

User Manual

C-MOR

...and you see more!

Manual for the Video Surveillance C-MOR

Version 2.30 for C-MOR Version 4.12

Introduction

Dear customer,

Thank you for choosing the C-MOR video server. The quality product you have purchased is state-of-the-art and complies with European and national directives. The declaration of compliance has been confirmed and all necessary documents are deposited with the manufacturer.

To ensure the best results and long-term satisfaction and to ensure safe operation, the instructions in this manual must be followed. In case of questions, please contact your specialist dealer.

The video server C-MOR is used for the surveillance of objects. The video signals recorded during surveillance are digitally transferred over the connected network from your camera to C-MOR. The software installed on the hardware enables simultaneous recordings of max. 15 connected video signals. Data saving underlies country-specific guidelines. You are able to access installed cameras and servers (secured by password and encryption) over your web browser from all over the world.

In case of technical problems or questions on installation and setup of C-MOR, please contact our hotline. Please find more information on www.c-mor.us (or please see contact data in the appendix of this manual).

Before putting into operation

The use of surveillance systems may be prohibited or regulated by law in certain countries. C-MOR has not only been developed for high performance use over the internet, but can also be part of a flexible surveillance facility.

Before putting the system into operation the user has to make sure that surveillance is carried out within regulatory framework. Before installation, please make sure that the package content is complete. In order to avoid damage by incorrect connection or wrong configuration, please read the manual carefully before using this device, follow the instructions and keep the manual for future use. Following the instructions ensures that the device will be correctly put into operation. Please visit our forum for solutions on www.c-mor.com for FAQ on configuration errors. In case you encounter problems during the setup of your system, please visit the forum as a first step for finding a solution.

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1 Installation

This user manual is a general documentation for all C-MOR models. Those models are all hardware versions as well as all virtual machine versions. For each version exists an extra installation guide which is online available on the C-MOR home page <http://www.c-mor.com>. Download the installation guide from the C-MOR web to learn more how to do the initial set up of C-MOR. The installation process is described in this manual.

Following C-MOR models are available

- Compact server case for 3 to 9 cameras in the basic configuration
- Rack mount Server for computer centers or 19 inch rack mount shelves for 9 to 15 cameras
- Low power consuming and fan less mini case for 3 cameras in the basic configuration
- Tower Server for 15 Cameras
- Software server for the installation on a virtual server or in a cloud.

1.1 Support

In case of unexpected problems during the C-MOR installation please contact our support by the help of the online support form under <http://www.c-mor.com>. Please contact your dealer where you bought C-MOR first if you have any questions.

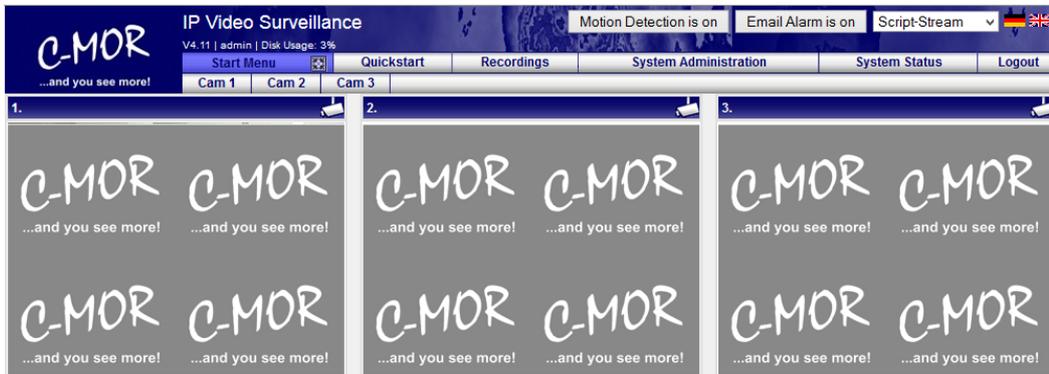
Please also check out the support forum on our homepage where you can find many cases that might answer your questions.

1.2 IP Camera Quick Installation

If C-MOR is installed and you have access to the network, the following steps will show you, how to take an IP-camera without special settings via C-MOR in operation.

C-MOR video surveillance is configured by web interface only. All settings are made through the web management surface.

Log in to your C-MOR video surveillance system. Simply enter the IP address of the C-MOR in your web browser window. The default IP address is 192.168.1.2. Please enter <http://192.168.1.2> if you have not changed the IP address. The default login is “admin” and the default password is also “admin”.



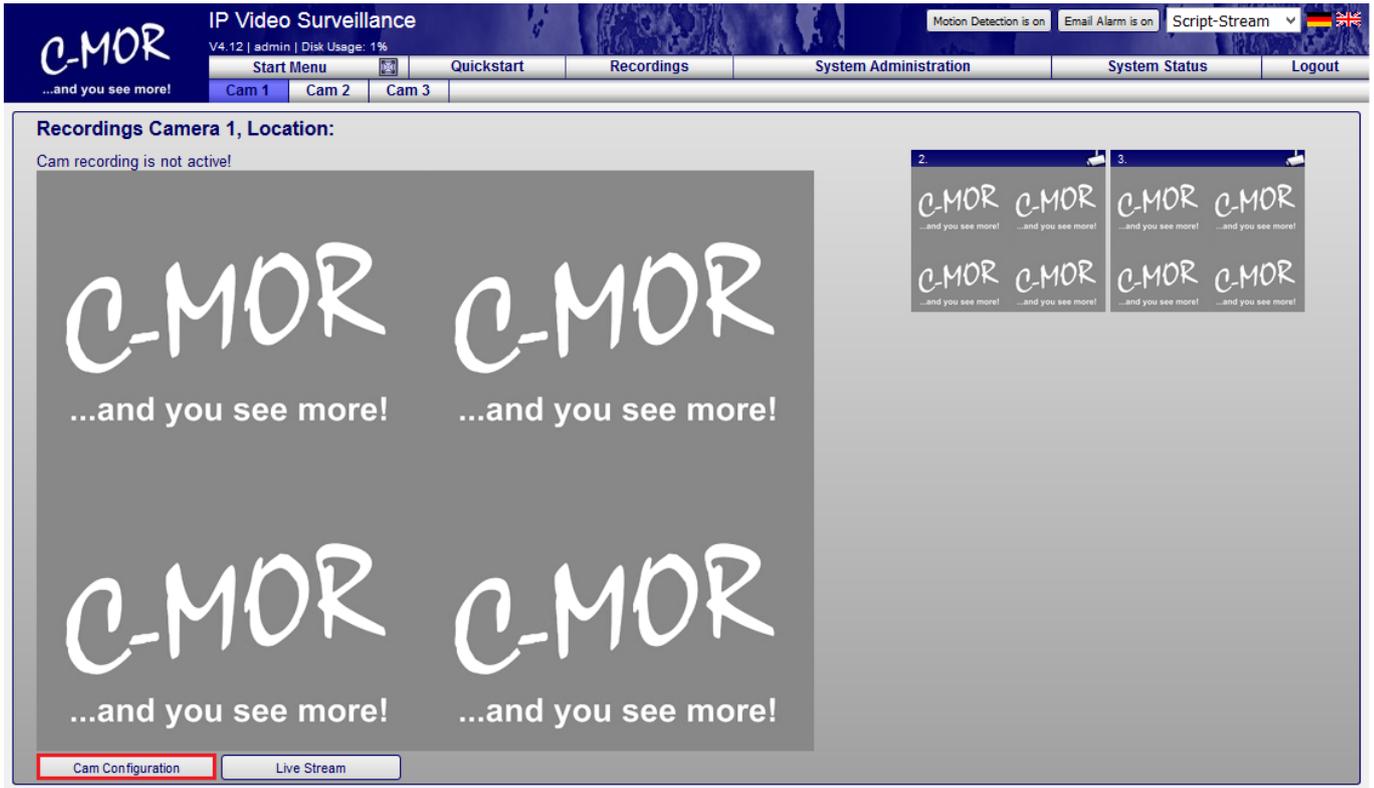
Please select the “System Administration” menu on top of the C-MOR web page to setup your IP camera.



Scroll down to the section where you can configure IP cameras and select for example the first IP camera, cam1:



Alternatively, you can access the camera configuration directly via the camera side " Camera 1 " .



Once you are in the IP camera configuration menu of camera one, you simply enter the IP address of the camera, the access data, username and password, as well as the TCP/IP Port. This is mostly port number 80:

Camera Network Data

IP Address/DNS Name	<input type="text" value="172.20.1.76"/>
TCP-IP-Port	<input type="text" value="80"/>
User Name	<input type="text" value="viewer"/>
Password	<input type="password" value="••••••••"/>

You can also directly adjust the setting, how long the recordings should be stored:

Delete the Recordings after days

- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 20
- 25
- 30
- 60
- 90

Now select your IP camera model from the “Camera Type Configuration” menu and press “Save Configuration”. In this example an Allnet Camera with the default cam size was selected. At this point all required parameters for the basic motion and time-lapse recordings are made already:

Camera Type Configuration

Please select the cam type that matches the connected cam:

Cam Type	<ul style="list-style-type: none">ACTi ACM-1431A-Link IPC1 (experimental)Arecont Vision 1125 DRAnalog-Digital ConverterAviosys IP9100AAirlink AIC250W/D-LINKAirlink AIC600W MJPEGAirlink AIC600W JPEGAllnet 2205Allnet 2272
Manual path	<input type="text" value="/jpg/image.jpg"/>

On the next page, the saved configuration page, you have to activate your camera.

C-MOR IP Video Surveillance V4.12 | admin | Disk Usage: 1%

Motion Detection is on | Email Alarm is on | Script-Stream | 

Start Menu | Quickstart | Recordings | System Administration | System Status | Logout

Cam 1 | Cam 2 | Cam 3

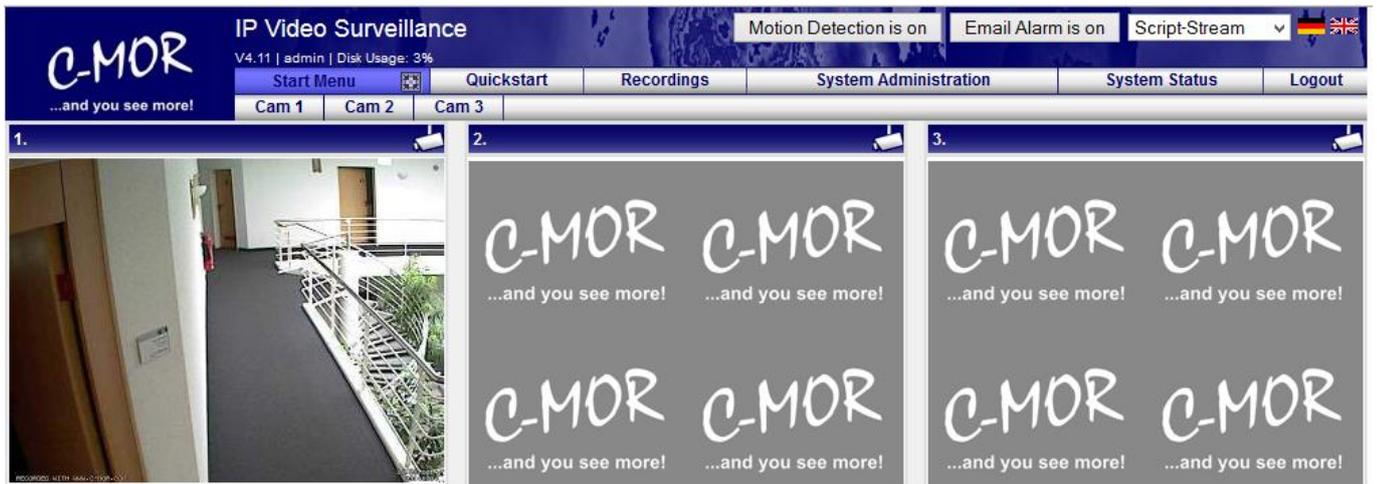
Saved Configuration for Cam 1

Recording cam 1: **deactivated**

The status shows now, that recording for the IP camera has been activated:



If all parameters are set correct, you are able to see the live view of the camera on the start page:



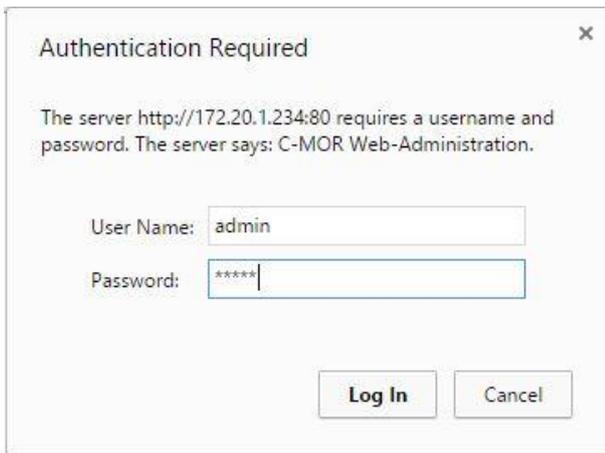
Now it's time to do some testing. Click on the cam1 menu on top and verify when (motion) recordings are generated. From this menu you simply click on "Cam Configuration" to optimize the parameters for motion-detection, alarm emails, with or without attached videos, the length of single recordings and so on. Details on the settings can be found in this manual in the chapter "Administration".

2 The Web Interface

The main tool for the operation and administration of C-MOR is the web interface. Enter the IP address which you have set for example 172.20.1.234. If you don't have changed your IP address insert the default IP address such as 192.168.1.2 into the address bar of your web browser as described under step 2. A window will pop up asking for your user name and password.

The unit is supplied with one pre-configured Administrator user name and password, set to operate and administrate, respectively.

User name: **admin**, standard password **admin**



C-MOR is being controlled by your individual settings over your web browser:

- Time-controlled recordings
- View of live stream by camera
- Sensitivity of motion detection
- User administration: distribution of rights, creation of new user etc.
- Call, search and display old recordings either as video files or single frames
- Archiving of recordings
- FTP transfer of recordings to a server
- Deletion of recordings for the release of free disk space
- Integration of own/existing cameras (when supported by the system)
- And many more

More information can be found in chapter "Administration".

Besides HTTP connections that are transferred over the Internet without encryption C-MOR also offers encrypted access over HTTPS. In order to use this so-called SSL connection, enter https instead of http in the URL, such as https://c-mor.your-domain.com or https://IP-address (e.g. 192.168.1.2).

Apart from the standard ports 80 for HTTP and port 443 for HTTPS, C-MOR can also be used over the alternative port 9000 (for HTTP) and port 9443 (for HTTPS). These alternative ports are used when C-MOR is accessed over a firewall and the respective ports on the firewall are already in use by other applications.

The web surface is divided into 6 main web pages that are built on each other and individual pages for the corresponding camera:

2.1 Start Page

The start page consists of the menu in the upper section of the page, 6 camera live views and the reference to the camera functions.



On the start page you will find an overview of all functions for the operation and administration of C-MOR. As soon as a camera within the net is activated and starts recording, an up-to-date snapshot by the camera will be displayed.

If you are logged in as admin (administrator) on C-MOR and if you have C-MOR Version 4.01 or newer you will see on the right top two buttons to activate or deactivate the motion detection or email alarm with a single click.



These buttons are also available on mobile devices.

2.2 Camera Page

In example by clicking the button “Cam 1” you will get to the “Camera Page” of camera 1. Here you will be able to see a live image of your camera - provided there is an active connection to it. Furthermore on this page you have the possibility to play the recordings of the respective camera, to save, to get to the page where the camera can be configured and to view a live stream in a separate window. Also you can see a preview of each recording. You only have to move your mouse pointer over the preferred video. By clicking on the pictures, you can play the recordings or save them on your local workstation computer.

The screenshot displays the C-MOR IP Video Surveillance web interface. At the top, there is a navigation bar with the C-MOR logo, version information (V4.12 | demo | Disk Usage: 13%), and a language dropdown set to German. Below this is a menu with options: Start Menu, Quickstart, Recordings, System Administration, System Status, and Logout. A secondary menu shows camera selection buttons from Cam 1 to Cam 6, with Cam 1 highlighted.

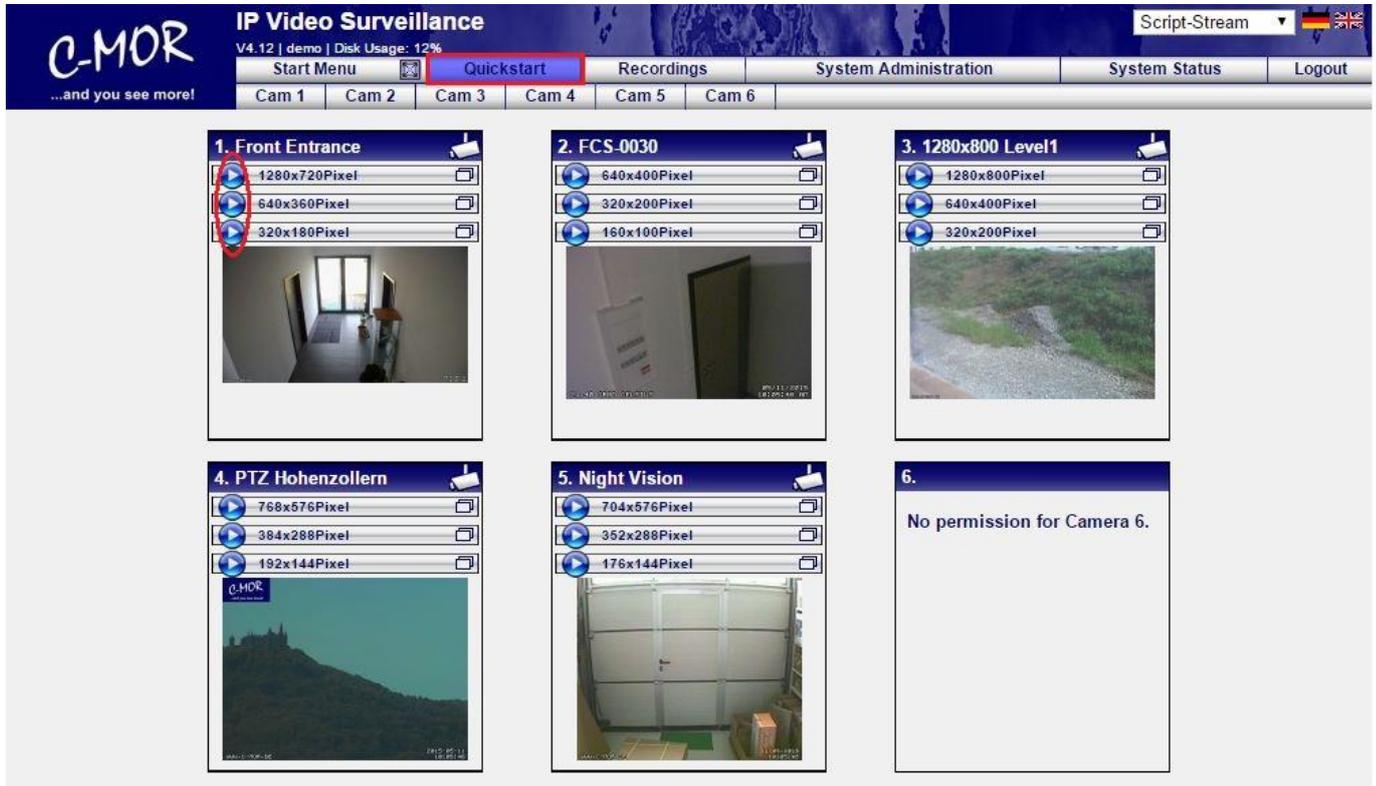
The main content area is titled "Recordings Camera 1, Location: Haupteingang". It features a large live video feed of a hallway with a glass door. To the right of the live feed are six smaller thumbnail images representing different camera views: 2. FCS-0030, 3. 1280x800 Level1, 4. PTZ Hohenzollern, 5. Nachtsicht Kamera, and 6. No Access (with a padlock icon).

Below the main view, there are three panels for recording management:

- Recording Selection:** Includes dropdown menus for Start (Hour: 0, Day: 05, Month: 10, Year: 2015) and End (Hour: 24, Day: 05, Month: 10, Year: 2015). It has checkboxes for "Motion Detection" and "Permanent Recordings", and a "View Recordings" button.
- Motion Detection Recordings (13 Recordings):** A grid of 12 thumbnails showing motion-triggered recordings from 05.10.2015. Each thumbnail includes a timestamp and file size, such as "2015-10-05 15:54:01h 1294 KB".
- Permanent Recordings (20):** A vertical list of 3 thumbnails showing permanent recordings from 05.10.2015, with timestamps and file sizes like "2015-10-05 18:00:00h 308 KB".

2.3 Quick Start Page

On the quick start page you are able to choose the size of the stream by clicking on the play button of the camera in question. Then the live stream will be opened and start playing in the requested size in a separate window.



The Quick Start Page has a great advantage! It starts up quickly even if it is accessed through a slow Internet connection. The small thumbnail camera pictures are updated in a high refresh rate only. This means that this page is not usable for live monitoring.

Another advantage of this page is the independent view of single camera streams. Users have the capability to open camera stream by camera stream and place the single views wherever they want to have it on their screen. Also, this single camera live stream is enabling users to use ActiveX cameras in combination with Apple's Safari or other non-Internet Explorer web browsers!

The following site will show you an example of the different sizes of the livestream view.



