CamTrace

video surveillance

Quick Start Guide

For CamTrace Server: V8.15.xx and V8.14.xx

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For further information, visit:

www.camtrace.com

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1 Start - Connect - Stop

1.1 SWITCHING ON AND OFF, GENERAL CASE

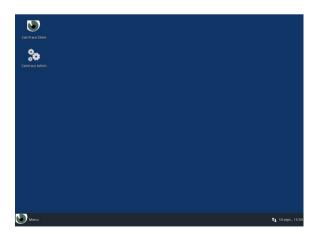
CamTrace is usually delivered without a screen. Make sure you have a compatible display when you start up. Remove the server from its packaging, connect it to a monitor and keyboard. The mouse is not required for installation, but will be used if the graphics mode is used on the console.

During operation, it is advisable to place an inverter on the CamTrace power supply to avoid untimely power cuts. Once powered, you can start the server.

During the start-up phase, an animated screen with the "CamTrace" logo will appear on the screen and if your server is equipped with an internal speaker, a series of beeps will inform you that the server has finished booting.



The screen then displays the default "CamTrace User" (camuser) desktop on which you are automatically logged in with an English language interface.

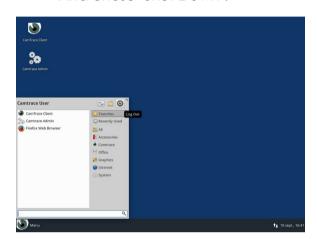


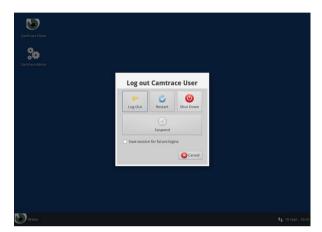
Note: see the "changing language" section to change the interface language.

The CamTrace server is designed to operate 24 hours a day, **never turn it off by removing the power cable or turning off the power switch** (if you turn off the server suddenly, some files may be damaged).

To turn off the system:

- Click on the "Menu" button at the bottom left of the desktop.
- Then on the stop/disconnect button at the top right of the drop-down menu
- · And chose "Shut Down".





1.2 SWITCHING ON AND OFF WITHOUT DISPLAY

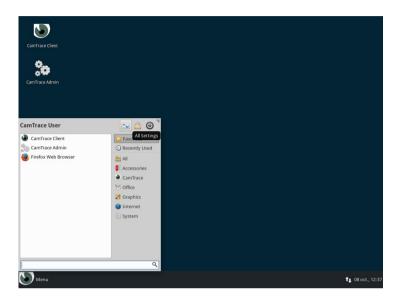
Press the "On/Off" button on your server. At the end of the start-up procedure, a series of beeps will inform you that the server has finished booting and your server is accessible via your local network.

To stop the server, briefly press the "Power" button and wait for it to shut down completely.

1.3 CHANGING THE KEYBOARD LAYOUT

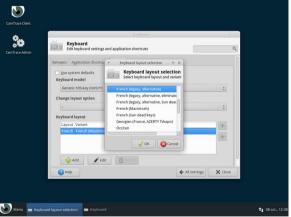
If the configuration chosen during the installation of the server does not correspond to the layout of your keyboard, you can change the configuration by following the procedure below:

- Click on the "Menu" button at the bottom left of the desktop,
- Then click on the "All settings" button at the top right of the drop-down menu.



- Select the "Keyboard" icon in the settings window,
- · Then the "layout" tab in the window,
- Uncheck the "Use system default" box,
- · Click on the "edit" button,
- Choose your new layout and click "Ok".



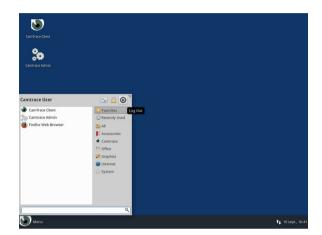


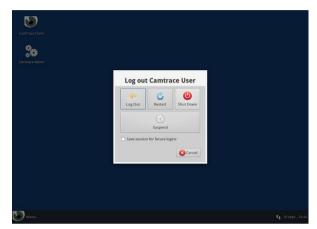
Keyboard is updated immediately.

