



Version 3.1

# USER MANUAL

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Version 3.1 14-Sep-2010

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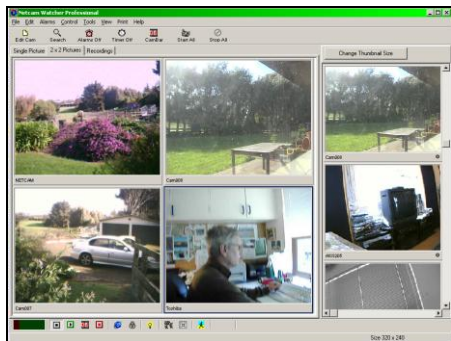
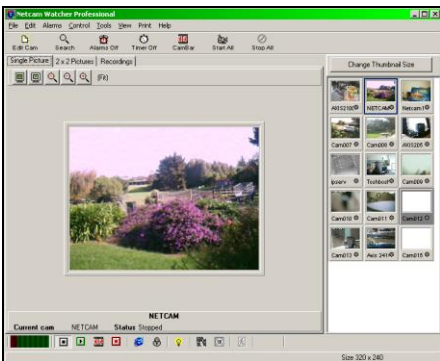
# Getting Started

## Overview

*Netcam Watcher Professional* is a full-featured Digital Video Recorder for Network Cameras that can record from multiple cameras simultaneously. It can also record from IP camera servers.

In addition it provides a rich host of other features, including motion detection, alarms, scheduling, archiving and patrolling.

The main display can be configured in many different ways. See below for a couple of examples



The left view shows the selected cam on the left, with small thumbnails on the right.

The right view shows the multi cam screen, with larger thumbnails. You can also turn off the thumbnails completely.

You can also create additional display windows that can be positioned on other monitors of you have them.

# Main Features

Here is a summary of the Main Features of *Netcam Watcher Professional*:

- Easily reconfigurable displays lets you see as many cameras as you like. Includes a new multi-camera, multi monitor display that be configured any way you like.
- Masked motion detection allows precise control over frame recording and alarms.
- Cameras can operate according to easily defined schedules (e.g. "Office Hours").
- Alarm facility that lets you, for example, e-mail image when alarm occurs or camera goes offline.
- Patrol function lets you automatically pan the camera to preset points at certain intervals. This can also be scheduled.
- Multi-cam display can rotate cameras automatically, to show first set, second set, and so on.
- Remote access supported via Netcam Watcher Remote Control program.
- Disk space management optionally removes (or archives) old recordings to allow for continuous operation.
- Archive facility to save images before they are overwritten.
- Backup facility to save all your configuration and recordings at fixed times (e.g. daily or weekly)
- CamBar lets you keep a subset of cameras on screen at all times.
- Print utility allows multiple images per page to be printed.
- Pan/Tilt/Zoom support.
- Built-in MJPEG player lets you view recorded images and display each frame's timestamp. Also a stand-alone MJPEG player also available as a free download.
- Ability to view synchronized video from multiple cameras.
- Trip wire function lets you could "trips" and perform analysis.
- Programmable captions can be put on pictures
- FTP latest images or alarms to a remote host.
- Administrator and / or User level security settings.
- Convert recorded MJPEG files to AVI format.
- Image enhancer for poor quality or lighting.
- Search archived images and display motion graphically.
- Instantly jump to a particular motion event.
- Online/Standby operation allows you to set up a hot-backup system that will take over if the Online system fails.
- Intelligent Patrolling can pause patrolling when motion is detected and resume when motion ceases.
- Pre- and Post- motion recording lets you record for a defined time before and after motion occurs

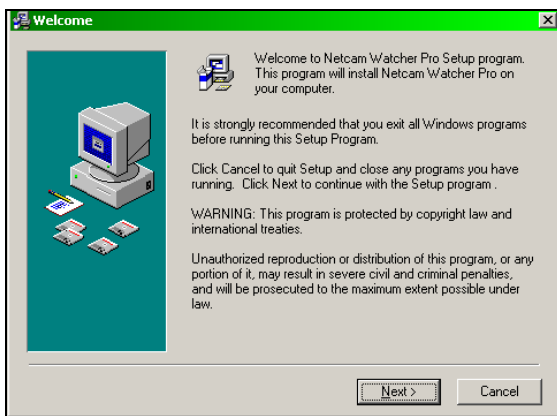
# Installing Netcam Watcher Professional

*Netcam Watcher Professional* is normally downloaded from the Internet, or supplied on CD. To install, insert the CD and the installation process should automatically start. Alternatively if it is downloaded from the Internet, you need to open the downloaded installation file.

If it does not automatically start, open **My Computer** and located the CD drive and double click.

If you downloaded from the Internet, save the file that you downloaded and then open it when the download is complete.

Installation is straightforward.



This is the initial screen of the Installer. Click **Next** to start the installation and then follow the on-screen instructions.

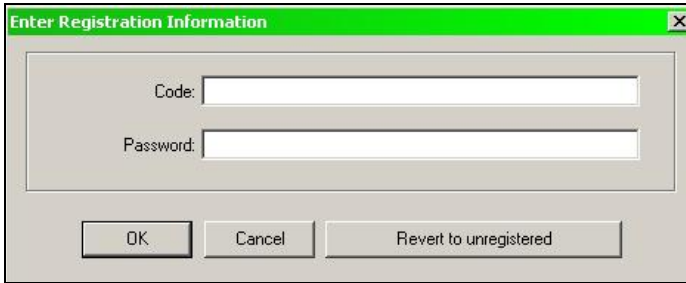
# Registering Netcam Watcher Professional

*Netcam Watcher Professional* is licensed according to the maximum number of cameras that can be used. Each licence is for a single user, unless you have purchased a site licence (contact us for details)

When first installed, *Netcam Watcher Professional* runs in *demo* mode. This has full functionality but only allows a maximum of 4 cameras.

To unlock *Netcam Watcher Professional* you need to enter the **Code** and **Password** that was supplied to you.

To do this, run *Netcam Watcher Professional* and select **Help** then **Enter Registration Code** from the main menu at the top of the screen.



If you reinstall *Netcam Watcher Professional* or **Windows** then you will need to repeat this procedure, so it is important to keep your registration code in a safe place.

It is recommended that you make a note of your codes here:

**CODE:**.....

**PASSWORD:**.....

Note: Version 3.1 uses different registration codes to previous versions. If you bought your copy of Netcam Watcher within one year of v3.1 release you are entitled to a free upgrade, so please email us for a new code.

# System Requirements

*Netcam Watcher Professional* requires Windows 98, ME, XP, 2000, 2003 server, Vista or Windows 7 with a minimum of 1GB of RAM and SVGA display (1024x768) or better.

For serious use you should consider using Windows XP or Windows 7 with 2GB or more of RAM.

