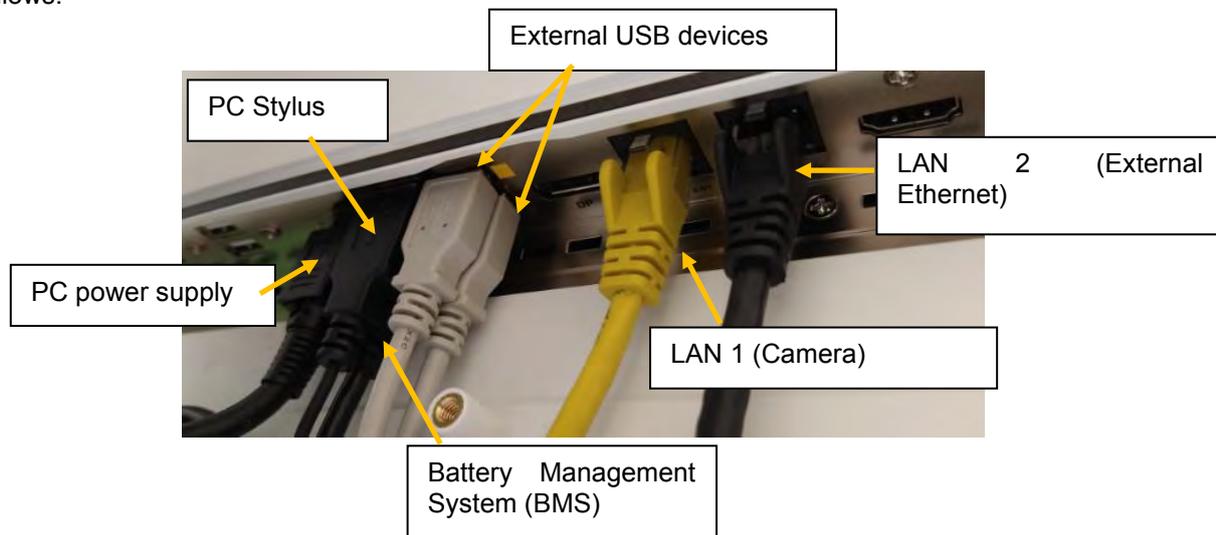
The picture below, to the left, shows the rear part of the PC and that to the right, shows the support for the PC installed on the unit stand.



Use the Allen screws of 3 and 4 (CODE 64569 and CODE 62342) and the screws provided with the unit; rest the back of the PC on the support, aligned with the appropriate holes and tighten the screws as shown in the picture below.



Open the PC cover to connect the cables that come out from the MacroVIEW stand. Connect the cables as follows:



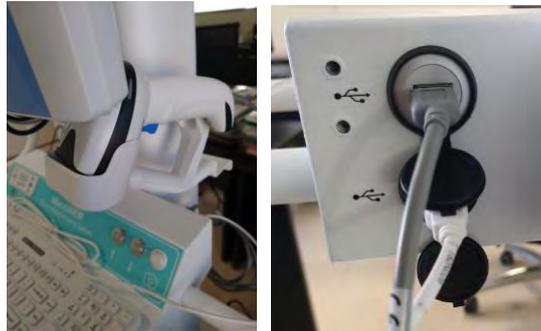
Close the PC cover.



Place the keyboard on the unit and connect it into the USB port found at the back of the unit, as shown below.



Place the 2D barcode reader on the support and connect it into the USB port found at the back of the unit, as shown below.



The monitor support permits a vertical tilt of  $\pm 15^\circ$  and horizontal rotation of  $\pm 20^\circ$ .

### 2.3.2. Connecting the battery

The power supply line needs to be grounded (Class I device).

115V~: Power supply line protection: C curve residual current circuit breaker, 15A, residual current: 30mA.

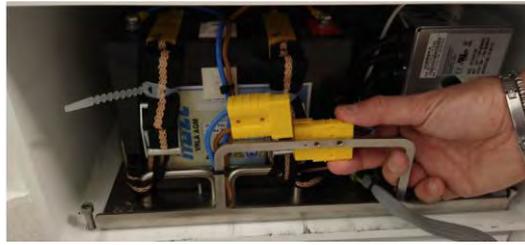
230V~: Power supply line protection: C curve residual current circuit breaker, 10A, residual current: 30mA.

The battery connector is left disconnected during transport. Connect the yellow connector of the battery when installing the unit, as described below.

- Open the battery cover.



- The yellow connector of the battery will be disconnected as shown below.



- Connect it as shown below.



- Close the cover and connect the unit to the power supply.



When you receive the unit, it is required to leave the battery charging for at least 12 hours before using the unit.

Refer to chapter 3.8 for more information on the battery.

When using the MacroVIEW and the power cable is not connected, it can be placed behind the unit.



**See also the label on the back of the unit which provides some important information. Always provide the S.N. of the unit to Customer Support.**

### 2.3.3. Camera lens setup

MacroVIEW is provided complete with two different types of lenses: a neutral lens and a “+2” close up lens.

By using the two different types of lenses, it is possible to modify the maximum and minimum fields of view.

The unit us shipped with a neutral lens on the camera; if you wish to fit the +2 lens, unscrew the neutral lens and screw the lens clockwise, as shown in the image below to the right.



The image in MacroView 5 software can be taken with different zooms, in 7 pre-set steps. The STANDARD o EXTENDED type of zoom can be chosen, as described in chapter 3.6.4.

Extended mode: 12x optical zoom default setting

Standard mode: optical zoom optimized and customized for default use

According to the Standard Zoom or Extended Zoom setting it is possible to have two different zoom levels, hence two different frames of the photographed areas.

#### HOW TO CHOOSE THE TYPE OF ZOOM AND THE TYPE OF LENS:

- You can work in Standard zoom configuration without a lens (neutral lens) and manage to focus even at 0 cm from the body.
- If you want to zoom further, you can set the Extended zoom with a +2 close up lens, which however requires a distance of 40-50 cm (16-20”) to focus during the 80% and 100% zoom (for zooms below 80% you can even focus at 0 cm from the body).

Information on the AREAS that can be framed with MacroVIEW is provided below.

- Maximum height of the unit (stand raised to the maximum and manipulator raised to the maximum): 2630 mm (103.5”) is: 180X100 cm (71”x39”) considering a height of 90 cm (35”).
- Considering a distance of **50 cm** (20”) from the target, the framed area is shown in the following tables, depending on whether you are working with Standard or Extended Zoom.

#### 1) Framed area with Standard zoom and neutral lens:

ZOOM	WIDTH (mm)	HEIGHT (mm)
0%	764	430
15%	647	364
30%	531	298
50%	438	246
65%	359	202
80%	292	164
100%	204	115

## 2) Framed area with Extended zoom and +2 Close up lens:

ZOOM	WIDTH (mm)	HEIGHT (mm)
0%	676	380
15%	518	291
30%	388	218
50%	255	143
65%	176	99
80%	113	64
100%	55	31



The automatic focus capability of the camera depends on the environmental conditions. The values set out above are experimental results from tests performed at the Milestone histopathology laboratory.

You can use the manipulator to take pictures, audio and video.

The keyboard integrated in the manipulator has several buttons with different functions.



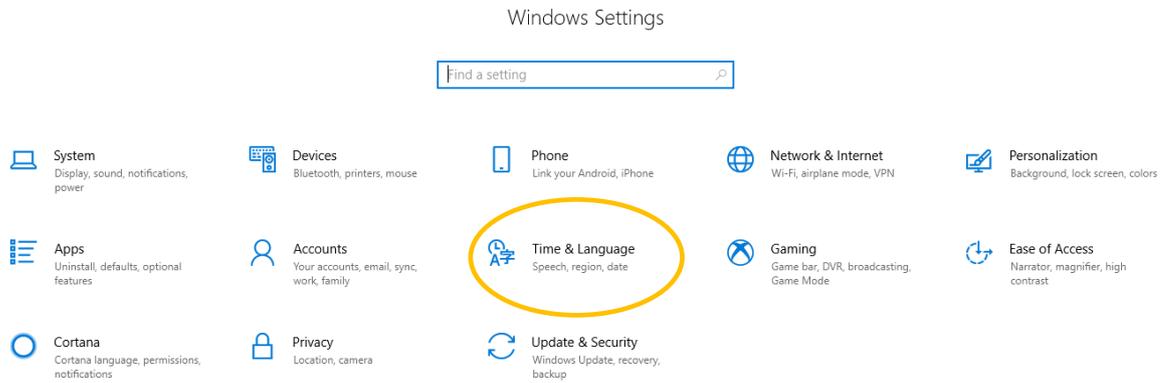
You can rotate the manipulator down and up independently. Adjust it as you prefer.

## 2.4. How to change the language of the Operating System and of the Keyboard

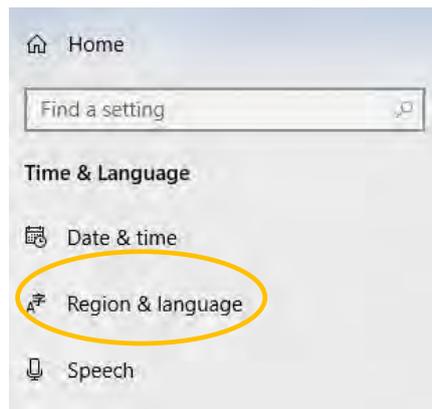
The Operating System and keypad of the PC Monitor supplied by Milestone are in English. Follow the instructions in this chapter ONLY IF you wish to change the language.

Follow these instructions to change the language of the Operating System:

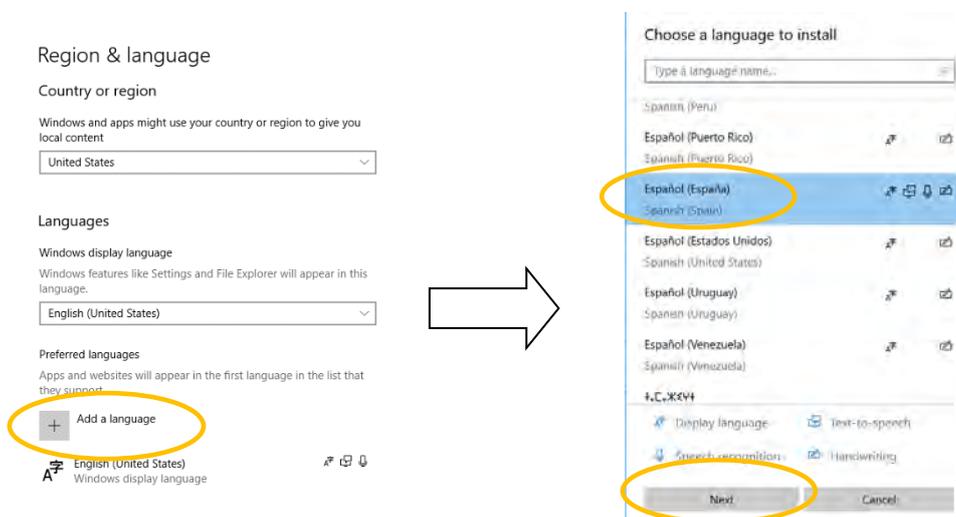
- enter Windows Settings and click “Time & Language”.



- on the left-hand menu click “Region & Language”.



- click “Add a language”, choose the desired language from the displayed menu and click “Next” and “Install” in the message after that. Spanish is chosen in the example below.



- when installation is complete, the chosen language will show under “Preferred languages”.

### Languages

#### Windows display language

Windows features like Settings and File Explorer will appear in this language.

Español (España) ▼

Will be display language after next sign-in

#### Preferred languages

Apps and websites will appear in the first language in the list that they support.

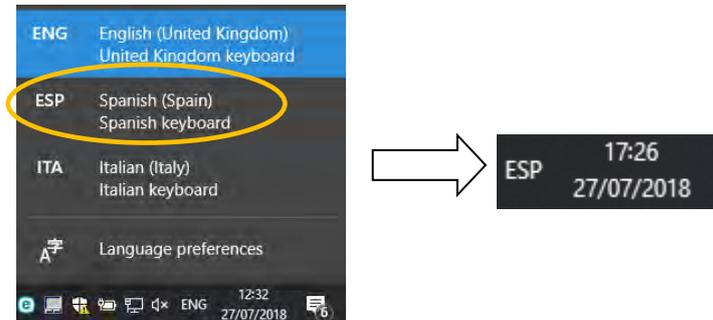
+ Add a language

Español (España) Will be display language after next sign-in

- reboot the PC and the newly chosen language will be set in the operating system.
- Follow these instructions to change the language on the Keypad. Spanish is chosen in this example.
- The status bar on the bottom left shows the default keypad language (ENG - English), click to enter these settings.



- The following panel is displayed, choose the language for the keypad. Spanish is chosen for the keypad in the example below.



### 3. USE OF MacroVIEW

Working with MacroVIEW is a very easy and user friendly. All functions are described in the following chapters.

Before you can turn on the PC, you need to turn on the trolley by pressing the specific button, as shown in the following image. Refer to chapter 3.8 for the explanation of the panel shown in the following picture.



#### 3.1. Start MacroVIEW

The camera must be switched on **AFTER** having switched on the PC and the software accessed only after the camera is on.



To switch off, carry out the same sequence as above in the opposite order: switch off the software, switch off the camera and shutdown the PC.

It is advisable to not only turn off the PC but also the entire system, once a day (chapter 3.8).

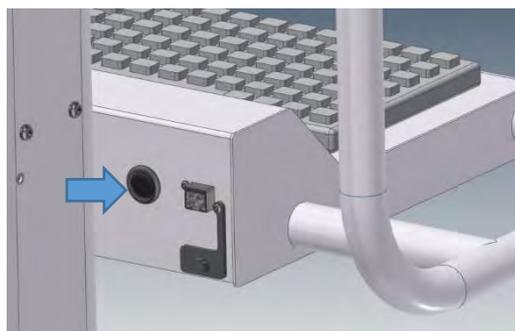
Follow the instructions below;

Switch on the PC by pressing the button on the front panel, as indicated in the figure below.



This button only allows you to switch on the PC; **DO NOT** to switch it off (execute the Windows procedure to shutdown).

Turn on the camera with the appropriate button found at the back of the unit, indicated by the arrow in the following picture.



Wait a few seconds. When the camera in the monitor of the manipulator switches on, start up the MacroView 5 software by double clicking the MacroView 5 icon on the desktop.



**Do not launch the software if the camera is not ON (refer to the manipulator monitor to understand if the camera is ON).**

### 3.2. Log in and Log out

As a default setting, when the MacroView software is running, the user is logged in as Administrator. To disable this function, it is necessary to uncheck the "auto log-in" field (see chapter 3.9.2). You need to be logged in as Administrator to use the main functions. "Service" Log-in is available for authorized personnel only.

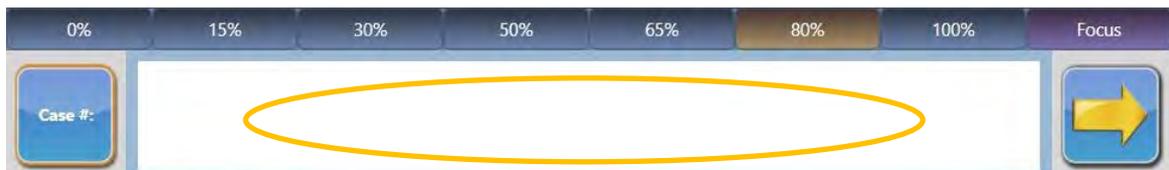


### 3.3. How to operate

#### 3.3.1. Create a case

Enter the case ID using the barcode reader or manually with the keyboard to create or retrieve a case.

When performing a manual entry, click the enter key .



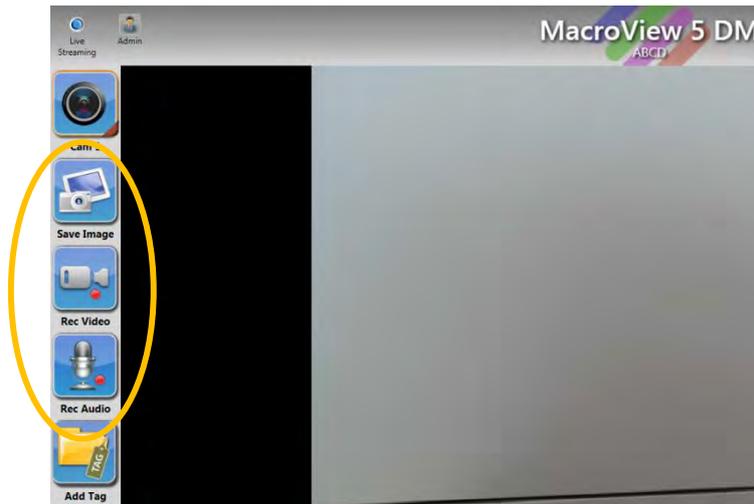
The picture can be taken with different zooms, in 7 pre-set steps. According to the Standard Zoom or Extended Zoom setting it is possible to have two different zoom levels (hence two different frames of the photographed areas).

To set Standard Zoom or Extended Zoom refer to chapter 3.6.4.



Go to LIVE mode by selecting the Live  icon on the top right of the screen.

Save images, videos and audios by using the icons on the left side (as shown in the figure below) or using the manipulator.

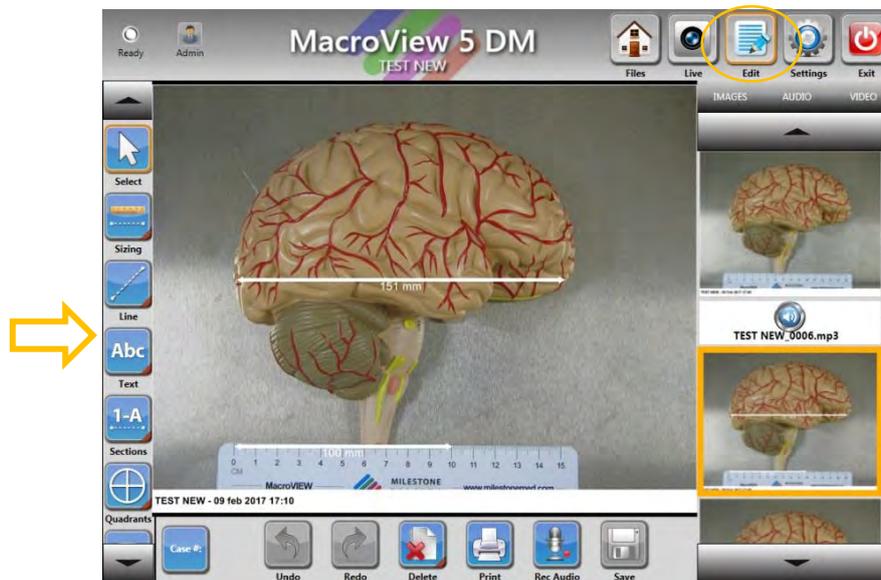


### 3.3.2. Edit a case

The images, audios and videos are previewed on the right column.

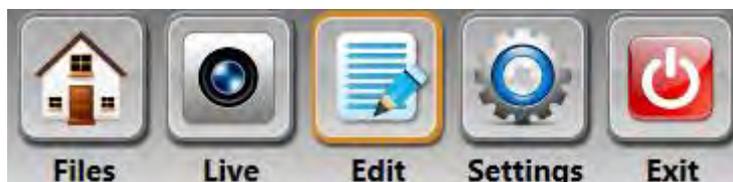


Double click a thumbnail or select the EDIT icon on the top right of the screen to enter EDIT mode. Edit the images using the tools in this area (see chapter 0).



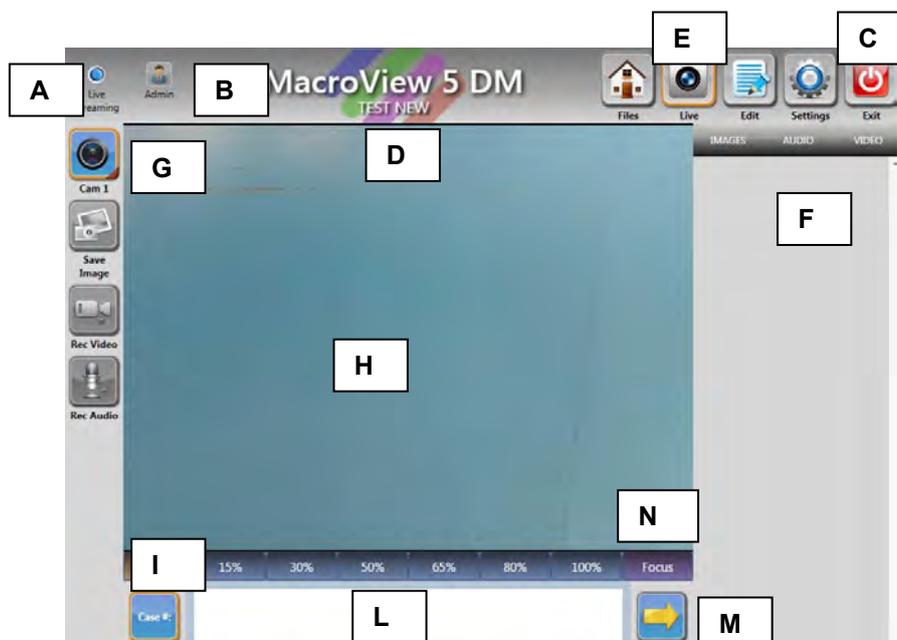
### 3.4. Overview of the main functions

MacroVIEW functions are grouped into 4 areas: FILES, LIVE, EDIT and SETTINGS.



AREA	ALLOWED FUNCTIONS
FILES	Browse, delete, add a tag to the case, present existing cases, generate reports
LIVE	Save images, videos and audio files and add a tag to the case
EDIT	Edit the thumbnails (saved images, audios and videos)
SETTINGS	Change the software settings

The following screen is available only for MacroVIEW complete software (but not for the Viewer).



<b>A</b>	<b>SW STATUS</b>	Shows the status/mode of the software.
<b>B</b>	<b>LOG IN</b>	Shows the current user and allows user to log out by pressing it.
<b>C</b>	<b>EXIT</b>	To exit from MacroVIEW application and go back to the PC operating system.
<b>D</b>	<b>CASE NAME</b>	Shows the name of the current case.
<b>E</b>	<b>LIVE</b>	Allows returning to live camera image of sample.
<b>F</b>	<b>THUMBNAIL FILTERS</b>	Allows you to filter the thumbnails (images, audios and videos).
<b>G</b>	<b>CAMERA BUTTON</b>	To turn the camera on/off by pressing it and open the camera settings window (by holding it down a few seconds).
<b>H</b>	<b>MAIN SCREEN</b>	Samples observation area (when live) and photographs and videos observation area when in EDIT area.
<b>I</b>	<b>ZOOM and STATUS BAR</b>	Click the mouse or directly on the touch screen to zoom in/out as you wish (seven levels are available, from 0% to 100%). This function can also be done with the manipulator.
<b>L</b>	<b>CASE #</b>	Case code entry area: by means of barcode or keyboard.
<b>M</b>	<b>ENTER</b>	Press this button to manually enter the case code.