Livestream in full camera resolution, 768x576 pixels in this example



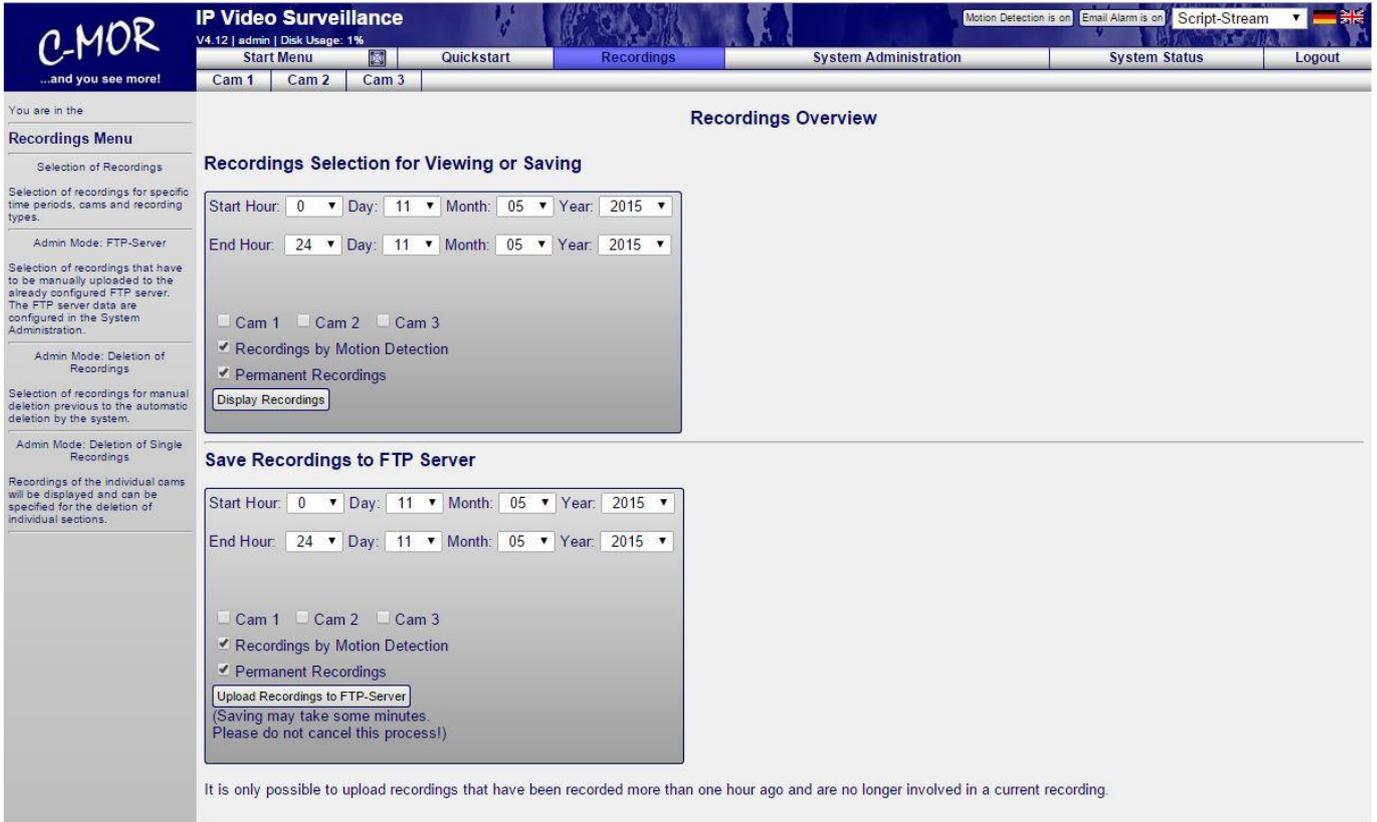
Half camera resolution, 384x288 pixels



Fourth camera resolution, 192x144 pixels

2.4 Recordings

Under the menu item “Recordings” your recordings can be administrated. Settings like start/stop, type, deletion, save via FTP and select individual recordings for delete can be carried out on this page if the user have the necessary rights.



IP Video Surveillance V4.12 | admin | Disk Usage: 1%

Motion Detection is on | Email Alarm is on | Script-Stream | [Flags]

Start Menu | Quickstart | **Recordings** | System Administration | System Status | Logout

Cam 1 | Cam 2 | Cam 3

You are in the **Recordings Overview**

Recordings Menu

Selection of Recordings

Selection of recordings for specific time periods, cams and recording types.

Admin Mode: FTP-Server

Selection of recordings that have to be manually uploaded to the already configured FTP server. The FTP server data are configured in the System Administration.

Admin Mode: Deletion of Recordings

Selection of recordings for manual deletion previous to the automatic deletion by the system.

Admin Mode: Deletion of Single Recordings

Recordings of the individual cams will be displayed and can be specified for the deletion of individual sections.

Recordings Selection for Viewing or Saving

Start Hour: 0 | Day: 11 | Month: 05 | Year: 2015

End Hour: 24 | Day: 11 | Month: 05 | Year: 2015

Cam 1 Cam 2 Cam 3

Recordings by Motion Detection

Permanent Recordings

Display Recordings

Save Recordings to FTP Server

Start Hour: 0 | Day: 11 | Month: 05 | Year: 2015

End Hour: 24 | Day: 11 | Month: 05 | Year: 2015

Cam 1 Cam 2 Cam 3

Recordings by Motion Detection

Permanent Recordings

Upload Recordings to FTP-Server
(Saving may take some minutes. Please do not cancel this process!)

It is only possible to upload recordings that have been recorded more than one hour ago and are no longer involved in a current recording.

In the lower part you find the functions for deleting your recordings.



Delete Recordings

Start Hour: 0 | Day: 11 | Month: 05 | Year: 2015

End Hour: 24 | Day: 11 | Month: 05 | Year: 2015

Cam 1 Cam 2 Cam 3

Recordings by Motion Detection

Permanent Recordings

Delete Recordings

Delete Single Recordings

Start Hour: 0 | Day: 11 | Month: 05 | Year: 2015

End Hour: 24 | Day: 11 | Month: 05 | Year: 2015

Camera: [Dropdown]

Select Recordings

Start Page

Once you have selected the time frame, camera and the recording types the next page shows you all found recordings as pictures. Use the mouse-over a picture to see in a little preview video the scene which was recorded in the selection.

The screenshot displays the C-MOR IP Video Surveillance web interface. At the top, there is a navigation bar with the C-MOR logo, version information (V4.12 | demo | Disk Usage: 13%), and a language selector (Script-Stream with German and English flags). Below this is a menu with options: Start Menu, Quickstart, Recordings (highlighted), System Administration, System Status, and Logout. A camera selection bar shows Cam 1 selected, along with Cam 2 through Cam 6.

The main content area is titled "Recordings Camera 1, Location: Haupteingang". It features a large live video feed of a hallway with a glass door and a potted plant. To the right of the main feed are six smaller thumbnails: 2. FCS-0030, 3. 1280x800 Level1, 4. PTZ Hohenzollern, 5. Nachtsicht Kamera, and 6. No Access (with a padlock icon).

Below the main feed, there are two panels for recording selection. The left panel, "Recording Selection", includes dropdown menus for Start (Hour: 0, Day: 05, Month: 10, Year: 2015) and End (Hour: 24, Day: 05, Month: 10, Year: 2015). It has checkboxes for "Motion Detection" and "Permanent Recordings", and a "View Recordings" button. The right panel, "Motion Detection Recordings (13 Recordings)", shows a grid of 13 thumbnails for the date 05.10.2015. Each thumbnail includes a timestamp and file size, such as "2015-10-05 11:47:49h 5229 KB". A red box highlights one of the thumbnails. To the right of this grid is a "Permanent Recordings (20)" panel for the same date, showing three thumbnails with timestamps and file sizes, such as "2015-10-05 18:00:00h 308 KB".

2.5 Show Recordings

By clicking on the button “Display Recorings” on the “Recordings” site you have the choice to select separate cameras, a desired period to display and the type of your desired recordings.

The screenshot shows the C-MOR IP Video Surveillance web interface. The top navigation bar includes 'Start Menu', 'Quickstart', 'Recordings' (highlighted), 'System Administration', 'System Status', and 'Logout'. Below the navigation bar, there are tabs for 'Cam 1' through 'Cam 6'. The main content area is titled 'Recordings Overview' and contains a 'Recordings Selection for Viewing or Saving' dialog box. This dialog box has fields for 'Start Hour: 0', 'Day: 11', 'Month: 05', and 'Year: 2015', and 'End Hour: 24', 'Day: 11', 'Month: 05', and 'Year: 2015'. It also has checkboxes for 'Cam 1', 'Cam 2', 'Cam 3', 'Cam 4', and 'Cam 5', with 'Cam 1' selected. There are also checkboxes for 'Recordings by Motion Detection' and 'Permanent Recordings', both of which are checked. A 'Display Recordings' button is highlighted with a red box. A 'Start Page' button is located below the dialog box. On the left side, there is a 'Recordings Menu' sidebar with various options like 'Selection of Recordings', 'Admin Mode: FTP-Server', 'Admin Mode: Deletion of Recordings', and 'Admin Mode: Deletion of Single Recordings'.

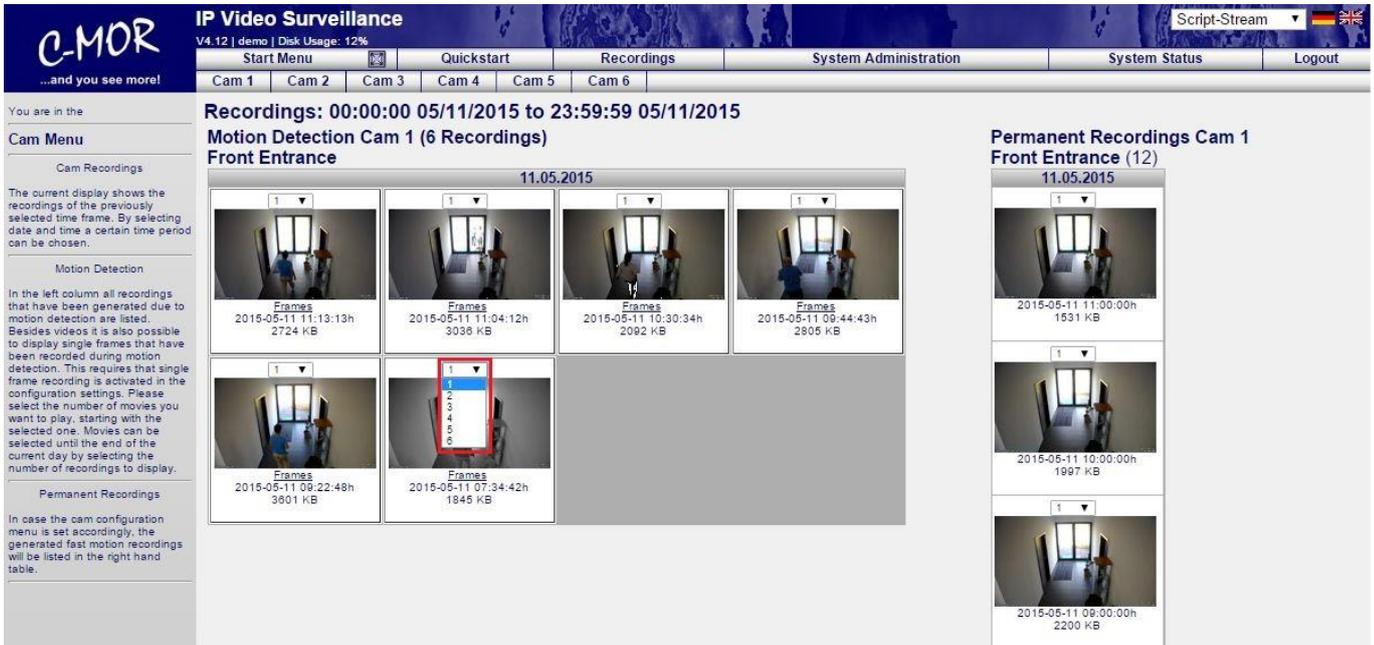
After your selection of camera, desired period and type of your recordings (motion detection or permanent recordings) you will be redirected on following site.

The screenshot shows the C-MOR IP Video Surveillance web interface displaying recording results. The top navigation bar is the same as in the previous screenshot. The main content area is titled 'Recordings: 00:00:00 05/11/2015 to 23:59:59 05/11/2015'. It features two columns of recording thumbnails. The left column is titled 'Motion Detection Cam 1 (6 Recordings) Front Entrance' and shows six thumbnails for recordings from May 11, 2015, with details like 'Frames' and 'KB'. The right column is titled 'Permanent Recordings Cam 1 Front Entrance (12)' and shows a vertical list of thumbnails for recordings from May 11, 2015, with details like 'Frames' and 'KB'. Both titles are highlighted with red boxes. On the left side, there is a 'Cam Menu' sidebar with options like 'Cam Recordings', 'Motion Detection', and 'Permanent Recordings'.

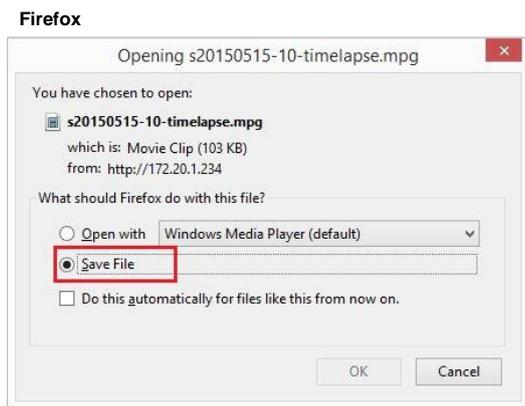
On this page you see pictures of your recordings and you have the opportunity to look first to the preview videos. This preview videos show you a few seconds of the complete recording. Just move the cursor over the image.

2.6 Save Recordings

You can play recordings or save them. First you need to select the number of scenes, which is to be stored or played



After clicking on the picture there will be another picture with following text: "Video starts. Please wait! ". After that it appears another window which asks you if you want to save or to open the file. For saving you confirm your selection by clicking on the button "Save".



Now you can save space and delete the single recording on C-MOR.

Note:

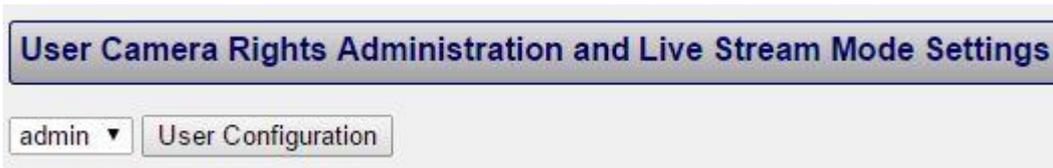
C-MOR tries to control your browser in that way. That always a window appears which is asking you, if you want to save or to watch the film. But if your browser doesn't show you that possibilities, you have to check the settings of your browser. And if you want your browser to ask you, you have to change the settings of your browser.

Every Recording, which was recorded by the reason of motion, have separate single-frame-scenes, in case of you have activated them.

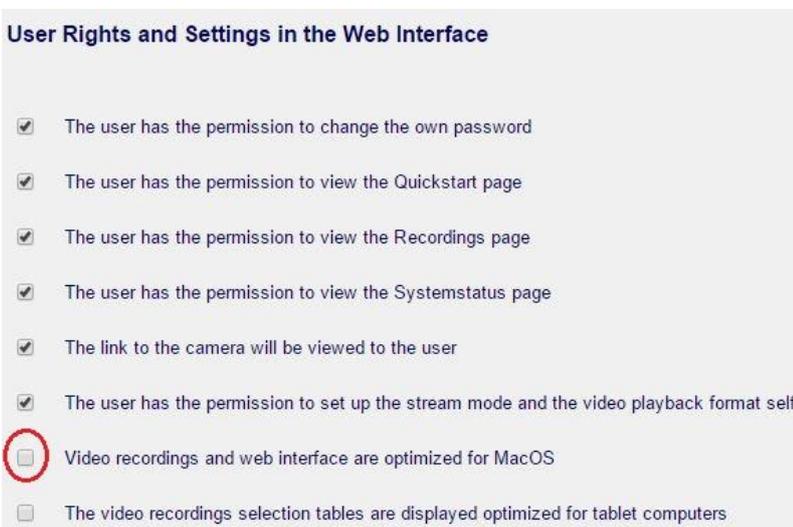


By clicking on "Frames" you will be redirected on the site, where you can look at the single pictures or you can download them as ZIP-file.

Does you have a Mac from Apple and your recordings can not be played, you have to go to the menu item "System Administration". There you have to choose:



And to confirm your selection by clicking on the button "User Configuration". There you have to check if the Mac-OS Optimization is marked.



2.7 Play Recordings

The playing of your recordings is the same procedure like saving. Now you have to select “Open” the file, when your browser asks you if you want to save or to open. Your Media-Player will start and play the recordings.

2.8 Delete Recordings

There are two options to delete recordings. In addition you can select your recordings hours exactly. Cameras can be selected individually.



Delete Recordings

Start Hour: 0 Day: 15 Month: 05 Year: 2015

End Hour: 24 Day: 15 Month: 05 Year: 2015

Cam 1 Cam 2 Cam 3

Recordings by Motion Detection

Permanent Recordings

Delete Recordings

If you choose this option, your recordings will be deleted directly.

Under the Menu item “Delete Single Recordings” you can select a period of time of specific camera. In the next opened window you can select each record individually for deletion.



Delete Single Recordings

Start Hour: 0 Day: 15 Month: 02 Year: 2015

End Hour: 24 Day: 15 Month: 05 Year: 2015

Camera: Cam 1

Select Recordings

Now the next opened window shows your recordings in a list.

Motion Detection Recordings Cam 1
00:00:00 to 23:59:59 2015-05-15

Delete	Start Time	Bytes
No Recordings found		

Permanent Recordings Cam 1
00:00:00 to 23:59:59 2015-05-15

Delete	Start Time	Bytes
15.05.2015		
<input checked="" type="checkbox"/>	13:00:00h	89326
<input type="checkbox"/>	12:00:00h	110148
<input checked="" type="checkbox"/>	11:00:00h	110150
<input type="checkbox"/>	10:00:00h	110212
<input type="checkbox"/>	09:00:00h	110365
<input type="checkbox"/>	08:00:00h	110265
<input checked="" type="checkbox"/>	07:00:00h	110246
<input type="checkbox"/>	06:00:00h	110249
<input type="checkbox"/>	05:00:00h	110238
<input type="checkbox"/>	04:00:00h	110230
<input checked="" type="checkbox"/>	03:00:00h	110261
<input checked="" type="checkbox"/>	02:00:00h	110274
<input checked="" type="checkbox"/>	01:00:00h	110326
<input checked="" type="checkbox"/>	00:00:00h	110305

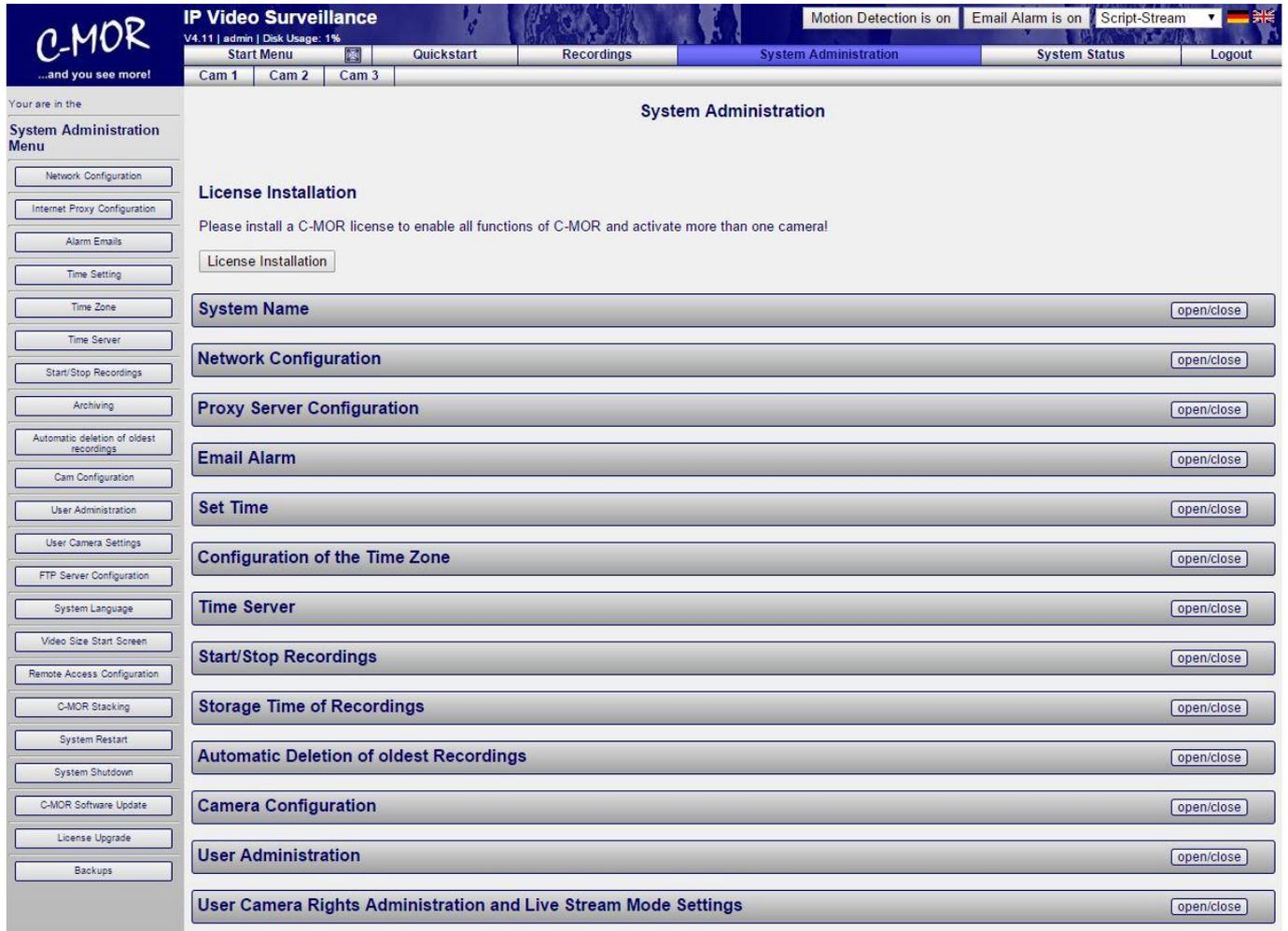
After marking the recordings you want to delete, you confirm your selection with clicking the “Delete Recordings” button.

Following a pop-up window appears, now you have to confirm once again your selection. This ensures that no important records are deleted accidentally.

Do you really want to delete the selected recordings?

2.9 System Administration

Under “System Administration” you can define all important configuration settings in order to adjust C-MOR to your requirements and ensure a smooth operation in your network. The following sub chapters go into the details of the different configuration options.