Vista performance is about 30% down on XP and Windows 2000. This is due to the inefficiencies in Vista. We don't recommend Vista. Windows 7 is better than Vista, but still down a fraction (about 5%) on XP

The amount of disk space required depends entirely on how much you want to record, how many cameras you have, what frame rates you use, and many other factors. For assistance in determining your disk space requirements, contact your distributor.

To learn more about performance, please see the section on our website.

## Cameras Supported

We currently support more than 200 cameras from 56 manufacturers. The latest list can be found here:

<http://www.netcam-watcher.com/cameras/>

New cameras are added all the time. If your camera is not on the list, email us to find out if we plan to add it soon.

You can help us add support for your camera if you can make it available on the internet for us to analyze. This normally is a fairly simple matter for a network technician.

We can add support for straightforward cameras in a fairly short timeframe, sometimes in an hour or two!

## New in version 3.1

- ***Tripwire Support*** - You can define tripwires on cameras so that when something crosses a tripwire, it can be counted or it can generate motion (thus starting recording or generating an alarm).

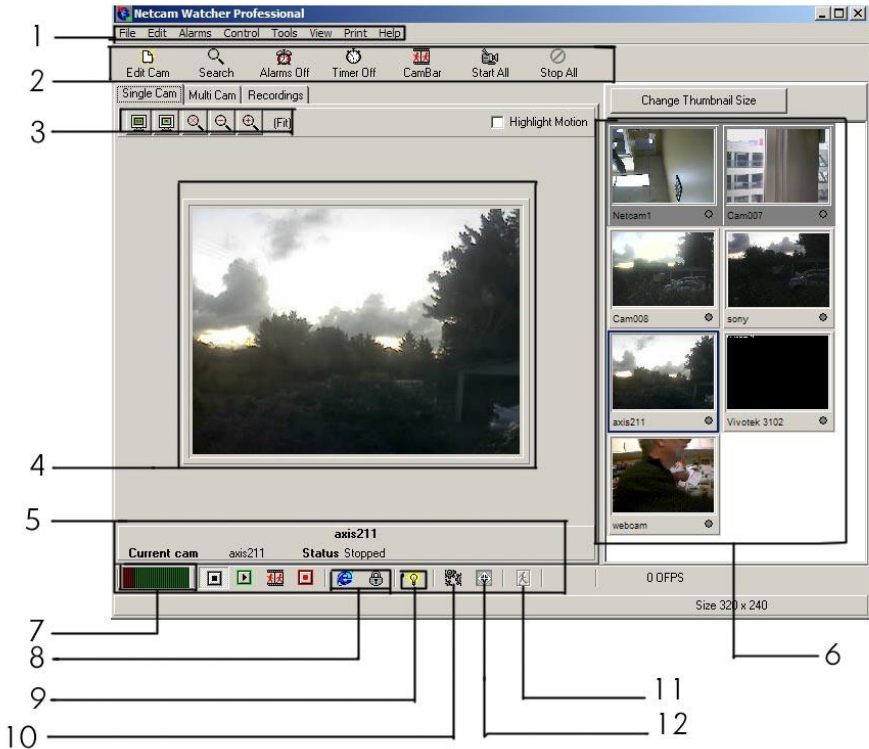
You can then analyze the "trips" at a later date, viewing the data graphically or textually, or importing the data into programs such as MS Excel.

- ***Multi-Camera Playback*** Now you can play back up to six cameras simultaneously. Playback on each of the cameras is synchronized with the others, even when the frame rates are different, or different portions of time are recorded due to motion detection.
- ***Ability to send multiple frames*** by email when an alarm is generated. Previously only one frame was sent and in this case often you missed the interesting action as you only received the very start of the action.

## New in version 2.5

- ***Performance Tab*** on File > Preferences. You can specify a number of frames to skip on multi camera displays; this improves performance when you have lots of cameras.
- ***Non-Motion Detection*** similar to motion detection but records when motion ceases. Can be used in conjunction with "record for X seconds before motion stops" to see what leads up to motion stopping.
- ***Schedules*** are checked every 2 minutes to see if cameras are in the proper state; so if Timer is being used and user stops a camera, it will restart 2 mins later.
- ***ACTi*** cameras now have added fields to allow you to specify Video and Control ports.
- ***AUTODELAY*** startup parameter. This is for systems that need a delay after Netcam Watcher starts to allow various other system components to initialize.

# Main Screen

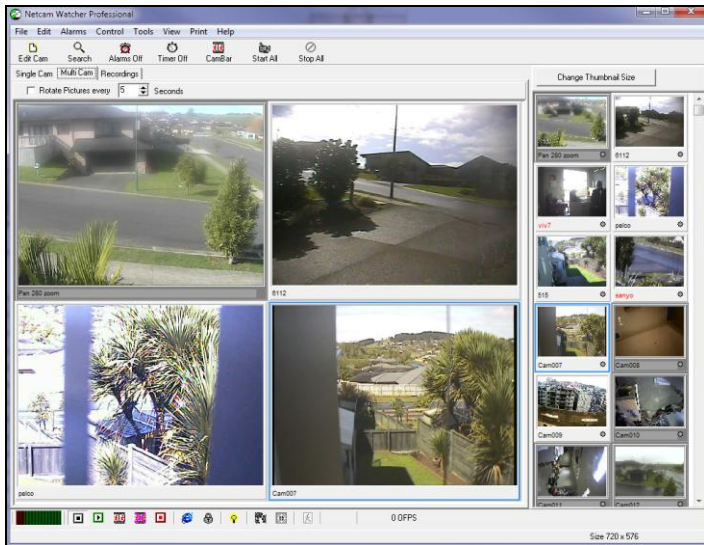


1. **Main Menu.**
2. **Main Toolbar.** Common commands. Timer and Alarm switches.
3. **Image Zoom Controls.** These allow you to magnify or reduce the current image
4. **Image for Current Camera.** Shows the current image for the selected camera. If the camera is not currently running it shows the last saved picture.
5. **Camera Status and Control Toolbar.** Controls to start and stop recording the current camera.
6. **Camera Thumbnails.** Shows the last picture for every camera. Use this panel to select a camera.
7. **Motion Detection Bar** Shows the amount of motion detected. Click here to alter the motion settings
8. **Camera Access Buttons** Allows one-click access to the current camera's homepage and admin page.

9. **Image Enhancer** Dynamically enhances images. Special enhancement for low light conditions. Right click to adjust.
10. **User Defined Controls** On/Off
11. **Patrolling** On/Off
12. **Pan/Tilt/Zoom** Shows or Hides the Pan/Tilt/Zoom control panel.