1.4 Changing the office language

The quickest way to change the desktop language of "CamTrace User" is as follows:

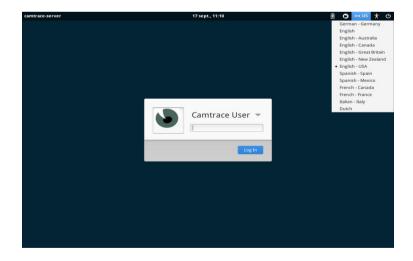
- Click on the "Menu" button at the bottom left of the desktop,
- Then press the "stop/disconnect" button at the top right of the drop-down menu,
- · And finally on "Log Out".





On the login screen, choose the language of your interface by clicking on the name of the current language (by default "en_US") at the top right.

Once you have chosen the language, you can log into the interface by entering the "CamTrace User" password; password is: "camera".

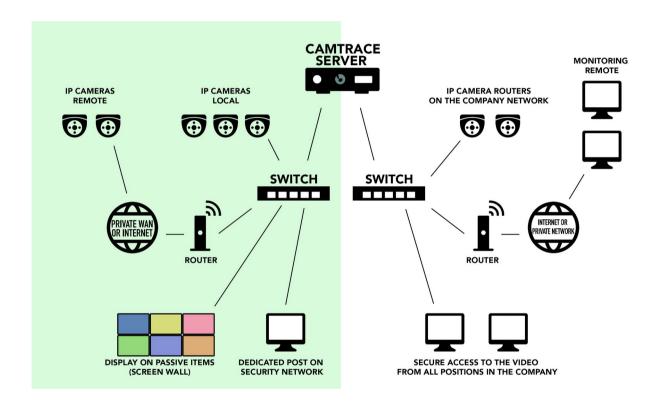


Note: to change the language of the interface, it is also possible to use the "All settings" menu.

2 CamTrace Server IP Configuration

2.1 Network topology

CamTrace has one or several network cards (usually two). Although it is possible to mix cameras and viewing stations on all networks, it is however recommended, especially on larger installations, to specialise the networks. It is therefore recommended to group cameras on one or more security networks and to use a different network interface to connect to the company network and sometimes also a final interface to connect to a display network (guard station and display PC).



This network separation allows you to optimise the performance and security of your video installation. When multiple CamTrace are used, it is advisable to isolate the cameras attached to each CamTrace on separate networks. For small configurations it is possible to use only one of the network cards.

Preferably use a Gigabit link between CamTrace and the switches. If there are more than ten cameras in the network, Gigabit becomes necessary to obtain smooth images in Full HD or higher.

2.2 LOCAL USE OF THE ADMINISTRATION INTERFACE

To configure the Camtrace server settings, and in particular its network addresses, you must use the web administration interface of the server. To do this, simply launch the shortcut "Camtrace Admin" on the desktop.

A browser is launched and the Camtrace server connection window is displayed.



It is strongly recommended that you do not save your login/password in the Browser.

The default user name is "admin" and the default password is "camtrace". The language of the administration interface can be chosen from the drop-down menu. Once the settings have been chosen, click on the "Enter" button.

2.3 Remote use of the administration interface

CamTrace can also be configured without a screen. CamTrace's primary network interface defaults to 192.168.0.100/24.

Note: If your server has a secondary interface, the default address is 192.168.1.100/24.

You can connect to CamTrace and configure it, using a web browser (to avoid incompatibilities, it is strongly recommended that you use the **Firefox** browser in **private mode**), from a laptop for example.

In this case, start the CamTrace server until you hear the beeps. Set your PC to a network address 192.168.0.0/24 (e.g. 192.168.0.2). Connect the PC (using a crossover cable or switch) to one of the network interfaces. You can ping "192.168.0.100" command to the server. If it does not respond, change the network connector on the server and ping again until you find the primary interface on the server.

When your client PC is connected to the same network as your Camtrace server, launch your web browser and go to "http://192.168.0.100". The Camtrace server connection window will appear (pop-ups must be allowed).