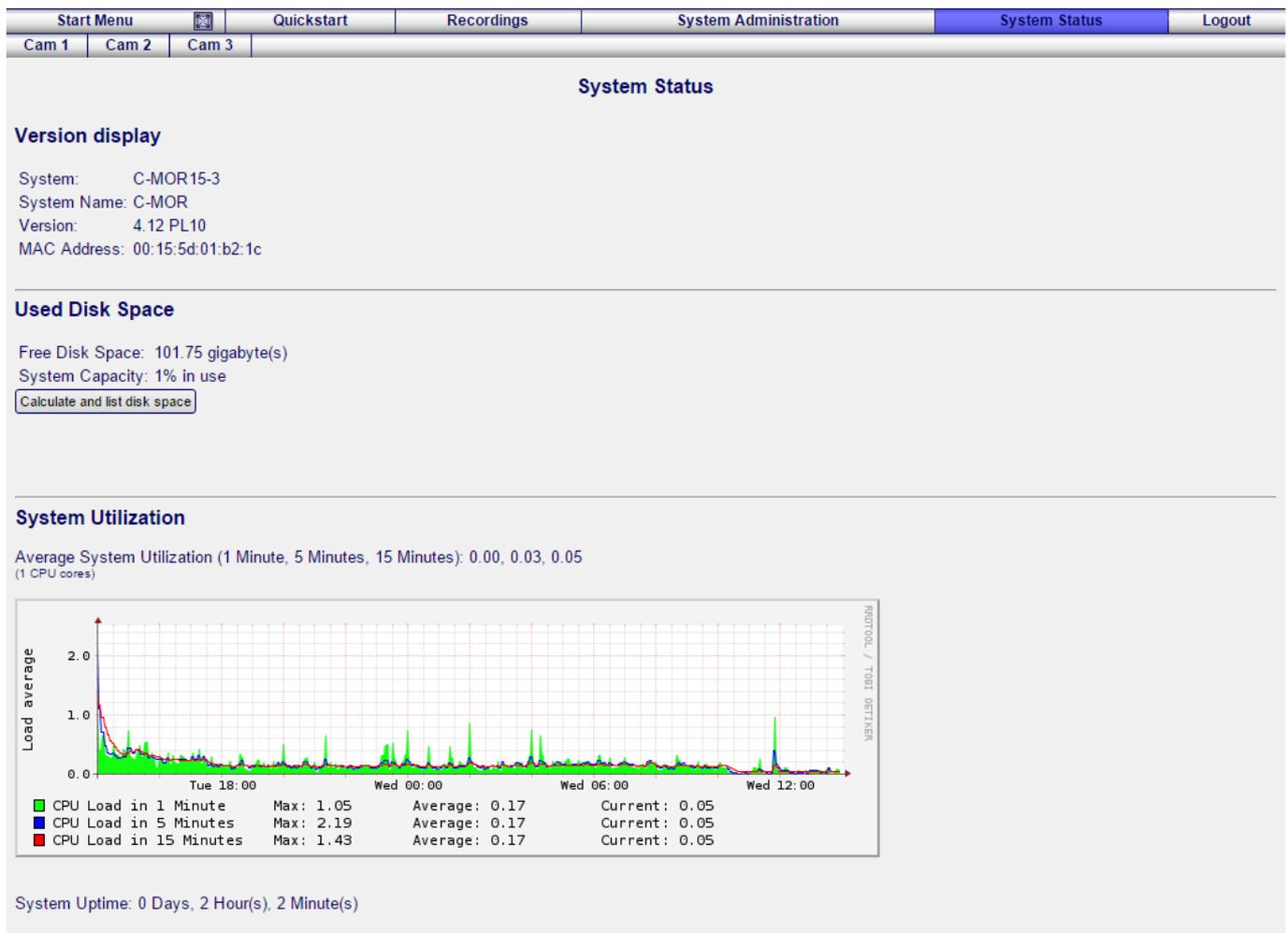
The screenshot displays the C-MOR IP Video Surveillance System Administration interface. The top navigation bar includes 'Start Menu', 'Quickstart', 'Recordings', 'System Administration' (selected), 'System Status', and 'Logout'. The main content area is titled 'System Administration' and contains several expandable sections:

- License Installation**: Please install a C-MOR license to enable all functions of C-MOR and activate more than one camera! Includes a 'License Installation' button.
- System Name**: open/close
- Network Configuration**: open/close
- Proxy Server Configuration**: open/close
- Email Alarm**: open/close
- Set Time**: open/close
- Configuration of the Time Zone**: open/close
- Time Server**: open/close
- Start/Stop Recordings**: open/close
- Storage Time of Recordings**: open/close
- Automatic Deletion of oldest Recordings**: open/close
- Camera Configuration**: open/close
- User Administration**: open/close
- User Camera Rights Administration and Live Stream Mode Settings**: open/close

The note "License installation" can be found only in the free version of C -MOR .As soon as a license is installed, this note doesn't appear again.

2.10 System Status

Under “System Status” there is an overview listing status information of C-MOR. In the upper area you see your version number with the sum of your licensed cameras, your use disk space und your system utilization. In addition, under the system utilization, the operating time of your C-MOR is displayed. The operating time refers to how long your C-MOR is straight on. If a restart or system failure have happened, you recognize the fact that the operating time has started again from 0.



System Status

Version display

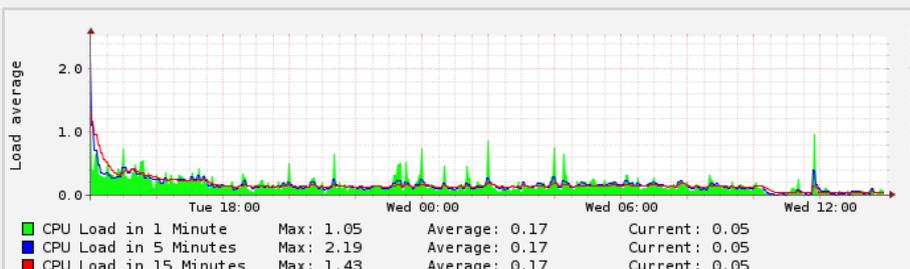
System: C-MOR15-3
 System Name: C-MOR
 Version: 4.12 PL10
 MAC Address: 00:15:5d:01:b2:1c

Used Disk Space

Free Disk Space: 101.75 gigabyte(s)
 System Capacity: 1% in use

System Utilization

Average System Utilization (1 Minute, 5 Minutes, 15 Minutes): 0.00, 0.03, 0.05
 (1 CPU cores)



System Uptime: 0 Days, 2 Hour(s), 2 Minute(s)

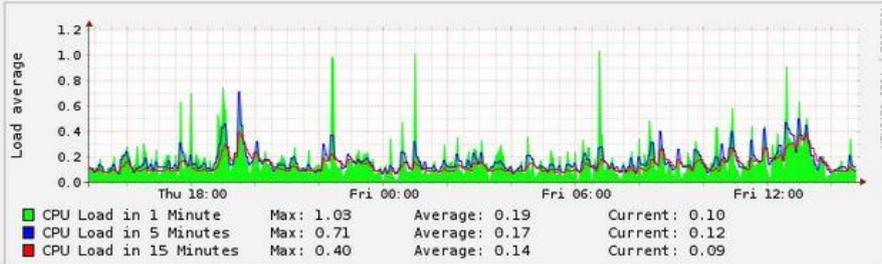
The CPU Load shows how much the system is used. This is important to realize if the C-MOR system is overloaded. Reasons for this are too much frames per second (fps) in motion detection mode or too big camera pictures in connection with additional cameras. It should be noted, the “Load” parameter refers to the used CPU cores or must be divided by this number. With a load of 1 and just one CPU core the system is running at 100 % on the CPU. With a Load of 1 and two CPU cores the system is running only 50%!

By clicking on the CPU usage graph you call the load graphics for " Daily " , "Weekly" , " Monthly " and “Yearly”:

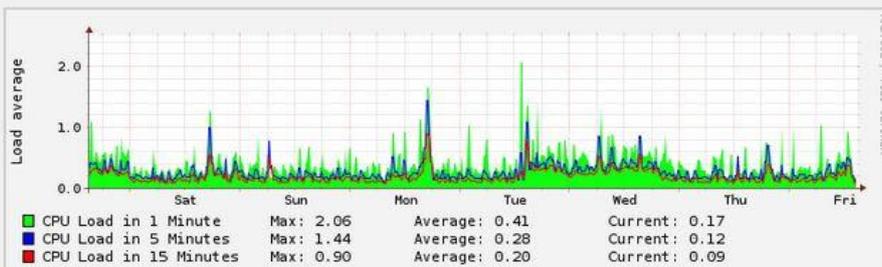
C-MOR CPU Load

Average System Utilization (1 Minute, 5 Minutes, 15 Minutes): 0.11, 0.11, 0.09
 (4 CPU cores)

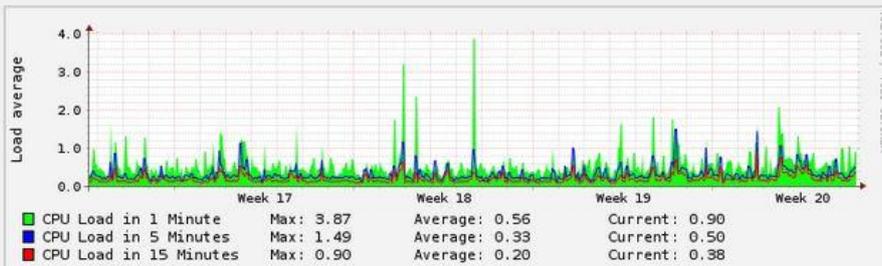
"Daily" Graph (5 Minute Average)



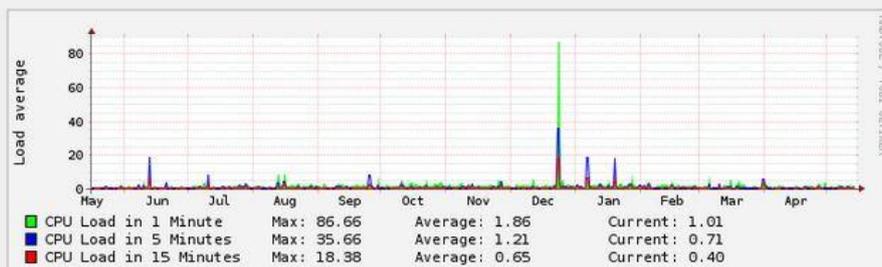
"Weekly" Graph (30 Minute Average)



"Monthly" Graph (2 Hour Average)



"Yearly" Graph (12 Hour Average)



[Start page](#)

The middle part of this site shows you the camera availability and the Network Utilization of your C-MOR. Using these graphics utilization errors in the network can be detected. The graphics are divided in incoming network traffic (green line) and in outgoing network traffic (blue line).

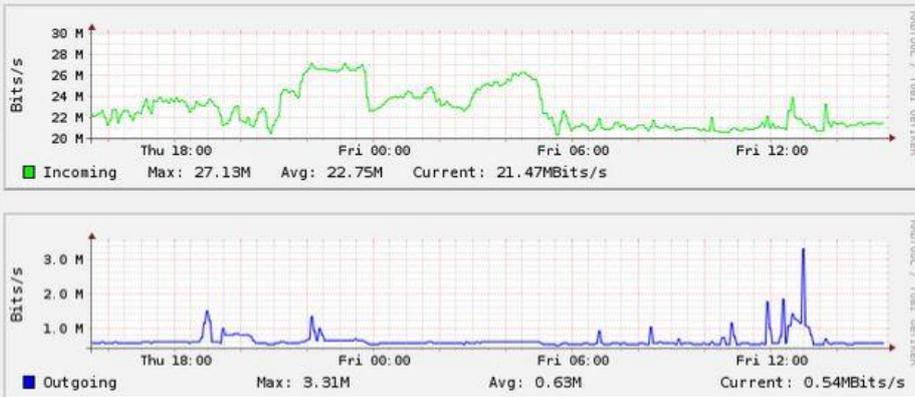
Cam Availability in the Network

Cam 1 is available in the Network: 172.20.1.91, TCP-Port 8008.
Cam 2 is available in the Network: 172.20.1.51, TCP-Port 80.
Cam 3 is available in the Network: 172.20.1.54, TCP-Port 80.
Cam 4 is available in the Network: 172.20.1.80, TCP-Port 80.
Cam 5 is available in the Network: 172.20.1.41, TCP-Port 80.

Camera Recordings

Recording for Cam 1 is active.
Recording for Cam 2 is active.
Recording for Cam 3 is active.
Recording for Cam 4 is active.
Recording for Cam 5 is active.

Network Utilization



In the lower part of System Status the log files are shown which can be used to get support. Just copy and paste the Log into an email, and send it to the C-MOR support team. The Log File can be very useful to solve problems or to fix them.

System Log File

```

May 11 16:16:31 c-mor-v4 c-mor15: checkem, warning mail again from cmordemo@za-mail.de to c-mor-demo-alarm@za-mail.de after 349472 seconds.
May 11 16:16:31 c-mor-v4 c-mor15: Sending warn mail to c-mor-demo-alarm@za-mail.de: C-MOR-ZA-DEMO: 1280x800 Level1 ist nicht verfuegbar
May 11 16:17:37 c-mor-v4 c-mor15: checkem, not enough time gone to send alarm again: 66 seconds. Wait until: 3600 seconds reached.
May 11 16:17:39 c-mor-v4 cam3: [0] Motion 3.2.12 Started
May 11 16:17:39 c-mor-v4 cam3: [0] Motion running as daemon process
May 11 16:17:39 c-mor-v4 cam3: [0] ffmpeg LIBAVCODEC_BUILD 3412993 LIBAVFORMAT_BUILD 3415808
May 11 16:17:41 c-mor-v4 cam3: [1] Resizing pre_capture buffer to 1 items
May 11 16:17:41 c-mor-v4 cam3: [1] Resizing pre_capture buffer to 4 items
May 11 16:17:42 c-mor-v4 c-mor15: checkem, not enough time gone to send alarm again: 71 seconds. Wait until: 3600 seconds reached.
May 11 16:17:53 c-mor-v4 c-mor15: checkem, not enough time gone to send alarm again: 82 seconds. Wait until: 3600 seconds reached.
May 11 16:18:03 c-mor-v4 c-mor15: checkem, not enough time gone to send alarm again: 92 seconds. Wait until: 3600 seconds reached.
May 11 16:18:13 c-mor-v4 c-mor15: checkem, not enough time gone to send alarm again: 102 seconds. Wait until: 3600 seconds reached.
May 11 16:18:16 c-mor-v4 c-mor15: checkem, not enough time gone to send alarm again: 105 seconds. Wait until: 3600 seconds reached.

```

Mail Log File

```

May 11 16:16:32 c-mor-v4 [9259]: 167D31800024B: message-id=<20150511141632.167D31800024B@c-mor-v4.c-mor-video.com>
May 11 16:16:32 c-mor-v4 [2084]: 167D31800024B: from=<cmordemo@za-mail.de>, size=826, nrcpt=1 (queue active)
May 11 16:16:32 c-mor-v4 [9265]: 167D31800024B: to=<c-mor-demo-alarm@za-mail.de>, relay=mail.za-mail.de[193.7.168.4]:25, delay=0.48, delays=0.29/0.16/0.03/0.01, dsn=2.0.0, status=sent (250 2.0.0 Ok: queued as 8EE3983F14)
May 11 16:20:22 c-mor-v4 [15600]: 31250180001E4: message-id=<20150511142022.31250180001E4@c-mor-v4.c-mor-video.com>
May 11 16:20:22 c-mor-v4 [2084]: 31250180001E4: from=<cmordemo@za-mail.de>, size=827, nrcpt=1 (queue active)
May 11 16:20:22 c-mor-v4 [15609]: 31250180001E4: to=<c-mor-demo-alarm@za-mail.de>, relay=mail.za-mail.de[193.7.168.4]:25, delay=0.12, delays=0.11/0.01/0.01/0.01, dsn=2.0.0, status=sent (250 2.0.0 Ok: queued as 61C1183F2E)
May 11 16:21:09 c-mor-v4 [15600]: 64197180001E4: message-id=<20150511142109.64197180001E4@c-mor-v4.c-mor-video.com>
May 11 16:21:09 c-mor-v4 [2084]: 64197180001E4: from=<cmordemo@za-mail.de>, size=859, nrcpt=1 (queue active)
May 11 16:21:09 c-mor-v4 [15609]: 64197180001E4: to=<c-mor-demo-alarm@za-mail.de>, relay=mail.za-mail.de[193.7.168.4]:25, delay=0.18, delays=0.16/0.01/0.01, dsn=2.0.0, status=sent (250 2.0.0 Ok: queued as 980B783F3D)
May 12 07:47:34 c-mor-v4 [22509]: 6892C180001E4: message-id=<20150512054734.6892C180001E4@c-mor-v4.c-mor-video.com>
May 12 07:47:34 c-mor-v4 [2084]: 6892C180001E4: from=<cmordemo@za-mail.de>, size=824, nrcpt=1 (queue active)

```

In support case you should “copy” the log file and “paste” it into the support-contact-form. You can find this form on <http://www.c-mor.com>.

2.11 Control with the iPad

You can use all functions of C-MOR with an iPad just like you can do with a desktop computer. But with the iPad you are mobile and you have your video surveillance always at your hand.

The following points characterize the iPad functions:

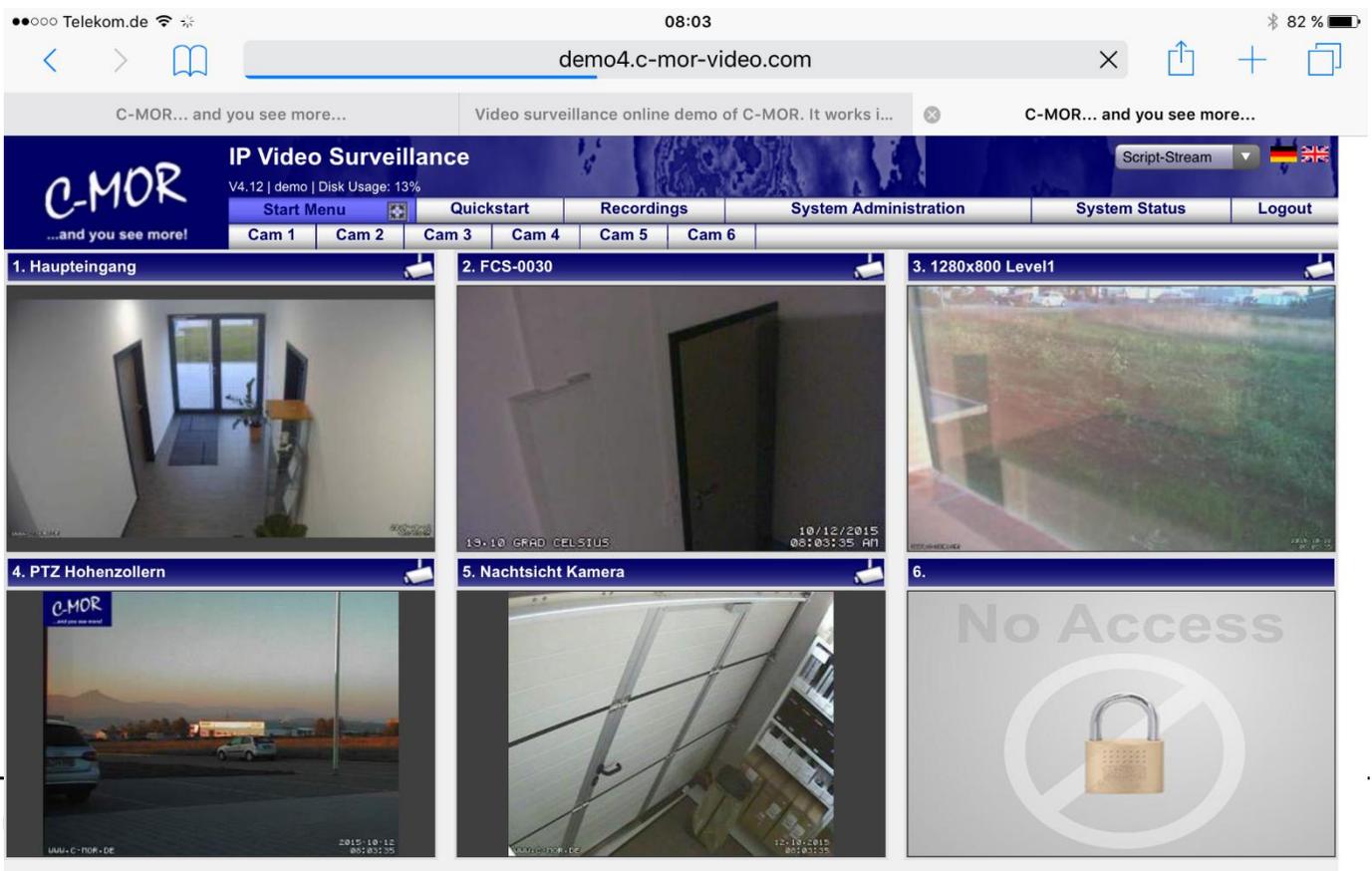
- Live view of many different camera models, even if the camera self has no direct iPad support
- Playback of motion, permanent or time-lapse recordings
- Watch single frames
- Just get started. There is no App installation required
- Control your PTZ cameras
 - Receive alarm emails with video attachments
- And many, many more!

The Web Interface of the iPad

On the **Start Page** you find an overview of all functions for the operation and administration of C-MOR. If a camera is in recording mode, the Live View of the camera will appear here.

The web interface is same as the web interface of a normal web browser on your PC. Also, all features are available and the C-MOR web page is almost the same as you are used to with your PC.

In the Start Menu, you can see an overview of all installed cameras that can be accessed by C-MOR. You can touch on the camera live picture to select a single camera and watch the live view in a bigger picture or playback recordings.

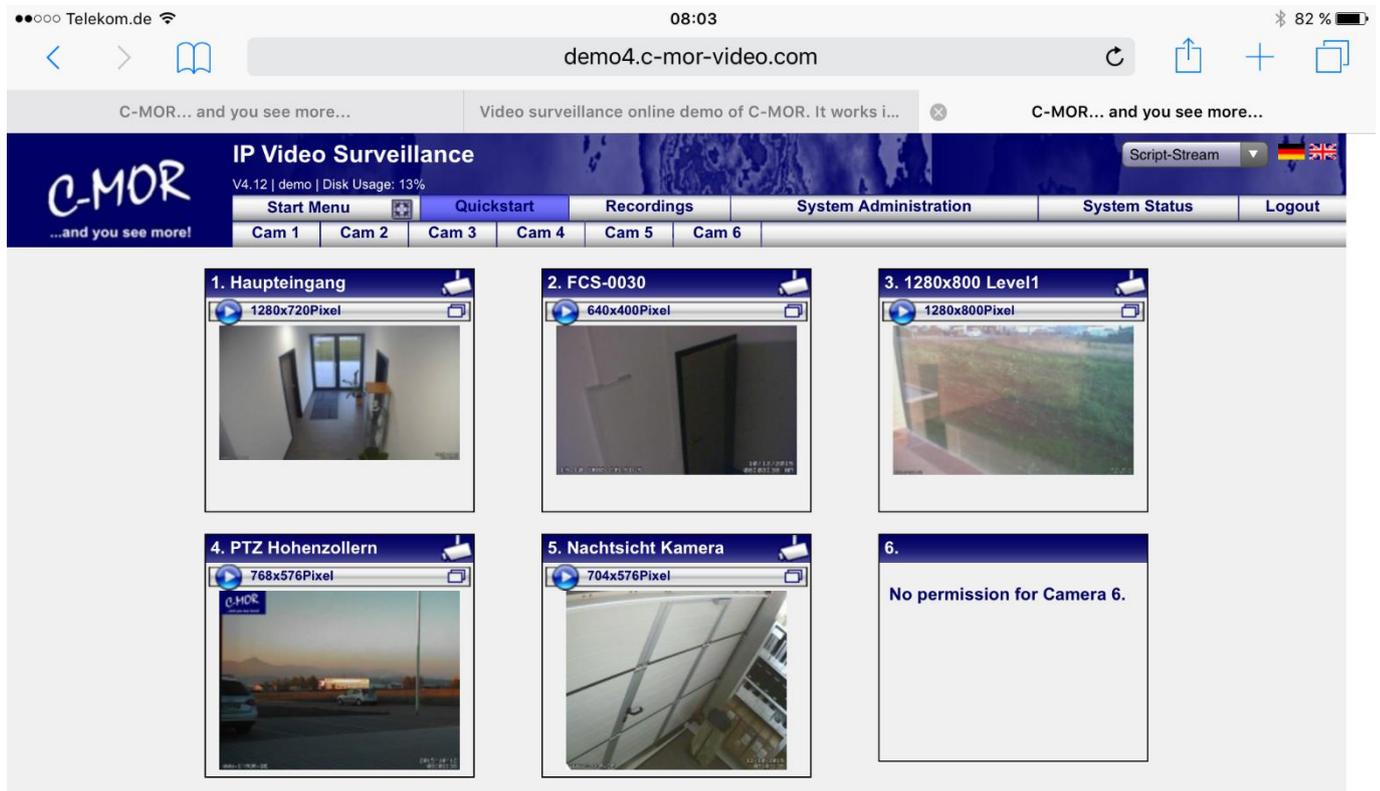


The screenshot displays the C-MOR web interface on an iPad. At the top, the browser address bar shows 'demo4.c-mor-video.com'. The interface features a navigation menu with the following items: 'Start Menu', 'Quickstart', 'Recordings', 'System Administration', 'System Status', and 'Logout'. Below the menu, there are six camera thumbnails arranged in a 2x3 grid:

- 1. Haupteingang: Shows an interior hallway with a glass door.
- 2. FCS-0030: Shows a close-up of a door frame.
- 3. 1280x800 Level1: Shows an outdoor view of a building and a lawn.
- 4. PTZ Hohenzollern: Shows a night view of a building with a car in the foreground.
- 5. Nachtsicht Kamera: Shows a night view of a building with a glass door.
- 6. No Access: Shows a padlock icon with a 'No Access' message.