Clicking the **Multi Cam** tab shows the Multi Cam View. Initially this shows the first four cameras but you can select any cameras you like by dragging from the thumbnails panel to the location you want. You can change the number of rows and columns on the **File > Preferences** dialog

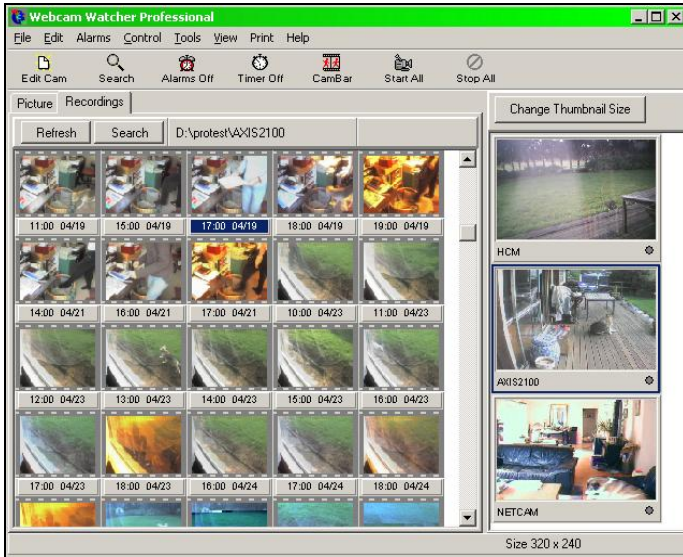
You can check the **Rotate Pictures Every XX seconds** checkbox to rotate through all your cameras.



This is the MultiCam display showing 2 rows and 2 columns. By changing the number of rows and columns, by moving the separator bar that is between the multicam display and the thumbnails, and by altering the size of the thumbnails, you can produce a wide range of displays.

You can also turn the left and right hand parts of the display off completely using the View menu.

Clicking the **Recordings** tab shows the recorded MJPEG files for the current camera. You can view a recording by double-clicking it.



You can change the size of the **Camera Thumbnails** by clicking the button at the top of the panel.



You can also turn off the thumbnails entirely by selecting **View > Show Thumbnails** from the main menu. This can improve performance if you have lots of cameras.

# Configuring Cameras

## Selecting a Camera Folder

*Netcam Watcher Professional* uses a Camera Folder to store details of your cameras, and to store recordings. You can select the location of the camera folder by using **File > Select Camera Folder** from the main menu.

Initially the camera folder is set to be the same as the program folder. Unless you want to store your camera database here, it is a good idea to change this before creating any cameras.

## New Camera / Edit Camera Dialog

To create a new camera, select **Edit > Create New Camera** from the main menu. This opens the **Edit Camera** dialog. You can also edit an existing camera by selecting the camera and clicking the **Edit Camera** button.

The screenshot shows the 'Edit Camera' dialog box with the following details:

- Camera Details:**
  - Camera Name: Pan 280 zoom
  - Description: Panasonic Test Camera
  - Location: Outside Beausoft Offices
  - Camera Address: 210.54.56.229
  - Camera Type: Panasonic HCM-280
  - Camera Channel: [Dropdown]
  - Ctrl Port: 0
- Monitoring Type:**
  - Full Motion
  - Snapshot
  - Interval: 1 seconds
  - Image size: Medium
  - Image quality: Normal
  - Flip
- Security:**
  - Use Authentication
  - User ID: admin
  - Password: \*\*\*\*\*

Buttons at the bottom: OK, Extra Functions, Alarms..., FTP..., Cancel.

## Camera Details

This section lets you define the Camera's and characteristics:

- **Camera Name:** A short name used for tagging the thumbnails. Also used for camera sub-folder name.
- **Description:** Optional longer description.
- **Location:** Optional location string.
- **Camera Address:** IP address of camera. This can be a dotted IP address like: **192.168.0.253** or it can be a named address: **camera1.mydomain.com**. ...or a non-standard port: **camera.mydomain.com:8080**
- **Camera Type:** Select from one of the predefined types or choose **User Defined** (in which case you can click the **Define** button to define the camera's URLs)
- **Camera Channel:** For camera servers, select the channel number here.

## Monitoring Type

This section lets you specify how the image is fetched from the camera, and the image size and quality.

- **Full Motion** means that the camera is sending a stream of images.
- **Snapshot** means that *Netcam Watcher Professional* fetches a snapshot at regular intervals. The interval can be less than a second, or even zero.
- **Flip** if checked displays the image upside down

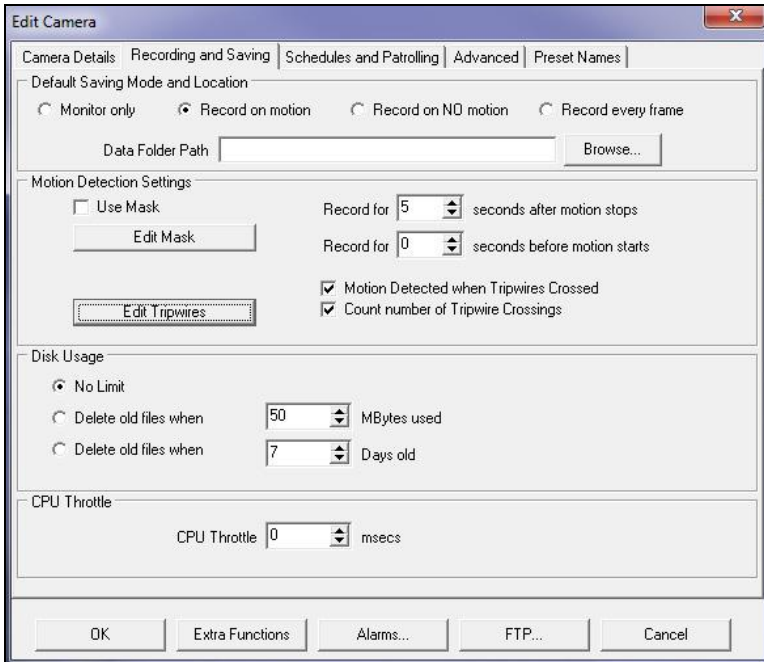
Note that some on cameras, only Full Motion or Snapshot will be available. This depends on how the camera operates and communicates.

On cameras that only support Snapshot mode, setting an Interval of zero will produce results similar to Full Motion (i.e. several frames per second)

## Security

If the camera needs a **Username** and **Password** to view the image, you need to enter them here, and check the **Use Authentication** box.

## Recording and Saving



When you click **Start All** cameras, the camera is started in the mode specified here:

- **Monitor:** The camera is running (in other words, *Netcam Watcher Professional* is fetching pictures) but no pictures are saved.
- **Record on Motion:** The camera is running and saving frames where motion is detected.
- **Record on NO Motion:** The camera is running and saving frames where no motion is detected. Useful for situations where you expect continuous motion, and need to detect when it stops.
- **Record Every Frame:** The camera is running and every frame is recorded.