<b>N</b>	<b>FOCUS</b>	Press the Focus button to force the camera to focus automatically. Alternatively, press on the desired point where you want to focus and the camera will do so by using this point as the centre.
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### 3.4.1. Shortcut Keys

Some functions can also be accessed by using certain buttons on the keyboard (see table below):

Availability	Hold down	Shortcut Key	Function		
Always available	CTRL left + ALT left +	1:	Files		
		2:	Live		
		3:	Edit		
		4:	Settings		
		5:	Exit		
		6:	Logout		
FILES		CTRL left + ALT left +	Q:	Show case	
			W:	Reset search	
			E:	Print case	
			R:	Present case	
			T:	Add tag	
			A:	Snapshot	
LIVE			CTRL left + ALT left +	S:	Video Recording
				D:	Audio Recording
				F:	Autofocus
				G:	Zoom +
				H:	Zoom –
				Q:	Pointer
EDIT	Ctrl Left + Alt Left + Shift Left +			W:	Line size
				E:	Area size
				R:	Sizing free
				T:	Line
				Y:	Circle
				U:	Square
		I:		Arrow	
		O:		Compass	
		P:		Freehand	
		A:		Text	
		S:		Section (1)	
		D:		Section (A)	
		F:	Section (A-1)		
		G:	Section (1-A)		
		H:	Quadrant		
		J:	Multisection		
		K:	Zoom region		
		L:	Zoom IN		
		Z:	Zoom OUT		
		X:	Zoom FIT		
		C:	Undo		
		V:	Redo		
		B:	Print		
		N:	Audio Recording		
M:	Save				

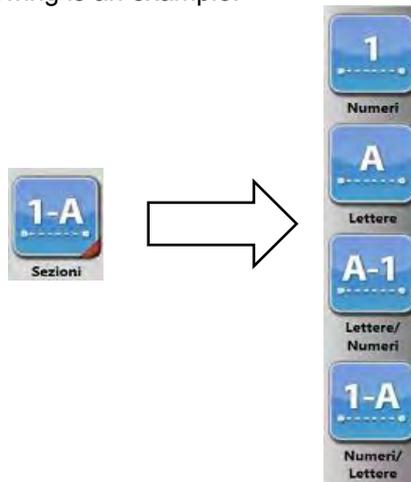
### 3.4.2. Multifunctional buttons

There are multifunctional buttons marked with a red triangle on the bottom-right corner of the icon. An example is shown below.



To select a function, just press its button.

To view multiple functions, press and hold a tool icon for at least 3 seconds. A secondary menu will appear. Make the desired selection. The following is an example:



Multifunctional buttons:

	Camera management
	Measuring tool
	Line tool
	Text tool
	Section equipment
	Quadrant equipment
	Cassettes tool
	Digital zoom tool

### 3.5. Saved files area functions



In FILE, it is possible to:

1. Find cases by using the search function.
2. Browse a case.
3. Delete case.
4. Present case.
5. Print the report of a case.
6. Add a tag to a case.

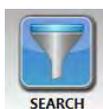
By entering this section, all the cases saved are shown in the table; all the columns are empty except those relative to the case name.

Pressing the line of the concerned case displays all its details and the thumbnails of its images appear on the right. An example is shown below.

Case Name	Content	Creation Date	Last Edited	Creator	Last Editor	Tag
CASO_1553	---					
CASO_1554	---					
CASO_1555	---					
CASO_1556	---					
CASO_1557	Images: 1 Audio: 1 Video: 1	23 Jun 2015 07:59	23 Jun 2015 08:01	Admin	Admin	
CASO_1558	---					
CASO_1559	---					

There are 3 buttons in the middle of the page:

- SEARCH
- RESET SEARCH
- LOAD ALL DATA



**SEARCH:** press this button to search for the concerned case after having filled in the fields at the top of the page (a case can be found by entering the name, date of creation/last change, the creator, author of the last change or the note)



**RESET SEARCH:** press this button to delete all the changes entered previously after having performed filtering and to see the complete list of cases.



**LOAD ALL DATA:** press this button to load all the data of the cases and to view them in the table (not only the case name). The duration of this operation depends on the number of cases saved. Pressing this button, the message "Loading cases, please wait..." appears, showing a progress bar of the time remaining, as shown below.

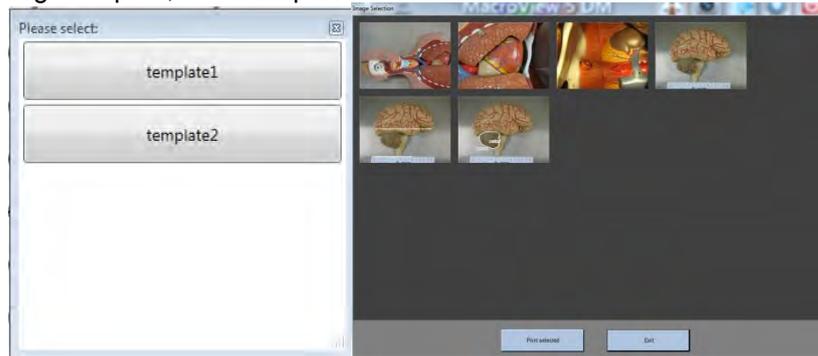


The cases are loaded in alphabetical order. Therefore, to find the most recent case (for example), you must use the filter.

There are other buttons in the FILES area in the left side panel of the page.



**Print case:** press this icon for a complete or partial printout of the case report. Select the template and then the images to print, and then press "Print selected".



Instead of selecting the images that can be included in the report, you can press the buttons indicated by the circle in the following picture to select/deselect them all.



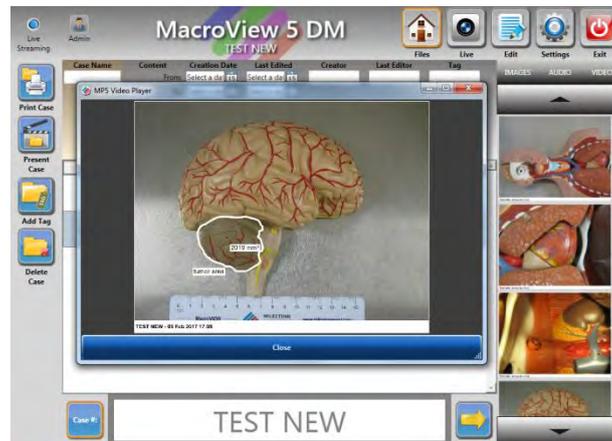


To edit the template with laboratory details, contact our technical department at [customersupport@milestonemedsrl.com](mailto:customersupport@milestonemedsrl.com).

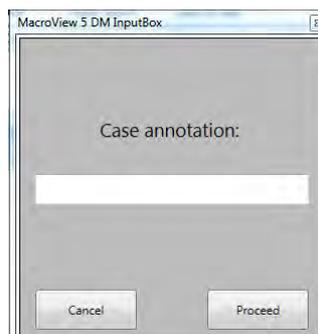
The report is displayed automatically.



**Present case:** press this icon to view all the multimedial contents of the case in order of creation (images, audios and videos). The display disappears after 5 seconds by default. See chapter 3.9.10 to modify this parameter.



**Add tag:** press this button to add a note to the case. The following box opens: insert the desired note and press “Proceed”.



When the tag is inserted, it will appear in the CASE table, as shown below.



In the SEARCH section you may also search for a case by the inserted “TAG”.

It is also possible to tag a case from the LIVE screen. When the case is open live, press the icon “Add tag” as shown in the image below.



**Delete case:** press this icon to delete a case after having selected it. Double confirmation is requested to avoid errors.



### 3.6. LIVE functions

In **LIVE** it is possible to create/retrieve a case, acquire images, take a video or audio and edit camera settings.

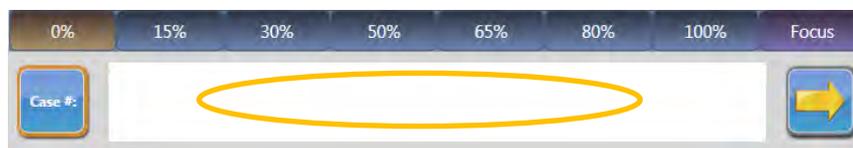
To extend the life of the camera, a standby is set by default after 3600 seconds (see “Settings” manual, chapter 3.9.10). When MacroVIEW remains idle for 1 hour, the camera switches off and the live screen turns black. If you want to switch on the camera, press its icon, as shown below.



#### 3.6.1. Create/retrieve a case

Enter the case's identifier by barcode reader or manually with keyboard to create or retrieve a case.

When a case code is entered manually, press the enter key .



#### 3.6.2. Save Image/Video/Audio



To save the image of the sample, use the zoom level that allows you to view the desired area, then press the **capture** icon or the **Save** button on the manipulator.

You can press the following two buttons to adjust the height of the stand. For example, the framed area at maximum height (stand and manipulator raised to the maximum): 2630 mm (103.5”) is: 180X100 cm considering a height of 90 cm.



It is recommended to position and adjust the camera before raising the stand. When the stand is at the maximum height, the following equipment supplied with the unit can be used if the operator needs to move the camera to adjust the field of view.

The picture below on the left shows the Support for the camera (CODE 372752V). The picture below on the right shows how to use it: attach it to the manipulator handle and adjust the camera with it.

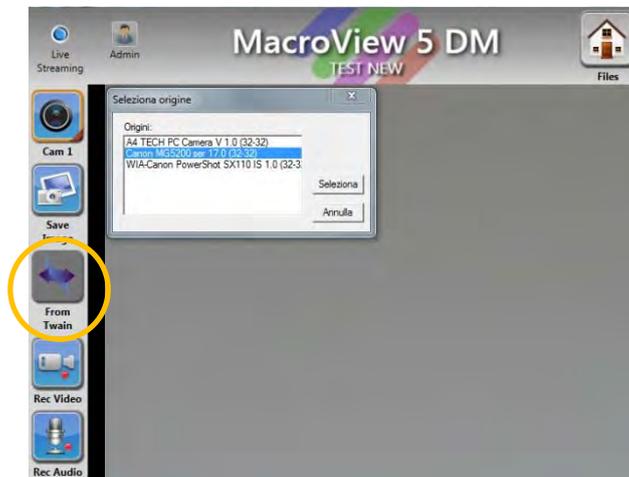


When it is not used, it can be placed on the back of the equipment.



See chapter 3.9.6 to activate this function.

It is possible to import an image from a TWAIN peripheral (for example a microscope): press the "TWAIN" icon and select the desired TWAIN source.



Use the TWAIN peripheral to capture the image (the software used is linked with the peripheral).



Press the **Rec Audio** button to make a voice recording. Press again to stop recording. Audio recordings can also be made from the manipulator.



There is an integrated microphone on the multifunction keypad of the manipulator, which you must talk into if you are recording audio from a PC or if you are recording from the manipulator. The operator's mouth must be close to the microphone, included in the manipulator, while recording audio; if the camera is higher, it is advisable not to record audio.

Audio shorter than 5 seconds will not be considered.



Take video by pressing **Rec Video** button. Press again to stop recording. Video recordings can also be made from the manipulator.

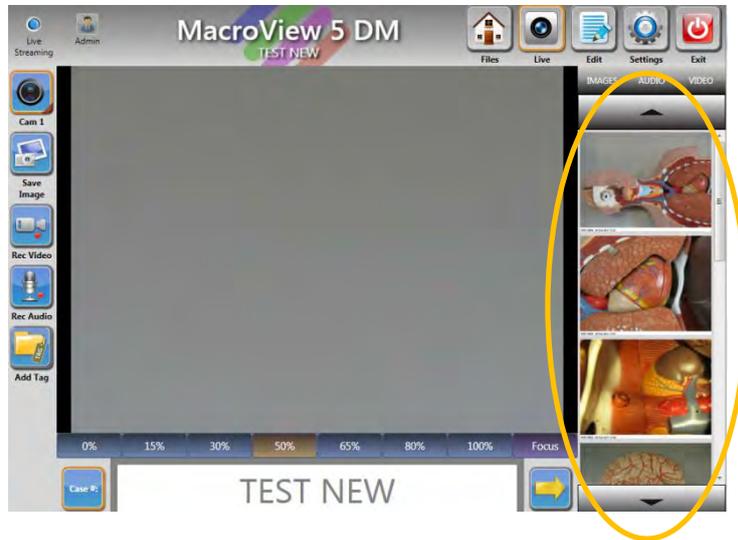


You can record audio while playing a video. There is an integrated microphone on the multifunction keypad of the manipulator, which you must talk into if you are recording a video from a PC or if you are recording from the manipulator.

Videos shorter than 5 seconds will not be considered.

### 3.6.3. Thumbnails

Saved images, videos and audios appear on the right of the screen.



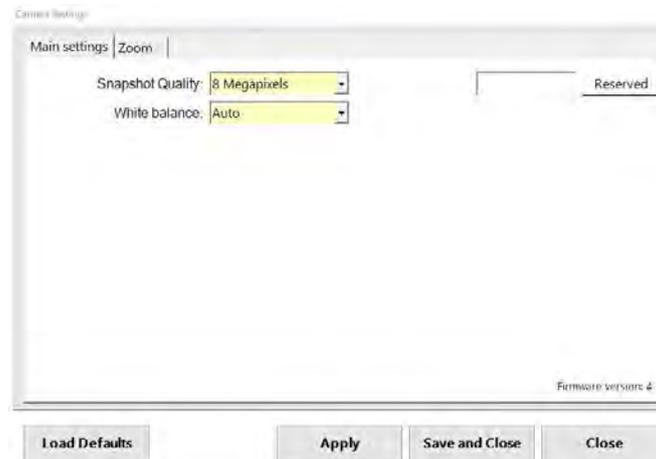
The thumbnails can be filtered by pressing the following keys above them.



### 3.6.4. Extra camera settings



Keep the camera  icon pressed for a few seconds for the camera settings window to appear. The following screen is opened.



Description of the camera settings that can be changed on this page:

- **Snapshot quality** (image size). To change the size of the image, following the indications below. “8 Megapixels” is the default setting.
- **White balance** It allows you to change the white balance applied by the camera; set the one you prefer by following the instructions below. “Auto” is the default setting.

The camera firmware version is also shown at the bottom right.

To set the quality of the image file, it is required to set two parameters as follows:

1. **Compression quality:** the level of compression applied to the image (you can change it in “Settings - Storage”, as explained in chapter 3.9.4). “Normal” is the default setting.
2. **Capture quality:** image size, which can be set in this section.

The table below shows the possible combinations.



**Milestone suggests setting compression at “Standard quality” (as shown in Chapter 3.9.4) and “8 Megapixels” as the image size. This is a good compromise between file size (disk space) and image quality. For images used for publications (articles, documents, etc.) Milestone suggests setting compression at “Full quality” and resolution at “20 Megapixels”.**

Compression quality		Snapshot quality		
		20 MP (full quality)	8 MP (standard quality)	5 MP (low file size)
	<b>Image size</b>	6016 × 3384	3840 × 2160	3072 × 1728
<b>Full</b>		6.5MB/image	1.9MB/image	2.3MB/image
<b>Standard</b>	38	1MB/image	<b>500KB/image</b>	397KB/image
<b>Low</b>		728KB/image	338KB/image	267KB/image



**Note that the space required for saving each image is twice that shown in the table above. In fact, the system automatically saves each image in both JPEG and m5p formats.**

**White balance**

(Light source selection): during installation, it is not necessary to set the white balance setting of the camera. The digital camera will adjust itself based on the light conditions where the MacroVIEW is placed. Therefore, the user must select the type of light source in the laboratory among these options, in order to obtain the best colour contrast.

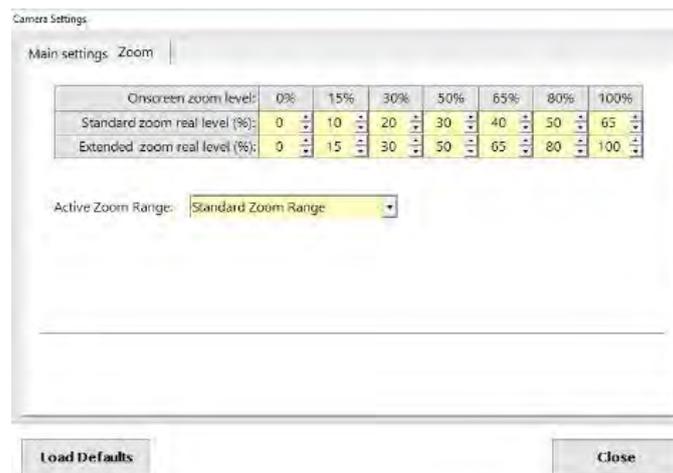
	<b>SELECT THIS OPTION IF:</b>
<b>Auto</b>	You do not know the type of light source of the room. The camera automatically evaluates the white balance based on the framed image.
<b>Indoor</b>	For lighting with warm light.
<b>Outdoor</b>	For lighting with cold light.
<b>Outdoor Auto</b>	This option allows you to perform a specific automatic white balance for outdoors.

These changes take place when the user clicks “Save and Close”. It is not necessary to restart the software.

At the top right of this page, authorized technical personnel can enter the specific password and click “Reserved” to access the advanced camera settings (only if necessary).

By clicking “Zoom” at the top left of this page (Optical zoom settings), the following page opens, where the zoom levels corresponding to the Standard or Extended setting are shown.

The picture below shows the default settings.



It is possible to change the single zoom steps manually by clicking on the individual boxes and entering the required value.



**It is only possible to enter whole numbers.**

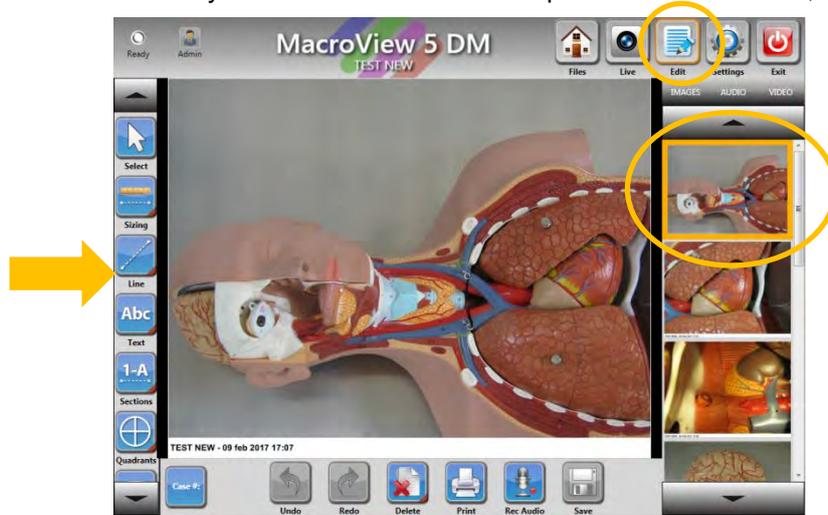
From the “Active zoom range” menu below the table, you can choose whether to work with a “Standard” or “Extended” zoom configuration.

Refer to chapter 2.3.3 to understand when to use the Standard and Extended zoom and the corresponding type of lens.

“Load default” can be clicked on both pages to restore the default values of the camera settings.

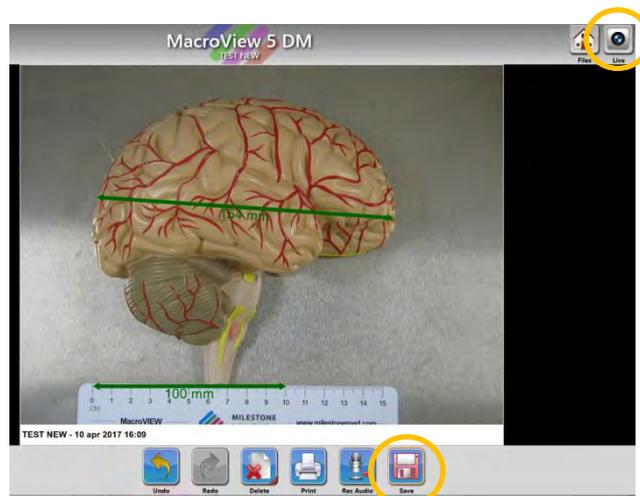
### 3.7. EDIT functions

Click the image once to automatically activate the EDIT mode or press the EDIT button, as indicated below.



In this section you may add texts, measurements, graphical elements and sections to the image, examine the sample, record audios and videos and print directly using the buttons in the left side bar (indicated by the arrow in the previous figure).

When the image has been edited, click “Save” in the bottom part of the image to save the changes, or else click “Save” on the manipulator or the “Live” button at the top right (a confirmation message appears automatically to save).



**When an edited image is saved and entered among the thumbnails, the original image is STORED.**

The image editing buttons are described below.

### 3.7.1. Selection Tool



**Select:** click the button to select an edit element previously added by using the buttons shown further on in the chapter. When an element has been selected, a multifunction panel appears automatically at the bottom left in order to modify it, as shown below.

EXAMPLE: after having added a “Section” to the image, it can be selected by using the “Select” button; after being selected, the following multifunction panel appears.

< A >	To edit the letter.
< 1 >	To edit the number.
< [Red Line] >	To edit the line colour.
< [Black Background] >	To edit the text background colour.
- [Line with Arrow] +	To edit the line thickness.
- A - A +	To edit the size of the number and letter.



**If an object is edited with the multifunction keypad, the changes only apply to that case. For the change to apply to all cases, enter the settings panel as explained in chapter 3.9.9.**

The images in the following chapters show the multifunction panel, which appears after selecting an edit element added to the image by pressing “Select”.

### 3.7.2. Sizing Tool



**Sizing**

Press the button and hold it for a few seconds with the mouse or directly on the touch screen: you may select which type of sizing to carry out, as explained below.