The interface also includes system information such as 'V4.12 | demo | Disk Usage: 13%' and a language selector (German/English).

The menu **Quickstart** shows the overview of all cameras, too. However, there is no Live View available in this menu. Here you just see static pictures updated every 15 seconds. If you have a small bandwidth connection of your iPad, this has the advantage, that you still have good access to the cameras. Here you can also choose the live stream, and you are able to play it with your iPad. If you are using C-MOR frequently through a low bandwidth connection it makes sense to bookmark this page as your C-MOR start page. It starts up faster than the other pages.



If you want to watch the live view of a camera, click on the button with the display size to open the live stream window.

If you click on the static picture in the “Quickstart” view, you will be forwarded to the Live View site of the respective camera. The Live View site can also be reached with the buttons

[Cam 1](#) [Cam 2](#) [Cam 3](#) etc. in the top menu.

On the camera page you have the Live View of the respective camera. The associated motion detection recordings and time-lapse are listed in the tables below the live stream.

Choose for example cam 1.

You can see a list of pictures which show you your recordings of your motion detection and your permanent recordings.



The screenshot displays the C-MOR IP Video Surveillance web interface. At the top, the browser shows the URL 'demo4.c-mor-video.com'. The interface features a navigation menu with options like 'Start Menu', 'Quickstart', 'Recordings', 'System Administration', 'System Status', and 'Logout'. The 'Recordings' section is active, showing a list of cameras (Cam 1 to Cam 6) with 'Cam 1' selected. The main content area displays a live video feed of 'Camera 1, Location: Haupteingang' and a grid of thumbnails for other cameras. Below the live view, there are sections for 'Recording Selection' (with start/end time pickers), 'Motion Detection Recordings (18 Recordings)' (showing thumbnails for 12.10.2015 and 11.10.2015), and 'Permanent Recordings (20)' (showing a thumbnail for 2015-10-12 08:00:00h).

Your recordings are displayed as images. Just click on the button “preview” to watch a little preview of your recordings. Just to check first what happened during the desired recording.

The screenshot displays the C-MOR IP Video Surveillance web interface. At the top, the browser shows the URL 'demo4.c-mor-video.com' and the time '08:04'. The interface features a navigation menu with options like 'Start Menu', 'Quickstart', 'Recordings', 'System Administration', 'System Status', and 'Logout'. The 'Recordings' section is active, showing a main camera view of 'Haupteingang' and a grid of smaller camera feeds. Below this, there are three panels for recording selection: 'Motion Detection Recordings (18 Recordings)', 'Permanent Recordings (20)', and a 'Recording Selection' sidebar with date filters for 'Start' and 'End'.

If you only want to see your motion detection recordings you can choose on the left side “motion detection” and then you have to click on “view recordings”.

The screenshot displays the C-MOR web interface. At the top, there is a status bar with 'Telekom.de', '17:41', and 'demo4.c-mor-video.com'. The main area features a large live video feed of a hallway with a door and a window. To the right of the main feed are four smaller camera thumbnails: '5. Nachtlicht Kamera', '6.', and two others. Below the main feed, there is a 'Recording Selection' panel on the left with filters for Start (Hour: 0, Day: 12, Month: 10, Year: 2015) and End (Hour: 24, Day: 12, Month: 10, Year: 2015). The 'Motion Detection' checkbox is checked and highlighted with a red box, and the 'View Recordings' button is also highlighted. The central panel shows 'Motion Detection Recordings (20 Recordings)' for '12.10.2015' and '11.10.2015', with a grid of preview thumbnails and their respective timestamps and file sizes. The right panel shows 'Permanent Recordings (20)' for '12.10.2015' with a single preview thumbnail.

After your selection you see following aspect:

The screenshot shows a web browser displaying the C-MOR IP Video Surveillance interface. The browser address bar shows 'demo4.c-mor-video.com'. The interface has a top navigation bar with 'Start Menu', 'Quickstart', 'Recordings', 'System Administration', 'System Status', and 'Logout'. Below this is a 'Cam Menu' with 'Cam 1' through 'Cam 6'. The main content area is titled 'Recordings: 00:00:00 10/11/2015 to 23:59:59 10/12/2015' and 'Motion Detection Cam 1 (17 Recordings)'. It shows a grid of recording thumbnails for 'Haupteingang' on '12.10.2015' and '11.10.2015'. Each thumbnail includes a 'Preview' button, a camera icon, and details like 'Frames', timestamp, and file size. The interface also includes a left sidebar with instructions for motion detection and permanent recordings.

Here you have also the possibility to select the number of scenes you want see and you also can watch a preview of your recording.

The screenshot displays the C-MOR IP Video Surveillance web interface. At the top, the browser shows the URL 'demo4.c-mor-video.com'. The interface features a navigation bar with 'System Administration', 'System Status', and 'Logout' options. A 'Recordings: 00:00' section is active, with a 'Motion Detection' filter selected. A dropdown menu is open, showing options 1, 2, and 3, with option 1 selected. Below the menu is a grid of video recording thumbnails, each with a 'Preview' button and metadata including 'Frames', date, time, and file size. The thumbnails are organized by date, with '12.10.2015' and '11.10.2015' visible. The left sidebar contains instructions for motion detection and permanent recordings.

Also you have the possibility to select only your permanent recordings and there you have the same functions like you have by choosing motion detection recordings

The screenshot displays the C-MOR web interface. At the top, there is a status bar with 'Telekom.de', '08:05', and 'demo4.c-mor-video.com'. The main area features a large live camera feed of a hallway. To the right of the feed are two smaller thumbnails: one labeled '5. Nachtsicht Kamera' showing a night-vision view, and another labeled '6. No Access' with a padlock icon. Below the feed is a 'Recording Selection' panel with 'Start' and 'End' time pickers, radio buttons for 'Motion Detection' and 'Permanent Recordings' (the latter is selected), and a 'View Recordings' button. To the right of this panel are two columns of recording thumbnails. The first column, 'Motion Detection Recordings (18 Recordings)', shows recordings from 12.10.2015 and 11.10.2015. The second column, 'Permanent Recordings (20)', shows recordings from 12.10.2015. Each thumbnail includes a 'Preview' button, a timestamp, and a file size.

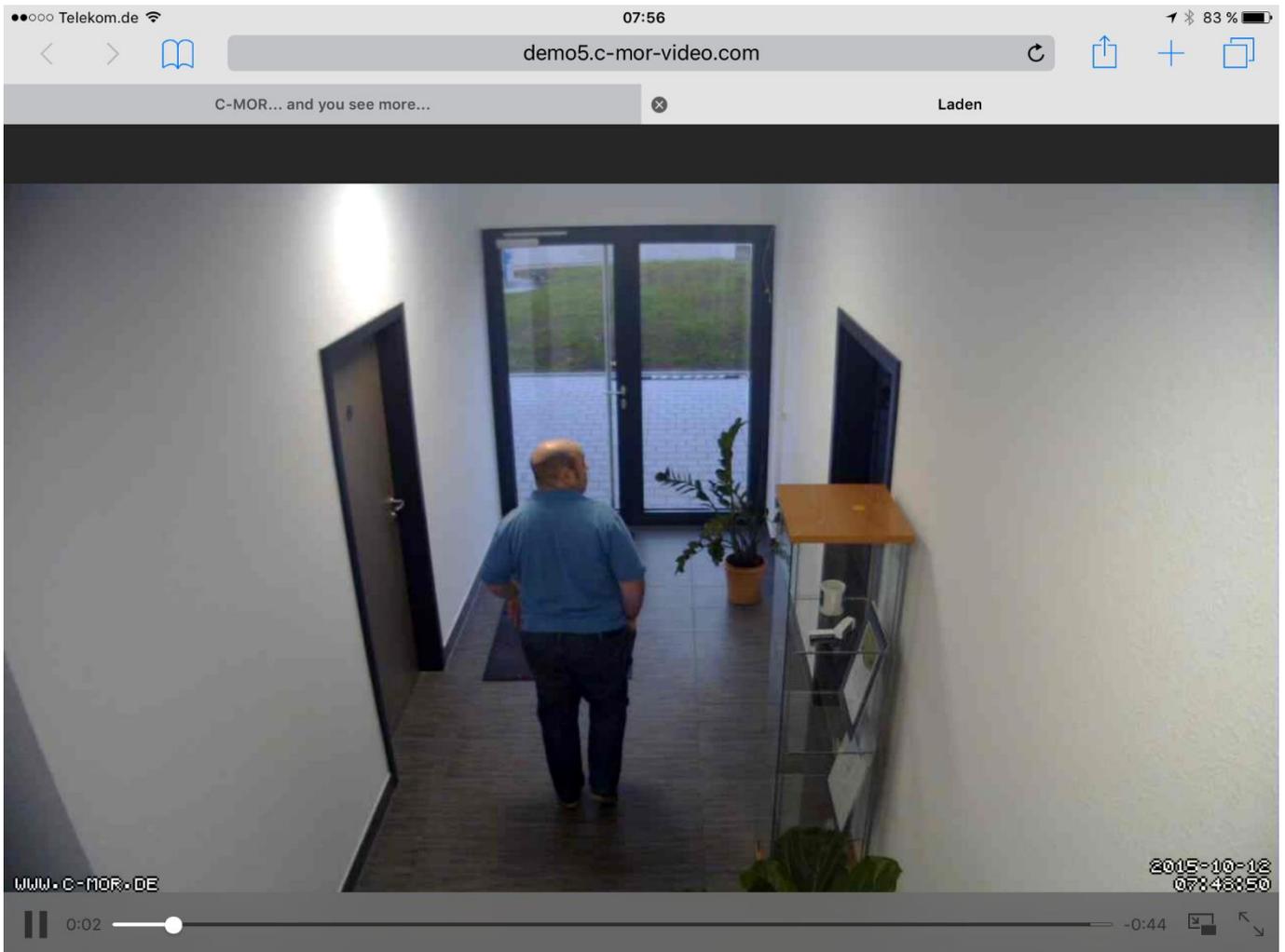
Now you see your permanent recordings. At this point you also have the possibility to view a preview of your recording, or to select the number of scenes.

The screenshot shows a web browser window displaying the C-MOR IP Video Surveillance interface. The browser's address bar shows 'demo4.c-mor-video.com'. The interface has a dark blue header with the C-MOR logo and navigation tabs: 'Start Menu', 'Quickstart', 'Recordings', 'System Administration', 'System Status', and 'Logout'. The 'Recordings' tab is active, showing a list of recordings for 'Cam 1' on '12.10.2015'. The main content area is titled 'Recordings: 00:00:00 10/11/2015 to 23:59:59 10/12/2015' and 'Haupteingang (33)'. It lists four recordings with their start times and file sizes:

Recording Time	File Size
2015-10-12 08:00:00h	177 KB
2015-10-12 07:00:00h	2897 KB
2015-10-12 06:00:00h	4084 KB
2015-10-12 05:00:00h	4089 KB

Each recording entry includes a 'Preview' button and a small video thumbnail. On the left side, there is a 'Cam Menu' section with instructions for viewing recordings and motion detection settings.

Naturally you have the possibility to watch the complete recording and not only a preview. Therefore you have to tab the picture of your desired recording and the film will start.



All PTZ (pan, tilt, zoom) functions are available for the iPad, too. Even if the connected IP camera does not support the iPad, it can be controlled through C-MOR since C-MOR acts as interface between the iPad and the IP camera. Further information about the PTZ Control you can find under *Point 3.2.4 and 3.2.5*.



2.12 Mobile Devices, Android and iPhone

C-MOR offers 2 web interfaces for the use with mobile devices like Android phones, Windows Mobile, iPhone and others. 2 web addresses lead to these mobile interfaces:

/iphone: As the name says, for Apple iPhones

/mobile: For all other devices like Android and also for iPhones with an extra web browser like Chrome.

Both web interfaces do not require installing any App neither on the iPhone nor on Android to use it. Videos can be viewed as well as using the live view works straightforward.

If alarm videos are forwarded to an Android device and the recordings have a higher resolution, it may require using an additional video player on the Android phone. In this case we recommend the free MoboPlayer from the Android Play Store.

Notice:

For the use of the functions you need access to the internet like UMTS or GPRS.

2.12.1 Access with Mobile Devices

Please visit the following page to use your C-MOR with a mobile device like an Android smart phone:

<http://<your IP address>/mobile>

If you want to see the live view of your camera choose for example “cam 1”. This button will lead you to the live view of camera 1.

You have the option to activate or deactivate “Motion Detection” or “Email Alarm” with a single click.



By clicking on the link “Motion <cam no.>” the page with all motion recordings for the selected camera will be opened. By clicking “Time-lapse” the page for all time-lapse recordings of the selected camera will be opened.

By clicking on **Overview** you will return to the main page.



If you have selected “motion 1” and you are touching the button “preview” it will open the quick preview of the selected recording on the same web page. The recording is identified by the time stamp in the left column of the table. The header shows the date of the recordings.

By clicking on the picture itself a window will pop up, offering either to save or to open recording. In case the data has already been connected to a specific player, the application will then open automatically and you will be able to view the recordings. Otherwise please open the video manually.

2.12.2 Display of Live Images on the iPhone

For the iPhone there is a separate interface available, to display live streams and videos on mobile Devices. If you are owner of an iPhone please use following link to show the camera overview on an iPhone:

<http://<your IP address>/iphone>

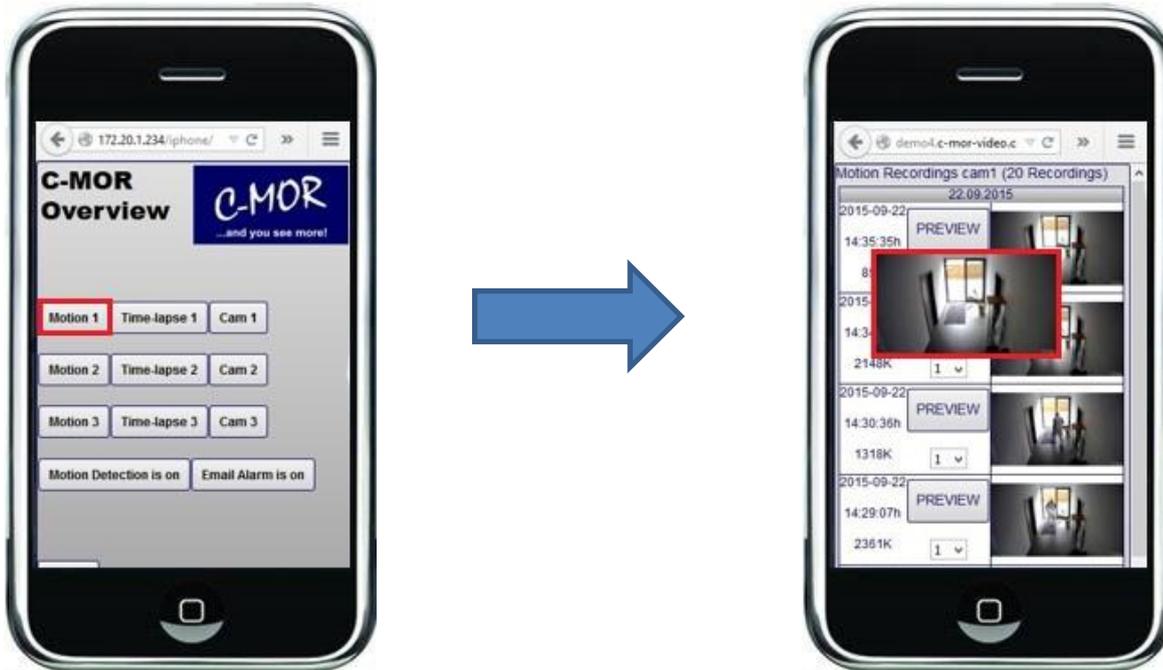
If you want to see the live view of your camera choose for example “cam 1”. This button will leads you to the live view of camera 1.

You have the option to activate or deactivate “Motion Detection” or “Email Alarm” with a single klick.



By clicking on the link “Motion <cam no.>” the page with all motion recordings for the selected camera will be opened. By clicking “Time-lapse” the page for all time-lapse recordings of the selected camera will be opened.

By clicking on **Overview** you will return to the main page.



If you have selected “motion 1” and you are touching the button “preview” it will open the quick preview of the selected recording on the same web page. The recording is identified by the time stamp in the left column of the table. The header shows the date of the recordings.

By clicking on the picture itself a window will pop up, offering either to save or to open recording. In case the data has already been connected to a specific player, the application will then open automatically and you will be able to view the recordings. Otherwise please open the video manually.



3 Administration

3.1 System Administration

Under **System Administration** the user can define all important configuration settings in order to adjust C-MOR for a smooth operation in the network.

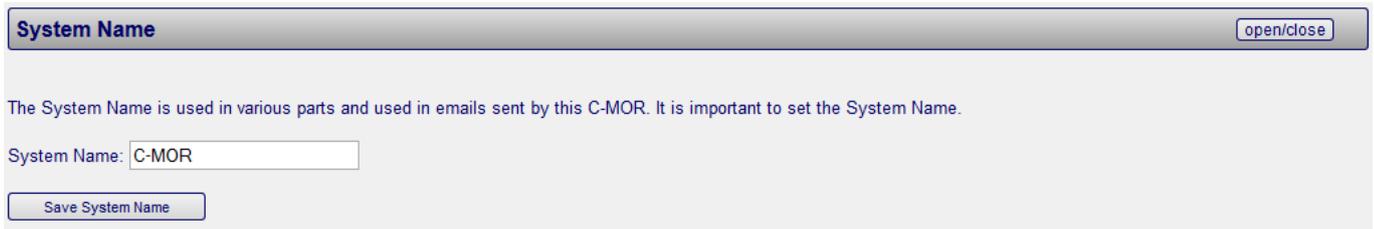
The following settings can be carried out over the system administration:

- Setting the System Name for email notifications
- Carry out network or/and IP settings
- Proxy settings for internet access
- Configuration of email address for global system alerts
- Set time
- Configure time server
- Start/stop recordings (activate/deactivate camera)
- Define storage time for recordings per camera
- Auto delete in case of low storage space
- Setup the camera configuration of each camera
- User administration
- Configure Camera Rights and Stream Method for users
- FTP backup of recordings
- Setting standard language (German or English)
- Presentation of the Start Page, size of Stream
- Remote Access without Dynamic DNS or router configuration
- Stacking configuration (combine up to 6 C-MORs with up to 90 cams)
- System reboot and Shutdown
- Software update and camera model update
- License Upgrade
- If activated, Barionet Alarm connection

The following sub chapters will describe you the details of the different configuration options.

3.1.1 System Name

Under **System Name** you can find the current system name of this C-MOR. The default system name is "C-MOR". Special characters should be avoided when setting up the system name.



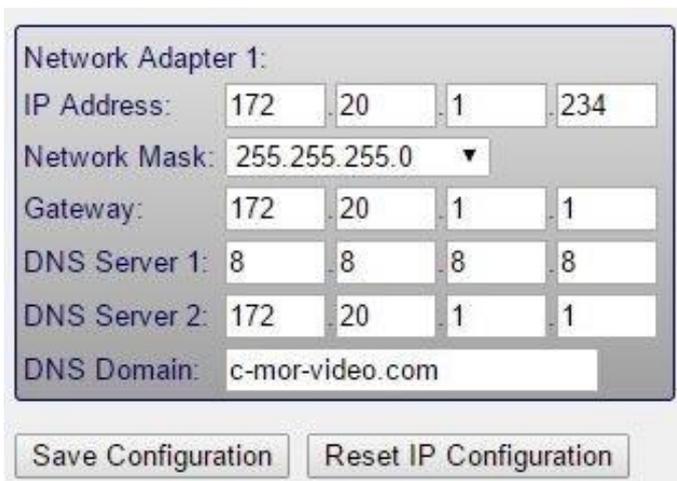
Mainly, the system name is used for easily distinguish your C-MORs from each other if you have more than one in operation. The system name is also used in all emails all sent from C-MOR and in various places in the user interface.

3.1.2 Change IP Settings

Under **Network Configuration** the current network configuration of C-MOR is displayed. There you can change the IP address settings of C-MOR, network mask, standard gateway and DNS server. The changes are immediately active, meaning that you can only reach C-MOR over the newly defined IP address. C-MOR continues working at that point!



By clicking "Change IP Settings" the following entry mask appears for adjustment of IP settings:



After executing “Save IP Settings” C-MOR cannot be reached any more.

By entering the new IP address in the address field of your browser, C-MOR can immediately be reached again.

If you want to reset your IP Settings to default configuration you can choose the Button “Reset IP settings”.

Network Configuration

The network configuration has been saved.

Network Adapter 1:	
IP Address:	172.20.1.234
Network Mask:	255.255.255.0
Gateway:	172.20.1.1
DNS Server 1:	172.20.1.1
DNS Server 2:	8.8.8.8
DNS Domain:	c-mor-video.com

C-MOR with new IP Configuration

Note:

Please take your time when changing the IP address!