**Data Folder Path** specifies where you want to store the recordings. If you leave this blank the recordings are stored in a sub-folder in your main camera folder.

**NOTE:** All cameras must have different **Data Folder Path** settings. Cameras must not share recording folders.

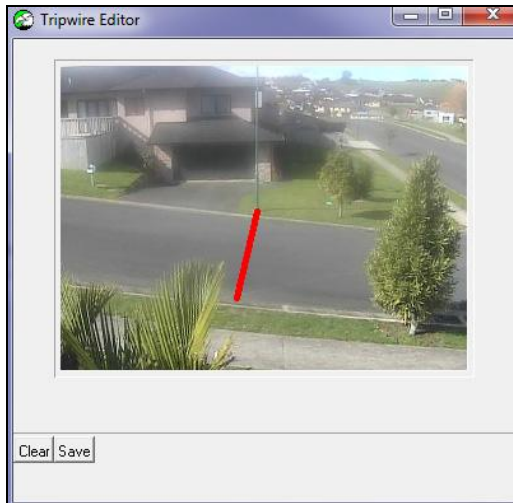
## Motion Detection Settings

This lets you configure settings relating to motion detection:

- **Use Mask** If checked then the motion detection mask for this camera is used.
- **Edit Mask** Click to edit the mask
- **Record for XX seconds after motion stops or before motion starts:** You can specify how long recording continues after motion has stopped being detected, or before motion has started.

**TIP :** **Record for XX seconds after motion stops** is a very useful setting as it will ensure that stop-start motion will capture in a single clip. On the other hand, **Record for XX seconds before motion starts** is **only** useful in certain situations and it's recommended to not use this setting unless you have good reason.

**Edit Tripwires :** Click this to open the dialog that lets you edit Tripwires.



Click and Drag to create a tripwire. When you are done, click **Save** to save the Tripwire. To clear tripwires, click **Clear**.

**Motion Detected when Tripwires Crossed:** Check this to generate motion when a tripwire is crossed. This can be used to record (if record on motion enabled) or generate alarms.

**Count Number of Tripwire Crossings:** If checked, each tripwire crossing is logged and you can use the Tripwire Tools to analyze the tripwire data.

## Disk and CPU Usage Limits

*Netcam Watcher Professional* can limit the amount of Disk and CPU that a camera uses.

If you enable automatic disk space management (by checking the **Limit Disk Usage** checkbox) then *Netcam Watcher Professional* will delete old MJPEG files if the limit specified here is exceeded.

You can either specify a number of days, or a number of megabytes

If you specify a non-zero value for **CPU Throttle** then *Netcam Watcher Professional* will sleep for this period of time after each frame is received from this camera.

## Scheduling and Patrolling

You can specify a **Schedule** to use for this camera. See the section on **Schedules** to see how this works.

### Patrolling

Patrolling works by panning the camera from one preset position to the next, with a defined interval in between. For this function to be available, your camera must support pan/tilt presets. Most cameras that can pan also have presets.

You specify here the **Interval** and the **Number of presets** that you want to patrol. To start Patrolling, click the Patrol button on the lower toolbar (the right-most button).



Patrol Button

You can also specify a **Patrol Schedule** to use for this camera. See the section on **Schedules** to see how this works. Basically, the patrol schedule specifies when patrolling is on or off. Note that Patrol Schedules (like regular schedules) only operate when the **Timer** button is down.

You can also specify a preset location to go to for a particular half-hour slot, so for example you can have the camera on preset #2 from 9am to 5pm, then preset #3 from 5pm to midnight.

Note that whenever patrolling is finished, either by schedule or by clicking the Patrol button, the camera returns to preset #1.

If **Random Patrolling** is checked, the camera does not move from preset #1 to #2 to #3 in a regular manner, but instead selects a random preset after the patrol interval expires.

If **Pause Patrolling until Motion Ceases** is checked, the camera will remain on a patrol station if it detects motion. It will move on when motion ceases. This is also known as **Intelligent Patrolling** as it effectively searches for motion and then records.

## Advanced Tab

This lets you set up TCP Port Activated Motion Detection. This is used by some Axis devices such as the 241Q Video Server.

In this scheme, motion detection is performed by the device rather than by Netcam Watcher. The device sends a TCP message to a specific port when motion starts and stops. Netcam Watcher can start and stop recording on receipt of these messages.

Some points to note when using this feature:

- Each camera must use a separate TCP port, and this must match the server port defined in the device.
- The messages set up in the device must match the messages in this dialog. Suggest you use messages like **CAM1 ON..CAM1 OFF**, etc
- When **Use TCP Motion Detection** is checked, this is activated when the camera is in motion detection mode. In this case, no current image is shown, but the Netcam Watcher waits for a TCP control message to start and stop recording.
- When the camera is in Monitor or Record All Frames mode it operates normally
- It is advisable to use this feature in conjunction with the *Record for XX seconds after motion stops* (on the Recording and Saving tab). This prevents dropped frames when the motion starts and stops rapidly.

If you check **Monitor when no motion** then snapshots are retrieved at the interval specified here. This is useful to keep an eye on the camera when there is no motion, also it acts as a watchdog, producing offline notifications if communication with the camera is lost.

Please contact support if you need help getting this feature to work.

## Preset Names Tab

Click the **Preset Names** tab on the main Edit Camera dialog to associate names with preset positions. This tab will only be visible if the camera supports preset positions.

Some cameras allow you to also enter preset names into the camera. **Netcam Watcher Professional** does not retrieve these names, so it is up to you to make sure that any names in the camera match the names you set up here.

Some newer Axis products (eg 213, 241) use preset names instead of numbers. For these devices it is important that you set up the preset names here to be exactly the same as the preset names in the Axis device, otherwise they will not work.

Note: For these Axis devices, if a preset name (in the camera) contains spaces, you should replace the spaces with a plus sign (+), for example:

**Axis Name** : Back Yard should be specified as Back+Yard

## *Extra Functions Button*

User-defined Extra functions can be useful for providing additional functions like activating switches or browsing to a related web page.

You can specify up to 16 extra User Defined Functions for a camera. These are URLs that can be accessed by clicking the **User Defined Functions** button on the **Camera Status and Control Toolbar**.

For each extra function you can specify a Name, URL and Hint. The name is displayed on the extra function button.

If the URL starts with "http" then a direct address is assumed. Otherwise the URL is constructed by appending the string to the camera's Address. Note : No leading "/" is required.

If **Browse To** is checked, a Browser window is opened to the specified URL.

Otherwise *Netcam Watcher Professional* simply fetches the URL internally (i.e. it issues a http GET). Any errors are ignored.

## *FTP Settings Button*

This opens the FTP settings dialog that allows you to set up this camera to send pictures or alarm pictures to a remote host. See the **Using FTP** section for more information.