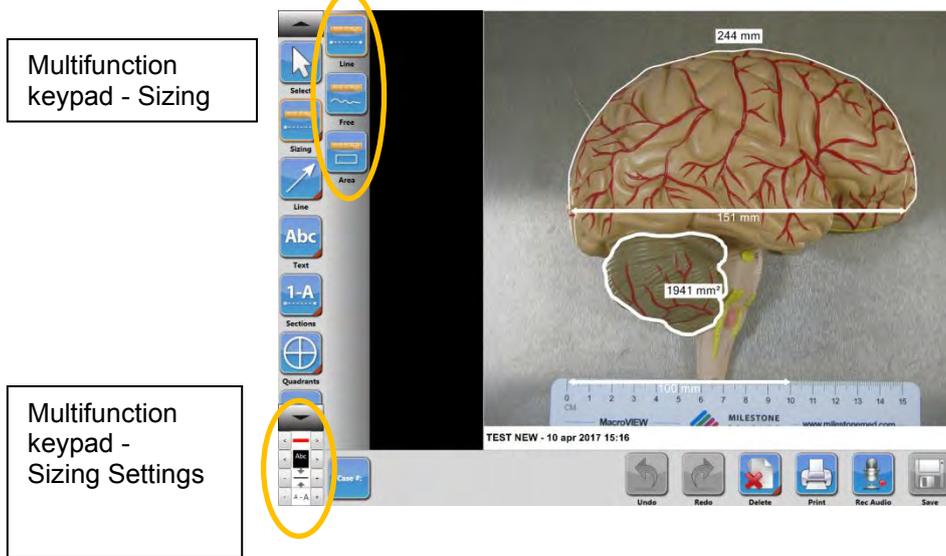
- Click the “Sizing line” icon to draw lines; the system calculates the length of the line.



**By default, the “Point to point mode” option is selected. Therefore, to trace a sizing line, just trace two points and a line will be drawn automatically. Refer to chapter 3.9.9.**

- Click the “Sizing-Free” icon to draw freehand lines; the system calculates the length of the line.

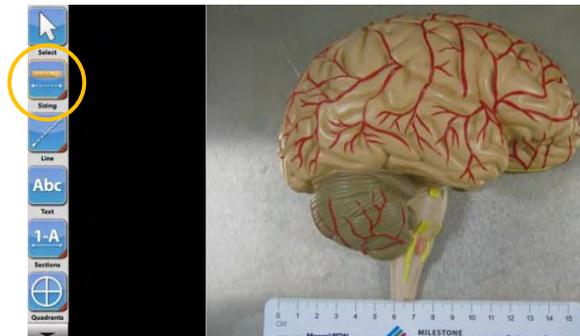
- Click the “Sizing area” icon to draw an area on the sample; the system calculates the area drawn.



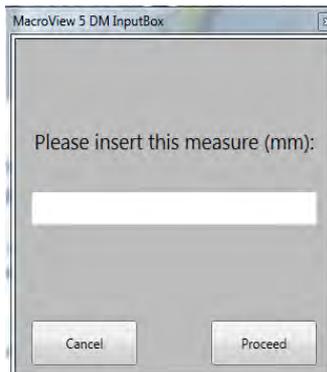
**MacroVIEW's sizing function is strictly linked to the calibration performed by the operator and is not controlled by the unit's software. This is why the measurements of the sample obtained with MacroVIEW CANNOT be taken into account for diagnostic purposes. These values are purely indicative.**

The manipulator camera CANNOT be calibrated because its height is not stable respect to the work surface. Therefore, if you want to make measurements using the Sizing button, proceed as follows:  
- a ruler must always be included in the image,  
- the first measurement must be made on the ruler, so that the image is calibrated. An example is shown below.

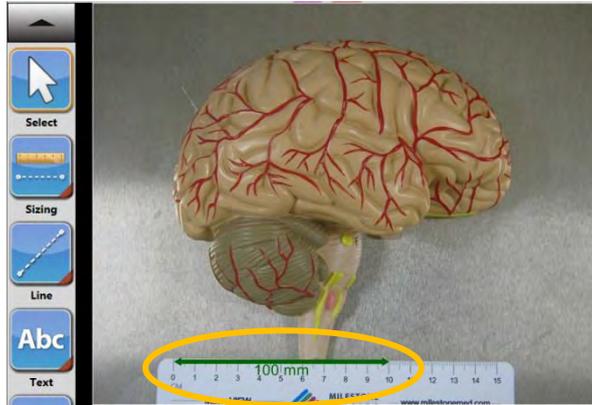
The following image includes a ruler (bottom of the image). Press “Sizing – Line” to measure the line.



Then press two precise points on the ruler (between which the distance is known) and a box appears automatically asking you to enter the length in millimeters. Enter the precise measurement and press “Proceed”.



The measurement made on the ruler appears automatically on the image. The image is then calibrated and it is now possible to make any type of measurement you want.

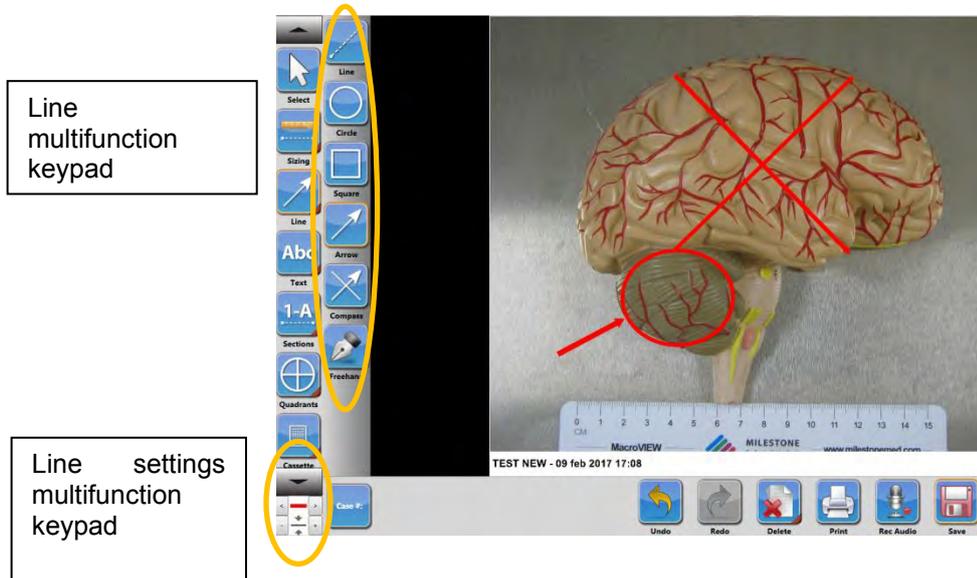


### 3.7.3. Line Tool



#### Line

Press the button and hold it for a few seconds with the mouse or directly on the touch screen: the list of lines that can be added to the image appears. Select the desired line and trace it at the desired point using the mouse or directly on the touch screen.



Line  
multifunction  
keypad

Line settings  
multifunction  
keypad

### 3.7.4. Text Tool



#### Text

Press the button and then press a point on the screen where you want to enter the text using the mouse or pressing directly on the touch screen.

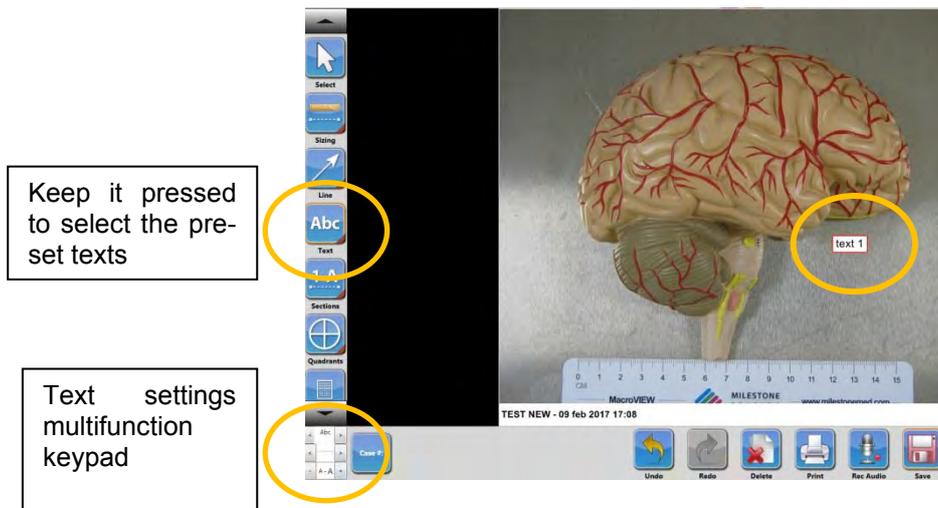
A text can be added by means of the keypad or barcode reader.

It is possible to enter pre-set texts to the settings to be able to enter them directly in the images without needing to re-write them every time (see chapter 3.9.7 for instructions on entering pre-set texts).

When the list has been customized, click the “Text” icon and hold it until the list is displayed. Select the “category” of the text (left column) and then the desired text (right column); click the area of the image you want to put it and the text will be added automatically to the image.



For example, select “text1”, press the image and “text1” will appear automatically.



### 3.7.5. Section Tool



#### Sections

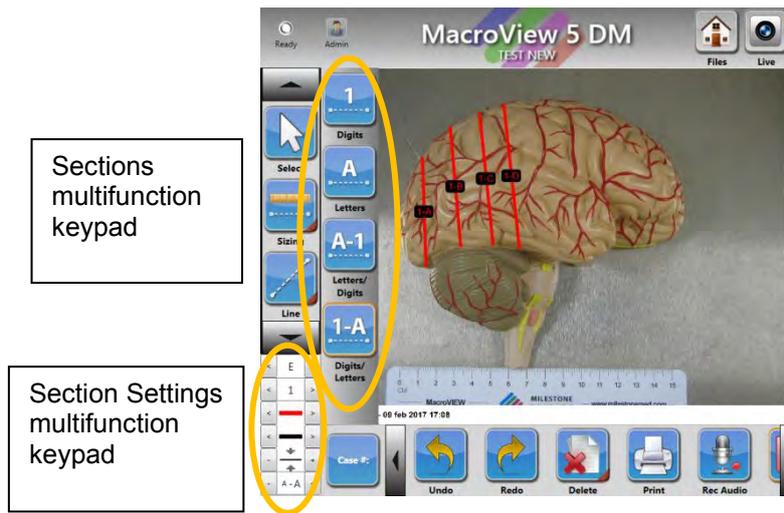
Press the button and hold it for a few seconds with the mouse or directly on the touch screen: you may select the style of the section to be used, as shown below.

Possible styles: Numbers, letters, letters/numbers, numbers/letters.

Select the desired type of section and trace it at the desired point on the image.



**By default, the “Point to point mode” option is selected. Therefore, to trace a sizing line, just trace two points and a line will be drawn automatically. Refer to chapter 3.9.9.**



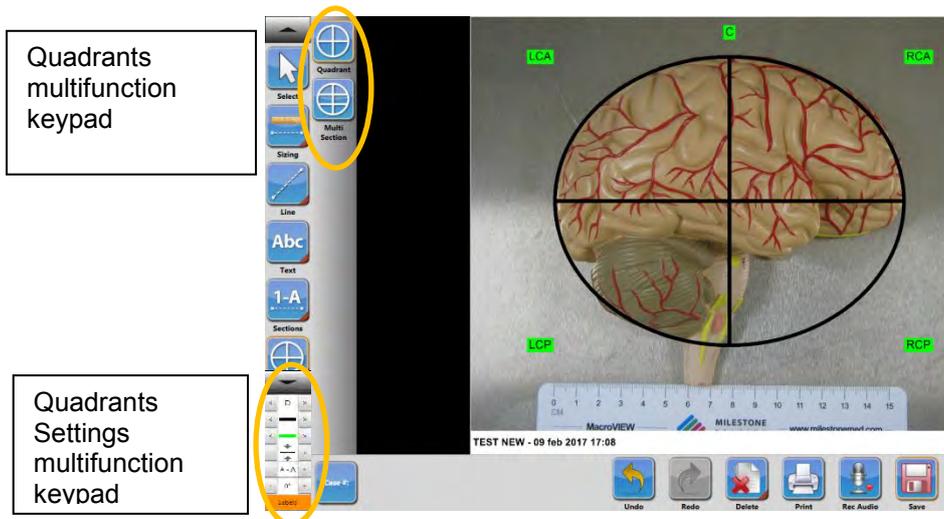
### 3.7.6. Quadrant Tool



#### Quadrants

Press the button and hold it for a few seconds with the mouse or directly on the touch screen: you may select how many quadrants to use, 4 or 6, as shown below.

After having selected the quadrant, draw it at the desired point on the image.



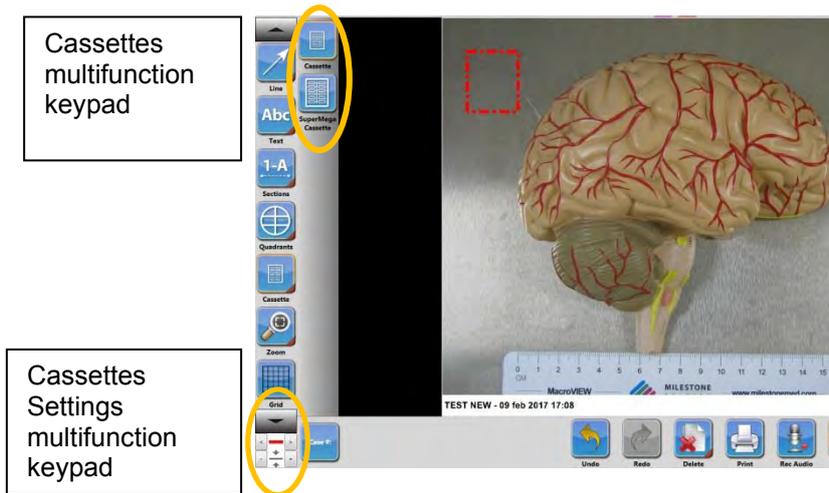
### 3.7.7. Cassettes Tool



#### Cassette

Press the button and hold it for a few seconds with the mouse or directly on the touch screen: you may select the type of cassette, standard or supermega, as shown below.

Select the type of cassette from the multifunction panel and press the screen at the point where you want to draw it: the cassette will appear automatically on the image.



Before being able to use this tool, you must calibrate the image, as explained in Chapter 3.7.2 for the Sizing tool.

### 3.7.8. Digital Zoom tool

#### Zoom



Press the button and hold it for a few seconds with the mouse or directly on the touch screen: you may select the type of digital zoom, as shown below.

	<p>→ Select the concerned area on the image where you want to automatically apply a digital zoom.</p> <p>→ <u>Zoom In</u>: Press the image, with each click it zooms in.  <u>Zoom out</u>: (to use after having used Zoom In) Press the image, with each click a step just made with Zoom In is eliminated.</p> <p>→ Press the image after having used the digital zoom, the image automatically goes back to the original status (no zoom).</p> <p>→ Press the image after having performed the digital zoom and keep it pressed to move the zoom area.</p>
--	--



This type of zoom is DIGITAL. To execute an optical zoom, go back to LIVE and perform the zoom before taking a picture. The digital zoom is useful when the sample is no longer available to be photographed LIVE.

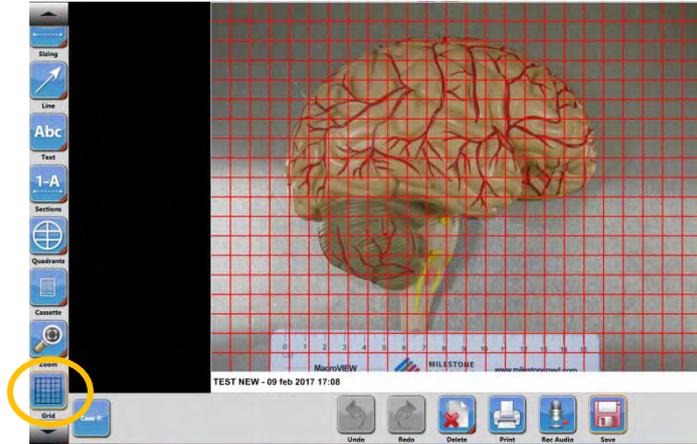
### 3.7.9. Grid Tool



#### Grid

Click the button to automatically add a grid to the image.

In SETTINGS, it is possible to edit the colour, thickness and spacing of lines, as explained in chapter 3.9.9.



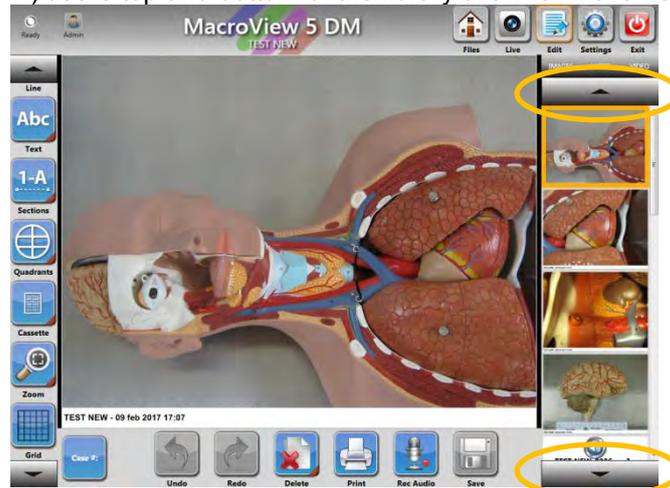
Before being able to use this tool, you must calibrate the image, as explained in Chapter 3.7.2 for the Sizing tool.

### 3.7.10. View the previews

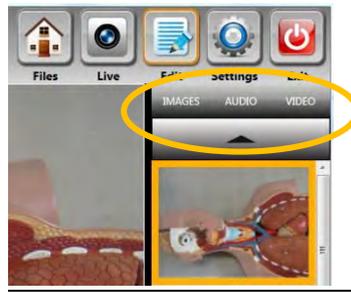
#### Image, audio and video Library

The user can easily view case assets in the library by using the following controls.

1. Scroll arrows (up/down) at the top and bottom of the library allow for movement through the case.



2. Images/Audio/Video tabs at the top of the library allow for the filtering of individual file types. (Example: unchecking the Images tab only displays the captured videos and audio files).



Play the Video

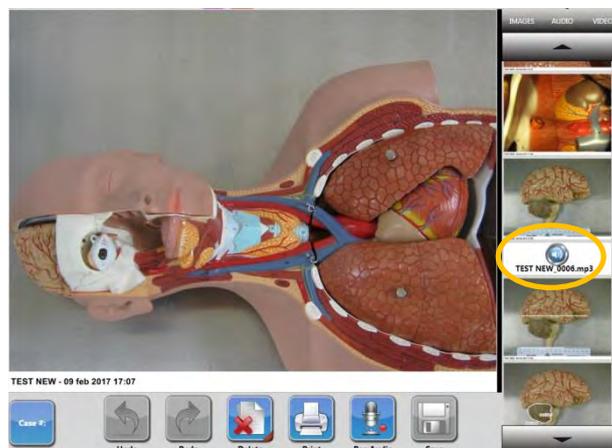
Select a video thumbnail on the right of the screen and click on it. The video will automatically start once selected. The Viewer screen appears and the video starts. At the end, it is necessary to close the window to go back to the main screen.



**After recording a video, wait a few seconds before watching it, to allow the software to save it completely.**

Play the Audio

Click an audio thumbnail in the library to listen to (file mp3): it automatically starts once selected. No windows appear.



### 3.7.11. Utility functions in edit mode

When an image opens in EDIT mode, the buttons described in the previous chapter appear on the left side panel (sizing, text, sections etc.) and other buttons useful to modify the images appear on the bottom panel.



Their functions are explained below.



#### Undo & Redo

Press the Undo button and the last entry on the image disappears. Press Redo button to restore a removed edit.

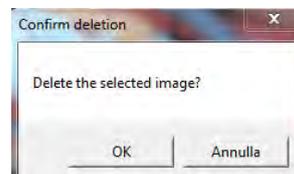
The functions do not work for images where no edit object has been added and when the image is already saved.



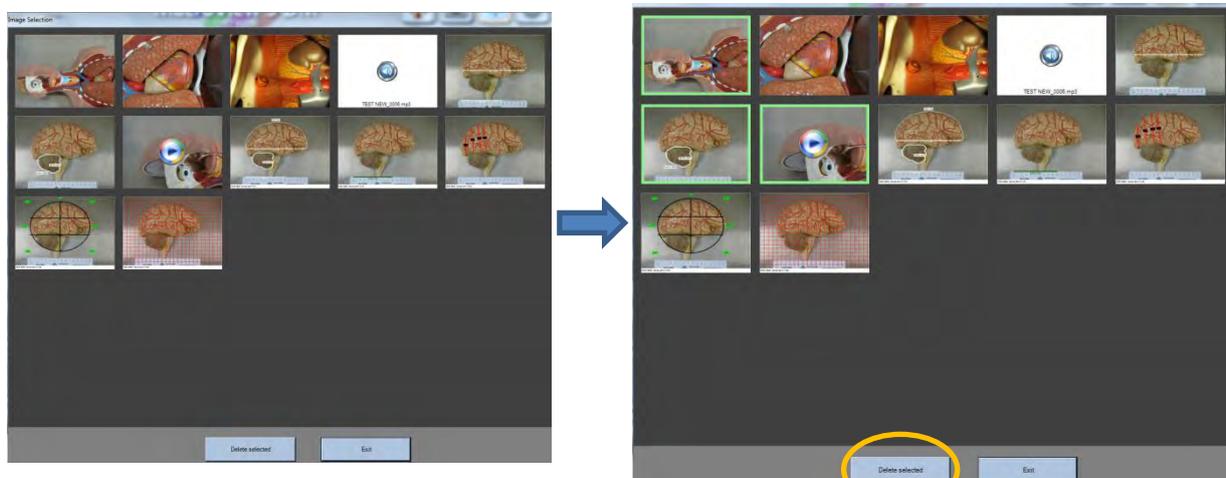
#### Delete

This button deletes one or more case assets in multiple ways.

- It is possible to select an edit element previously added to an image (see chapter 3.7.1) and then to press Delete to automatically eliminate that object.
- It is possible to open an image in edit mode and then to press Delete to eliminate it. A confirmation message appears.



- It is possible to open an image in edit mode and then to keep the Delete button pressed for a few seconds. The list of all the images, videos and audios made appears automatically. You may select all those you want to cancel and then press "Delete selected" (a confirmation message appears).