C-MOR will immediately continue working under the new IP address!

Uncontrolled activation/deactivation can lead to data loss and other failures!

3.1.3 Email Alarm Configuration

In the next field it is possible to enter your email address. All emails generated by C-MOR will be sent to the address defined. After having entered and saved an email address and relay host it is possible to send a test mail to check if the configuration is correct.

Since C-MOR Version 4.11 PL10, it is possible to enter more email addresses. You have just to separate them with a comma.

Besides this function there is the possibility to enter settings for the SMTP authentication. SMTP authentication covers the incoming mail server, user name and password that allow the sending of emails over the mail server of your provider. Many email providers use this technology in order to ensure that the sender of an email is authentic. Another setting which may be required by your provider is SSL encryption. Simply enable this feature by clicking on the checkbox. Make sure the select TCP-Port is set correctly. The standard port for not encrypted emails is 25 (SMTP). The standard port for SSL emails is 465.

Email Alarm open/close

All emails that are generated by the system will be sent to the administrator address. The email addresses for camera alerts are stored in the camera configurations. The settings on the relay host define the server the emails will be sent to.

Email Alarm Address:	cmoruser@customer.com, cmor2user@custom
Relayhost:	mail.customer.com
TCP-IP-Port:	465
SMTP authentication activated:	<input checked="" type="checkbox"/>
SMTP SSL Communication activated:	<input checked="" type="checkbox"/>
Username for SMTP authentication:	cmor
Password for SMTP authentication:
SMTP Sender Address:	cmor@customer.com

3.1.4 Set Time

Here it is possible to adjust time and date. In order to make sure that the recordings of C-MOR have the correct time stamp it is necessary to set the exact time and date.

Set Time

Time: 17:37:47
Date: 12.10.2015

Time: : : (Hours:Minutes:Seconds)
Date: . . (Day.Month.Year)

3.1.5 Configuration of Time Zone

Here the user is able to set the relevant time zone.

Configuration of the Time Zone

Time: 17:43:40 Uhr
Date: 12.10.2015

Select new Time Zone:

▾ ▾

3.1.6 Time Server Configuration

Over this menu item the automated configuration of the time for C-MOR can be carried out. The supported time protocol is Network Time Protocol (NTP).

Time Server

Setup the Timeserver from which the time and date is synchronized at night automatically.

Time Server:

Please note:

When setting this option please make sure that the internet connection to the time server is always active. In case the time server cannot be reached or delivers wrong data, the time on C-MOR will not be correct.

Examples for time servers:

- ntp-1.vt.edu
- ntp-2.vt.edu

3.1.7 Activation and Deactivation of Recordings

Under this menu item recordings for the individual cameras can be activated and deactivated. This is the same function as on the respective camera configuration page.



Start/Stop Recordings

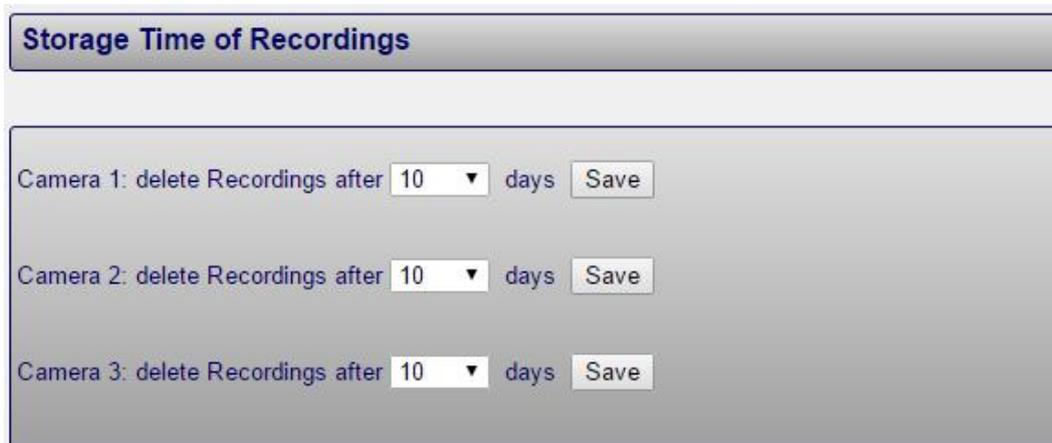
Recording Camera1: activated

Recording Camera2: deactivated

Recording Camera3: deactivated

3.1.8 Storage Time of Recordings

By setting the storage time it is defined after how many days C-MOR recordings will be automatically deleted. Deletions by C-MOR are carried out at night-time. The deletion includes all types of recordings, motion detection recordings, single frames and fast motion recordings. This settings can also be found on respective camera page.



Storage Time of Recordings

Camera 1: delete Recordings after 10 ▼ days

Camera 2: delete Recordings after 10 ▼ days

Camera 3: delete Recordings after 10 ▼ days

3.1.9 Automated Deletion of Oldest Recordings

Irrespective of storage time settings, recordings can be automatically deleted. This enables C-MOR to continue recording instead of stopping when storage space is running low. Please be aware that automated deletion can lead to recordings being deleted too early and important video material getting lost.



3.1.10 Change Camera Configuration

For each individual camera an own configuration page is available where parameters can be set. First you can visit the page “System Administration” where you will find “Camera Configuration”. Or you can click on the button the requested camera and then the link “Cam Configuration”.



Please find more information on camera configuration in chapter 3.2.

3.1.11 User Administration

Under this section it is possible to create and delete different users and create and change passwords. By clicking the respective button you will be forwarded to the user administration page where it is possible to enter the password.



The screenshot shows a web interface titled "User Administration". It features a "Selection User" dropdown menu with "admin" selected. Below it is a "New User:" text input field. To the right, there is a "Delete User" button. At the bottom left, there is a "Change Password/Create User" button.

Please note:

Only administrators are able to delete recordings or change the settings of the C-MOR configuration.

3.1.12 Setup User Settings and Permissions

For every created user you can setup different configurations. As desired by the administrator, users can change the configuration of the **System Administration** or not.

The following parameters can be changed by the user, if a user is selected to configure the own profile:

- The user is able to change the own password
- The user is able to view the Quickstart page
- The user is able to view the Recordings page
- The user is able to view the System Status page
- The user is able to view the link to the camera
- The user is able to setup the stream mode
- The user is able to setup the speed of the Script-Stream Mode
- Video recordings and web interface are optimized for MacOS
- The video recordings tables are displayed with an extra preview button for tablet computers

Access to the single camera views and to the recordings can be restricted to single users. Different user can have access to different cameras and/or camera recordings. The live stream type, Java stream, MJPEG stream or script stream, can be set by the user self if permitted by the administrator.

In the **System Administration** menu under **User Camera Rights Administration and Live Stream Mode Settings** the administrator can setup the camera and stream permissions. Select the user to modify and click User Configuration.

User Camera Rights Administration and Live Stream Mode Settings

admin ▾ **User Configuration**

Manage User Settings

Selected User: admin

admin ▾

User Rights and Settings in the Web Interface

- The user has the permission to change the own password
- The user has the permission to view the Quickstart page
- The user has the permission to view the Recordings page
- The user has the permission to view the Systemstatus page
- The link to the camera will be viewed to the user
- The user has the permission to set up the stream mode and the video playback format self
- Video recordings and web interface are optimized for MacOS
- The video recordings selection tables are displayed optimized for tablet computers

Live Stream Speed in Script-Stream Mode

Delay in seconds in Script-Stream live view ▾ Seconds

The lower part of the **User Configuration** page:

Manage Camera Rights

Permit Camera Access	Permit Recordings Access
Camera 1 <input checked="" type="checkbox"/>	Camera 1 <input checked="" type="checkbox"/>
Camera 2 <input checked="" type="checkbox"/>	Camera 2 <input checked="" type="checkbox"/>
Camera 3 <input checked="" type="checkbox"/>	Camera 3 <input checked="" type="checkbox"/>

Stream Type Configuration

Live View as Script-Stream
 Live View with Java-Player
 Live View as MJPEG-Stream

Further you can set up the live stream Speed, the camera rights and the stream type for the chosen user.

Select the cameras that can be accessed by the user. If a camera is completely locked for the user, the access to the recordings is locked, too.

If the user should have access to the live view of the camera but not to the recordings, disable the mark in **Permit Recording Access** at the relevant camera.

3.1.13 FTP Server Configuration

By the use of the so-called File Transfer Protocol (FTP) recordings can be automatically copied to a FTP server. A FTP server can be a desktop PC with Windows operating system and FTP server software. By the help of FTP long-term storage or tape backup can be carried out.

Besides easy FTP server storage, C-MOR can also delete recordings after the copy process.

FTP Server Configuration

FTP upload activated before deletion?

FTP Server Address:

Directory: (please add closing "/")

Username:

Password:

Use the “Recordings” menu to manually upload recordings to the FTP Server

C-MOR

V4.11 | admin | Disk Usage: 1%

Motion Detection is on | Email Alarm is on | Script-Stream |

Start Menu

Quickstart

Recordings

System Administration

System Status

Logout

Cam 1

Cam 2

Cam 3

Recordings Overview

Recordings Selection for Viewing or Saving

Start Hour: 0 Day: 20 Month: 02 Year: 2015

End Hour: 24 Day: 20 Month: 02 Year: 2015

Cam 1 Cam 2 Cam 3

Recordings by Motion Detection

Permanent Recordings

Save Recordings to FTP Server

Start Hour: 0 Day: 20 Month: 02 Year: 2015

End Hour: 24 Day: 20 Month: 02 Year: 2015

Cam 1 Cam 2 Cam 3

Recordings by Motion Detection

Permanent Recordings

(Saving may take some minutes. Please do not cancel this process!)

It is only possible to upload recordings that have been recorded more than one hour ago and are no longer involved in a current recording.

Recordings Menu

Selection of Recordings

Selection of recordings for specific time periods, cams and recording types.

Admin Mode: FTP-Server

Selection of recordings that have to be manually uploaded to the already configured FTP server. The FTP server data are configured in the System Administration.

Admin Mode: Deletion of Recordings

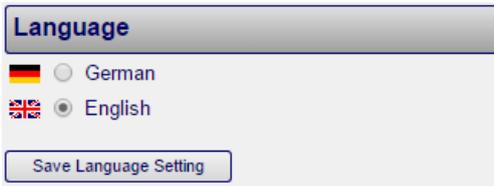
Selection of recordings for manual deletion previous to the automatic deletion by the system.

Admin Mode: Deletion of Single Recordings

Recordings of the individual cams will be displayed and can be specified for the deletion of individual sections.

3.1.14 Language

The C-MOR application is available in German and English. By using this menu item the standard language can be set, which will then be used automatically as soon as you log into C-MOR. Alternatively it is possible to choose the language by clicking on the country flags on the top right edge in the menu.



Language

German

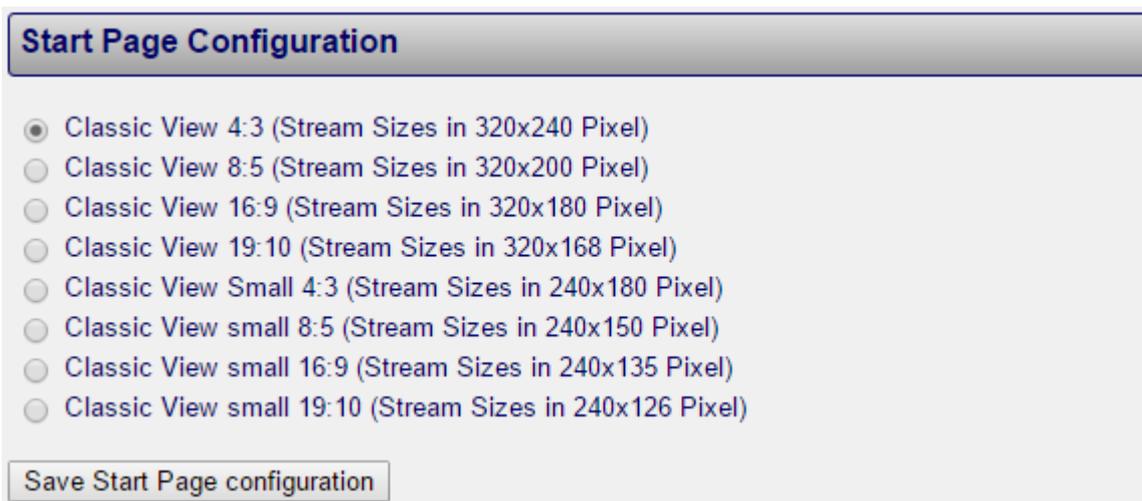
English

Save Language Setting

If you want to temporarily change the language you can go to the upper right side of the Start Page. Here you will find the flags of the supported languages. Choose one of the flags to choose the language you prefer.



3.1.15 Start Page Configuration



Start Page Configuration

- Classic View 4:3 (Stream Sizes in 320x240 Pixel)
- Classic View 8:5 (Stream Sizes in 320x200 Pixel)
- Classic View 16:9 (Stream Sizes in 320x180 Pixel)
- Classic View 19:10 (Stream Sizes in 320x168 Pixel)
- Classic View Small 4:3 (Stream Sizes in 240x180 Pixel)
- Classic View small 8:5 (Stream Sizes in 240x150 Pixel)
- Classic View small 16:9 (Stream Sizes in 240x135 Pixel)
- Classic View small 19:10 (Stream Sizes in 240x126 Pixel)

Save Start Page configuration

Here you have the option between different stream sizes to choose.

3.1.16 Remote Access

With the C-MOR remote access it is possible to access C-MOR without dynamic DNS. This function is required if dynamic DNS can't be used or if it's not possible to configure port forwarding on the Internet router where the C-MOR is connected. There may be many reasons that the remote access from C-MOR is required and this is just another, easy option to access C-MOR over Internet.

The remote access is implemented through a server in C-MORs (za-internets) data center. The access requires a monthly fee. Please find more info in the C-MOR web, www.c-mor.com.

The configuration for the remote access can be found in the "System Administration" configuration page of C-MOR video surveillance.

Remote Access Configuration
open/close

This configuration menu performs the remote access configuration.

Internet Remote Access is not active.

Activate Remote Access

HTTPS Transfer

Server

Port 0 (automatically assigned)

Username

Password

Save Configuration

To get remote access via the Internet to your C-MOR, you must first register a paid subscription. This registration is available at www.c-mor.com.

If the remote access is set up you can reach your C-MOR via an address like <https://remote.c-mor.com:64444>. The so-called port number (example 64444) is always reserved and awarded for you individually!

The following data are required to set up remote access:

Server:	The server name which connects to your C-MOR
Username:	The username for the remote access, cmorremote<XXXXX>
Password:	The password for the remote access

The data above, as well as the TCP-IP port are assigned by C-MOR and can't be changed. The TCP-IP port will be assigned automatically and read over Internet. Customers receive the data above by email. The remote access address is a combination of the server name and the port. If the server name e.g. is "remote.c-mor.com" and the port "10001", the web address is <http://remote.c-mor.com:10001>.

Additional it is possible to select whether the remote access is done via SSL (HTTPS) encryption. If SSL is enabled, the web address is <https://remote.c-mor.com:10001> instead <http://remote.c-mor.com:10001>.

Enter the data for the remote access and click “Save Configuration”. Alternatively SSL (HTTPS) encryption can be selected:

Remote Access Configuration open/close

This configuration menu performs the remote access configuration.

Internet Remote Access is not active.

Activate Remote Access

HTTPS Transfer

Server

Port

Username

Password

Save Configuration

To get remote access via the Internet to your C-MOR, you must first register a paid subscription. This registration is available at www.c-mor.com.

If the remote access is set up you can reach your C-MOR via an address like <https://remote.c-mor.com:64444>. The so-called port number (example 64444) is always reserved and awarded for you individually!

The saved configuration is displayed after clicking “Save Configuration”:

IP Video Surveillance

Motion Detection is on Email Alarm is on Script-Stream 🇩🇪

V4.11 | admin | Disk Usage: 3%

Start MenuQuickstartRecordingsSystem AdministrationSystem StatusLogout

Cam 1Cam 2Cam 3

Remote Access Configuration

Following configuration for Remote Access has been saved:

Server remote.c-mor.com

Port 0 (Port not automatically read)

Username cmorremote10001

Password *****

HTTPS Transfer Not active

Internet Remote Access is not active.

Activate Remote Access Configure Remote Access

Start Page

Please notice that the remote access is not enabled yet. Please click on “Activate Remote Access” to enable it:



If the data was entered correctly, the remote access is now active and the function can be tested by calling the address <http://remote.c-mor.com:10001>. The password prompt from your C-MOR will appear.

Notice!

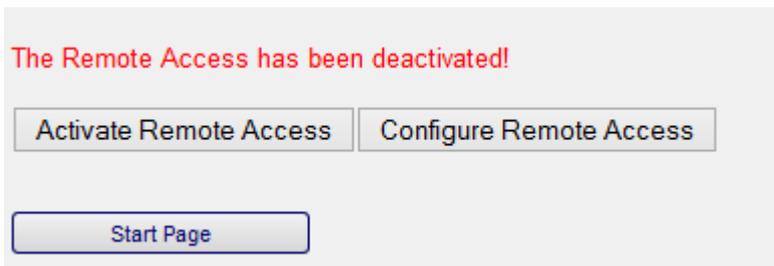
If you can't log in as expected, it might be possible the wrong port is specified in web address. In this case you try to log into the wrong C-MOR and the password will not work. If no port number is displayed in the configuration the server, username or password has an error. Please verify the data in this case.

Please notice also, that the remote access data can be used on one C-MOR only and does not work on more than one device at the same time.

Please call the remote access configuration again to verify the data:



Click on “Deactivate Remote Access” if you want to disable the remote access:



3.1.16.1 Remote Access Limitations

C-MOR remote access only enables users to access the C-MOR self. The direct access to connected IP cameras is not possible since the remote access is limited to one TCP-IP port. Each direct camera access (the camera web interface) requires an extra TCP-IP port. C-MOR offers extended remote access configurations to access also the cameras. Please contact C-MOR directly if this is required.

3.1.17 Stacking function - interconnecting several C-MOR units

By "stacking" in the technical area, the interconnection of individual, standalone units is understood to be a common, central management unit. The C-MOR Stacking is an interconnection of the configuration level. A separate, physical separate network connection is necessary only for large stacking configurations.

The stacking function of C-MOR allows the interconnection of up to 6 C-MOR units over one single management interface. This stacking works with virtually installed C-MOR video surveillance systems, too.

3.1.17.1 Stacking configuration of the C-MOR Master

First install the stacking master software update prior configuring C-MOR stacking. The master functionality is available as a separate update. After the successful installation the C-MOR Stacking configuration shows up in the "System Administration" menu:

Stacking Master Configuration

This configuration menu performs the stacking master configuration.

Stacking Master Configuration

Additional C-MOR units are entered and activated in this configuration menu. Up to 5 other devices are configurable. In the fields for the IP addresses or DNS names, enter the additional C-MOR devices and set the hook for "Active". Optionally set if the individual units are opened in new tabs or windows in a web browser.

Important:

The C-MOR units must be available over network or Internet.

After clicking "Save configuration" all active units are availability on top of the existing menu bar.

Stacking Configuration

Stacking combines multiple C-MOR to one unit. Multiple C-MORs are managed over one web interface.

Stacking enabled

Open links to stack units in new tabs or windows (refer to browser configuration)

Stack Unit	IP address/DNS name	Active
Unit 2	<input type="text" value="172.20.1.88"/>	<input checked="" type="checkbox"/>
Unit 3	<input type="text" value="172.20.1.77"/>	<input checked="" type="checkbox"/>
Unit 4	<input type="text" value="172.20.1.77"/>	<input checked="" type="checkbox"/>
Unit 5	<input type="text" value="192.168.6.56"/>	<input checked="" type="checkbox"/>
Unit 6	<input type="text" value="17.20.1.211"/>	<input checked="" type="checkbox"/>

If individual units should be removed from the stacking, so only mark the unit not "Active" and the respective unit is removed after saving the new configuration.

3.1.17.2 Stacking configuration of the C-MOR Slaves

Condition for the stacking feature is that on all the slaves the master C-MOR with login and password are the same. This must be applied to the respective slave unit. The settings are made in the "System Administration". The slave configuration is available in any C-MOR without additional module installation.

Stacking Slave Configuration

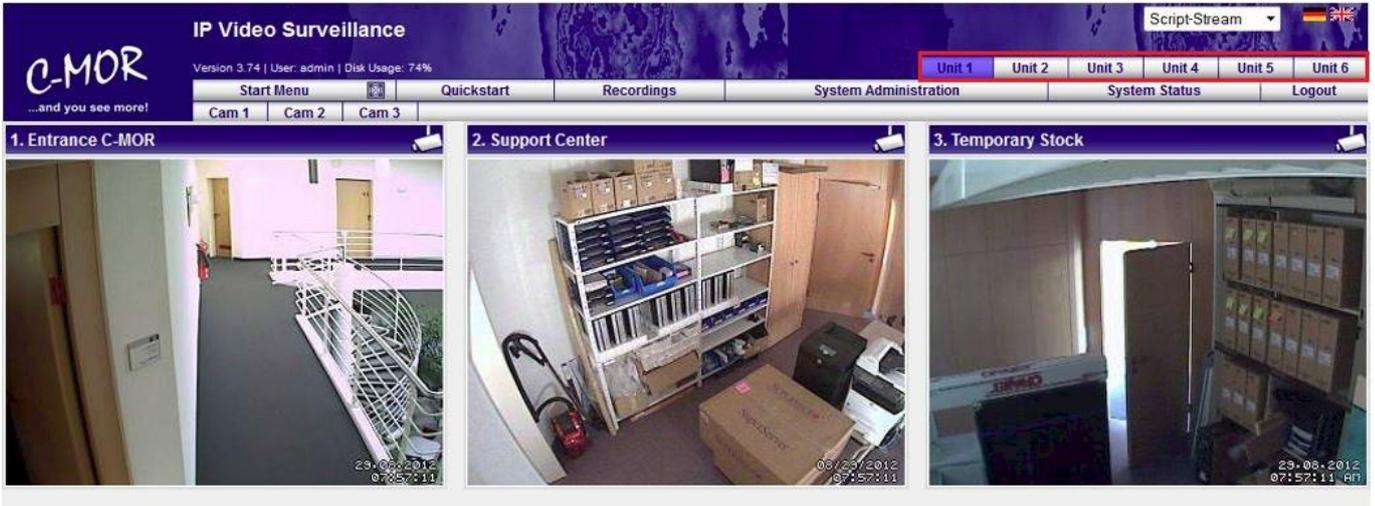
This C-MOR belongs to a stack combination. Set the master C-MOR in the following address field.