# Defining Camera Types

You can add new camera types to *Netcam Watcher Professional* using the **Edit Camera Definitions** dialog.

**Define Camera Type**

Camera Details

Camera Type Name: Axis 2100

Snapshot URL: axis-cgi/jpg/image.cgi

Motion Image URL: axis-cgi/mjpg/video.cgi

Motion Image Protocol: Push (Normal Streaming) [User Defined Functions...]

Homepage URL: [ ]

Config URL: admin/admin.shtml

Image Size

Variable size images

Small size URL: ?resolution=320x240

Medium size URL: ?resolution=320x240

Large size URL: ?resolution=640x480

Image Quality

Variable quality images

Low quality URL: &compression=60

Normal quality URL: &compression=40

High Quality URL: &compression=20

Multi Channel Devices

Multi-channel Number of channels: 1

Channel select URL: [ ]

Buttons: Load definition... Save definition... Close

**Load Definition** loads an existing Camera Definition.

**Save Definition** lets you save a definition. This then becomes available on the *Edit Camera* dialog.

Camera Definitions are stored in files with the extension **.CDF**

For detailed information about how to define camera types, contact Beausoft Technical Support, [support@beausoft.com](mailto:support@beausoft.com)

# Monitoring and Recording

The **Camera Control Toolbar** lets you control the current camera.



1. **Motion Detection Bar** shows the amount of motion currently detected. Clicking on this allows you to adjust the motion detection settings for the current camera.

Then there are five VCR-style buttons to control the camera:

2. **Stop** button
3. **Monitor** button – show live images, but don't record
4. **Motion-Detection** button – record on motion
5. **NON Motion-Detection** button – record on NO motion
6. **Recording** button – record every frame

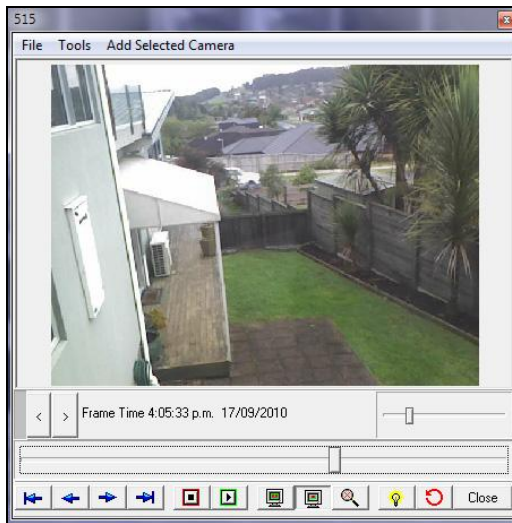
And some other buttons:

7. **Camera Home Page** button
8. **Camera Admin Page** button
9. **Image Enhancer On/Off**. Right click to Adjust
10. Show / Hide **User Defined Functions**
11. Show / Hide **Pan/Tilt/Zoom controls**
12. Start and Stop **Patrolling**

When *Netcam Watcher Professional* records images, it records into MJPEG files (Motion JPEG).

One file is created per hour. All frames recorded for that hour go into that file. You can see the MJPEG files saved using the Recordings tab. If you double click on a recording it plays it in the MJPEG Player.

# MJPEG Player



If the recordings that *Netcam Watcher Professional* makes are like videos, then this is the Video Player. The VCR-style buttons at the bottom let you start and stop playing.

The blue arrows let you go to the start and end of the recording. Also forward and back single frames.

The lower slider lets you set the position anywhere in the recording.

The < and > buttons take you to the previous and next MJPEG files.

The small slider on the right hand side controls the playback speed.

The Main Menu on the MJPEG Player lets you perform additional functions:

- **Save** the current MJPEG file
- **Copy** or **Save** the current frame
- **Print** the current frame
- **Extract** the individual JPEGs from the MJPEG file
- **Convert** the MJPEG file into an AVI file

The last option, **Convert to AVI**, uses the codecs that are currently installed on your system. Not all codecs perform as expected.

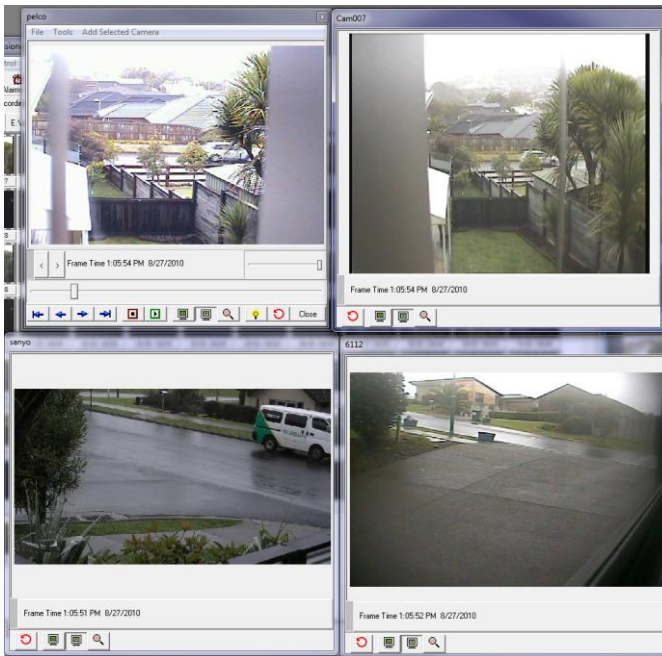
**Hint** Press *Escape* to close the MJPEG player.

## Playing Back from Multiple Cameras

You can play recordings from up to 6 cameras at the same time. To do this, open the first camera and start playing back the recording as normal.

Now using the *Thumbnails* panel, select the next camera that you would like to view recordings for, and then click **Add Selected Camera** (at the top of the MJPEG player window).

Repeat this up to five times.



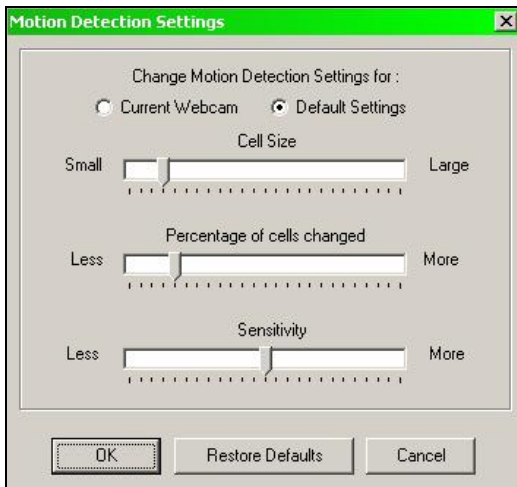
The top left player above is the first camera opened (the Master camera). Use the controls on this window to control playback as normal. The other windows will show synchronized recordings from the other cameras.