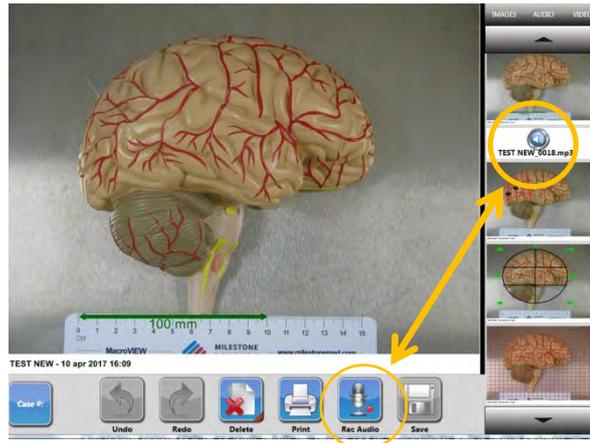
### Print

Pressing this button allows you to print the open image directly by means of a printer, if connected to the PC.



### Rec audio

This button allows you to add an audio comment to the image. Press the button to start the recording (the button starts to flash) and press it again to stop it. The saved audio icon appears on the right of the screen UNDER the related image. The audio can also be launched and stopped from the manipulator when in photo editing mode.



**If you record an audio from the live screen, the mp3 file will automatically be positioned at the bottom of the list of thumbnails placed on the right panel. Whereas if you record an audio associated to an image (starting from the edit area), the mp3 file will be positioned below the image among the thumbnails.**



### Save

When all the necessary changes have been made, press this button to save the image among the thumbnails. The manipulator can be used to save the image.

If you want to go back to the Live screen without saving, a message appears asking whether you want to save the changes.

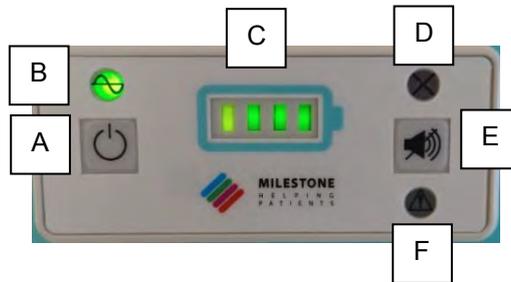
If no edit element has been added to the image, the button is disabled.

### 3.8. Check the battery status

There is a small panel at the front of the unit that allows you to turn the trolley on and off and to show information relating to the battery.



Below is the image and detailed explanation of the panel.



Description of the parts:

- A. ON/OFF button to turn the system ON/OFF.
- B. This LED lights up when the battery is powering the system.
- C. Four LEDs that indicate the level of charge of the system.
- D. Contact customer support if this LED lights up red or yellow when the battery is not down (the charge is above 15% - see point E).
- E. When the battery charge drops below 15%, it beeps once per second; when the battery charge drops below 5%, it beeps twice per second. You can silence the beeper by pressing this button.
- F. Contact customer support if this LED lights up red or yellow when the battery is not down (the charge is above 15% - see point E).

In particular, with regard to the four LEDs that indicate the level of charge of the system (C), refer to the following table, which shows when they are ON and their colour according to the level of charge of the battery when the system is not connected to the power supply (battery discharge).

BATTERY %	LED 1	LED 2	LED 3	LED 4	BEEPER	NOTES
76%-100%	ON (Green)	ON (Green)	ON (Green)	ON (Green)	OFF	
51%-75%	ON (Green)	ON (Green)	ON (Green)	OFF	OFF	
26%-50%	ON (Green)	ON (Green)	OFF	OFF	OFF	
11-25%	ON (Green)	OFF	OFF	OFF	OFF	
Low battery indication	ON (Yellow)	OFF	OFF	OFF	ON	Battery % < 15%*
Critical battery level	ON (Red)	OFF	OFF	OFF	ON	Battery % < 5%

\*Call customer support if you want to change this value.

### 3.9. Settings

Access and modification of settings is possible according to users access level (see chapter 3.9.2). When changes are made in this section, save and completely restart the software to make them effective.



#### Settings

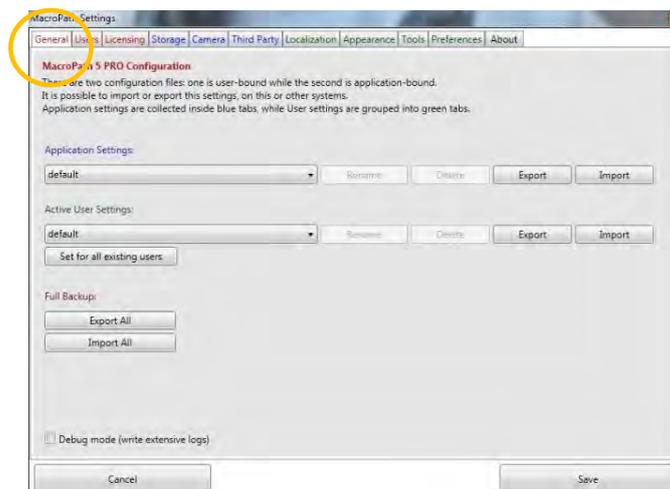
Click the button at the top right to access the settings screen.



The different Settings pages are described below.

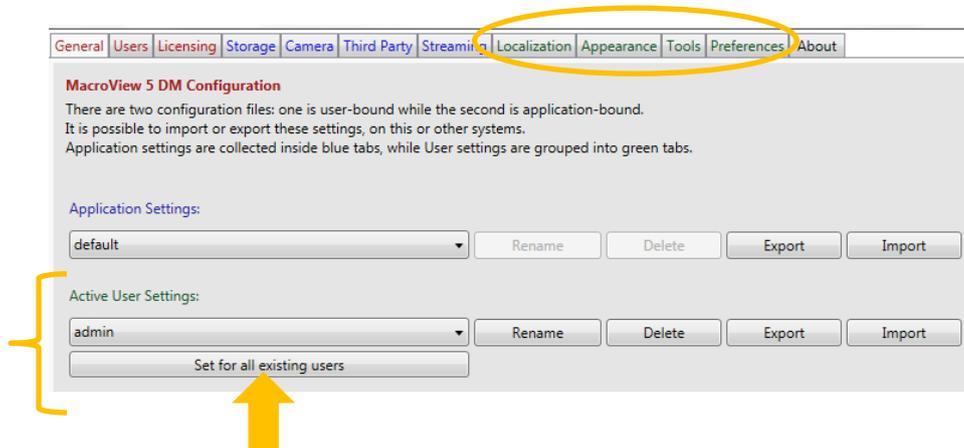
#### 3.9.1. General settings

Click the **General** tab and follow the instructions as to how to do a backup of application settings, user settings or full backup. We recommend exporting the backup file to another PC or a server.



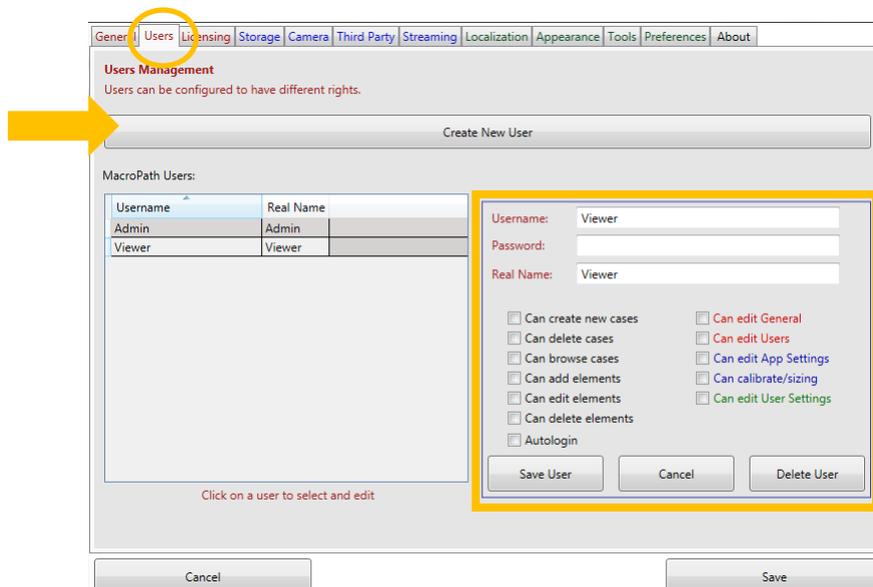
**“Active user settings”:**

Several users may be created in MacroVIEW (chapter 3.9.2). After having created them, we suggest entering the system as Administrator and making all the necessary settings, following the instructions in the chapters below. After having made the settings, enter this page and press “Set for all existing users”. This way all the settings made for the administrator user (regarding the screens circled in the figure below) will be the same for all previously created users.



**3.9.2. User settings**

Click Users to create, modify or eliminate a user and/or change users rights.

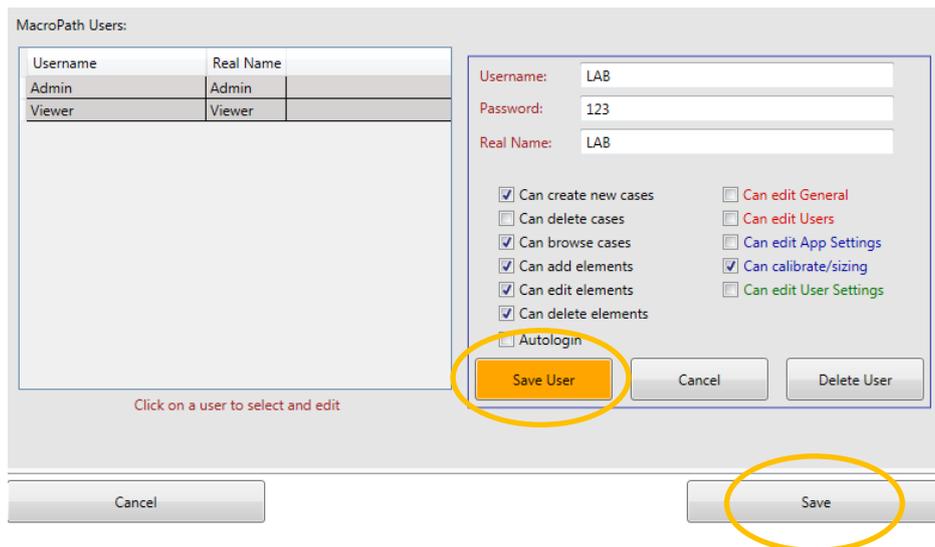


To create a new user, press “Create New User” as indicated by the arrow in the previous figure. Then fill in the specific right panel, indicated by the square in the previous image, indicating name, password and whether or not to activate the software user rights (possibility of executing a certain action) by selecting or unchecking the related checkbox.

Users' rights table:

Can create new cases	Possibility to create new cases
Can delete cases	Possibility to delete cases.
Can browse cases	Option to browse cases saved in the "Files" section (chapter 3.5).
Can add elements	Possibility to acquire new images, audios or videos.
Can edit elements	Possibility of editing acquired images.
Can delete elements	Possibility to delete images.
Autologin	Possibility to skip the login screen and to go directly to the program.
Can edit General	Option to operate in the Settings-General and Settings-License screens. Refer to the following chapters.
Can edit Users	Possibility to operate in Settings-User screen.
Can edit app settings	Possibility of editing settings in the blue fields: Storage, Camera, Third Party and Streaming (function unavailable).
Can calibrate/Sizing	Option to take measurements of the images.
Can edit user settings	Possibility to edit settings in the green fields, regarding languages, display options and general user settings (see following chapters).

The image below shows an example of creating a user with basic permissions. At the end, press Save User and Save.



After creating the users, you can log into the system as Administrator and change the settings in the green fields, such as Localization, Appearance, Tools and Preferences. You can then copy them for all existing users by clicking the "Set for all existing users" field, as explained in the "General" chapter 3.9.1.

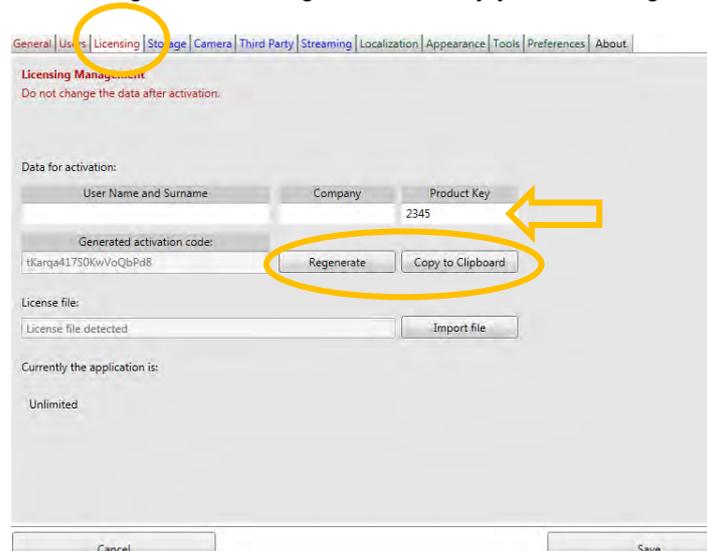
### 3.9.3. Licensing settings

The MacroVIEW unit is provided with a full License file already installed.  
If a new license is needed, see the following instructions.



**Do not perform the procedure without the MILESTONE service support. DO NOT MODIFY THE DATA.**

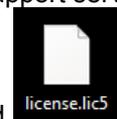
Click the Licensing button to manage the licensing file or to verify your licensing status.



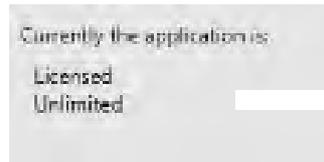
To obtain a new license (if necessary):

- Insert the PRODUCT KEY code printed on the supplied USB (see the arrow in the previous picture).
- Press **“Regenerate”** (indicated by the circle in the figure above).
- Press **“Copy to Clipboard”** button, to copy the unit ID (indicated by the circle in the figure above).
- Paste in a text file or directly in the email message.
- Describe the reason why it is necessary to have a new license.
- Send the information to [customersupport@milestonemedsrl.com](mailto:customersupport@milestonemedsrl.com),
- When you receive the reply, save the file you received from the Milestone customer support service.

- Press **“Import file”** (indicated by the circle in left figure below) and select the file saved
- Press **“Save”** (indicated by the arrow below).

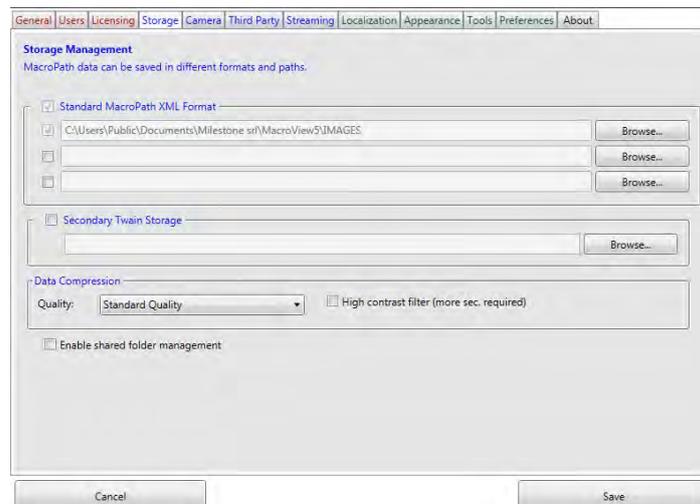


- Restart MacroVIEW and verify that the license level is “Unlimited”, as shown below.



### 3.9.4. Data storage settings

Click on Storage button to either change or add new storage folders (up to 3). The system automatically saves cases in each folder selected.

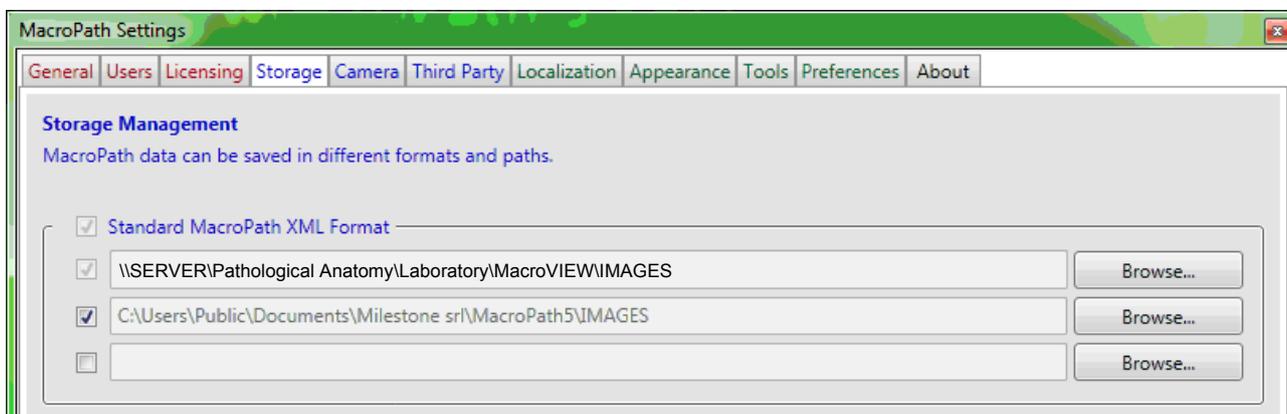


To ensure adequate installation, the unit needs to store the data in a shared folder on a server. For this reason, the unit must be constantly connected via LAN.

The first path is the most important and must always be available; therefore, it must be the shared folder present on the server. This folder must provide full control for each account and for each PC running on the MacroVIEW software.

The second path could be the local folder (present on the internal hard disk of the PC).

The following figure for example shows a shared folder online for the first path and a local folder on PC for the second.



The local folder will ONLY store the cases created and opened by the MacroVIEW you are using. The shared folder on the server will collect ALL the cases created and managed by all the stations/units (if present).

If the unit cannot remain connected via LAN and therefore be saved on the server, the cases will be saved on the PC.

For Windows 10, the default path is:

C:\Users\Public\Documents\Milestone srl\MacroView5\IMAGES.



In this case, it is strongly recommended to make a daily backup of the MacroVIEW cases executed on an external device.

Milestone strongly suggests storing the cases on a server with an automatic backup procedure.

Contact your local Network/IT Manager.

**Data compression:** you can define three different image compression levels: Full Quality, Standard Quality and Low file size.

Standard Quality is enabled by default.

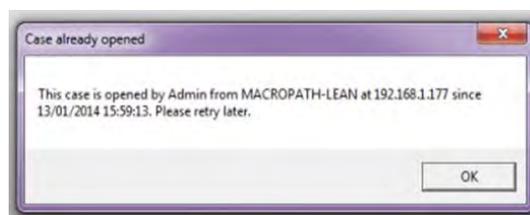
See chapter 3.6.4 for further information on the size of the pictures according to the selected compression level and acquisition level.

**High Contrast filter** If enabled, a digital filter is applied to the image. It could increase the snapshot times of the images. Do not activate unless necessary.

#### Enabled shared folder management

The shared folder management is useful when several MacroVIEW stations (If present) are working on the same cases. In fact, with this function activated, when a case is opened by a station and another station tries to open it, a warning message appears, communicating that the case is already opened by another system and displaying its IP address and when the case has been opened. Here below is an example.

It is only possible to activate and use this function if saved online.



Before using this function, contact our technical department at [customersupport@milestonemedsrl.com](mailto:customersupport@milestonemedsrl.com).

If you decide to save the files directly on the MacroVIEW PC, the software will alert the operator when the memory is running out. In particular, the following two cases may occur:

- 1) When less than 50 GB of hard disk space is available, the following yellow dot will appear on the Rec Video button.



Every time a video is started, the following message will appear before recording begins:

“There is less than 50GByte of free space on disk. Free up disk space”. Click OK for the video recording to begin.



- 2) When less than 10 GB of hard disk space is available, the following red dot will appear on the Rec Video button.



The following message appears every time you will want to start a video:  
 “Insufficient free space on disk, video recording function is disabled. Free up disk space”.



### 3.9.5. Camera settings

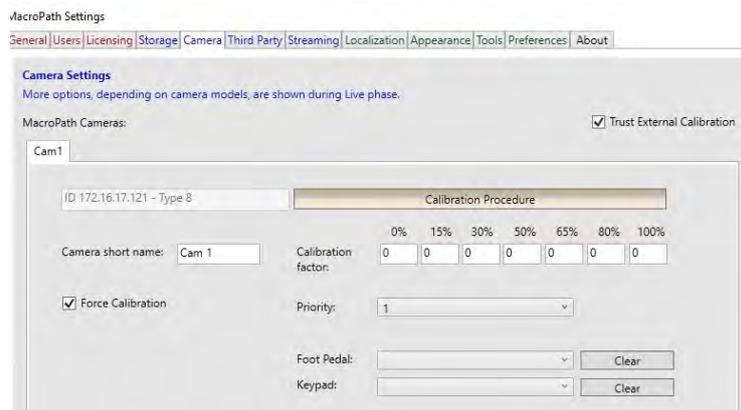
Click the Camera button to edit the camera settings.



You may click **Camera short name** to edit the name of the camera displayed on the Live page

Select:

- **Trust external calibration:** MacroVIEW can use calibration factors of previous files and not those of the software (this checkbox is enabled by default).
- **Force calibration:** MacroVIEW will require calibration with every new image (necessary when the height of the camera is not set according to the work surface, as in this case). This checkbox is enabled by default and must be left so.
- **Priority:** Function not available - do not change.



**Foot Pedal:** function not available.

**Keypad:** function not available.

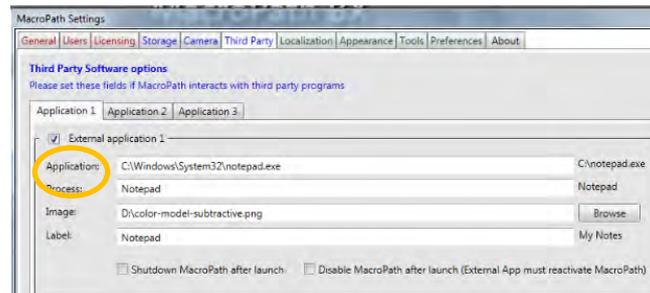
**Calibration Procedure:** function not available as the camera does not have a set height and therefore, the individual images must be calibrated, as explained in chapter 3.7.2.

### 3.9.6. Third-party settings

It is possible to create a shortcut icon to recall an external software (up to 3 different external applications, not included):

Select the “External application” checkbox, as show below. The image shows an example to launch “Notepad”. To do this, fill the fields under “External application1”:

- “Application”: this is the address, in this example “C:\Windows\System32\notepad.exe”
- “Process”: this is the name of the application, in this case “Notepad”
- “Image”: it represents the image of the icon that will be displayed to open the application, it is required to browse a “.png” image.
- “Label”: in this case “Notepad” (which appears on the icon created).