Master C-MOR:

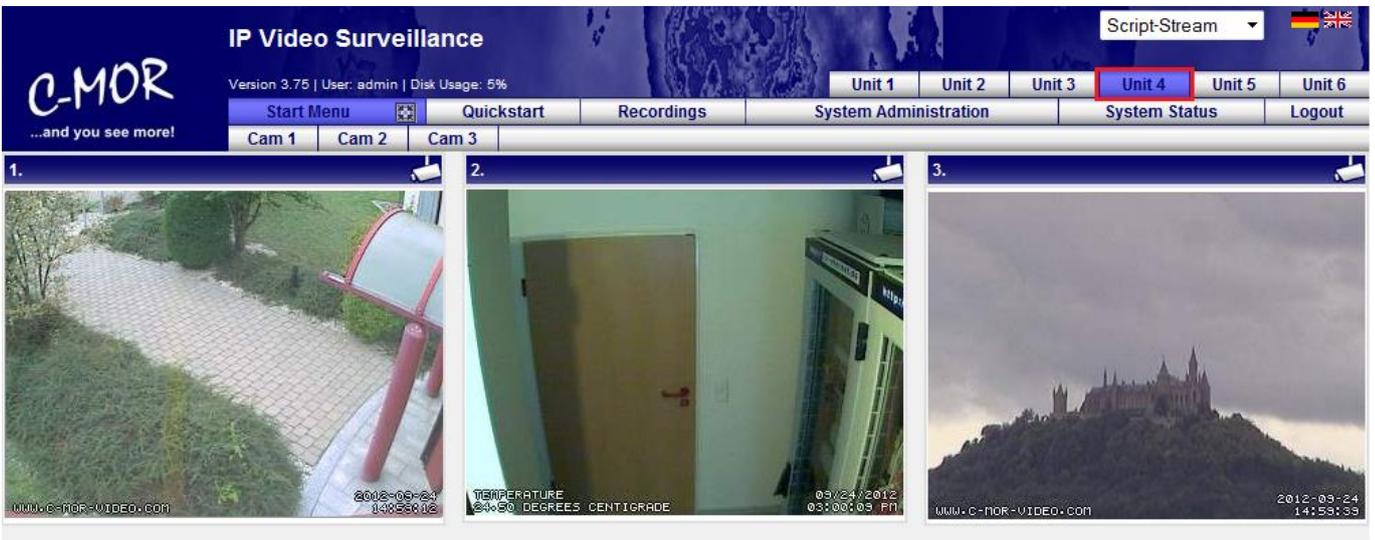
3.1.17.3 Stacking Live View function

After the stacking feature is configured and enabled in the user interface, the additional buttons appear at the top. With these buttons, "Unit 1-6", the connected C-MOR is reached. The currently active unit is color coded and the live view is displayed in the active window. Up to 90 cameras are easily accessible with this function over this central administration.

View of the central administration with the buttons to the other units:



View of the "Unit 4" after switching from the "Master Unit":



All units can be accessed via an IP address or domain name. The credentials must be entered only once. This allows users to manage individual C-MORs comfortable and convenient.

The stacking master function is not part of the standard delivery of C-MOR. Separate software modules need to be installed for all master devices separately and must be licensed and appointed.

Please note the following limitations of the stacking capability:

User must be created on each C-MOR unit with the same name and password. The user IDs are not synchronized between master and slave. After a single configuration no other changes for the operation must be observed. Users, for example, will have access only for "Unit 1", but not for "Unit 2".

3.1.18 System Restart

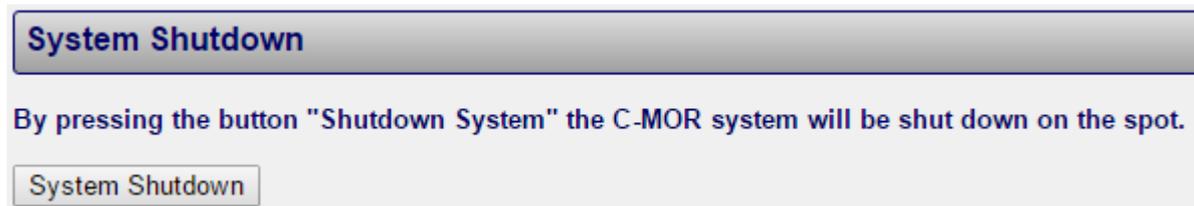
In case of unexpected problems, using this menu item you can restart C-MOR.



The screenshot shows a software interface for the 'System Restart' function. At the top, there is a header bar with the text 'System Restart'. Below this, a blue text message reads: 'By pressing the button "Restart system" the C-MOR system will be restarted on the spot. The Restart process will take approximately 3 minutes!'. At the bottom of the interface, there is a button labeled 'System Restart'.

3.1.19 System Shutdown

In case you have to switch off C-MOR due to administrative work, please proceed under **System Shutdown**.



The screenshot shows a software interface for the 'System Shutdown' function. At the top, there is a header bar with the text 'System Shutdown'. Below this, a blue text message reads: 'By pressing the button "Shutdown System" the C-MOR system will be shut down on the spot.'. At the bottom of the interface, there is a button labeled 'System Shutdown'.

3.1.20 Software- and Camera Updates

The software of C-MOR is constantly being expanded and improved. Known issues have been fixed and the update will be provided to customers via the internet.

About updating functions can C -MOR simply be brought up to date via internet. Here are two functions: Software Update and the Camera Update.

Software Update

With this function you can update your C-MOR. Please select between updating the C-MOR Software and the camera database.

3.1.20.1 Software Updates

This menu offers you the opportunity to update your software version up to date. First you have to deactivate all of your cameras. Therefore you will find two possibilities. First you can go to the menu "System Administration". There is a function called:

Start/Stop Recordings

Recording Camera1: activated

Recording Camera2: deactivated

Recording Camera3: deactivated

Recording Camera4: deactivated

Recording Camera5: deactivated

Recording Camera6: deactivated

Or you go directly to “Software Updates” There is also a button which deactivates all of your activated cameras just with one click.

C-MOR Updater

Please de-activate all cameras prior starting the update procedure!
Some updates only can be installed when all cameras are stopped.

All cameras are activated. Please deactivate all cameras to proceed with the update!

Please fill out this form to list the available updates.

Username:

Password:

Server name:

Directory:

Updates are installed without a proxy!

If you have deactivated all cameras, you can download the newest updates of C-MOR.

Important!

C-MOR needs free access to the internet to download and install the updates. For this, C-MOR supports the use of a web proxy or HTTP. Before you update your software you have to check in the “System Administration” the proxy settings are correct. Please make sure which update you import. Depending on the update a specific update sequence must be observed. When the installation has failed, this can lead to failure of C-MOR.

If you have started the software updates, so the update data will be requested from the web interface of C-MOR. Now you have to insert your username and your password from your datasheet (C-MOR Subscription) the name of the server and the directory are given from the system. More information about the updates and functions you can receive from the Support Forum where you have to be registered: <http://www.c-mor.com/video-surveillance/forum/>

Please fill out this form to list the available updates.

Username:

Password:

Server name:

Directory:

Updates are installed without a proxy!

After you click on the button “List available updates”, then a list of updates will appear. If there are no updates available, you will be redirected to the following page:

Available C-MOR updates, c-mor-v4, Version 4.1203:

ID	Version	Description
----	---------	-------------

No updates for this C-MOR version were found.

Update aborted!

But if there are updates available you will be redirected on the following page:

Available C-MOR updates, c-mor-v4, Version 4.1203:

ID	Version	Description
1	4.1204	Update to Version 4.12PL04
2	4.1204	Update to Version 4.12PL04
3	4.1204	Update to Version 4.12PL04

Updates found: 3

The download and installation of the updates may take some minutes time. Do not interrupt the installation process once it was started!

Software Update Disclaimer

1- Limitation of Liability. NOTWITHSTANDING ANYTHING ELSE IN THIS AGREEMENT OR OTHERWISE, C-MOR WILL IN NO EVENT BE LIABLE WITH RESPECT TO ANY SUBJECT MATTER UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL, CONTRACTUAL OR EQUITABLE THEORY FOR: (I) ANY INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES, HOWEVER CAUSED AND WHETHER OR NOT ADVISED IN ADVANCE OF THE POSSIBILITY OF SUCH DAMAGES; OR (II) DAMAGES FOR LOST PROFITS OR LOST DATA; OR (III) COST OF PROCUREMENT OF SUBSTITUTE GOODS, TECHNOLOGY OR SERVICES. NOTWITHSTANDING ANYTHING IN THIS AGREEMENT TO THE CONTRARY OR THE FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITATION OF LIABILITY OR LIMITED REMEDY, C-MOR'S ENTIRE AGGREGATE LIABILITY ARISING FROM OR RELATING TO THIS AGREEMENT OR THE SUBJECT MATTER HEREOF, UNDER ANY LEGAL THEORY, WHETHER IN CONTRACT, TORT, INDEMNITY OR OTHERWISE, SHALL BE LIMITED TO THE AMOUNTS RECEIVED BY C-MOR UNDER THIS AGREEMENT WITH RESPECT TO THE PARTICULAR TRANSACTION GIVING RISE TO THE CLAIM REDUCED BY 1/24 OF THE PRICE PAID BY RESELLER FOR EACH MONTH SUCH APPLICABLE END USER HAS HAD THE PRODUCT.

2- C-MOR does not warrant that the use or operation of this product will be error free, nor does it warrant that any data stored on the product will remain accessible or uncorrupted. To protect against accidental data loss, back up your data frequently to multiple types of storage media.

Software updates are improvements and extensions, but not fundamentally new software. By installing the update, the warranty of this system is not renewed or extended. Please note that software updates can affect the system performance.

Accept Terms and Conditions for software update and Disclaimer

To install the updates first you have to accept the disclaimer, just put a check mark in the box provided.

After that you can click on the button “Download and install updates now” to start the updates. All affected files are downloaded and installed now. This process may take several minutes to complete. If the update was successful, it is indicated in the following website:

Number of installed updates: 1

The updates have been installed. C-MOR has to be rebooted after each update! Activate the cameras after the restart again.

Depending on the type of update C -MOR must be restarted. Whether this is necessary is specified with the update instructions in the C-MOR web, or forum.

Once the update is complete, with or without restart, you have to activate your cameras in the “System Administration” again. Thus, the update process is finished.

System Name
Network Configuration
Proxy Server Configuration
Email Alarm
Set Time
Configuration of the Time Zone
Time Server
Start/Stop Recordings
All cameras are deactivated by the administrator!
<input type="button" value="Activate all Cameras"/>

Note:

This functions just activates that cameras, which were already active before the update.

3.1.20.2 Camera Update

Software Update

With this function you can update your C-MOR. Please select between updating the C-MOR Software and the camera database.

C-MOR continuously recorded new cameras. If your camera model may not be listed in C-MOR, maybe a camera-update will help you. With a camera update the latest camera database is loaded via the internet.

Available C-MOR Camera updates, c-mor-v4, Version 94:

ID	Description
1	Update camera types 2015-06-23 added various IP Cameras
3	Update camera version file

Updates found: 2

The download and installation of the updates may take some seconds time.
Do not interrupt the installation process once it was started!

Just click on the button “Download and install updates now” after that the camera database will be updated. In contrast to the software update, you don’t have to deactivate the cameras first.

C-MOR Updates installation

Do not stop the installation and wait until it shows the installation has finished.

1. 94 Update camera types 2015-06-03 added more Tervis IP Cameras
3. 94 Update camera version file

Number of installed updates: 2

The camera updates have been installed!

3.1.21 License Upgrade

License Upgrade

With this function you can activate up to 15 cameras on this C-MOR!

License Upgrade

You can upgrade each C-MOR up to 15 cameras, but you must remember that the processor performance will be affected. The built-in processors are designed in each case for the different C-MOR models.

In order to perform a license upgrade, you will get from us the following information: user name, password, and a license key.

As like the software update, C-MOR needs at this point unrestricted access to the Internet.

License Upgrade

6 cams licensed

Please be careful using this program. It rewrites the license files without any warnings! Make sure C-MOR has free access to the Internet! Activate the C-MOR proxy if necessary.

Username:

Password:

License Key:

License Upgrade

3.1.22 Backups

C-MOR offers different options to manage camera settings. These options are

- Download and save camera settings on a local computer (PC/Mac)
- Restore camera settings from a local computer
- Transfer camera settings between cameras
- Delete restored (uploaded) camera settings

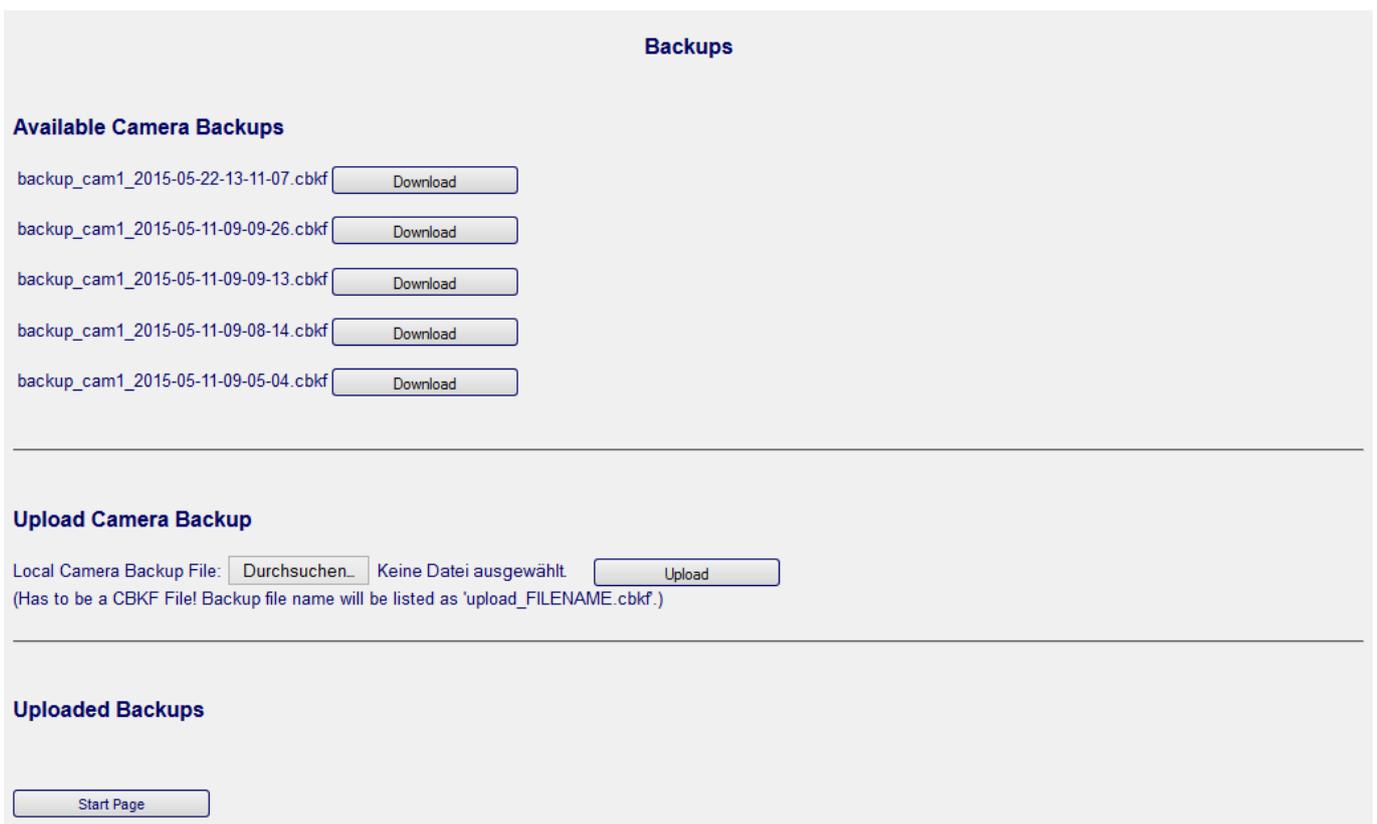
C-MOR generates automatically up to 5 backup sets per camera. These backups are always generated on saving the camera settings. The oldest set is automatically deleted when the 6th backup set is generated. C-MOR will hold always a maximum of 5 backup sets for each camera.

3.1.22.1 Backup Management

The menu for the backup management can be found on the page “System Administration”:



A click on the button “Backups” opens the Backup Management page:

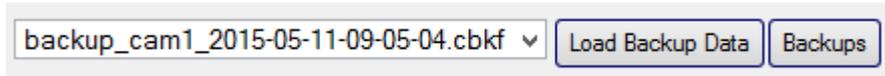


The Backup Management page exists of 2 parts. The first part lists the automatically generated backups of each camera. Each backup can be downloaded by clicking the “Download” button. The second part includes the function to upload backups manually. Such backups maybe were transferred from another C-MOR.

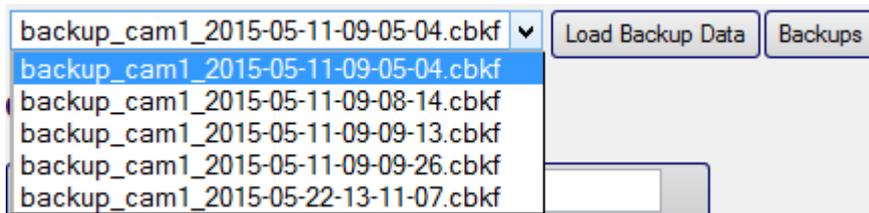
3.1.22.2 Restore Camera Backups

Existing camera backups on C-MOR can be restored into any camera settings. If a camera backup from another system needs to be restored it must be uploaded first. Please verify on the page “backup.pml” if the desired backup exists. Upload if it does not exist. Use the function “Upload Camera Backup” to load a local backup on C-MOR:

The function to restore a backup into a camera is located in the camera settings menu in the top area directly beneath the PTZ settings:



The restore function selects automatically the first available backup. Be aware and do not click “Load Backup Data” if the selected backup is not the one you want to restore. Simply leave the page without saving if you have loaded the backup in error. Click into the backup drop down menu to get a full list of all available backups with name of the camera and the date and the time:



Click on “Load Backup Data” to restore the data from the backup you want to restore. You have now the option to optimize the settings. Click on the button “Save Configuration” to store the restored data permanently.

If the desired Backup-Data is not in this list, you can click on the button “Backups” to upload your desired backup.

Notice:

Please notice that the camera backup does not include PTZ settings!

3.1.23 Stream-Type

For each user the display method of the Livestream can be selected. This Setting is significant for the usage over Internet or the local network, or which browser you use. In addition it is not always possible to use Java.

To use the desired Stream-Type, the Administrator can setup the Settings in the **System Administration** or the user self, if the user selects the **System Administration** page. The administrator can change this setting for each user as described in this manual.

Stream Type Configuration

- Live View as Script-Stream
- Live View with Java-Player
- Live View as MJPEG-Stream

Save Live View Mode

If the process was successful the following Information should appear:

Live view mode for user admin set to Script-Stream.

Start Page

With the Button "Start Page" you will be redirected to the Live View on the Start Page.

To swap short-term to another Stream-Type you can use the dropdown Menu on Start Page to choose the desired Mode.



3.1.23.1 Java Mode in Live View

If you have JAVA-Mode enabled you can choose a list of different symbols to call more Features. To view this list, simply move the mouse, e.g. on the Start Page, over the Live image from the camera. Now you have the following choices:



Restore the default Live View



Zoom out the current Live Image



Zoom in the current Live Image



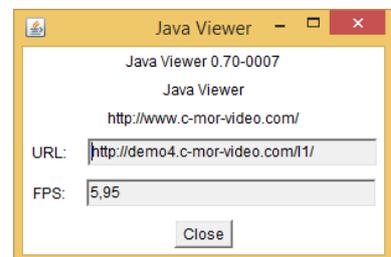
Direction control for zoomed Live Image



Displays information about the current Live Image



Weblink to the C-MOR Video Homepage



3.2 Camera Configuration

3.2.1 General Description of Configuration Options

In order to configure a camera the following settings can be carried out:

- **Define description of the camera's location**
- **Activate / deactivate recordings**
- **Define storage time of recordings**
- **Define camera network data**
- **Configuration of camera type (Axis, Mobotix, Panasonic, Sony, etc.)**
- **Threshold for motion detection**

This function increases or decreases the sensitivity threshold to activate motion detection.

- **Fast Motion Permanent Recording**

Besides motion detection it is possible to create a permanent recording. This mode generates a movie with images that are recorded in the given interval.

This interval shows when a picture is taken. If you want a real-time recording, set for example the interval to "1 second". This means that every second a new image is recorded.

Fast Motion Permanent Recording	<div data-bbox="316 1086 486 1695"> <input type="text" value="1 Second"/> <ul style="list-style-type: none"> 1 Second 1 Second Off 1 Second 2 Seconds 3 Seconds 4 Seconds 5 Seconds 6 Seconds 7 Seconds 8 Seconds 9 Seconds 10 Seconds 15 Seconds 20 Seconds 30 Seconds 45 Seconds 60 Seconds 2 Minutes 3 Minutes 4 Minutes </div>	<p>Besides motion detection it is possible to create a permanent recording. This mode generates a movie with images that are recorded in the given interval.</p>
---------------------------------------	---	--

- **Recording length of time-lapse recordings**

This parameter defines the length in time after a new recording will be started for time-lapse recordings. If set to Hourly each hour a new recording will be generated.

- **Enable JPEG images in motion detection mode**

In motion detection mode the recording is in MPEG format. This feature enables JPEG images to be generated as well. These images can be easily saved as a ZIP archive.

- **Enable JPEG images in scheduled recording mode**

In scheduled recording mode the recording is in MPEG format. This feature enables JPEG images to be generated as well. These images can be easily saved as ZIP archive.

- **Scheduled recording mode - JPEG image intervals**

When the feature generating JPEG images is enabled, this function sets the time interval between when each JPEG image is generated.

- **Number of images Pre-Recording**

In motion or event detection mode, sets the number of frames recorded pre-event.

- **Number of images after Recordings**

In motion or event detection mode, sets the number of frames recorded post-event.

- **Frames per second (fps) in motion detection mode**

This defines the number of images per second during the recording with motion detection. Please select this parameter carefully. The interval can be set between 1 frame every 3 seconds up to 25 frames per second. You must be careful how high the maximum number of frames per second can be supplied by the camera. If the camera can supply up to 5 frames per second, then C-MOR isn't able to record in a higher interval.

Please keep in mind that a too high number of frames with a very high resolution can overload the system.

- **Rotation of Image**

The cam can be installed at an angle of 0, 90, 180 or 270 degrees and this function allows the orientation of the viewed image to be rotated for normal viewing. A 180 degrees recording makes e.g. sense in case the cam is installed on the ceiling down sided.

- **Maximum Time of recording for Motion Detection**

Sets a limit to how long recording takes place in Motion or Event Detection mode irrespective of whether the event that triggered the recording still exists or not.