The default user name to be entered is "admin" and the default password is "camtrace". The language of the administration interface can be chosen from the drop-down menu. Once the parameters have been chosen, click on the "Enter" button (located at the bottom left).

To disconnect, use the disconnect button:



On the navigation bar that appears, select "Administration" and then "System".

A new page appears with different sections. Go to the "network interfaces" section.



Edit the "IP address" and "Netmask" area according to your local network configuration. **Be careful**, when you click on "apply", you will lose the network connection to CamTrace and you will have to place your client workstation on the new server network.

2.4 STORAGE MANAGEMENT

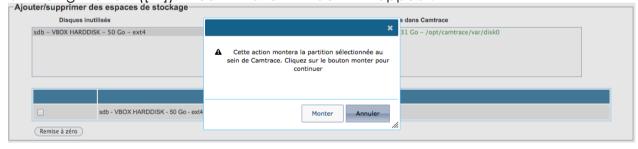
If your server is equipped with multiple disks, you must declare which disks can be used by CamTrace. To do this, go to the "Administration" section and then "System". A screen similar to the following one will appear:



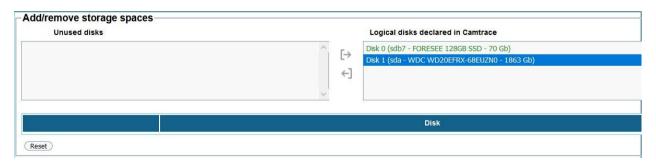
On the left hand side are listed the unused disks that you can declare in CamTrace. If you need to reset (format) a disk, you can do this using the area at the bottom: check the box corresponding to the disk to be formatted and click "Reset" (you will need to confirm this action): all data will be erase for this disk.

Select the disk you want to add (mount) to your configuration on the left side and click on the right arrow ($[\rightarrow]$). A confirmation window will appear.

Ajouter/supprimer des espaces de stockage



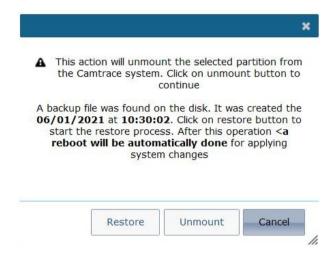
You can confirm by clicking on the "Mount" button. Your disk can now be used as storage space in the CamTrace administration interface.



Using the left arrow (\leftarrow]) you can remove (unmount) a storage space from the list on the right.

Note: If cameras are configured to use the storage space you want to unmount, you will not be able to unmount it until you modify the cameras to stop recording on that space (or delete those cameras).

When mounting a disk, it may contain a backup of a previous CamTrace installation (after a system reinstall for example). If this is the case, a message will suggest that you restore this backup.



If you wish to restore the system, click on 'Restore', otherwise ignore this backup by choosing 'Mount'.

2.5 Collecting information to connect to an existing network

Information needed:

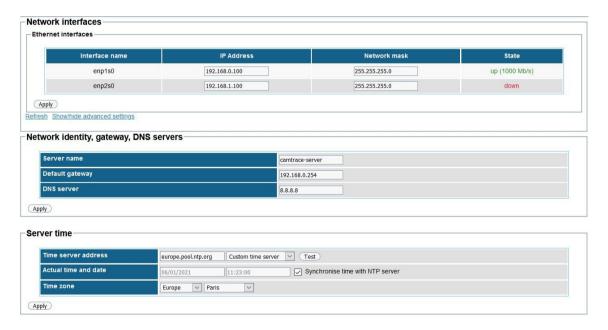
- IP address for your CamTrace server on the corporate network.
- Network Mask.
- Network name for the CamTrace server. The "network name" is the name you will give to the CamTrace server on the local network. If the company has a DNS, it is recommended that this name be consistent with the name given to the CamTrace server in that DNS.
- IP address of an internal or external DNS.
- IP address of the default gateway
- 2.6 CamTrace Network Administration in General

2.6 CAMTRACE NETWORK ADMINISTRATION IN GENERAL

To configure the network settings of the Camtrace server, you must use the Camtrace administration interface which is accessible in two ways:

- Locally using the shortcut "CamTrace Admin" (gears) located on the server console desktop;
- Remotely by connecting to the 'HTTP' port at the address of your server.