By clicking “**Shutdown MacroVIEW after launch**” on launching the external application, MacroVIEW closes down.

By clicking **Disable MacroVIEW after launch**, when the external application is opened, MacroVIEW is disabled.



When “**Disable MacroVIEW after launch**” box is selected, a dedicated program (not included, to be provided by the customer/final user) must also be installed to let the user go back to MacroVIEW. On the contrary, one cannot go back to MacroVIEW and the user will have to restart the application through the red “CLOSE” cross of Windows.

When all the fields described above have been inserted press “Save”. The icon referring to the application created is displayed under “Files”. In the example reported below, a “Notepad” icon appears.



If you press the icon, Notepad is automatically opened.

If the following folder is enabled:

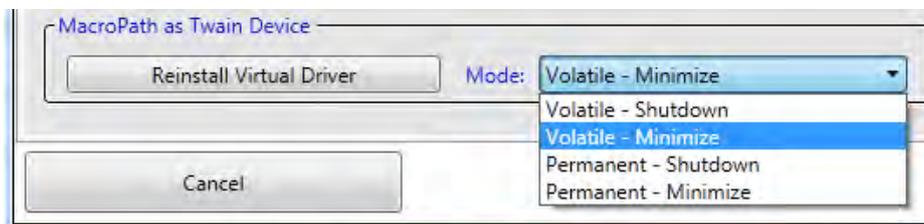


when the exit button at the top part of the screen  is pressed, MacroVIEW will be minimized but not closed.

However, if the button is held down for at least 3 seconds, the program will be closed.

You can enable this box when MacroVIEW is opened directly by its icon (not by an external program or an application) or even when it is started from the command line.

You cannot enable this box when you are working as a Twain device. In this case, if you want to minimize MacroVIEW upon exit, you are prompted to select the “Volatile” mode in “Settings → Third party” mode in the Twain section.



In fact, you can use the MacroView software and the camera as a TWAIN device, which can be used by an external software (not included). Press **Reinstall virtual driver** and choose one of the four available modes:

Mode		Description
Volatile	Shutdown	The data of the case will not be saved, only the images of the open case will be temporarily saved in a "Twain" folder. Furthermore, MacroVIEW will be closed after importing the images.
Volatile	Minimize	The data of the case will not be saved, only the images of the open case will be temporarily saved in a "Twain" folder. Furthermore, MacroVIEW will be kept active (minimized) after importing images.
Permanent	Shutdown	The case data will be saved. Furthermore, MacroVIEW will be closed after importing the images.
Permanent	Minimize	The case data will be saved. Furthermore, MacroVIEW will be kept active (minimized) after importing images.

In “Volatile” mode, the case data is not saved, only the images of the open case will be temporarily saved in a Twain folder created in the same folder where the MacroVIEW cases are saved (Settings-Storage). If you want to permanently save the images, enable the “Secondary Twain storage” folder (secondary folder of Twain) in Settings – Storage” and use the “Browse” button to select the path where to save them. The cases will not be saved at this address, but only the images with the permanent saving date and time.

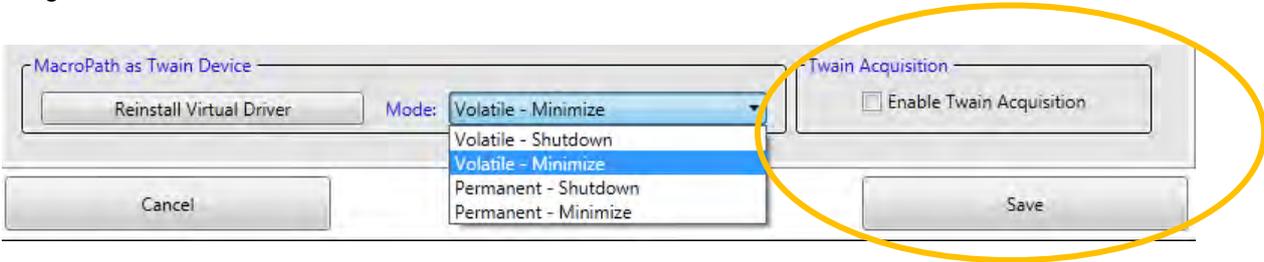


The following are some specifications regarding the TWAIN connection:

1. The MacroVIEW TWAIN connection does not support Citrix technology of the desktop display nor any other virtual machine. It was not developed or tested for these environments.
2. The window of the MacroVIEW applications always opens maximized. It can be re-sized, but it does not retain the change between two successive Twain sessions.

- 3. If the operator closes the MacroVIEW window during the Twain session by pressing "X" on the status bar, the window closes immediately and the open Twain session is no longer managed. All the images that must be transferred could be lost.

In "Settings - Third party" you may select **Enable Twain acquisition** to import images from an external imaging acquisition device (such as a microscope, not included). The device must be Twain to transmit the images to MacroVIEW.



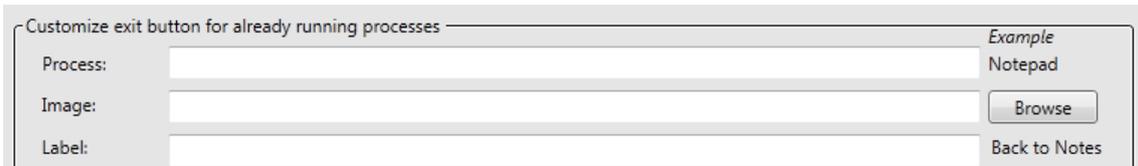
If enabled, a new icon "From Twain" appears on the main screen.



A MacroVIEW case must be open to use the "Acquisition from Twain" button. An image will be imported in the case. Measurements will not be possible on this image by using the calibration of the camera (if present).

You can also customize the "Close" button in the "Customize exit button for already running processes" section: add the program name to be highlighted under "Process", import the .png image to be replaced with that of the Exit button in "Image" and enter the name you want to give to the new button under "Label".

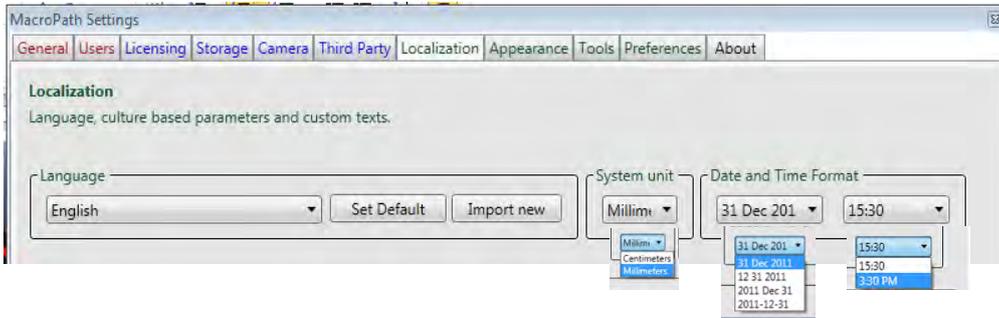
When the "Exit" button is pressed, the program will be highlighted (only in cases where it has been previously minimized on the status bar).



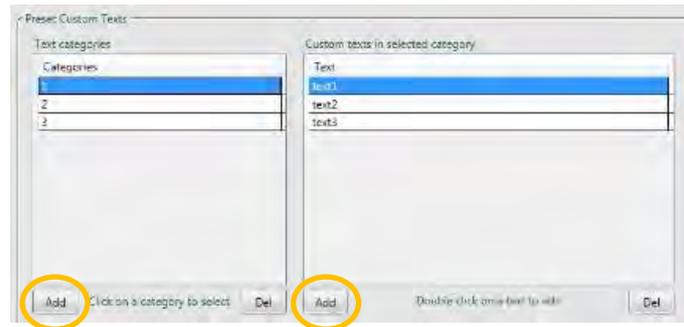
To activate any setting performed in the "Settings-Third party" page, press Save at the bottom on the right-hand side of the Settings page.

### 3.9.7. Localization (language, date and unit of measurement) settings

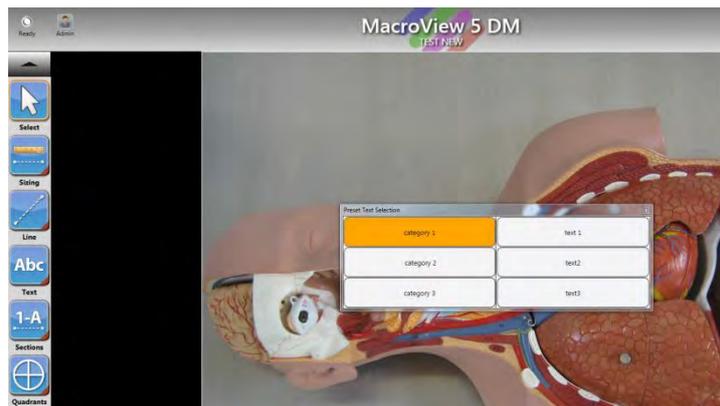
From this, screen it is possible to modify the language (if requested), import new languages, the system's measuring unit (millimeters, centimeters and inches), as well as the time and date format. Select the desired Language from the drop-down menu, then press **“Set Default”** and reboot the system to enable the modification.



**Pre-set custom text** allows insertion of up to 100 different pre-set texts: press **“Add”** and type the category name (example **“1”**), then press the second **“Add”** (2 see the circle in the image below) icon and type the text (example **“text1”**)

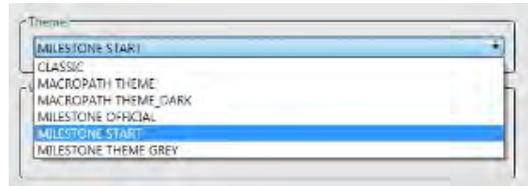


The new added text can now be used in EDIT mode, as explained in the chapter 3.7.4.

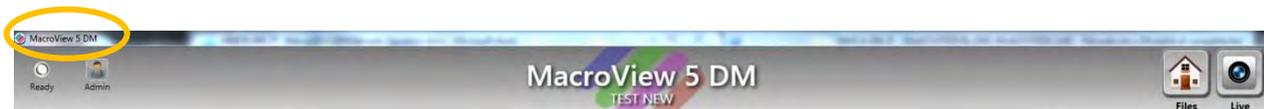
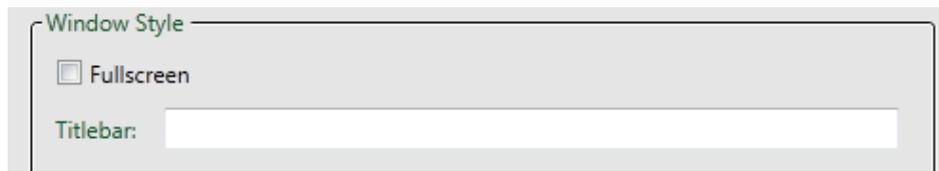


### 3.9.8. Appearance settings

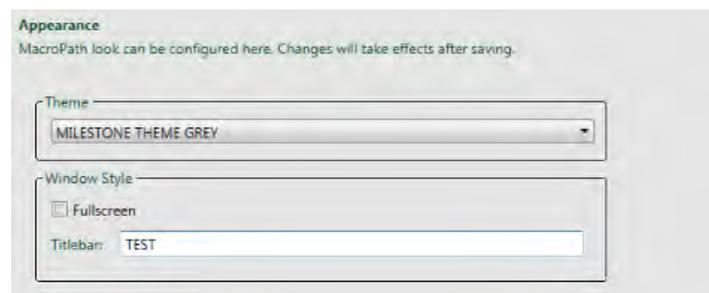
Open the **appearance** screen and select a theme among those listed (if necessary) to change the colours of the software.



Select the **Fullscreen** checkbox to disable the title bar, as shown in the images below.



If you want to fill the title bar with your laboratory name (for example), the full-screen checkbox should be unchecked and the desired name should be inserted in “Titlebar”, as shown below. In this example the Title bar is “TEST”.



Tick the “Virtual Keyboard” to enable the virtual keyboard on the screen. Click on the icon to display the virtual keyboard.



Tick “Easy interface” to reduce the number of displayed icons.  
The following figure to the left shows Easy interface enabled, the one to the right disabled (default option).



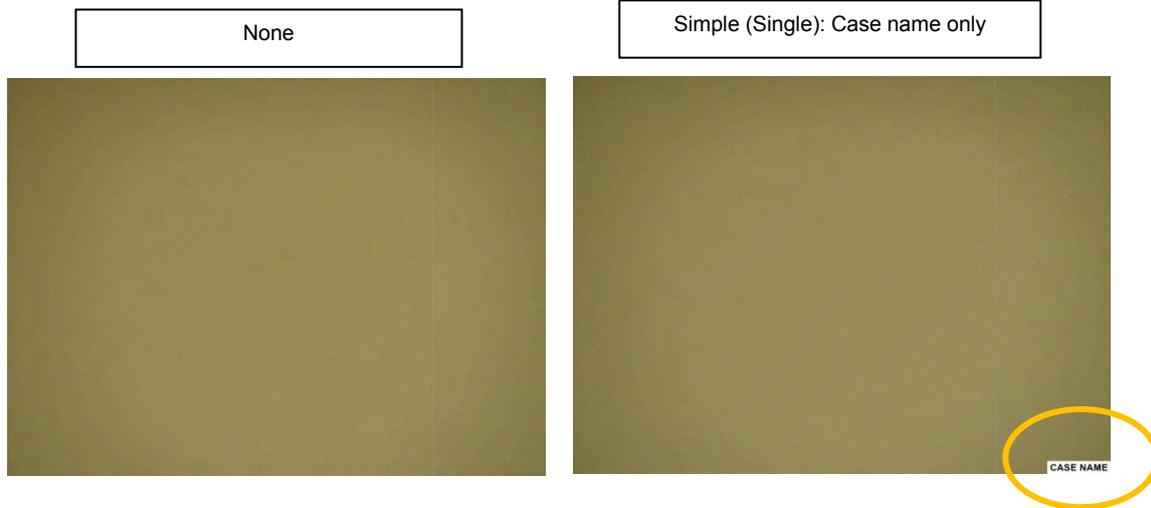
Select “Fine Tuning Mode” to modify the dimensions: the icons, their name and preview in the image library.



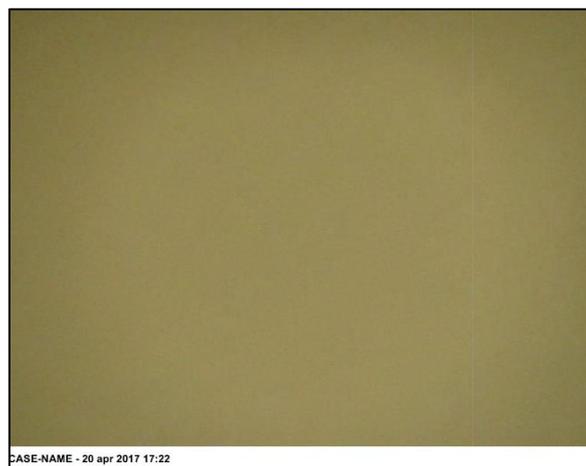
The Watermark settings can also be changed on this page and they will then be applied to all the saved images. You can select: None, Simple or Bordered (default).



Here are a few examples, depending on the selection:



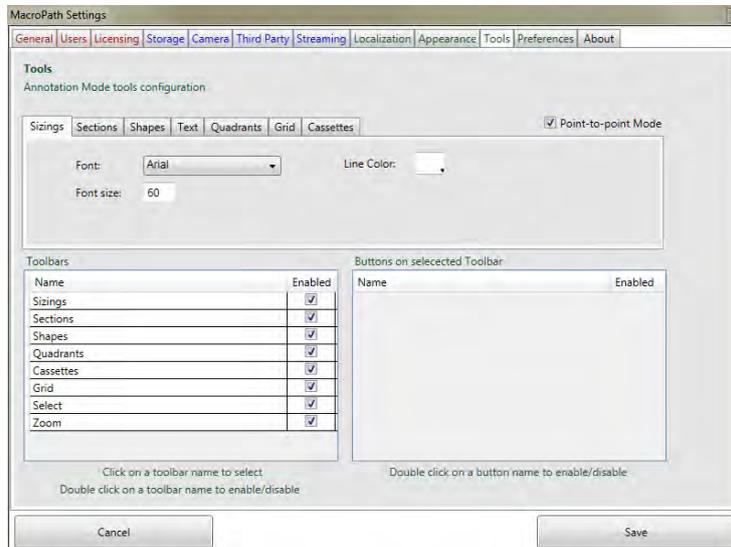
If "Bordered" is enabled, a white edge appears at the bottom of the image that contains the name of the case, the date, the time and the calibration factor.



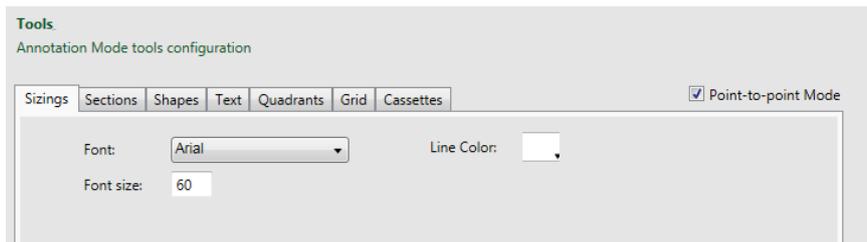
In Simple mode, a box with the name of the case is positioned over the image and covers part of it, while in the bordered mode is positioned under it. The settings will be the same for all the images of the case.

### 3.9.9. Tools settings

To access, press “Tools” to edit the default settings of the image editing tools (shown in chapter 0). The changes made on this page will be saved for ALL MacroVIEW cases which are opened.

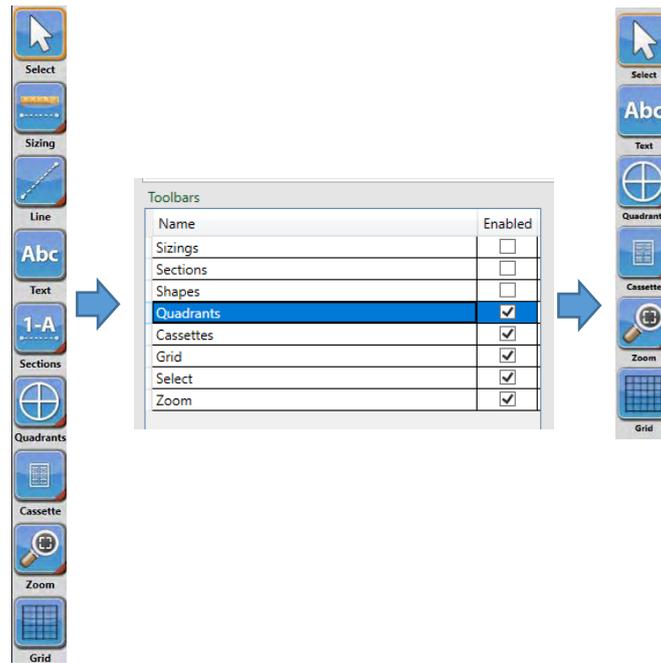


The desired tool can be selected at the top of the page and you may set: font, colour, font size etc..



Select this field to change the type of line of the drawing system. If enabled, to trace a line, press the initial and final points of the line and it will be traced automatically. It is recommended to enable this function when working with the touch screen. By default, it is enabled.

A single tool can be disabled at the bottom of the page by unchecking the relative checkbox. There is an example below: on the right, the icons corresponding to the checkboxes that were disabled are missing.

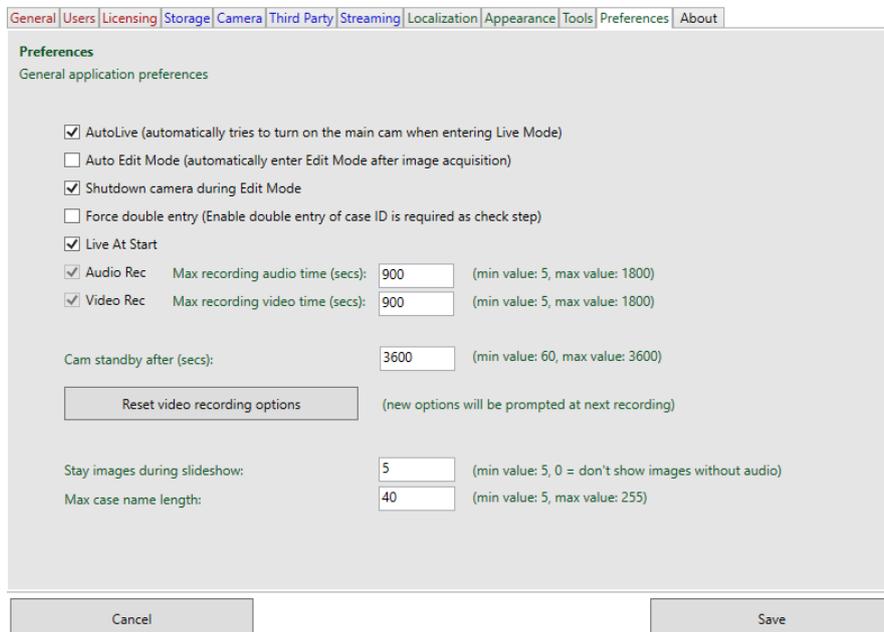


### 3.9.10. Preferences settings

Click “Preferences” to change the following settings:

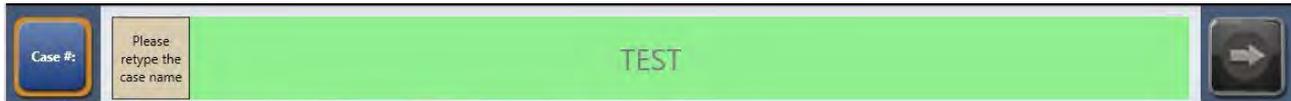


The figure indicates the default settings - do not change these without contacting our technical customer service at [customersupport@milestonemedsrl.com](mailto:customersupport@milestonemedsrl.com).



- A. AutoLive. Used to go back to LIVE mode when an image has been acquired and saved.
- B. Auto Edit Mode. Used to automatically enter the image Edit area after the image acquisition.
- C. Shutdown camera entering Edit mode. Switches off the camera during editing. This feature increases the camera’s lifetime.
- D. Force double entry. By checking this box, every time you create a new case, the system will request the case name twice, thereby avoiding errors.

IT IS NOT POSSIBLE TO CHANGE THE CASE NAME AFTER ITS CREATION.