- **Recording Mode**

The recording mode switches between motion detection and permanent recording (not time-lapse). When the permanent recording mode is activated, motion is no longer detected and not individually recorded (no more alarming is possible!). The duration of the recordings have the length which is set for motion detection.

- **Display Frame around changed Pixels**

This parameter defines whether a frame will be displayed around changed pixels. This is very helpful in case the threshold for the motion detection for the cam image is defined.



Motion detection with frame

- **Display the Number of changing Pixels**

This feature shows the number of changing pixels in the top right corner of the video. This parameter is very useful when optimizing motion detection parameters.



Motion detection with number of changed pixels

- **Display Text with time and date in cam image**

Feature for the activation and deactivation of the display of time and date in the cam image.

- **Automatic email alarm during Motion Detection**

Feature for the activation and deactivation of the email alarm in case motion has been detected by the cam. A plain text email will be sent (excluding image or movie attachment).

- **Email address for alarm email**

This is the email address alarm mails are sent to.

Please note: in case of a lot of motion and many recordings that are effected during motion detection your mailbox might reach its storage limit very fast and cannot receive emails anymore!

- **Attach Motion Detection recordings to alarm email**

This feature enables video images to be attached to the event email alert.

- **Mobile device compatible Email attachments**

Enable this feature if email attachments are sent to a mobile device.

- **Direct Cam Link**

Network Cams might be linked directly over C-MOR. This setting is needed when network cameras are not located at the same location and are only accessible behind a router through the internet.

- **Text on left side in cam picture**

This optional text will show up in the left lower corner of the camera picture. If this field is empty no text will be shown.

- **Show picture text in double size**

The text in the camera picture can be shown in double size. This is useful for big pictures or special usage of the pictures.

- **Web camera picture quality**

This value defines the video quality in percent for the data transfer of the camera picture to C-MOR. The default value is 50%. Changing this parameter may cause a high system load which can cause system failures.

- **JPEG image quality**

This setting defines the quality of the JPEG images stored on C-MOR. The default value is 100% - highest quality.

- **Time between two events**

Time in seconds without motion after a new motion movie is recorded.

- **Automatic camera image quality (bitrate)**

This feature automatically adjusts the quality of the image transferred from the video camera to C-MOR. A value of 2 represents the highest image quality and requires the most storage capacity. Higher values reduce data storage capacity requirements by decreasing the image quality.

- **Manual bitrate for recordings**

This feature manually sets the quality of the image transferred from the video camera to C-MOR manually. A value of 9999999 represents the highest image quality and requires the most storage capacity and bandwidth. Lower values reduce data storage capacity requirements by decreasing the image quality. This value should not set lower than 200000. This value is only active if the automatic value above is switched off (value 0).

- **Minimum number of pictures with changes for Motion Detection**

The number of pictures with changes to detect motion. The value 1 is capable in the most cases. This means only one picture is compared to detect motion.

- **Sudden light intensity**

This feature defines the percentage of the total video image area that has to experience a sudden light intensity change before triggering a recording event.

- **Number of ignored Lightswitch Frames**

The number of frames in sudden light indicates how many camera frames should be ignored in serial not triggering motion detection. This value is ignored if sudden light intensity is set to 0%.

- **Noise**

Noise in the camera picture can lead to erroneous motion detection. With this parameter failures in motion detection are reduced.

- **Deinterlacing**

Enable this setting if using video cameras with deinterlacing.

- **Number of Frames per Second in Live view**

This setting configures the fps rate in live view mode. The higher the fps rate the higher the internet bandwidth requirement. This setting does not affect the fps rate in motion/event or permanent recording mode.

- **Time-controlled recordings**

Setting of hour and day per week when recordings have to be carried out. This applies e.g. when recordings should only be carried out during nighttime at a store.

Time controlled recordings

The selected hours 0-23 display, when the recording on the individual weekdays takes place according to the selection:

Time (Hour)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Holidays	<input checked="" type="checkbox"/>																							
Monday	<input checked="" type="checkbox"/>																							
Tuesday	<input checked="" type="checkbox"/>																							
Wednesday	<input checked="" type="checkbox"/>																							
Thursday	<input checked="" type="checkbox"/>																							
Friday	<input checked="" type="checkbox"/>																							
Saturday	<input checked="" type="checkbox"/>																							
Sunday	<input checked="" type="checkbox"/>																							

Save Time Recording Unselect all Select all

Time Table Email Alarm Camera 1 Load Time Table

- **Time-controlled motion detection**

Definition of hour and day per week motion detection should be carried out.

- **Time-controlled alarm emails**

Define weekdays and hours in which alarm emails are sent.

- **Transfer of timescale**

Every timescale, even if time-controlled motion detection or time-controlled alarm emails is able to transfer to another timescale. Therefore you have to choose a timescale and commit your selection with “Load Time Table”:

Time Table Motion Detection Camera1

If you want for example your camera 3 with the same settings like your camera 1, so you have first go to the configure site for your cam 3.

Recording by motion detecting and time

The selected hours 0-23 display, when the recording by motion detection on the individual weekdays takes place according to the selection:

Time (Hour)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Holidays	<input checked="" type="checkbox"/>																							
Monday	<input checked="" type="checkbox"/>																							
Tuesday	<input checked="" type="checkbox"/>																							
Wednesday	<input checked="" type="checkbox"/>																							
Thursday	<input checked="" type="checkbox"/>																							
Friday	<input checked="" type="checkbox"/>																							
Saturday	<input checked="" type="checkbox"/>																							
Sunday	<input checked="" type="checkbox"/>																							

Time Table Email Alarm Camera 1
 Time Table Email Alarm Camera 1
 Time Table Email Alarm Camera 2
 Time Table Email Alarm Camera 3
 Time Table Motion Detection Camera1
 Time Table Motion Detection Camera2
 Time Table Motion Detection Camera3
 Time Table Recording Camera 1
 Time Table Recording Camera 2
 Time Table Recording Camera 3

With help of the drop-down menu you can choose the timescale you want. For example choose the “Time Table Motion Detection Camera 1”:

Time Table Motion Detection Camera1

Now you have to confirm your selection by clicking in “Load Time Table”, you can see that the settings are transferred:

Recording by motion detecting and time

The selected hours 0-23 display, when the recording by motion detection on the individual weekdays takes place according to the selection:

Time (Hour)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Holidays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Monday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Tuesday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Wednesday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Thursday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Friday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Saturday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		
Sunday	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>																		

Time Table Email Alarm Camera 1

Now you have to click on the button “Save Motion Detected Time Recording” to save it:

Time table for recordings by motion detection of cam 1.

Recordings are running only at the selected times.

Time (Hour)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Holidays																								
Monday																								
Tuesday																								
Wednesday																								
Thursday																								
Friday																								
Saturday																								
Sunday																								

- **Note to the time tables**

Since version 4.01 of C-MOR, you have additional switching functions for “Motion Detection” and “Email Alarm”. On the C-MOR interface you see them top right if the user is logged in as administrator:



With these buttons the administrator is able to deactivate “Motion Detection” and “Email Alarm”. So the Time Tables for motion detection or email alarm can also be switched off. These buttons you also have on the iPhone or mobile interface of C-MOR.

- **Holidays Configuration**

C-MOR offers the option to define holidays. Holidays are days which need a special time table configuration. All time tables have a row holidays. These holidays are configured here. C-MOR will not use the weekday configuration if the current day is a defined holiday.



- **Configuration of camera event for network alarms**

Recordings by C-MOR can be triggered by the use of external switches (special accessories) that report events over your network. Here it is necessary to use an IP switch, which is sending messages to C-MOR via the so-called syslog service. This will then start a recording for the selected camera.

- **Image mask for the definition of the area of motion detection**

In case motion should not be detected within the complete camera image the area where motion should be detected (white area) can be defined by a black & white mask. The defined black area will not trigger motion detection. The size of the image mask has to be identical to the size of the camera image.

- **Link to the camera direct access**

The button “Cam Administration” leads you to the web interface of the selected camera.

General information about motion detection:

Motion detection carried out by C-MOR is based on differences in the respective camera image and not due to conventional motion detectors (exception: special accessory external switch). Motion detection can also be effected by changes in light.

3.2.2 Camera Activation

Under “Start/Stop of Recordings” it is possible to control the activities of the individual cameras and start or stop recordings. In case the recording of a camera is deactivated there will not be any saved video recordings of this camera. Depending on the camera configuration in case of an activated camera, permanent recordings and/or motion detection is saved in individual files.



You can activate or deactivate the camera directly in the respective camera configuration:

Camera Configuration Camera 1

Cam Location: Change Location

Recording cam 1: activated Stop Recording

Camera PTZ Configuration

backup_cam1_2015-05-11-09-08-14.cbkf Load Backup Data Backups

Delete the Recordings after 10 days Save

Camera Network Data

IP Address/DNS Name	<input type="text" value="172.20.1.137"/>
TCP-IP-Port	<input type="text" value="80"/>
User Name	<input type="text" value="viewer"/>
Password	<input type="password" value="••••••"/>

3.2.3 Camera Configuration, Integration of Existing Camera

Under **Adjust Camera Configuration** you can define further settings for the individual cameras.

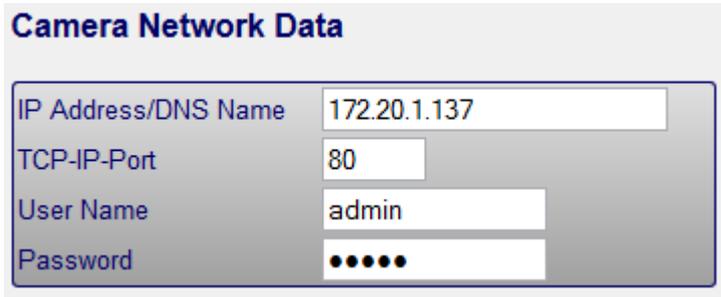
Camera Type Configuration

Please select the cam type that matches the connected cam:

Cam Type	<ul style="list-style-type: none"> INSTAR IN-2905 INSTAR IN-3010 INSTAR IN-4010 INSTAR IN-5907 HD JPEG INSTAR IN-5907 HD MJPEG JVC VN-V686 JVC VN Series LevelOne FCS-0010 MJPEG LevelOne FCS-0020 MJPEG <li style="background-color: #007bff; color: white;">LevelOne FCS-0030 MJPEG on Stream 2
Manual path	<input type="text" value="/channel2"/>

Save Configuration

Under **Network Data** the following data is displayed: the current IP address of the camera, the TCP port, the user name and the password C-MOR is accessing the camera with.



The screenshot shows a web interface titled "Camera Network Data". It contains four input fields:

IP Address/DNS Name	172.20.1.137
TCP-IP-Port	80
User Name	admin
Password	•••••

When you change any data in this section you also have to change it on the individual camera with its own configuration program or over the web interface of the camera. Otherwise C-MOR is no longer able to access the camera and thus no longer able to record.

In case you already have a camera that is supported by C-MOR, you can integrate it by entering the IP address, the port, the user name and the password of your camera. The same settings have to be done for the camera itself.

Under "Configuration Camera Type" you can select the camera type that is most suitable for your camera. C-MOR currently supports all cameras with the standard JPG and MJPEG. A complete list of supported IP-Cameras including many more models can be viewed under <http://www.c-mor.com>. In case you cannot find your model in the list you can request the support of your model either by email or telephone, we will then give you all the details you need.

In case your camera is not listed but supported it can easily be connected under the item "Manual Path" in C-MOR. Just enter the directory of the URL of the camera's live image or the camera's MJPEG live stream, such as e.g.

`/axis-cgi/jpg/image.cgi?resolution=640x480`

After that single camera options such as image rotation or maximum recording time can be defined. The description of each setting can be found next to the respective option in the table.

On the same configuration page you are able to plan time-controlled recordings. Please click time and day when you would like to start the video surveillance.

Time controlled recordings

The selected hours 0-23 display, when the recording on the individual weekdays takes place according to the selection:

Time (Hour)	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Holidays	<input checked="" type="checkbox"/>																							
Monday	<input checked="" type="checkbox"/>																							
Tuesday	<input checked="" type="checkbox"/>																							
Wednesday	<input checked="" type="checkbox"/>																							
Thursday	<input checked="" type="checkbox"/>																							
Friday	<input checked="" type="checkbox"/>																							
Saturday	<input checked="" type="checkbox"/>																							
Sunday	<input checked="" type="checkbox"/>																							

Save Time Recording Unselect all Select all

Time Table Email Alarm Camera 1 Load Time Table

Please carry out the settings in the table below for “Time Controlled Recording during Motion Detection” just as described above.

The third table defines the times in which alarm emails are sent. The configuration works again as described above. Please configure n the long configuration table if time based alarm emails are sent in general and if recordings are attached to emails. The email address is configured in this section as well.

Recordings can be started by external events (door switches, ultrasonic motion detectors, bell switches and many more). This requires a network switch, like e.g. Barionet or other Syslog-IP switches, to send a system message to C-MOR. The message has to be in accordance with the line defined in this section, which will then trigger the recording.

Cam Syslog Event

Save Event

3.2.4 Image Mask for the Definition of the Areas for Motion Detection

C-MOR reacts on motion in the complete camera image. This might require some kind of limitation so that not every kind of motion leads to motion detection. An example of this would be cars driving by or pedestrians at the property lines. By using this function a black & white mask can be loaded. By the help of this mask C-MOR will only carry out motion detection in the respective white areas.

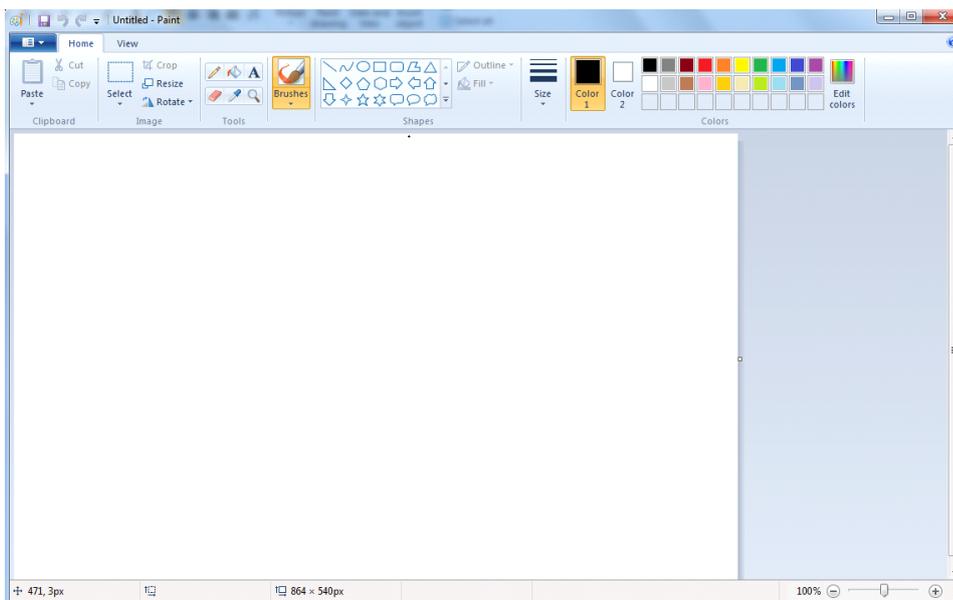
The black & white mask can be created as follows: please start with creating a white image of the size of your camera resolution. Please add black layers to those areas where no motion detection should be effected. Then save the image as a JPG file and upload it to C-MOR. All black areas will then be ignored in terms of motion detection.

The following pages describe the steps to create such a mask with your Windows computer.

Call the camera settings page for the camera you want to add a motion detection mask. Scroll down to the section "Picture Mask". This function will be used later after the mask was drawn.



The creation of a mask works simple and quick and can be done by using the Windows Paint Program.

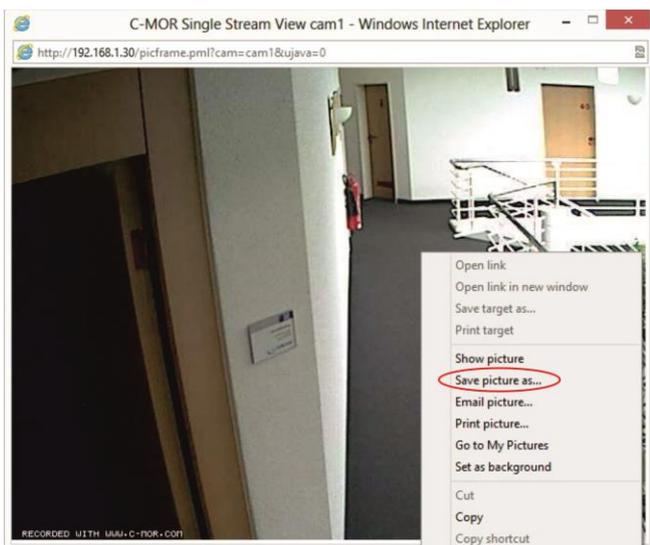


Please proceed as follows to create a mask:

Save the image of the camera for which you want to create a mask on your computer. Do this by calling the "Quickstart" page. Make sure the stream type on top right is set to "Script-Stream" and select the live view with the highest resolution for the selected camera. In this example we create a mask for camera 1 and the resolution is 640x480 pixels. A new window will open.

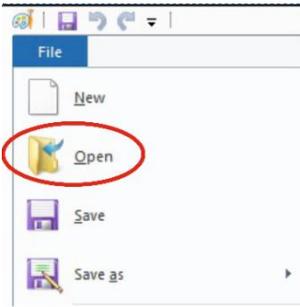


The new opened window: Move your mouse pointer over the live view and click the right mouse button. Select "Save picture as..." from the opened context menu.

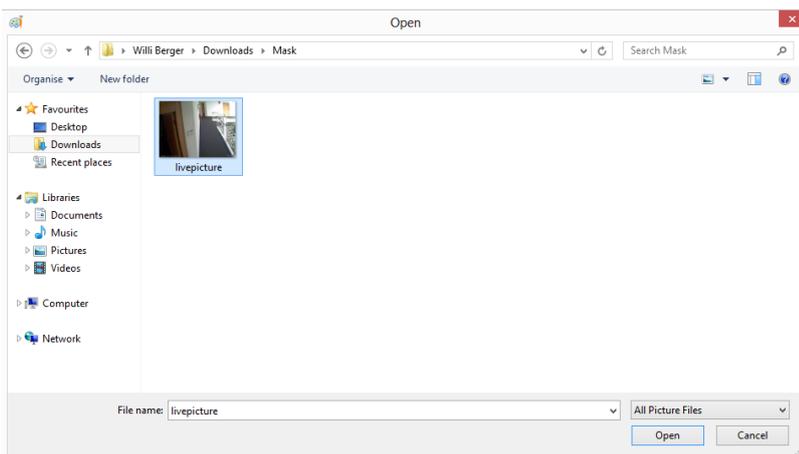


Please determine in the opened window a filename, such as "livepicture.jpg" and remember the position where the picture has been saved on the hard disk. In the next step the image has to be loaded into Windows Paint Program.

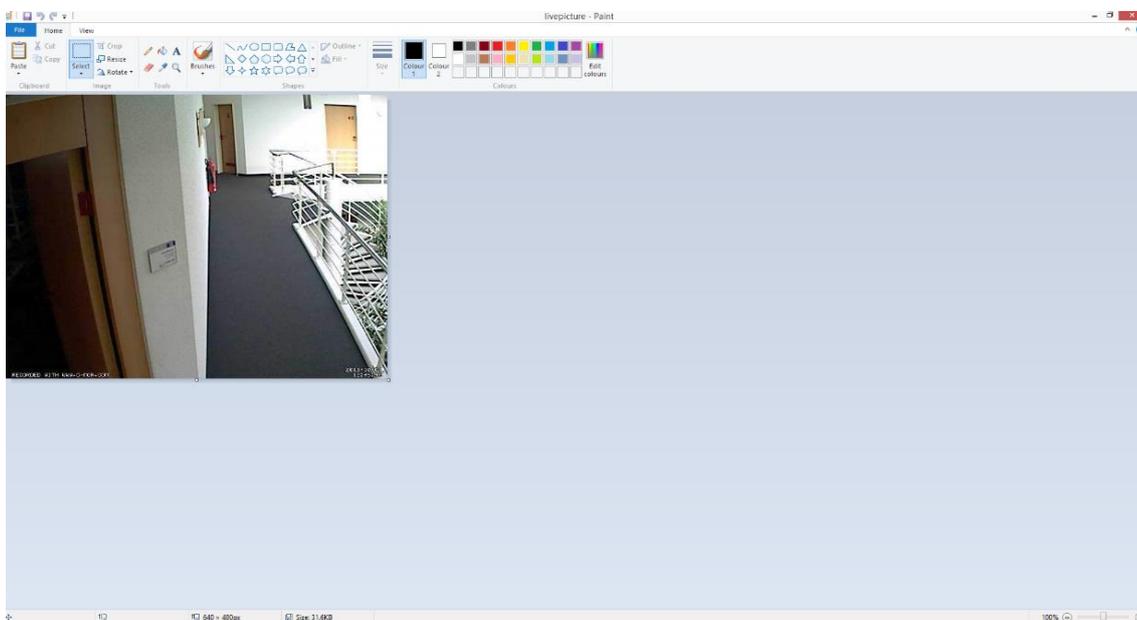
The menu of the Windows Paint can be opened on the top left by a button.



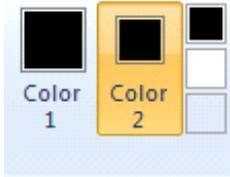
Click on "Open". The following window allows opening the file, which just has been saved.



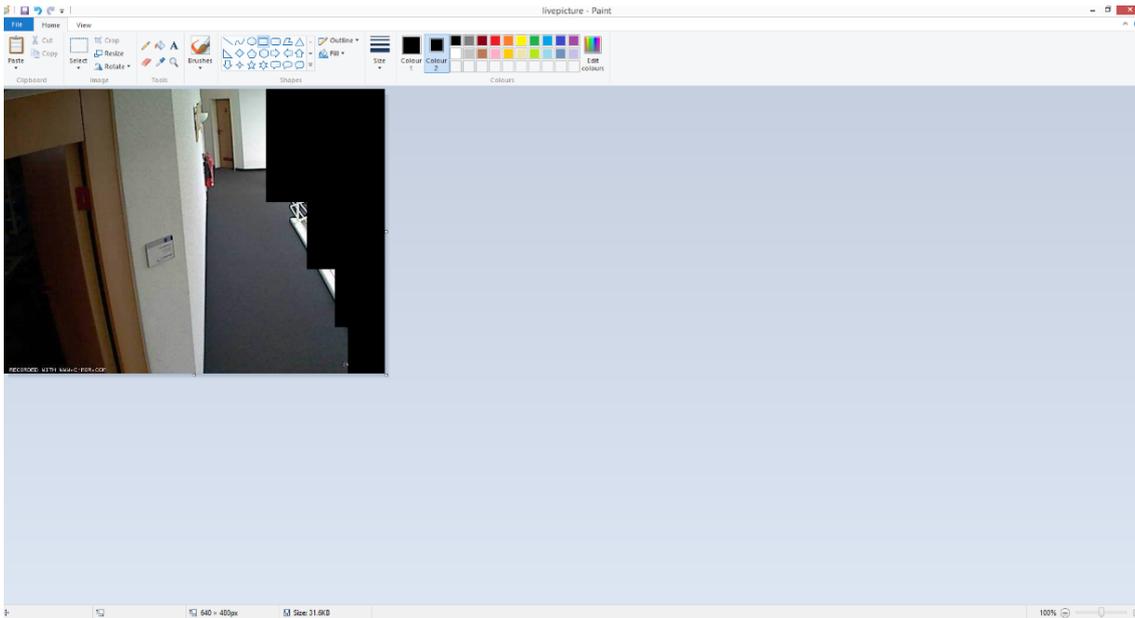
The picture of the camera is now loaded in Windows Paint.