Then go to the "administration" section, then "system" and then to the configuration areas of the network parameters: "network interface", "network identity", "server time".



For each section filled in, click on "apply".

Note: If you change the network settings of the interface on which you are remotely connected to the server, you will need to reconnect with the new network settings.

2.7 CHANGING NETWORK SETTINGS

In the "Network Interfaces" section, enter the IP address and mask values in X.X.X.X. formats.

Caution: You must assign CamTrace addresses belonging to different networks on its various interfaces or it will fail to function properly.

In the "Network identity, gateway, name server" section, enter the values you have collected.

In the "Name server" field: you can optionally:

- Leave the field empty.
- Enter the IP address of the internal DNS if it exists.
- Enter the IP address of the DNS of the company's Internet service provider.
- Enter the IP address of a public DNS server such as Google's for example: 8.8.8.8

Caution: If the Name Server (DNS) address range is different from those used on CamTrace networks, the gateway must be entered in CamTrace.

Caution: If you are not sure if you know the DNS address, leave the field blank. A wrong value will cause severe slowdowns on CamTrace.

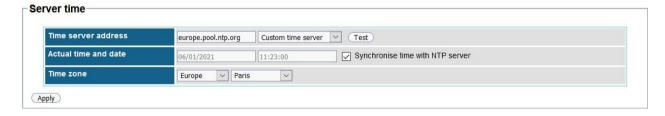
To test the configuration you can use the network tools available in: Administration / System: Maintenance section / Network Tools sub-section.



In the "Server Time" section, you need to set the time and time zone of your server. CamTrace automatically manages winter/summer time changeover. You simply enter the **current local time**.

By filling in the "Time Server" field, you can also declare an NTP server that will be used for server synchronisation.

To add a time server, specify for example "europe.pool.ntp.org":



and click on "Test" to check. If OK, a message "The server has replied" is displayed. Then check "Synchronise with time server".

3 Camera Configuration

3.1 CHECK LIST OF MINIMUM OPERATIONS TO BE CARRIED OUT ON EACH CAMERA

- Give the camera a fixed IP address. Check that DHCP is not enabled.
- Fill in the network mask.
- Enter and record the camera's administrative logins and passwords, as you will need to enter the same passwords in CamTrace.
- Enable the ONVIF profile of the camera.

Important: Some cameras have different passwords for the ONVIF user and for their proprietary interface: we recommend setting the same username/password for both.

- Fill in the gateway address which is the address of CamTrace on the network where the camera will be connected.
- Enter the NTP server address which is the same as above.
- **Set the time zone** and daylight saving time adjustment. This is **important** because ONVIF camera detection will not work if there is a time difference between the camera and the server.
- Activate at least two streams in the camera before ONVIF detection in CamTrace.

3.2 OTHER USEFUL OPERATIONS TO BE CARRIED OUT ON EACH CAMERA

- Adjust the number of frames per second for each stream (12 FPS is generally recommanded),
- Adjust the image size for each of the streams.

Note: It is important to have a stream corresponding to the optimum resolution chosen for recording (e.g. 2560 x 1440) at 15 FPS **and a low resolution stream** that will be used for tiled display, indexing, motion detection, loop playback of the last alarm.

4 Camera detection

In the "Administration" menu, click on "System" and then go to the "Add cameras" section. If the "ONVIF" detection works for your cameras, it is better to use this way than by detection of referenced models.

4.1 ONVIF DETECTION

In the "By detecting ONVIF cameras" section, click on "Detect".

Caution: Make sure that the camera detection is done on the correct network interface (see drop-down list on the capture below):



4.2 By detection of referenced models

In the section "By detecting referenced models", it is possible to detect cameras whose models are referenced:



=> More information about this in the reference guide.

If cameras have been detected (either by detecting referenced models or by ONVIF), they are displayed in the "New cameras detected" section:



Check the cameras to be added, and enter the identifier ("User") and "Password" for each camera, then click on "Add".