- E. Live at start. Used to go directly to LIVE when the software starts.
- F. Audio rec. By default, up to 15-minute audio recordings can be made. You can change this value up to a maximum of 30 minutes per recording.
- G. Video rec. By default, up to 15-minute video recordings can be made. You can change this value up to a maximum of 30 minutes per recording.
- H. Cam standby after. It is the time (in seconds) after which the camera goes to standby mode. This feature increases the camera's lifetime. By default, it is set to 1 hour and you can set it to 1 minute but you cannot disable it.
- I. Reset video recording options: function not available.
- J. Cam standby after. Matches the time (in seconds) after which the camera goes to standby mode. This feature increases the camera's lifetime. Don't modify it.
- K. Stay images during slideshow. Set the time that elapses between the images during their presentation in the CASE area (chapter 3.5).
- L. Max case name length. Matches the maximum number of characters in the case name - do not change this.

## 4. MacroVIEW AS VIEWER MULTISTATIONS

### 4.1. How to install MacroVIEW as Viewer

It is possible to install MacroView 5 in all the desired computers without licence, using the software provided with the unit in electronic format (for example, the office of every pathologist).

In this case, MacroView 5 will only work as a viewer, simply allowing images to be retrieved, either by using the barcode or entering the case name manually. The images can only be viewed but not edited.

To carry out any edits on the images (such as adding notes, sections, etc.), a MacroView 5 software licence must be available. Contact your local dealer.

MacroView 5 as Viewer is the same software installed on the MacroVIEW unit and it does not require a new licence. Therefore, the user is authorized to install the MacroView 5 software as Viewer on every PC.

For licence activation see chapter 3.9.3.

MacroView 5 Viewer can be installed on every computer: use the key provided with the unit (chapter 2.2).

- 1) Enter into the software folder.
- 2) Run the SETUP.BAT file as Administrator (highlight the file, right-click and select Run as Administrator) and follow the instructions to install the MacroView 5 software.
- 3) To see the MacroView files from a "Viewer" station, enter "Settings-Storage" and indicate the folder containing the MacroView cases as the address. If MacroView saves on the network, you will select the shared holder on which the files are saved in "Storage". Otherwise, you need to choose a folder on which to carry out a daily backup of the MacroView files. For the MacroView saving options, see chapter 3.9.4.



**The first time MacroView 5 is installed on a PC the FULL feature license is provided for a trial period of 90 days free of charge. After 90 days, if a license is not activated you will only have access as MacroView Viewer. Refer to chapter 5.2 for further information on licenses.**

**The MacroVIEW videos can be watched on other PCs via the desktop sharing programs (e.g., Remote Windows Desktop, TeamViewer, etc.) - contact the hospital IT personnel.**

## 4.2. Integrating MacroVIEW with LIS systems

MacroView 5 software offers perfect integration with LIS systems. Different methods can be used to perform the integration:

### ➤ TWAIN protocol

To use the TWAIN protocol, refer to chapter 3.9.6.

### ➤ Command row

With the simple command string, the LIS system is able to start MacroView to support the “workflow”. The command that LIS can send to MacroView consists of two parts: the connection to the MacroView software and the patient identification code (ID).

For example:

MacroView software can run:	from the default installation directory <i>C:\Program Files (x86)\Milestone Srl\MacroView5\MacroView</i>
Patient ID:	<i>abc</i>

The full command will be:

```
C:\Program Files (x86)\Milestone Srl\MacroView5>MACROVIEW ABC
```

With this command the MacroView 5 software is launched automatically by immediately opening patient file “abc”.



The user can directly acquire all necessary files: photos, audio, video, which will be saved in the file storage folder (in this example “abc”) and stored in the selected saving directory (see “Storage” in the “Setting” menu).

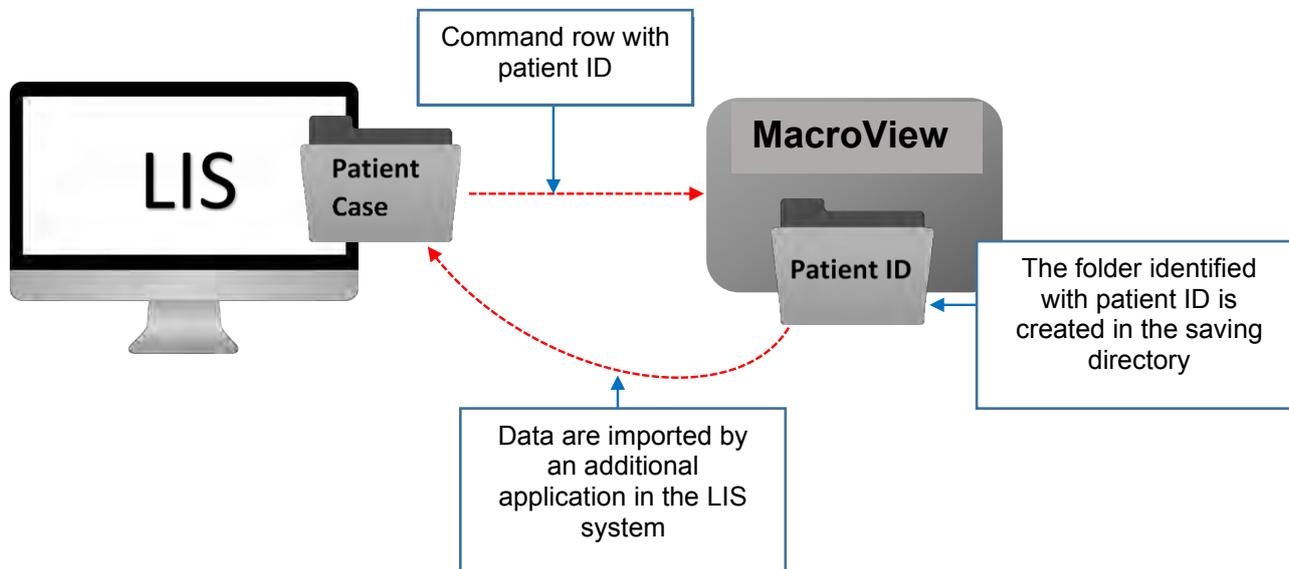
When these operations are completed, the patient data will be available for the LIS system.



### Important note for Command row.

To import data into the LIS system there needs to be an additional application to manage the patient folder based on customer requests. This function is normally already enabled in the LIS configuration.

Flow and requirements for integration with command row:



### Shared folder

For each patient, the software creates a specific folder identified with file name/number containing all of the images, audio and video created with MacroView. Additionally, the software also creates the XML file of the session in this folder, with a lot of information, including: Patient ID, file opening and closing time.

### How MacroView saves the images

For each specific case it is required to enter the case name/number, using the software's interface, by manually typing it with the keyboard or using the barcode reader. MacroView does not automatically generate any identification code for the case, so to start the system the user is required to enter the specimen identifier case name/number.

The MacroView system can also receive the case name/number directly from the LIMS system.

### Image acquisition

Refer to chapter 3.6.

### Where and how images are saved:

MacroView files are saved (by default) in the path/directory:

`C:\Users\Public\Documents\Milestone srl\MacroView5\IMAGES`

By default, this directory is created in the hard-disk C, but the archive can be saved wherever you wish. It is strongly recommended to place the Images folder in a different position on the local network (refer to chapter 3.9.4).

The example provided below shows how 5 images taken from file ABC are saved in the directory  
(`C:\Users\Public\Documents\Milestone srl\MacroView5\IMAGES`)

All the images are saved in .JPG format. The MacroView 5 software automatically saves the images with the ID name (file name) as shown below:

ABC\_0001.JPG  
 ABC\_0002.JPG  
 ABC\_0003.JPG  
 ABC\_0004.JPG  
 ABC\_0005.JPG

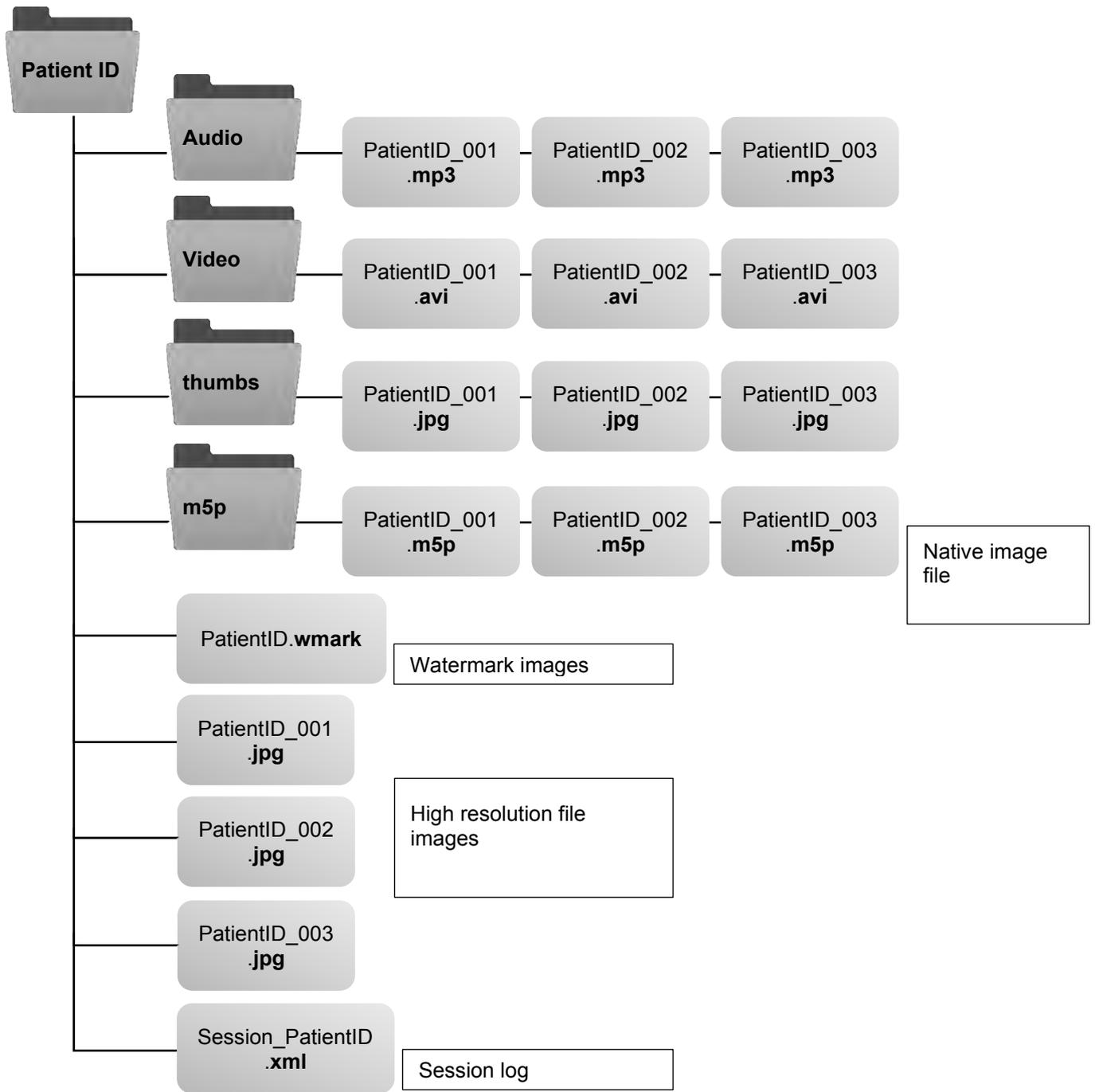


All the images are then available to be recovered and displayed by any other software.

The XML file shown below was created automatically for the ABC file used in this example:

```
<?xml version="1.0" encoding="UTF-8"?>
<Worksheet Keywords="">
  IDCode="ABC"
  <Session>OpenTime="28/08/2012 09:43:07" ComputerName="MACROPATH-PC" UserName="Milestone Service" Software="MacroPath" Version="5.2.0.16"
  View="MacroPath5PRO" </Session>
  <Session>
    OpenTime="28/08/2012 09:43:22" ComputerName="MACROPATH-PC" UserName="Milestone Service" Software="MacroPath" Version="5.2.0.16"
    View="MacroPath5PRO"
    <Image>ImageFile="C:\Users\Public\Documents\Milestone srl\MacroPath5\IMAGES\ABC\ABC_0001.jpg" SaveTime="28/08/2012 09:43:22" Format="JPEG
    1:8"</Image>
    <Image>ImageFile="C:\Users\Public\Documents\Milestone srl\MacroPath5\IMAGES\ABC\ABC_0002.jpg" SaveTime="28/08/2012 09:43:37" Format="JPEG
    1:8"</Image>
    <DeletedImage>ImageFile="C:\Users\Public\Documents\Milestone srl\MacroPath5\IMAGES\ABC\ABC_0003.jpg" SaveTime="28/08/2012 09:43:54" Format="JPEG
    1:8"</DeletedImage>
  </Session>
```

The generic structure of the file folder is shown below:



The LIS can therefore import data from the folder through the “shared folder” mode.

## 5. OPTIONAL AND SPARE PARTS



It is prohibited to use parts that are not supplied by Milestone.

The pictures are only an example.

### 5.1. Mouse wireless optical in silicone

CODE	DESCRIPTION	IMAGE
372363	Mouse wireless optical in silicone	  USB

2 AAA batteries are required (not included): use the screwdriver supplied to unscrew and close up again as shown below:



## 5.2. Licenses

CODE 370262MV4KE	MacroVIEW version 5 extra licence EDIT on USB key which includes: <ul style="list-style-type: none"><li>- annotation capabilities (sizing, free hand drawing etc)</li><li>- voice recording in MP3 format</li><li>- possibility of zooming in images already saved for detailed examination</li><li>- case report generation in RFT format suitable for WordPad or Microsoft Word Office</li></ul>
CODE 370262MV4KF	MacroVIEW version 5 extra licence FULL (complete) on USB key which includes: <ul style="list-style-type: none"><li>- digital imaging acquisition in jpg format (only with Milestone camera connected)</li><li>- video acquisition in AVI format (only with Milestone camera connected)</li><li>- annotation capabilities (sizing, free hand drawing etc)</li><li>- voice recording in MP3 format</li><li>- possibility of zooming in images already saved for detailed examination</li><li>- case report generation in RFT format suitable for WordPad or Microsoft Word Office</li><li>- capability of importing microscopy images via Twain protocols (only with Milestone camera connected or using the Interface Command)</li></ul>

## 6. MAINTENANCE

The procedure described in this chapter must be performed on a daily basis.



For reasons of safety, any operation without the required personal protection equipment is to be avoided.

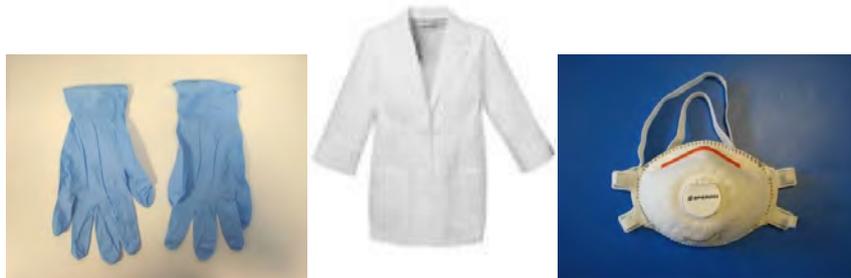
MacroVIEW decontamination is mandatory due to the biohazard, in view of the use of fresh specimens.

Switch off the instrument if it not used for a long period of time.

### 6.1. Safety precautions

The personnel involved in the decontamination procedure of MacroVIEW and its optional parts (if present) must wear appropriate personal protective equipment, in particular:

- Disposable HI-RISK protective gloves (100% latex or equivalent material). Personal protection device compliant with the EN 374 standard and the 89/686/EEC Directive.
- Antibacterial mask for surgical/operating theatre use and white coat. Personal protection device compliant with the EN 149 standard Grade FFP3D and the 89/686/EEC Directive.



### 6.2. Cleaning MacroVIEW



Follow the instructions below;

- Turn the camera off.
- Turn off the PC.
- Turn off the system from the ON/OFF button, as described in chapter 3.8.
- Unplug the power supply cable from the main socket.
- Disconnect all the optional parts, if present (keyboard, barcode reader).

Cleaning operations must be performed regularly.



**Do not immerse or rinse the PC or its peripherals.**

**If you accidentally spill liquid on the device, disconnect the unit from the power source.**

**Contact your clinical engineering service in relation to the safety of the unit before placing it back in operation.**

**Do not autoclave or clean the PC Panel or its peripherals or the camera with strong aromatic, chlorinated, ketone, ethers or ester solvents (like ethyl acetate or methyl palmitate), sharp tools or abrasives.**

**Never immerse electrical connectors in water or other liquids.**

### 6.2.1. Keyboard and mouse

To clean the keyboard and mouse while they are connected, lock the keyboard by holding down “Locking Key”  for three seconds.

Clean the surface of the product by brushing it, spraying it or soaking it. Only use cloths, sponges or soft-bristle brushes.

DO NOT soak the USB connector in liquid.

Clean with a dry cloth or let it air dry.

Release the keyboard by holding down “Locking key” for three seconds.

Recommended disinfectants:

- Chlorine-based (max 10% solution) – Chlorox, Novalsan, etc.
- Phenol-based – Lysol I.C., Beaucoup, Magna Clean, Tek-Trol, etc.
- Alcohol-based – Cavicide, Isopropyl Alcohol, Medicide, etc.
- Oxidant-based – 3% Hydrogen Peroxide solution, Lifeguard Series, etc.
- Quaternary ammonium – Roccal-D, Bacto-Sep, Parvosol, etc.
- Water and soap.

DO NOT USE: petroleum-based fluids such as Petrol, Fuel Oil, Acetone, exceeding 10% solution with bleach, sterilization temperatures or pressures, polishing or abrasive sponges.

### 6.2.2. Touch-Pen

1. Use 99.5% denatured alcohol and alcohol-based decontaminating disinfectants.
2. Clean the Touch-pen with a clean cloth that has been moistened in the cleaning solution,
3. Clean thoroughly with a clean cloth.



### 6.2.3. Operating procedure



Perform the procedure at least once a day. Carry it out even every time MacroVIEW is used, if necessary.

Remove blood stains from the equipment by first wiping them with a cloth moistened with cold water. Then follow the instructions below.



Decontaminate and clean the PC with 70% alcohol.  
Clean the remaining parts with alcohol.  
Use polyphenol-based detergents to disinfect remaining parts.

### Germicidal efficacy of polyphenol-based disinfectant agents



Check always the label of the disinfectant agent used in the laboratory to verify the correct efficacy timing

- 5 minutes: Human Immunodeficiency Virus Type 1 (HIV-1), Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), Rotavirus, Coronavirus SARS.
- 15 minutes: Staphylococcus Aureus, Candida Albicans.
- 30 minutes: Pseudomonas Aeruginosa, Mycobacterium Bovis (TB).

**Procedure to follow**

- Spray the decontaminant.
- Wait 30 minutes.
- Wipe with wet paper towel.
- Clean with alcohol.
- Dry with a dry cloth or paper towel.
- Wipe with wet paper towel and dry with dry paper towel.

## Final steps

- Reposition the optional parts.
- Before removing gloves, wash them with soap, water and disinfectant.
- Wash your hands.
- Remove the individual protection devices.
- Make sure the contaminated material is packed and disposed in an approved incinerator in compliance with all federal, provincial and local government regulations.

**On completion of the cleaning operations, wait at least 5 minutes before connecting MacroVIEW to the power supply.**



**Ensure that MacroVIEW is generally kept clean after each use. Do not use abrasive or sharp tools which can damage its surfaces.**



**FOR CLEANING DO NOT USE PROCEDURES OTHER THAN THOSE EXPLAINED IN THIS MANUAL. An improper procedure could ruin the tool and terminate the warranty.**

**6.3. Battery replacement**

**Increase the life cycle of the battery by fully charging it as soon as possible after use.**



**It is recommended to replace the battery after 3 years.**

**Never leave the unit unused with a flat battery.**



**If the equipment remains unused for a long time, disconnect the battery as described in chapter 2.3.2 and fully charge it to be reused.**

**Keep the battery charged when it is not in use.**

Call your Technical Assistant to substitute battery.



**Contact annually your local distributor or Milestone offices directly: [customersupport@milestonemedsrl.com](mailto:customersupport@milestonemedsrl.com), for how to perform Preventive Maintenance and regular inspections in order to maintain your unit within safe operative standards.**

## 7. TROUBLESHOOTING THE MacroVIEW

To use the MacroView 5 software correctly, you must have complete access (reading, writing and editing) to the following folders (with Windows 10):

- C:\Program Files (x86)\Milestone srl\MacroView5\
- C:\Program Files (x86)\Milestone srl\MacroView5\AndroidLib
- C:\Users\”Name of the users”\AppData\Local\Milestone\_srl
- C:\ProgramData\Milestone srl\MacroPath5\APPDATA

### 7.1. Camera malfunctions

Perform the following procedure gradually.

- Exit from MacroView software.
- Switch off the camera using the specific button.
- Wait a few seconds and switch it back on.
- Wait a few seconds, when the camera is turned on, look in the monitor where you will see what the camera is framing and re-enter the software.

If the problem persists:

- Exit from MacroView software.
- Switch off the camera using the specific button.
- Switch off the PC.
- Wait at least 5 seconds.
- Turn on the PC.
- Wait a few seconds and switch the camera back on.
- Wait a few seconds, when the camera is turned on, look in the monitor where you will see what the camera is framing and re-enter the software.

If the problem persists, contact your local dealer.

### 7.2. The Touch Pen is not working

If the pointer does not work when you touch the screen, try changing the USB port.

If the problem continues, restart the PC.

If the touch-pen continues not working, you will need to reinstall the relevant drivers contained in the USB key with MacroView 5 Software as per the following instructions:

- 1) Disconnect the touch-pen from the USB port
- 2) Open the “Touch Pen Drivers” folder and follow the information provided in the “instructions” file:
  - Open folder “eGalaxWorks31xx~4378-01\_test1-20180606-Getac-19inch-system” and run file “eGalaxSensorTester3.exe” to start installation
  - Do not touch the screen during installation.
  - Connect the Touch-pen to the USB port and start using it

If it still is not working, contact customer support.