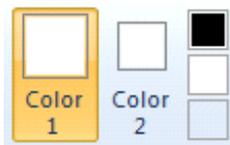
The loaded picture will now be re-painted with black and white areas. White areas are for motion detection areas. Black areas are not motion-sensitive. It is ideal to paint the black areas first. Please note, that on the top of the menu you lodged the colors "Color 1" and "Color 2" as black color. The second color is the fill color, for example circle, rectangle etc., which is activated as "solid color" at "Fill".



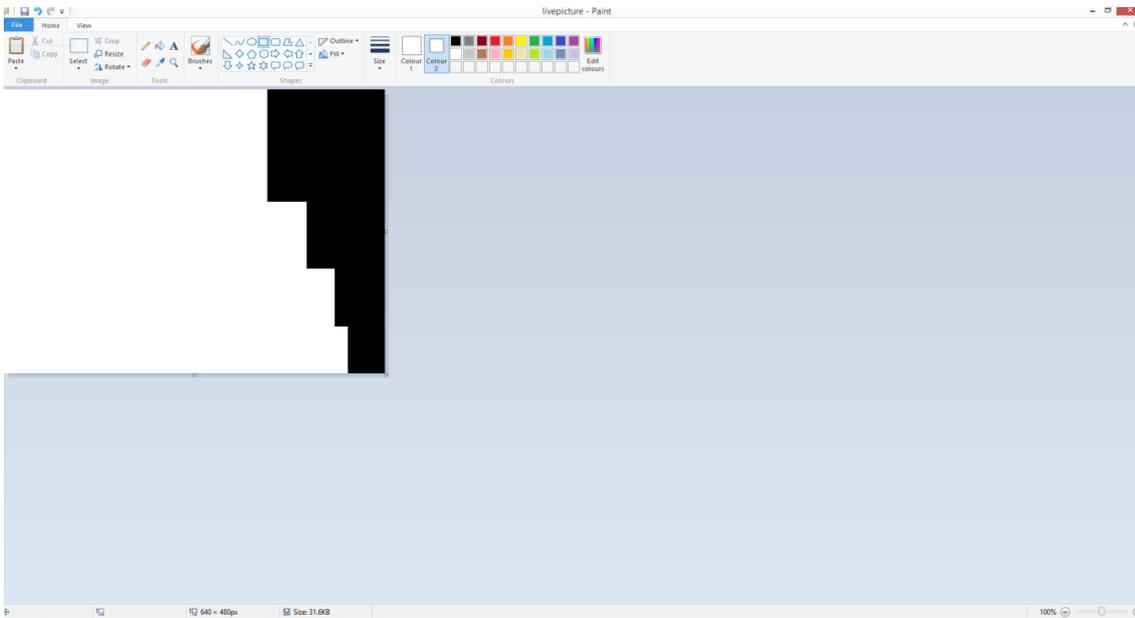
Paint the black areas first (no motion detection):



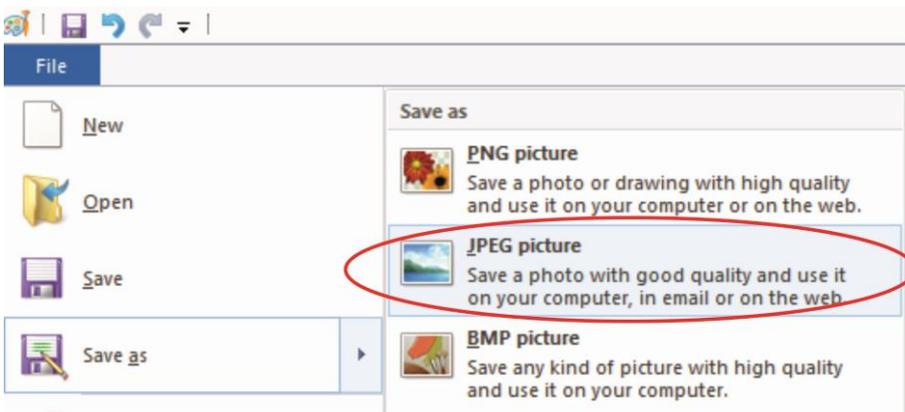
Now please change both colours to white.



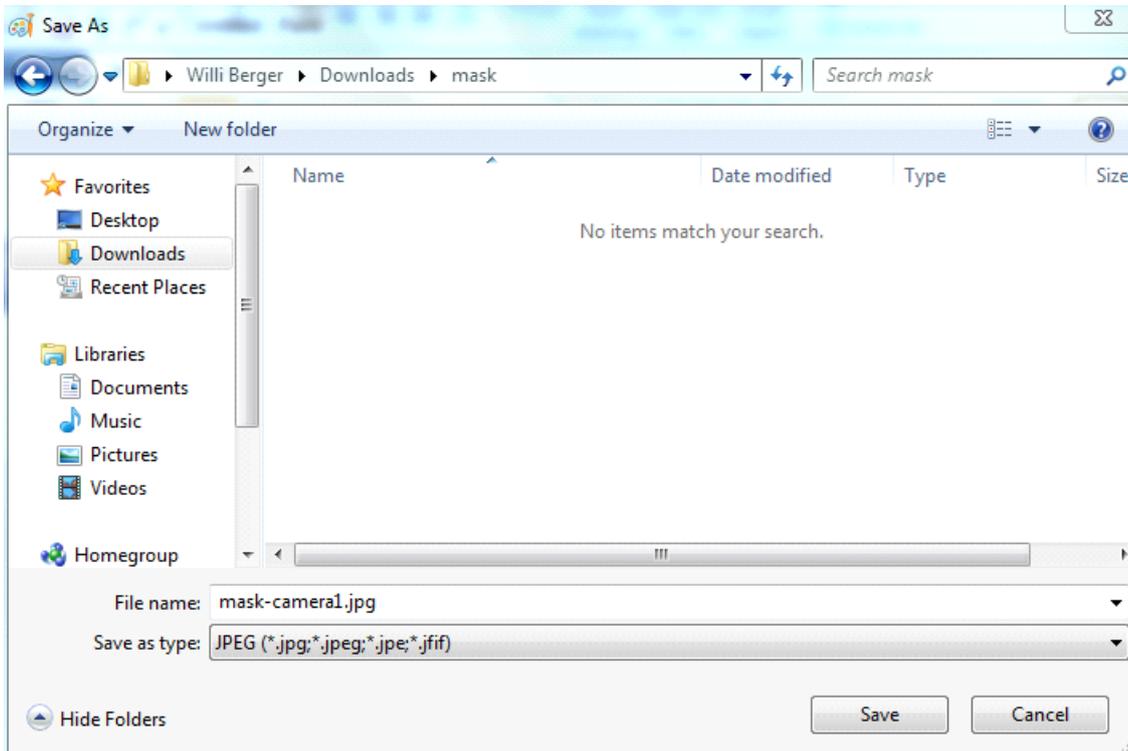
Afterwards the white areas will be painted (area for motion detection):



If the mask is ready, it will be saved locally on the computer. Please open the menu left on top. Then click on "Save as" and choose "JPEG picture".

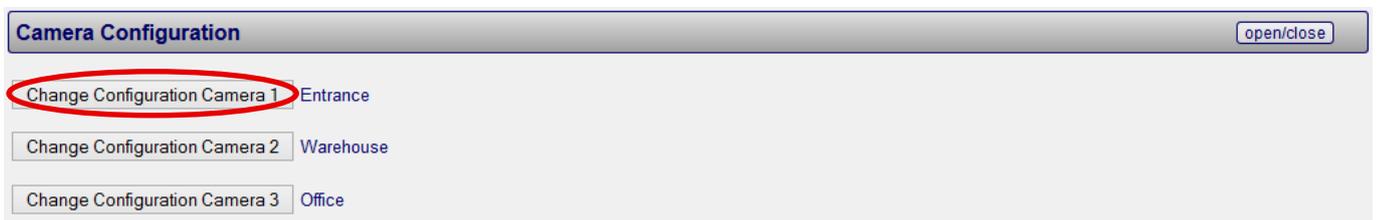


Please choose a file name. Be careful! If the name would not be changed, the existing name will be maintained and the saved live picture will be overwritten.



Please remember where you saved the mask.

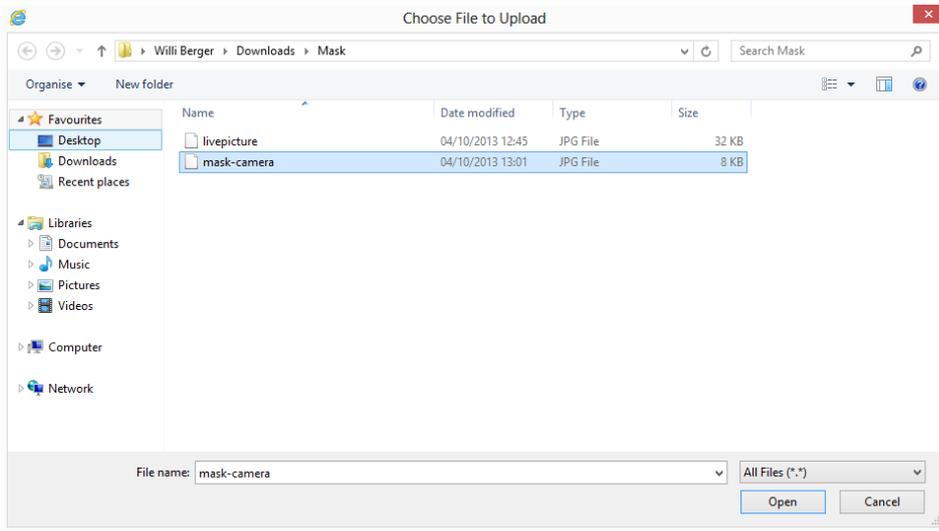
Next, the mask has to be uploaded on C-MOR. Please switch to the camera configuration menu of the camera for which to limit the motion detection. In the example this is "Camera 1". Please select the "System Administration" page on your C-MOR web. Scroll down to "Camera Configuration" and select "Camera 1".



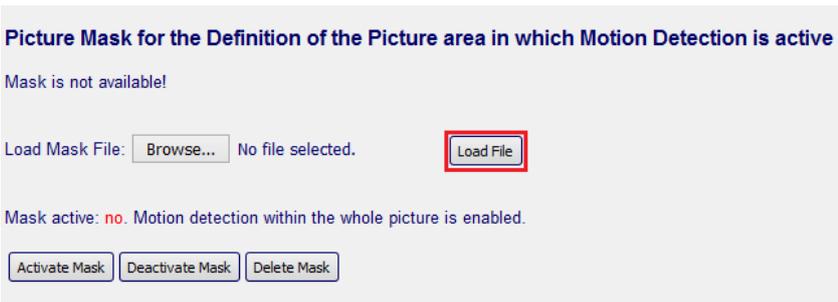
The menu for the camera management opens now. Scroll down to area "Picture Mask for...":



The just created mask has to be chosen and has to be uploaded. Click on "Browse" and select the just created mask in the window that has opened:



Click on "load File" after the file has been selected:



The file is uploaded to C-MOR. Click now "Activate Mask" to enable the created motion detection mask:



The mask is now activated! Click on "Camera Configuration" to assure the mask is active and is defined for the right motion area:

The mask for motion detection of camera 1 has been activated.

[Camera Configuration](#)

[Start Page](#)

The created mask is shown beside the live picture. To the far right the mask is shown in front of the live viewing.

Picture Mask for the Definition of the Picture area in which Motion Detection is active

Camera Picture Mask Mask on Camera Picture



Motion detection is only enabled for the white area of the mask. The complete picture is recorded!

Load mask file: Keine Datei ausgewählt

Mask active: **yes**. Motion detection is enabled for the white area only.

If you would like to correct the mask, simply change the created mask again in Windows Paint on your computer and upload it like you did before.

Important! The black area will also be completely recorded! Only motion will not be recognized. Please refer to your camera manual if you would like to use a privacy mask, a function where the complete area already can be broadcasted blacked out or contact C-MOR directly under www.c-mor.com.

Please note that a mask needs to have the same width and height like the camera image. If the mask has other dimensions, it leads to failure.

3.2.5 The C-MOR PTZ Control

Behind the PTZ-Control (PTZ: Pan/Tilt/Zoom) stand the Motion of moveable cameras directly with the C-MOR Web Interface.

A great advantage of the PTZ-Control is the consistent interface for all camera types. Also no software has to be installed on the PC to manage the cameras. Furthermore the PTZ control works with the iPhone, iPod or iPad and other mobile devices with internet function.

For the configuration of the PTZ-Cameras there is a configuration page in the C-MOR web interface that can be reached from the camera configuration page.



The screenshot displays the C-MOR IP Video Surveillance web interface. The main content area is titled "Camera Configuration Camera 1". A red box highlights the "Camera PTZ Configuration" section, which is currently selected. The interface includes a navigation menu on the left, a top status bar with system information, and various configuration options for the camera.

Camera Configuration Camera 1

Cam Location:

Recording cam 1: **deactivated**

Camera PTZ Configuration

backup_cam1_2015-02-10-13-48-57.cbkf

Delete the Recordings after days

Camera Network Data

IP Address/DNS Name	<input type="text" value="172.20.1.37"/>
TCP-IP-Port	<input type="text" value="80"/>
User Name	<input type="text" value="viewer"/>
Password	<input type="password" value="*****"/>

In the PTZ configuration page all known PTZ cameras are available. In the section **Load pre-defined camera data** the settings for the PTZ camera can be loaded.

PTZ Configuration for Camera 1

PTZ function camera 1: disabled

Load pre-defined camera data

Access data for the camera (needs access to control the camera!)

User name

Password

IP/Name

TCP-IP-Port

Camera orientation

0 degrees

90 degrees

180 degrees

270 degrees

Simply select the right camera in drop-down menu.

Load pre-defined camera data

access to control the camera!

Camera orientation

0 degrees

90 degrees

180 degrees

270 degrees

Command

If the PTZ configuration of the selected camera was loaded, the second step follows for the configuration of the PTZ control: The setup of the login data for the camera and the setting for the camera rotation.

Load pre-defined camera data

ABUS-SC TVIP21550 PT

Access data for the camera (needs access to control the camera!)

User name

Password

IP/Name

TCP-IP-Port

Camera orientation

0 degrees

90 degrees

180 degrees

270 degrees

PTZ command	Camera command
Left	<input type="text" value="/cgi-bin/operator/ptzset?move=left"/>
Right	<input type="text" value="/cgi-bin/operator/ptzset?move=right"/>
Up	<input type="text" value="/cgi-bin/operator/ptzset?move=up"/>
Down	<input type="text" value="/cgi-bin/operator/ptzset?move=down"/>
Zoom in	<input type="text" value="Not supported by camera"/>
Zoom out	<input type="text" value="Not supported by camera"/>

If the camera was fixed on a ceiling, which has the effect, that the camera is upside down, the PTZ control has to be configured with the rotation of 180 degrees. Otherwise the PTZ commands will navigate to the wrong direction.

Of course the loaded PTZ commands can be adjusted. If a camera has a configurable pan or tilt setting, so the command can be adjusted with your own requirements.

Next to the control commands for pan, tilt and zoom, moveable cameras usually own the function to set up pre-defined positions. These positions can be stored in the PTZ menu, too. The pre-defined positions commands you will find in the C-MOR web forum or by asking the C-MOR support team.

PTZ command	Camera command
Left	<input type="text" value="/command/ptzf.cgi?Relative=0401"/>
Right	<input type="text" value="/command/ptzf.cgi?Relative=0601"/>
Up	<input type="text" value="/command/ptzf.cgi?Relative=0801"/>
Down	<input type="text" value="/command/ptzf.cgi?Relative=0201"/>
Zoom in	<input type="text" value="/command/ptzf.cgi?Relative=1104"/>
Zoom out	<input type="text" value="/command/ptzf.cgi?Relative=1004"/>

Pre-defined Position	Camera command	Name/description
Preset Position 1	<input type="text" value="/command/presetposition?PresetCall=1"/>	<input type="text" value="StartPoint"/>
Preset Position 2	<input type="text" value="/command/presetposition?PresetCall=2"/>	<input type="text" value="Castle"/>
Preset Position 3	<input type="text" value="/command/presetposition?PresetCall=3"/>	<input type="text" value="Church Downtown"/>
Preset Position 4	<input type="text" value="/command/presetposition?PresetCall=4"/>	<input type="text" value="Gas Company"/>
Preset Position 5	<input type="text"/>	<input type="text"/>
Preset Position 6	<input type="text"/>	<input type="text"/>
Preset Position 7	<input type="text"/>	<input type="text"/>
Preset Position 8	<input type="text"/>	<input type="text"/>

If the PTZ commands are configured, at least you have to activate the PTZ control over the camera Menu.

PTZ Configuration for Camera 1

PTZ function camera 1: disabled Enable PTZ

Load pre-defined camera data

ABUS-SC TVIP21550 PT Load camera data

Access data for the camera (needs access to control the camera!)

User name

Password

IP/Name

TCP-IP-Port

Camera orientation

0 degrees

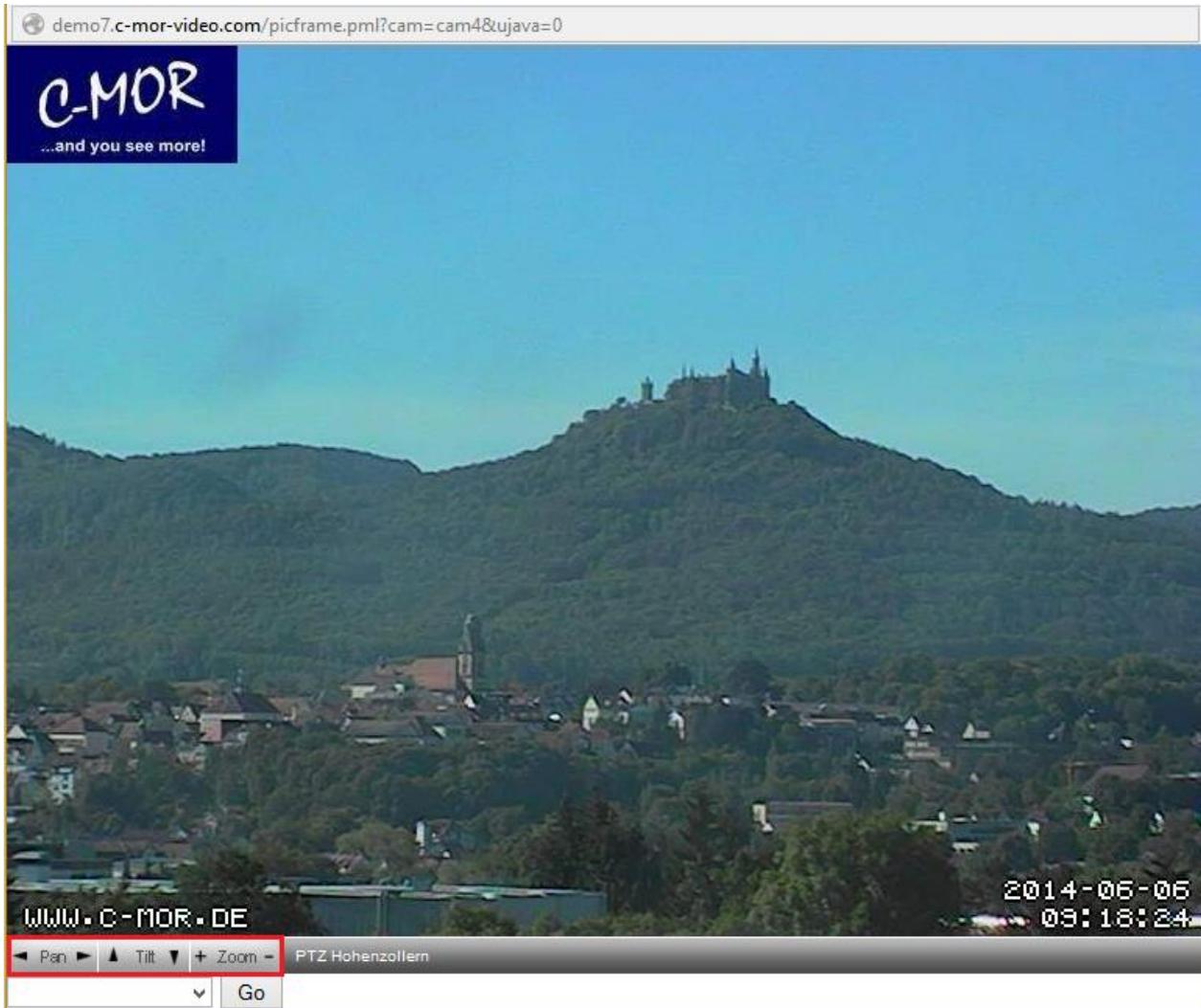
90 degrees

180 degrees

270 degrees

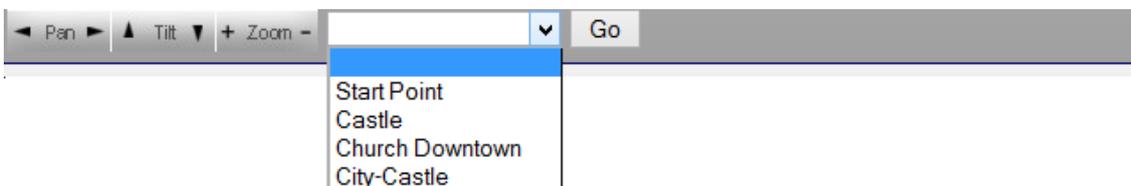
3.2.6 Usage of the PTZ control

If the PTZ function is activated for a camera, the control icons will be shown on the camera web pages automatically.



The PTZ buttons are self-explanatory. These functions are pan from left to right, tilt from up and down and zoom in and out.

In the drop-down menu underneath the pan, tilt and zoom buttons you will find the menu for the pre-defined positions.



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