To enter the same username and password for several cameras, it is necessary to check the cameras (see -1- below) and then fill in the corresponding fields for the username and password (see -2- and -3- below):



If a "username/password" pair is incorrect, the "User" and "Password" fields appear in red: it is imperative to correct the username/password, or uncheck the invalid lines (see -1-below):



If added properly, a message "x camera(s) added to the database" appears:

Votre licence permet de gérer **25** caméras. Il y a actuellement **8** caméra(s) déclarées. Seules les caméras cochées seront ajoutées à la base de données

1 caméra(s) correctement ajoutée(s) à la base de données

4.3 ADDING A CAMERA MANUALLY

If the camera is not detected by ONVIF and if it is not present in the referenced models, it can be added manually: go to the "Administration" Menu, "Cameras" then "Add a camera".

=> More information in the Reference Manual on this subject.

5 Flow management

In the "Administration" menu, "Cameras", click on "Show / Hide feeds".

If you have not already done so, it is necessary to set the parameters of your camera feeds via the manufacturer's software (click on "Cam access").

It is possible to have a preview of a stream by clicking on the name of the stream (in the "Stream name" column). This is a control flow which does not reflect the real quality of the camera.

When a camera has been added, by default, **only one** stream is active: its "Status" is green; inactive streams are greyed out:



In this case, check the camera(s) whose streams are ignored, then click on "Change selection". It is possible to check several cameras at once by holding down the SHIFT key while making the selection.

Important: A "CHANGE CAMERAS" pop-up window opens: its display will differ depending on whether you have checked one or more cameras.

If you have checked a camera and then clicked on "Modify selection", refer to the section Adding feeds for one camera (below).

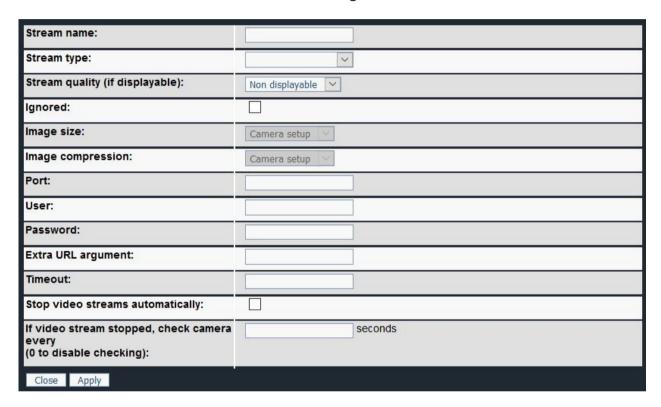
If you checked more than one camera and then clicked "Modify selection", see Adding streams for multiple cameras (below).

5.1 ADDING FEEDS FOR ONE CAMERA

If you have checked only one camera, the display of the "Feed" section is as follows:

- Streams			
	3. MsMediaProfile1	$\textbf{Roles:} \ Detection \ , \ Alarm \ record \ , \ Lowband \ mosaic \ , \ Regular \ record \ , \ Indexation$	Display quality: High quality

Select a feed, then click on "Add". The following fields must be filled in:



Give a name to your stream, for example, "LowQ" for a low quality stream that will be used for a grid (grid with multiple cameras display), then choose the type of stream and the quality.

You also have the option of modifying the default settings inherited from the camera configuration by choosing the image size, compression, etc.

For some manufacturers it is necessary to configure the quality and size of the streams directly in the camera interface.

When you have finished setting up your parameters, click on "Save" at the bottom of the "CAMERA MODIFICATION" window. The pop-up window closes: click on "Refresh".

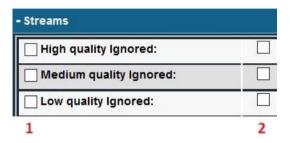
5.2 ADDING STREAMS FOR MULTIPLE CAMERAS

It is possible to declare several streams for several cameras at once.

In the left-hand column: check the streams that needs to be added (see -1- on the capture below).

In the right column: check the streams that must be ignored (see -2- on the capture below).

To add a feed, that must be ignored: check the left and right column.



Then click "Save".