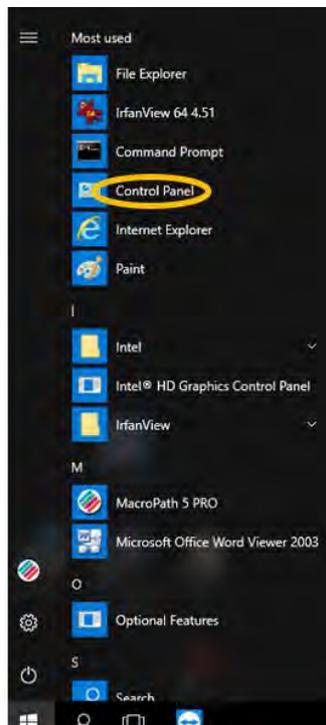
### 7.3. Touch-Pen and Touch Screen calibration

If the pointer does not move correctly when touching the screen or it does not go to the selected point, recalibrate the touch-screen or the touch-pen as follows:

- Select the “Touchscreen calibration” icon on the desktop



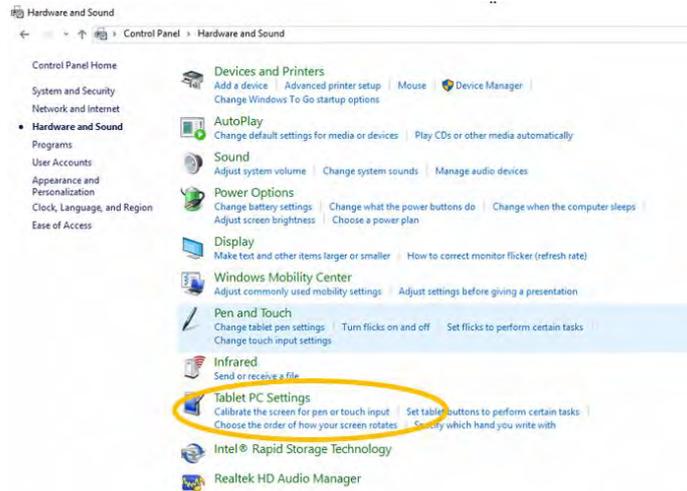
or from the “Start” menu go to “Control Panel”



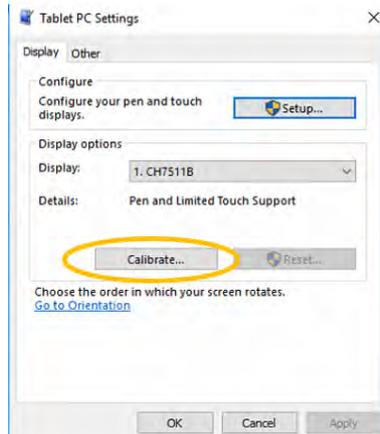
- Select “View by category” and “Hardware and Sound”



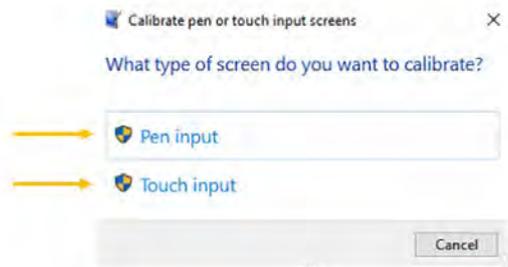
- In "Table PC Setting" select "Calibrate the screen for pen or touch input"



- The following window will open, click "Calibrate":



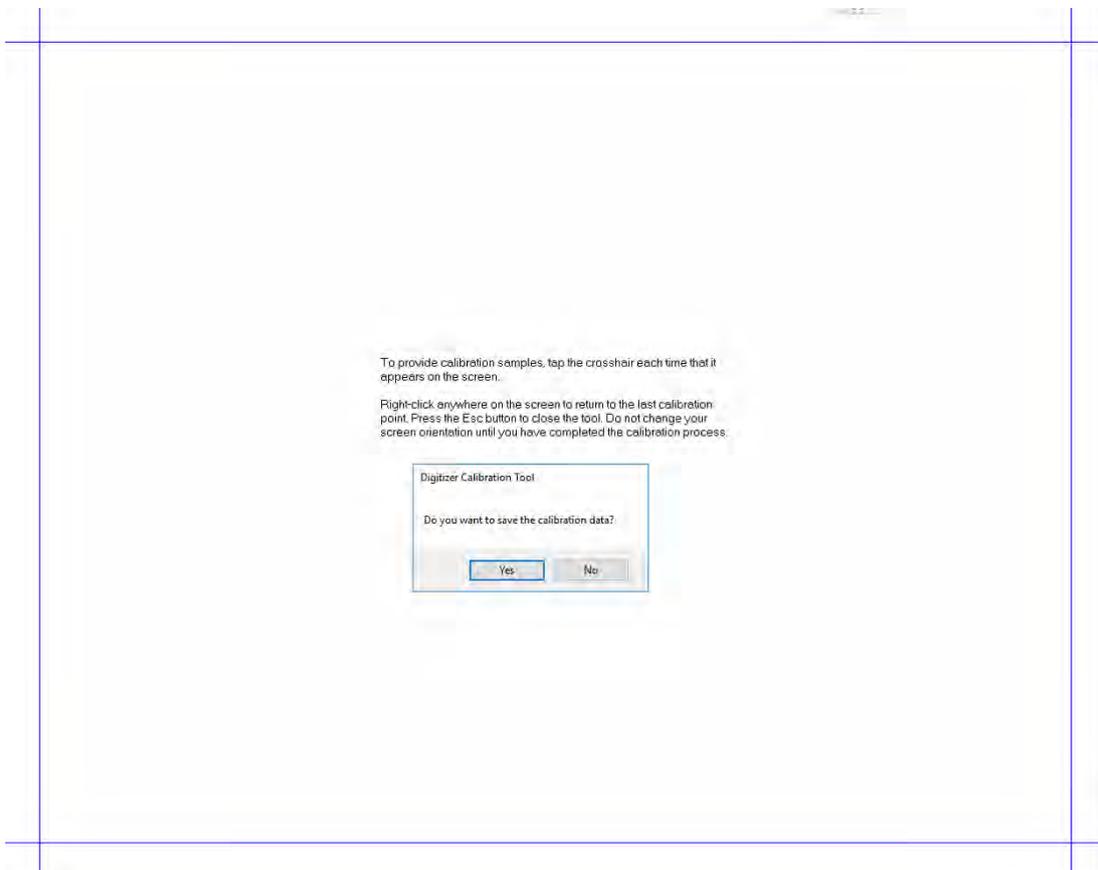
- Select PEN INPUT to calibrate the touch-pen and/or TOUCH INPUT to calibrate the screen.



- Select PEN INPUT and follow the instructions that appear on the screen until the end of the procedure



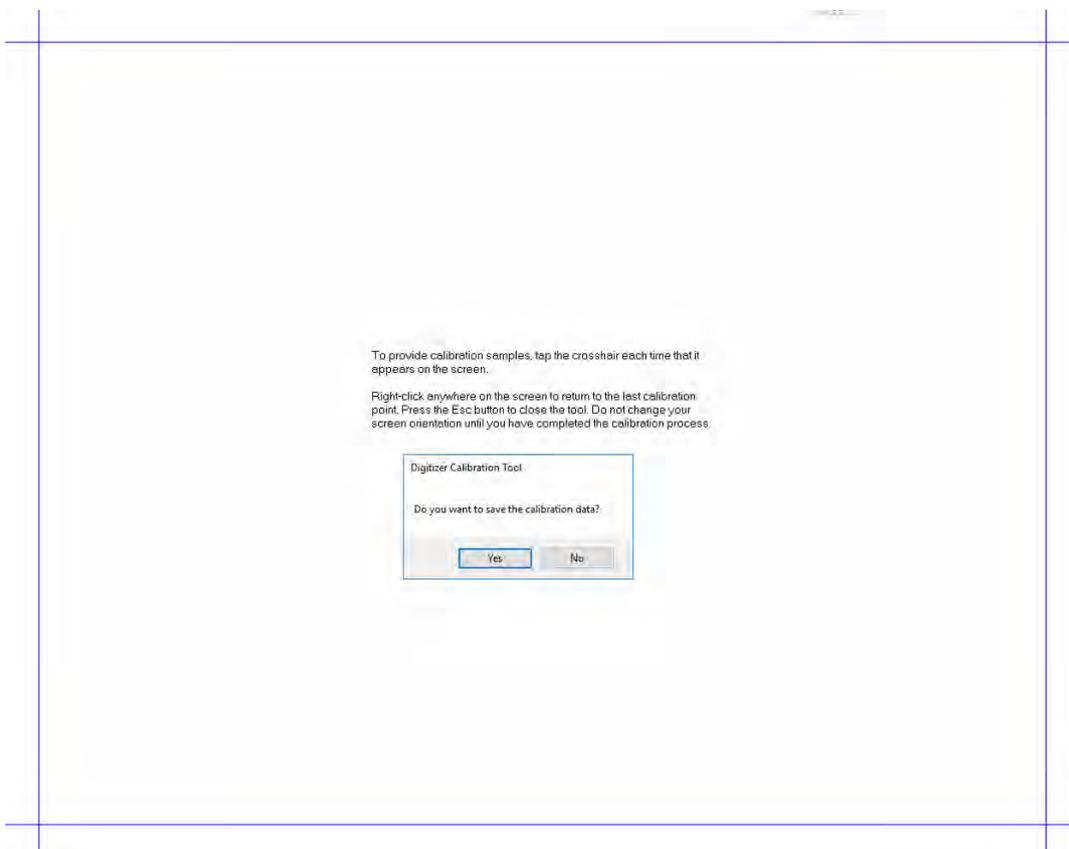
- At the end of the procedure this final screen will appear, select YES to save the data



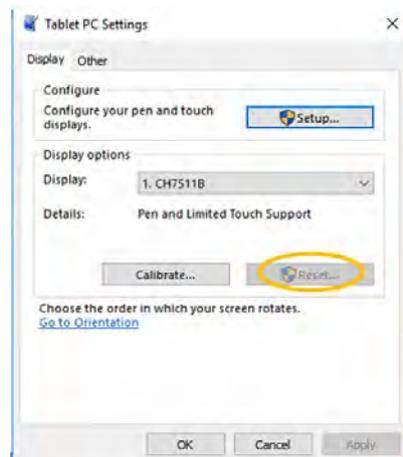
- Select TOUCH INPUT and follow the instructions that appear on the screen until the end of the procedure



- At the end of the procedure this final screen will appear, select YES to save the data



- If an incorrect calibration was saved, click RESET with the mouse to restore the default calibration



### 7.4. PC Recovery Software



This procedure deletes all of the data and settings in the PC. The PC will go back to the factory configuration.

This procedure will reinstall the operating system.

This procedure needs to be carried out by duly trained staff (IT Manager).

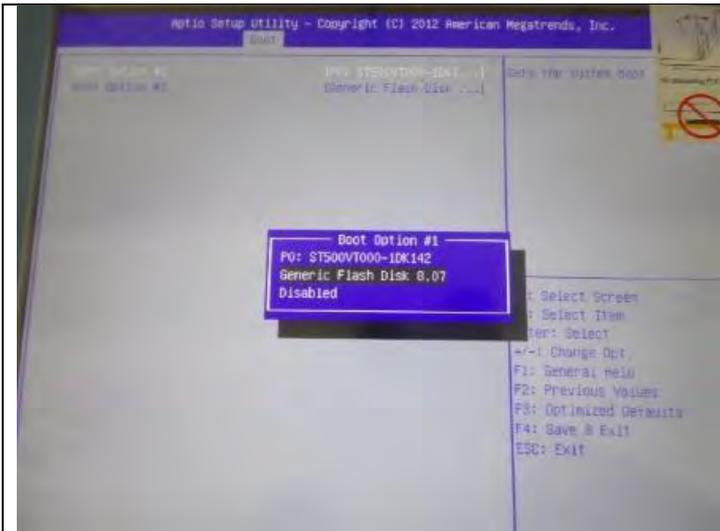
This procedure uses Clonezilla Software.

Clonezilla is licensed under the GNU General Public License (GPL) Version 2.

Clonezilla is provided without any warranty.

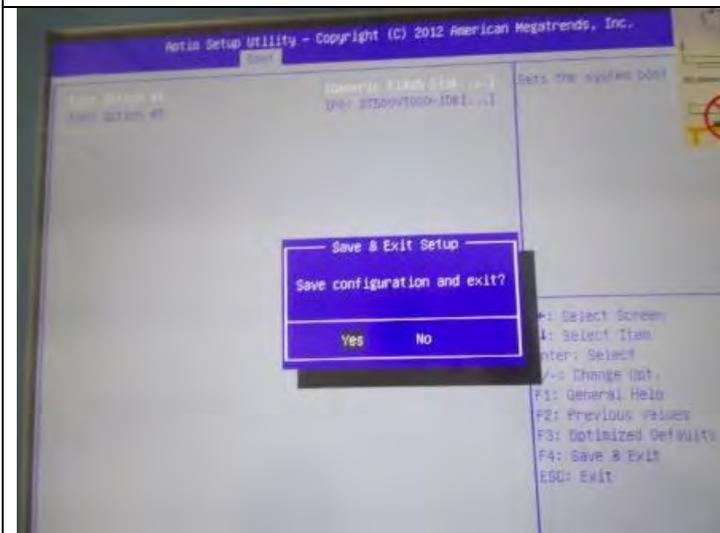
For all the other languages, refer to the Clonezilla procedure in English.

<p>American Megatrends Version 2.17.1255. Copyright (C) 2016 American Trend Inc. **** PPC-6151C-8260 BIOS V1.12 (10/19/2016) **** Press &lt;DEL&gt; or &lt;ESC&gt; to enter setup.</p>	<p>Insert the USB key with the “Clonezilla” software (WHITE USB port) and the key with the images Installed (BLUE 3.0 USB port)</p> <p>Press the PC ‘on’ key Press “Esc” or “Del” repeatedly at startup until the blue screen appears.</p>
<p>Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc. Main   Advanced   Chipset   Boot   Security   Save &amp; Exit</p> <p>Boot Configuration          Boot Prompt Timeout: 1          Startup Wizard State: [On]          Startup Power Mgmt F12: [Enabled]</p> <p>Boot Option Priorities          Boot Option #1: [P0: ST500V7000-IDK1,...]</p> <p>Use F12 to view Boot Priorities</p> <p>Set the order of the services in this group</p> <p>         ++: Select Screen          F1: Select Item          Enter: Select          +/-: Change Opt.          F1: General Help          F2: Previous Values          F3: Optimized Defaults          F4: Save &amp; Exit          ESC: Exit         </p>	<p>Use the right key to go to Boot.</p>

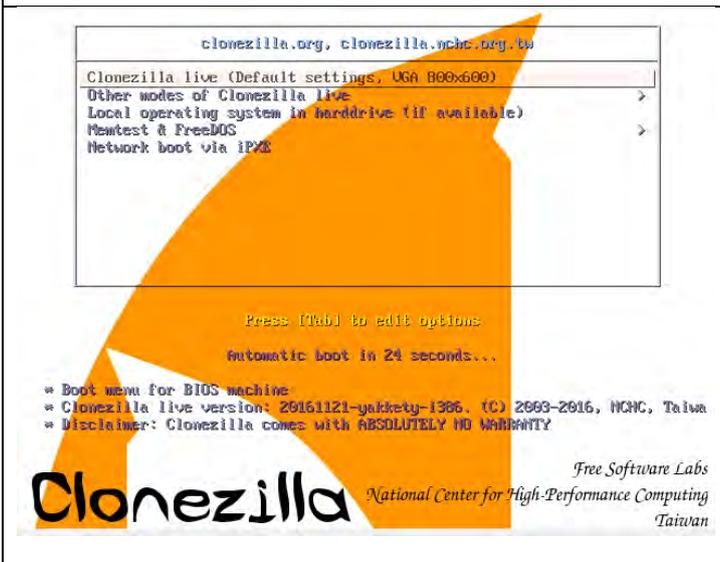


Set key startup as the first:

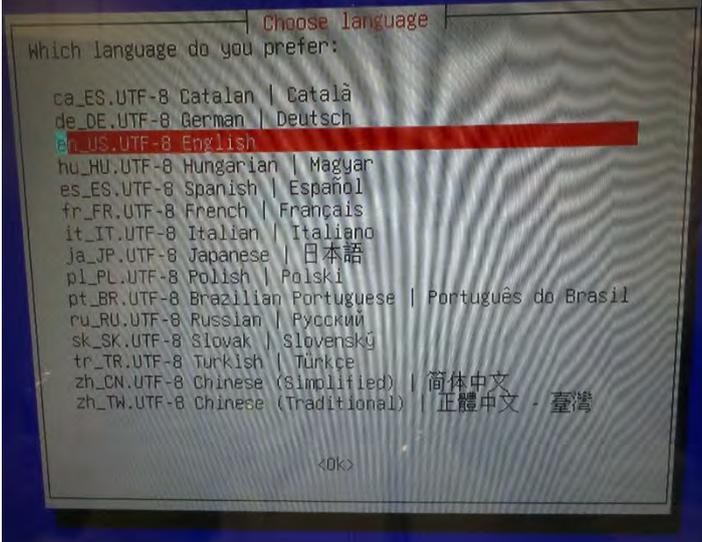
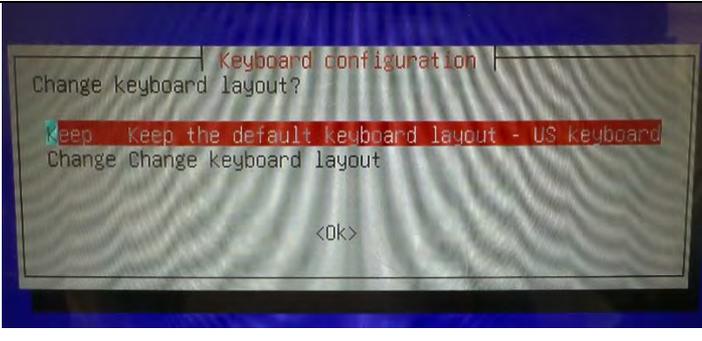
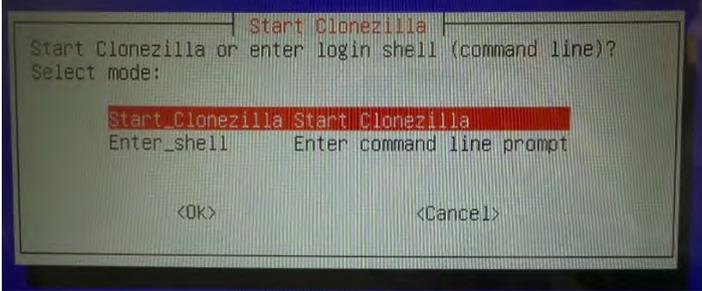
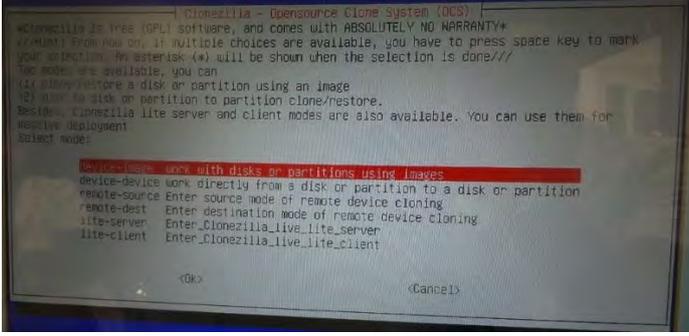
1. Boot Option #1 -> Select the USB key with the Clonezilla Software

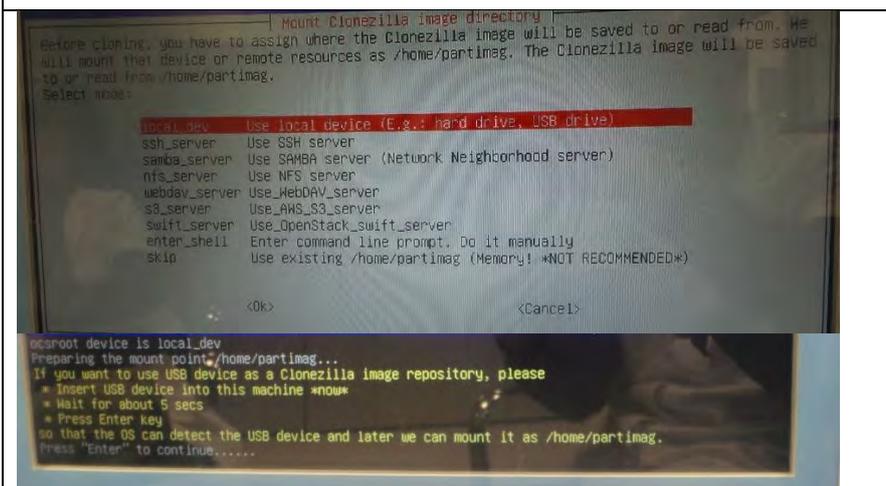
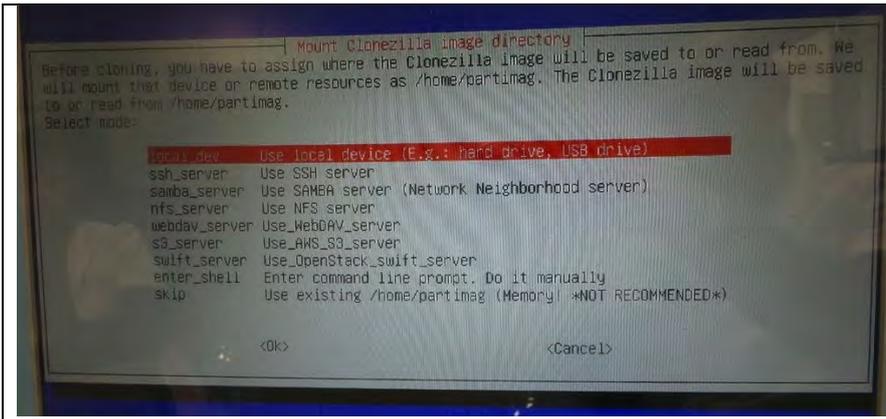