Note that because there may be different time periods recorded for each camera, and also different cameras may have different frame rates, the playback will jump from window to window. Each time a frame is played back on a certain window, the green light at the left side of the screen lights for a moment, letting you see which frame(s) are actively playing back.

# Motion Detection

When a camera is running, *Netcam Watcher Professional* is constantly comparing frames, looking for motion. It displays the amount of motion on the **Motion Detection Bar** at the bottom of the screen.

You can adjust the motion detection settings by clicking on the bar graph.



There are three sliders that let you control three parameters:

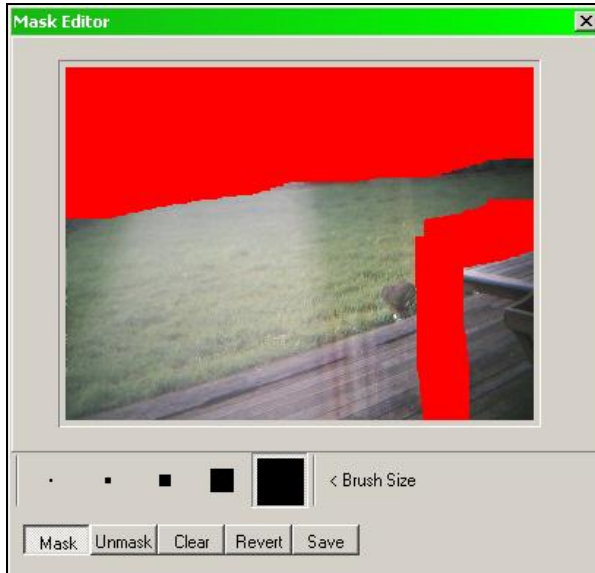
- **Cell Size.** The picture is divided into square cells, and each cell is compared. This slider controls how large the cells are. This can range from 4x4 pixels to one large cell that covers the whole picture. Smaller cell sizes mean more CPU required, but better motion discrimination.
- **Percentage of cells changed** determines how many cells need to be changed before the picture is considered different. This slider adjusts the position of the red and green bars on the *Motion Detection Bar Graph*.
- **Sensitivity** controls how sensitive to motion the bar graph is.

You can see how and where Netcam Watcher is detecting motion by checking Highlight Motion on the main display, and red boxes will show where motion is being detected. This can help you set up the motion parameters correctly.

# Motion Detection Mask

Motion Detection can be restricted to a certain area by using a **Motion Detection Mask**. You can edit a camera's mask by selecting the camera and choosing **Edit Motion Detection Mask for Current Camera** from the **Edit** menu.

**NOTE** : the masked area is masked **OUT** – so the red part is not considered when detecting motion.



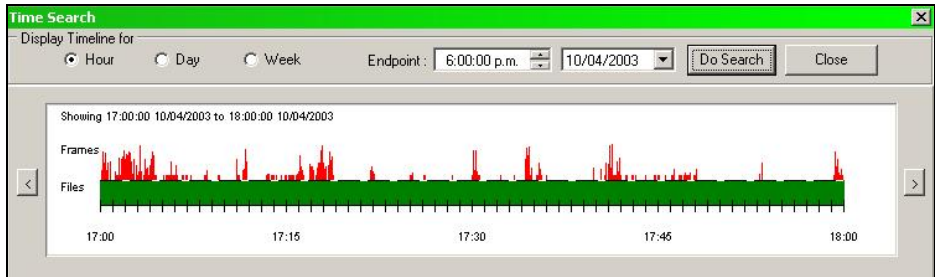
The Mask Editor is easy to use. Select either **Mask** or **Unmask** and the brush size.

The **Red** area defines the masked area, which is ignored when detecting motion.

The **Motion Detection Mask** is *enabled* and *disabled* by the **Use Mask** checkbox on the **Edit Camera** dialog.

# Searching

*Netcam Watcher Professional* lets you search for motion graphically. Click the **Search** button to open the Search dialog.



The **Green** area (**below** the line) shows the presence or absence of MJPEG files that cover the time period. Note that if motion recording is used and no motion is detected in a particular hour then no recording will be present.

The **Red** area (**above** the line) shows where frames have been recorded. If Motion Detection recording was used, this gives a graph of the motion detected.

Select the **Endpoint** for the search, Select the period, Hour, Day or Week, and click **Do Search**. The results are displayed. (Note: this may take some time).

You can double click on the results to open the corresponding MJPEG file at the correct place.

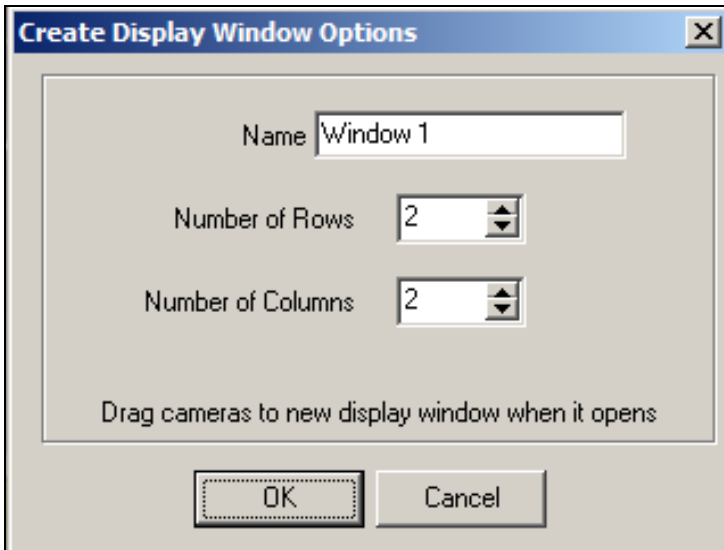
Right clicking opens a menu that lets you:

- **Open in MJPEG Viewer** (same as double clicking)
- **Set Endpoint Here** – sets the end of a subsequent search where you click.

You can also click the **<** and **>** buttons to perform searches for the previous and next periods.

# Display Windows

You can create up to 8 display windows using File > Create Display window.



You can specify how many rows and columns, up to a maximum of 10

Once the window is created, drag cameras to the window from the thumbnails, and drop where you like.

You can resize and reposition the windows wherever you like, including on other monitors. This way you can make Netcam Watcher Professional use as many monitors as you have connected.

To locate and make a window foremost, use the View menu where you will find the windows you have created listed.

If Netcam Watcher closes down with any display windows open, it will remember the window names, sizes and the camera locations when the program is next started.

# The CamBar

*Netcam Watcher Professional's CamBar* lets you keep some or all of your cameras on-screen (much like the Windows taskbar). This remains visible even when *Netcam Watcher Professional* is minimized.

To Open the CamBar click the **CamBar** button.

The CamBar will open at the top of your screen. Initially it will be empty.