If settings are good, click on "Save" at the bottom of the "CHANGE CAMERAS" window. The pop-up window closes: click on "Refresh".

6 Setting up a recording (regular and alarm), and indexation

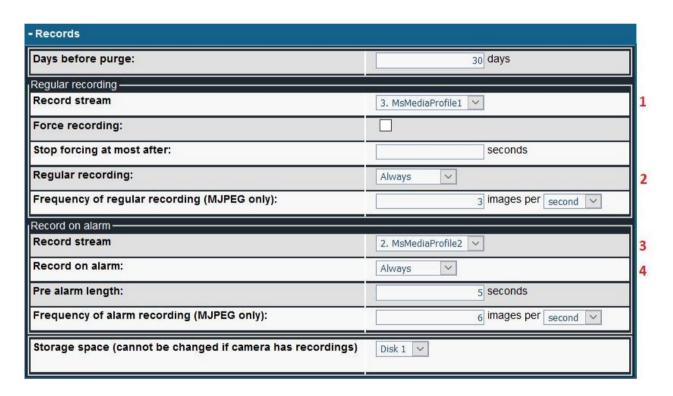
6.1 REGULAR AND ALARM RECORDING (WITH MOTION DETECTION)

In the "Administration" menu, "Cameras", select a camera and then click on "Change selection". A "MODIFY CAMERAS" pop-up window will open.

In the "Recordings" section, you can activate regular and alarm recording.

Typical case: Regular recording in low quality (see -1- below; "MsMediaProfile1" is the low quality stream) and is permanent (-2-).

Alarm recording is in high quality (see -3- below; "MsMediaProfile2" is the high quality stream), and is permanent (-4-):

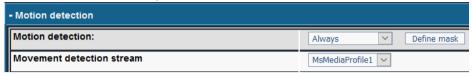


Important: **chose the proper data disk** for the "Storage space" field (see screenshot above) if you have two disks (one disk for the Operating System, one disk for data).

Another common case, adding motion detection for alarm. It is recommended to use a <u>low quality</u> stream for the motion detection made by the Camtrace server in order to take less resources on the server side.

Note: An alternative would be to do the motion detection in the camera (if the camera offers this feature) and send an alert to the Camtrace server.

In the "Motion Detection" section, click on "Define mask":



A "MASK DEFINITION" pop-up appears, and it is possible to trace the motion detection area. If the video stream does not appear on the "DEFINE MASK" pop-up, refresh the pop-up ("CTRL + F5" shortcut on most browsers); and make sure you are using a browser (preferably Firefox) in private mode.

To erase a motion detection zone, make sure that the erase tool is selected (see -1-below) and then click on the image to erase it:



To create a motion detection area, make sure the trace tool is selected (see -1- below) and then click on the image to make a trace:



When your settings are complete, click on "Save" at the bottom of the "CHANGE CAMERAS" window. The pop-up closes: click on "Refresh".

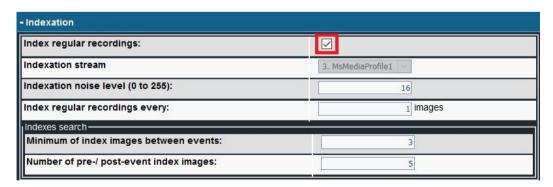
If the modifications have not been taken into account, it is necessary to restart the video services ("Administration", "System", "Maintenance" then click on "Stop" in the "Video" line; then "Launch").

6.2 INDEXING

Indexing, on the Camtrace server side, allows a search on a zone of the image:

- if you activate the indexing: on your Camtrace Client you will be able to carry out a research (in an immediate way) on a specific zone of the image.
- if you do not activate the indexing : your Camtrace Client you will have to launch a treatment (the indexing of the sequence) and then, when the treatment is finished, you will be able to carry out a research on an area of the image.

To activate it, check "Indexing regular recordings" in the "Indexing" section:



The stream scanned is always the one used for regular recordings.

7 Saving the system configurations

To save your system configuration, click on the "Manage" menu and chose "Configuration". A new pop-up "CONFIGURATION" appears: click on "Save this configuration".

For further information:

www.camtrace.com