Press F4 and confirm

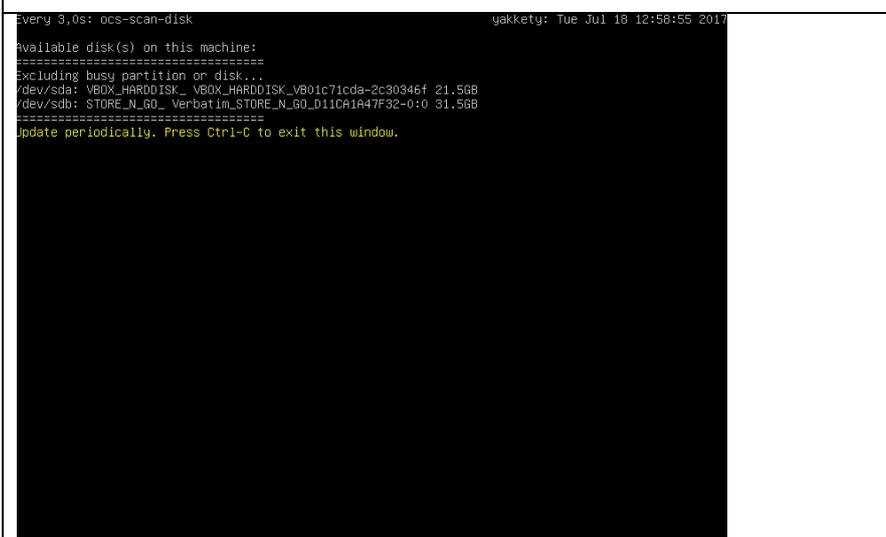


Start Clonezilla by pressing Enter on the keyboard

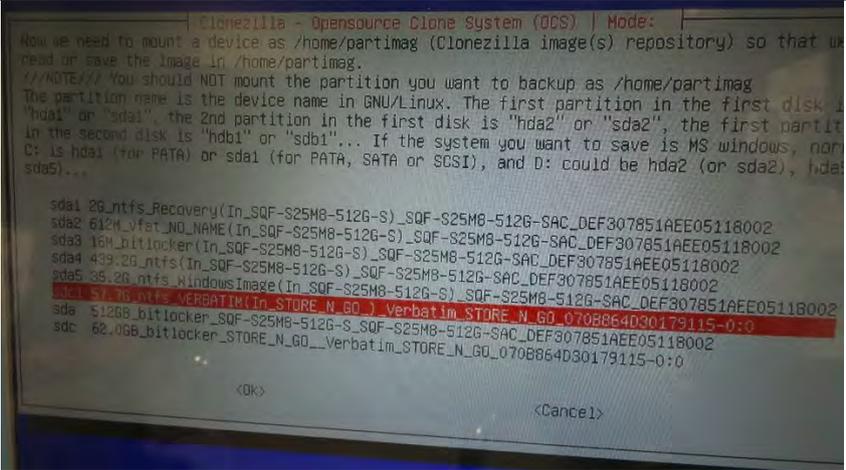
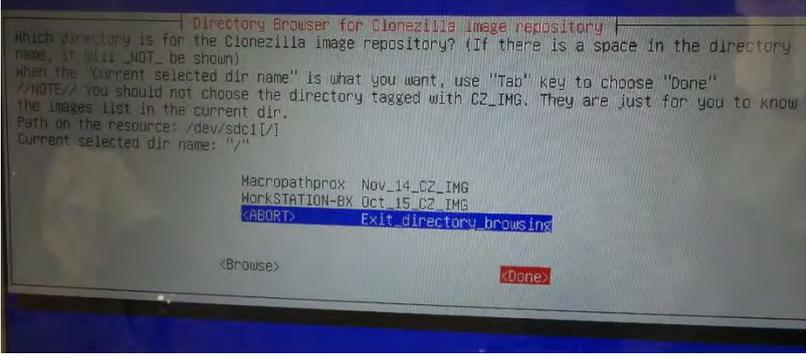
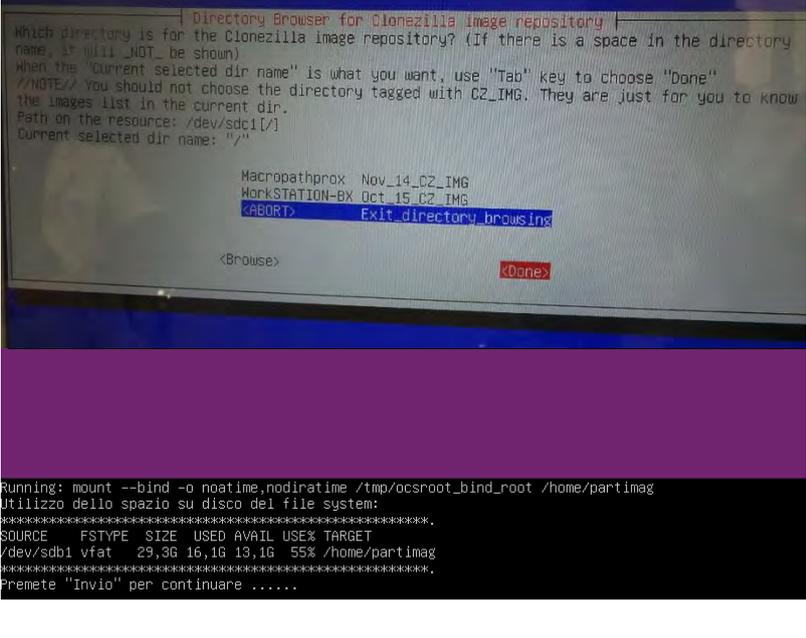
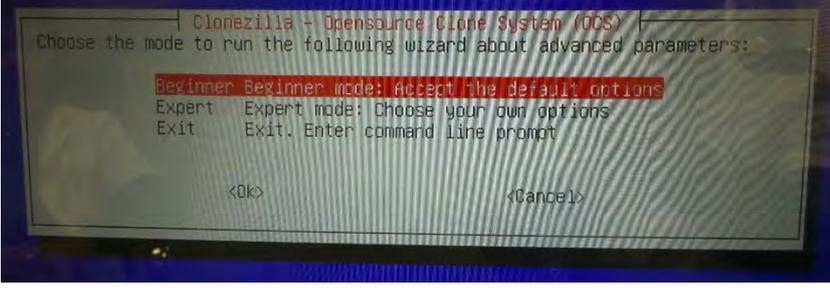
	<p>Select English</p>
	<p>Select "Do not change keyboard mapping"</p>
	<p>Select start Clonezilla</p>
	<p>Select "device-image"</p>
	<p>Select "local-dev"</p>

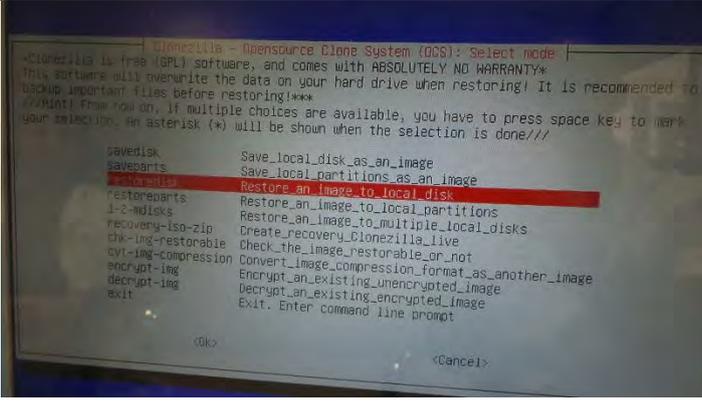
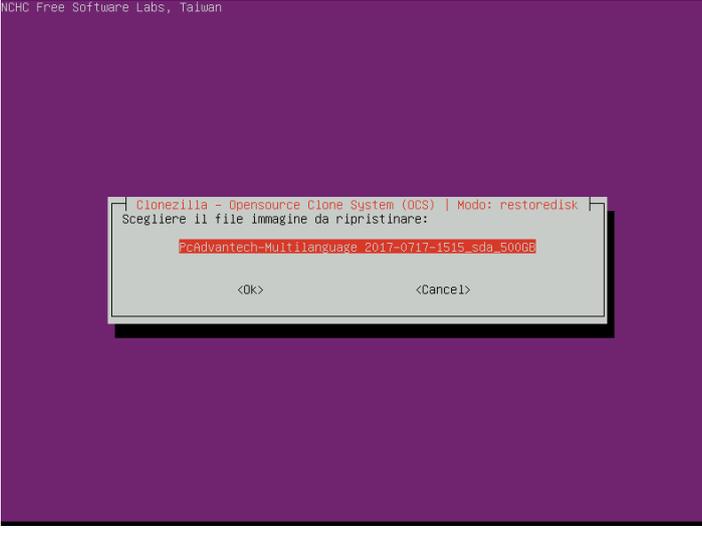
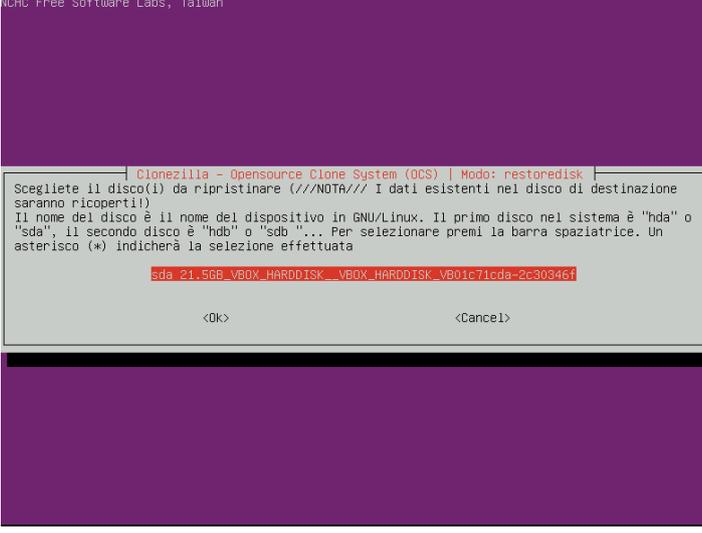


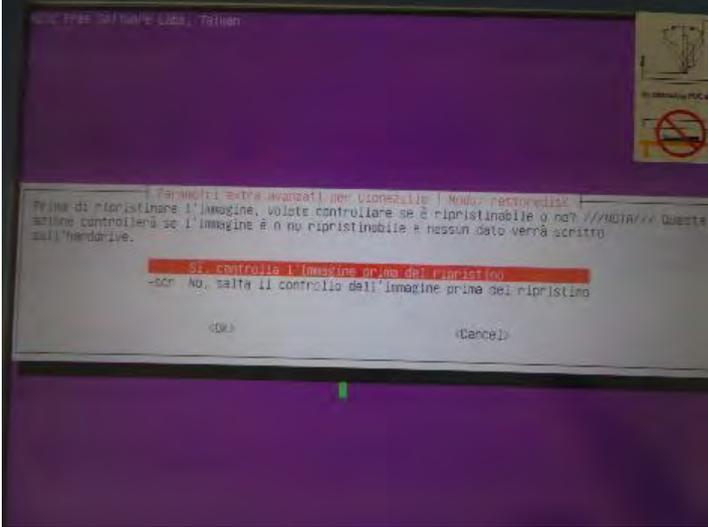
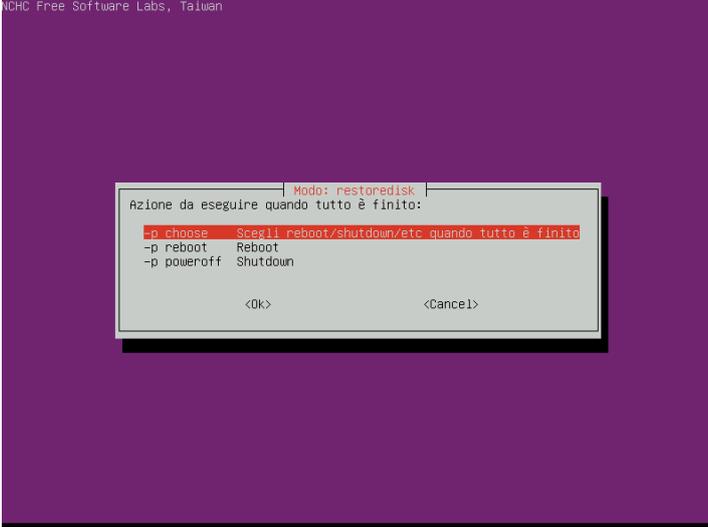
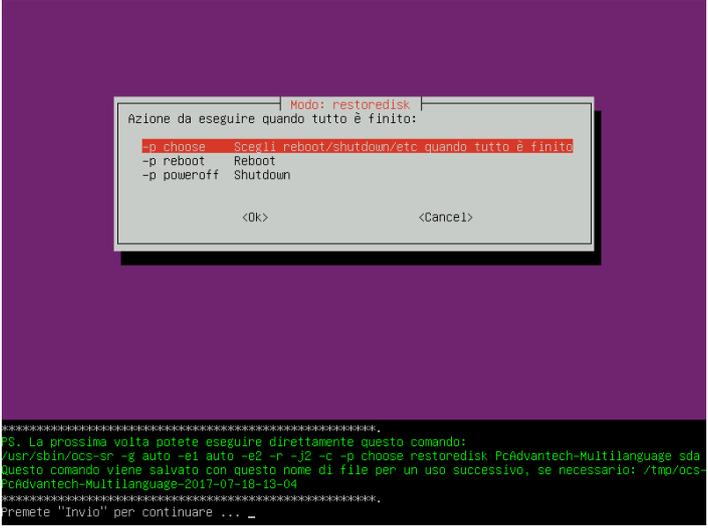
Press enter

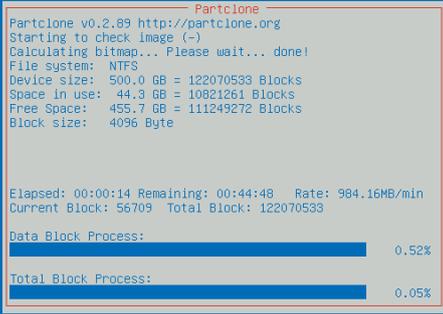
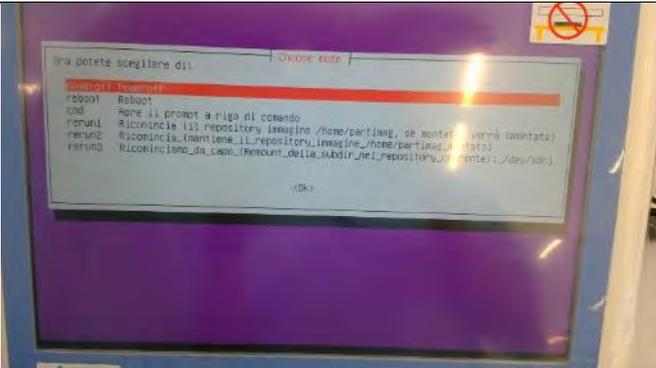


Press "Ctrl-C"

 <p>Clonezilla - Opensource Clone System (OCS)   Mode: Now we need to mount a device as /home/partimag (Clonezilla image(s) repository) so that we read or save the image in /home/partimag. //NOTE// You should NOT mount the partition you want to backup as /home/partimag The partition name is the device name in GNU/Linux. The first partition in the first disk is "hda1" or "sda1", the 2nd partition in the first disk is "hda2" or "sda2", the first partit in the second disk is "hdb1" or "sdb1"... If the system you want to save is MS windows, non C: is hda1 (for PATA) or sda1 (for PATA, SATA or SCSI), and D: could be hda2 (or sda2), hda sda5)...</p> <ul style="list-style-type: none"><li>sda1 2G_ntfs_Recovery(In_SQF-S25M8-512G-S)_SQF-S25M8-512G-SAC_DEF307851AEE05118002</li><li>sda2 612M_vfat_NO_NAME(In_SQF-S25M8-512G-S)_SQF-S25M8-512G-SAC_DEF307851AEE05118002</li><li>sda3 16M_bitlocker(In_SQF-S25M8-512G-S)_SQF-S25M8-512G-SAC_DEF307851AEE05118002</li><li>sda4 439.2G_ntfs(In_SQF-S25M8-512G-S)_SQF-S25M8-512G-SAC_DEF307851AEE05118002</li><li>sda5 89.2G_ntfs_WindowsImage(In_SQF-S25M8-512G-S)_SQF-S25M8-512G-SAC_DEF307851AEE05118002</li><li><b>sdc1 57.76 ntfs_Verbatim(In_STORE_N_GO)_Verbatim_STORE_N_GO_070B864D30179115-0:0</b></li><li>sda 512GB_bitlocker_SQF-S25M8-512G-S_SQF-S25M8-512G-SAC_DEF307851AEE05118002</li><li>sdc 62.0GB_bitlocker_STORE_N_GO_Verbatim_STORE_N_GO_070B864D30179115-0:0</li></ul> <p>&lt;Ok&gt; &lt;Cancel&gt;</p>	<p>Select sdb1 or sdd1 (make sure that it is the name of the key containing the image to be restored)</p>
 <p>Directory Browser for Clonezilla image repository Which directory is for the Clonezilla image repository? (If there is a space in the directory name, it will NOT be shown) When the "Current selected dir name" is what you want, use "Tab" key to choose "Done" //NOTE// You should not choose the directory tagged with CZ_IMG. They are just for you to know the images list in the current dir. Path on the resource: /dev/sdc1[1] Current selected dir name: "/"</p> <ul style="list-style-type: none"><li>Macropathprox Nov_14_CZ_IMG</li><li>WorkSTATION-BX Oct_15_CZ_IMG</li></ul> <p>&lt;ABORT&gt; Exit_directory_browsing</p> <p>&lt;Browse&gt; &lt;Done&gt;</p>	<p>Select "Done"</p>
 <p>Directory Browser for Clonezilla image repository Which directory is for the Clonezilla image repository? (If there is a space in the directory name, it will NOT be shown) When the "Current selected dir name" is what you want, use "Tab" key to choose "Done" //NOTE// You should not choose the directory tagged with CZ_IMG. They are just for you to know the images list in the current dir. Path on the resource: /dev/sdc1[1] Current selected dir name: "/"</p> <ul style="list-style-type: none"><li>Macropathprox Nov_14_CZ_IMG</li><li>WorkSTATION-BX Oct_15_CZ_IMG</li></ul> <p>&lt;ABORT&gt; Exit_directory_browsing</p> <p>&lt;Browse&gt; &lt;Done&gt;</p> <p>Running: mount --bind -o noatime,nodiratime /tmp/ocsroot_bind_root /home/partimag Utilizzo dello spazio su disco del file system: ***** SOURCE FSTYPE SIZE USED AVAIL USE% TARGET /dev/sdb1 vfat 29,3G 16,1G 13,1G 55% /home/partimag ***** Premete "Invio" per continuare .....</p>	<p>Press Enter on the keyboard</p>
 <p>Clonezilla - Opensource Clone System (OCS) Choose the mode to run the following wizard about advanced parameters:</p> <ul style="list-style-type: none"><li><b>Beginner Beginner mode: Accept the default options</b></li><li>Expert Expert mode: Choose your own options</li><li>Exit Exit. Enter command line prompt</li></ul> <p>&lt;Ok&gt; &lt;Cancel&gt;</p>	<p>Select beginner mode</p>

 <p>A screenshot of the Clonezilla main menu. The title bar reads "Clonezilla - Opensource Clone System (OCS)   Select mode". The menu items are: savedisk (Save_local_disk_as_an_image), saveparts (Save_local_partitions_as_an_image), <b>restore</b> (Restore_an_image_to_local_disk), restoreparts (Restore_an_image_to_local_partitions), l-c-mdisks (Restore_an_image_to_multiple_local_disks), recovery-iso-zip (Create_recovery_Clonezilla_live), ch-img-restorable (Check_the_image_restorable_or_not), encrypt-img (Convert_image_compression_format_as_another_image), decrypt-img (Encrypt_an_existing_unencrypted_image), and exit (Decrypt_an_existing_encrypted_image, Exit. Enter command line prompt). The "restore" option is highlighted with a red bar. At the bottom, there are "&lt;Ok&gt;" and "&lt;Cancel&gt;" buttons.</p>		<p>Select restore disk</p>
 <p>A screenshot of a dialog box titled "Clonezilla - Opensource Clone System (OCS)   Modo: restoredisk". The text inside says "Scegliere il file immagine da ripristinare:". Below this, the file path "<b>PcAdvantech-Multilanguage_2017-0717-1515_sda_500GB</b>" is highlighted in red. At the bottom, there are "&lt;Ok&gt;" and "&lt;Cancel&gt;" buttons.</p>		<p>Select "PCAdvantech-Multilanguage....." the image required based on the machine.</p>
 <p>A screenshot of a dialog box titled "Clonezilla - Opensource Clone System (OCS)   Modo: restoredisk". The text inside says "Scegliete il disco(i) da ripristinare (///NOTA/// I dati esistenti nel disco di destinazione saranno ricoperti!)". Below this, it explains that the name of the disk is the GNU/Linux device name (e.g., hda, sda, hdb, sdb) and that an asterisk (*) indicates the selected disk. The disk path "<b>sda 21.5GB_VBOX_HARDDISK__VBOX_HARDDISK_VB01c71cda-2c30346f</b>" is highlighted in red. At the bottom, there are "&lt;Ok&gt;" and "&lt;Cancel&gt;" buttons.</p>		<p>Select the 500GB hard disk</p>

	<p>Select: Yes, check the image</p>
	<p>Select choose</p>
	<p>Press Enter on the keyboard</p>

		<p>Wait for completion</p>
		<p>Press: Y and Enter on the keyboard Press: Y and Enter on the keyboard Press Enter</p>
		<p>Select Poweroff and enter Wait for switch off (7 sec) Remove the two USB keys</p> <p>Restart the PC</p>

## 7.5. Return for repair to the manufacturer

This device is usually installed in laboratories where there are specimens and other biological tissues. For your safety, therefore, you must clean it and disinfect it before coming in contact with it, and wear gloves when using this instrument.

If the unit needs to be returned to MILESTONE SRL for repairs, the device must be cleaned and disinfected prior to shipment. Any units that have not been disinfected will not be accepted and you will be contacted for the relative disinfection cost.

In accordance with international health standards, biohazard materials must not be shipped in standard packages (risk of sanctions).



**Refer to chapter 6.2.**

## 8. WASTE DISPOSAL

### 8.1. Waste disposal of the equipment

Before disposing of the unit, see chapter 6.

Complying with directive 2012/19/EC of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE), the separate collection environmental managed of equipment is mandatory.

It is necessary to return the used equipment to the distributor or to inquire about the presence of a local empowered system for collection and disposal of WEEE.

The in-observance of Directive 2012/19/EC or of the local law which acknowledge it can have potential effects on the environment and human health.



This symbol indicates separate collection for electrical and electronic equipment.

### 8.2. Waste disposal of battery

The lead-acid battery should be disposed of separately, in compliance with the federal, provincial and local regulations in force.













**MILESTONE**  
H E L P I N G  
P A T I E N T S

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