You can drag cameras from the **Thumbnails** to the CamBar and drop them.



The CamBar can be dragged to dock on any edge of the screen. It can also be made to float anywhere on the screen. Move the CamBar by dragging the *handlebars*, the thin vertical bars at the left of the CamBar.

Clicking on a camera on the CamBar restores the main screen and selects the camera. When motion has been detected on a camera, it's thumbnail changes color.

Right click on a camera and a menu opens that lets you:

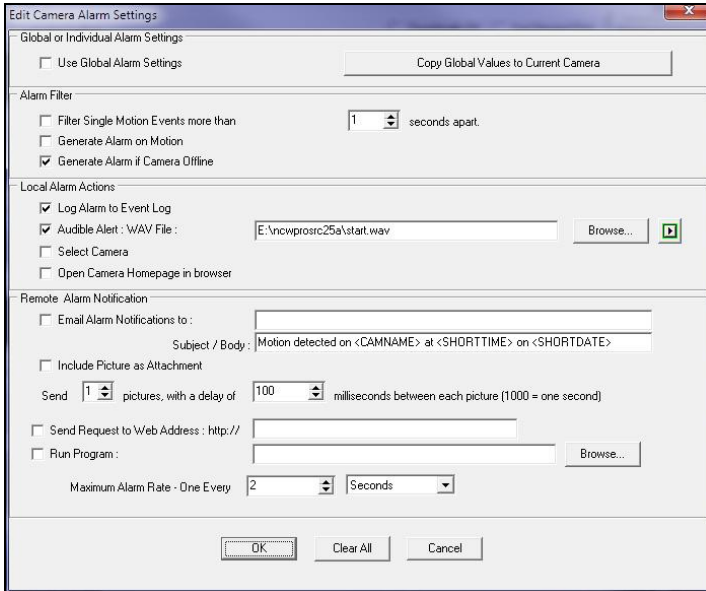
- Start or Stop the camera
- Edit the camera
- Remove the camera from the CamBar
- Open the camera's homepage
- Copy the current image to the clipboard

Clicking on the CamBar Icon opens a menu that lets you:

- Start or Stop all cameras
- Start or Stop all cameras on the CamBar
- Empty the CamBar
- Close the CamBar
- Quit the program

# Alarms

*Netcam Watcher Professional* includes an Alarm facility. Alarms are generated when more than a certain amount of motion occurs and/or when a camera goes offline (i.e., communications is lost). The Alarms for a camera are configured by clicking the **Alarms** button on the **Edit Netcam** dialog, or by selecting **Edit Alarms for Current Camera** from the **Edit** menu.



The top panel, **Global or Individual Alarm Settings** selects whether you use the default settings for this camera, or use individual settings.

You can *Copy* the current Log global settings by clicking the button in this panel.

The **Alarm Filter** panel enables *single event filtering*. If enabled, more than one motion event is required to trigger an alarm. The time box lets you specify how far motion events must be apart to be considered single events.

The **Generate Alarm if Camera Offline** checkbox enables the alarm when communications with the camera is lost.

The **Generate Alarm if Motion Detected** checkbox enables the alarm when motion is detected (camera must be in motion detection mode) or if a Tripwire is tripped (camera does not have to be in motion detection mode).

The **Local Alarm** panel lets you configure alarms that produce actions on the PC that *Netcam Watcher Professional* is running on:

- Log to Alarm Log
- Play a sound
- Select the camera
- Open camera's homepage in a browser window.

You can view the Alarm Log using **Show Alarm Log** on the **Alarms** menu.

The **Remote Alarm** panel lets you configure alarms that can send messages, etc:

- Email Alarm Notification to a specified e-mail address. To send to multiple recipients, separate the different email addresses by commas. The default message sent is

**Motion detected on <CAMNAME> at <SHORTTIME> on  
<SHORTDATE>**

You can specify to send one or more frames (each frame is sent as a separate email). Also you can specify the delay, so you could for example send 10 frames each one second later than the next.

(Note the replaceable parameters; the same as used on **Captions**). You can change the message if you like.

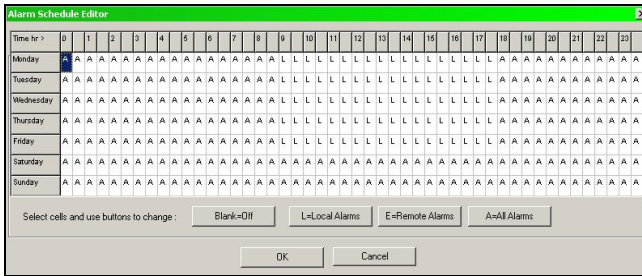
- Attach the last image to the e-mail message
- Send GET request to a particular web address. The URL specified can have expandable parameters: %CAMNAME% for the camera name. %CAMNUM% for the camera number.
- Run an external program, passing the camera name and camera number as parameters.

For Email Alarms to work you must set up an SMTP mail server on the main **Preferences** dialog.

There is a **Maximum Rate** that can be set for remote alarms, to prevent too many being generated.

**Note that Alarms are only generated when the Alarms button on the main Toolbar is down.**

Alarms can be set according to an **Alarm Schedule**. This operates similarly to regular schedules. Edit this using **Edit Alarm Schedule** on the **Alarms** menu.



This defines a schedule of when the Alarms (local and/or remote) should be Enabled or Disabled. **Like regular schedules, the Alarm Schedule only operates when the Timer button on the main toolbar is down.**

# Schedules

*Netcam Watcher Professional* includes a scheduling facility.

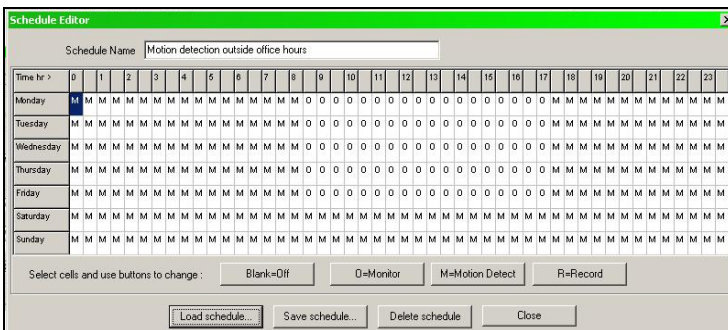
This lets you set schedules for each camera to be running or recording. Think of this as similar to setting programs on a video recorder. (You can also set Alarm and Patrolling schedules).

To actually **Run** the schedules (i.e. make them active), the **Timer** button on the main toolbar must be Down. This is analogous to pressing the **Timer** button on a video recorder.

Some things to note about the **Timer** button on the main toolbar:

- If you quit *Netcam Watcher Professional* with the **Timer** button down, it will be down when the program next starts.
- You can force the **Timer** and/or **Alarm** buttons to be down on program start-up by selecting this on the main **Preferences** dialog.
- You can force the **Timer** and/or **Alarm** buttons to be down on program start-up by passing the parameters **-TIMER** and/or **-ALARMS** when running the program.
- Pressing the Timer button down will start scheduling; this may cause cameras to start or stop.
- Pressing the Timer button up will stop scheduling, but will not cause cameras to start or stop. They simply carry on as they were.

You can Create and Edit schedules using the Schedule Editor. Select **Edit Schedules** from the **Edit** menu.



You can assign each camera a schedule on the **Edit Camera** dialog.

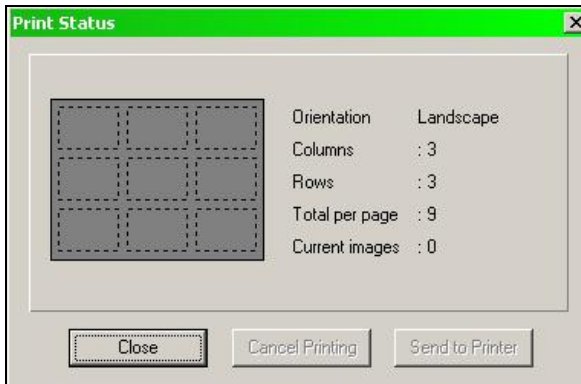
# Printing

*Netcam Watcher Professional* includes a printing utility.

You can print up to **6** rows and **6** columns of pictures per page, allowing a maximum of **36** pictures per page. You select the page layout using the **Page Setup** dialog on the **Print** menu.



When printing, the page is filled left to right, top to bottom. When a page is full it is printed. You can see the current status of a page by using the **Print Status** dialog on the **Print** menu



You can print pictures either from the current camera by using **Print Current Image** from the **Print** menu, or you can print frames from within the MJPEG player.

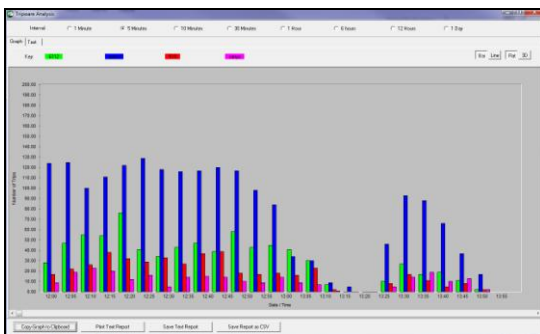
The **Print** menu also has options to print or cancel an incomplete page.

# Tripwires

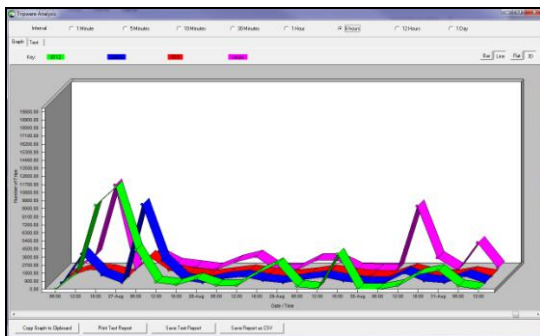
You can set up Tripwires on cameras using the sub-dialog on the Edit Camera dialog. If you select **Count Number of Tripwire Crossings** then each tripwire crossing is logged.

To see what has been happening, select one of more cameras (use the **Thumbnails** panel on the right hand side - use the **Shift** and **Control** keys to select multiple cameras) and do **Tools > Analyze Trips for Selected cameras**.

You will see a result like this:



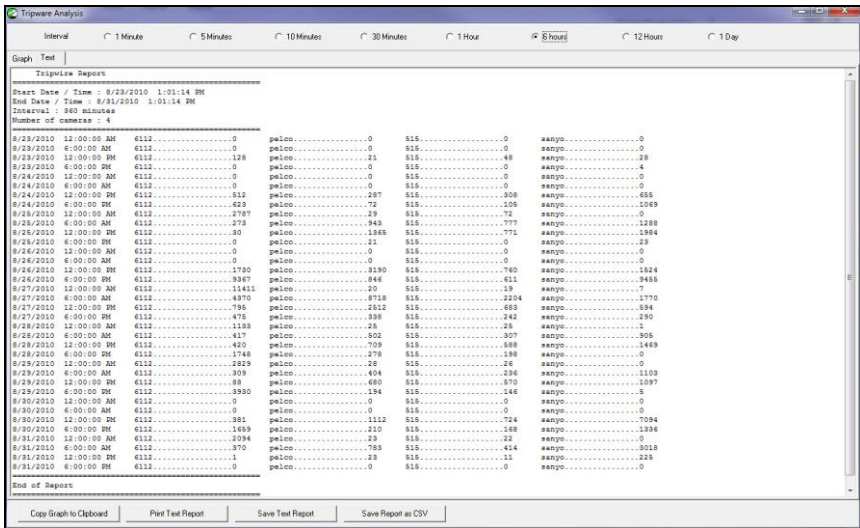
or



The graphs shown are the 2D Bar and 3D Line.

You can click the buttons to change the Interval (X-Axis) from 1 Minute to 1 Day

Click the Text tab to show the data in Text format:



You can also click these buttons at the bottom:

- **Copy Graph to Clipboard** - this copies the graphical part to the clipboard so you can paste into other programs
- **Print Text Report** - to print the text data
- **Save Text Report** - to save the text data in a text file
- **Save Report as CSV** - saves the data as a CSV (comma separates values) file. This can easily be read into other programs such as MS Excel.

## Tripwire Files

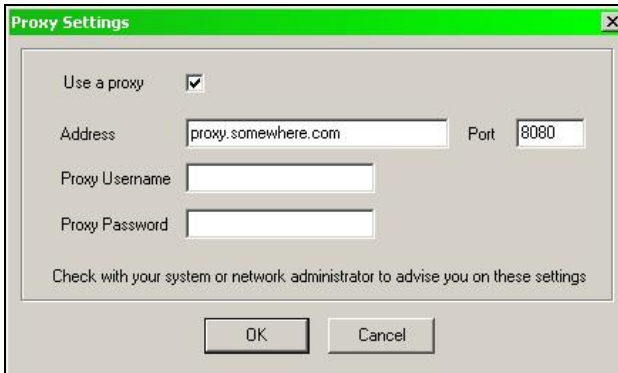
Tripwire data is stored in files of the form

TW\_ddmmyyy.DAT (eg TW\_23092010.dat)

These files are typically not large, in up to about 300kbytes per day, so they are not automatically deleted. (one year of tripwire data would typically amount to 100 megabytes per year, per camera. Not a significant amount)

# Proxy Setup

*Netcam Watcher Professional* can communicate using a *proxy server*. To set this up use **Proxy Setup** on the **File** menu.



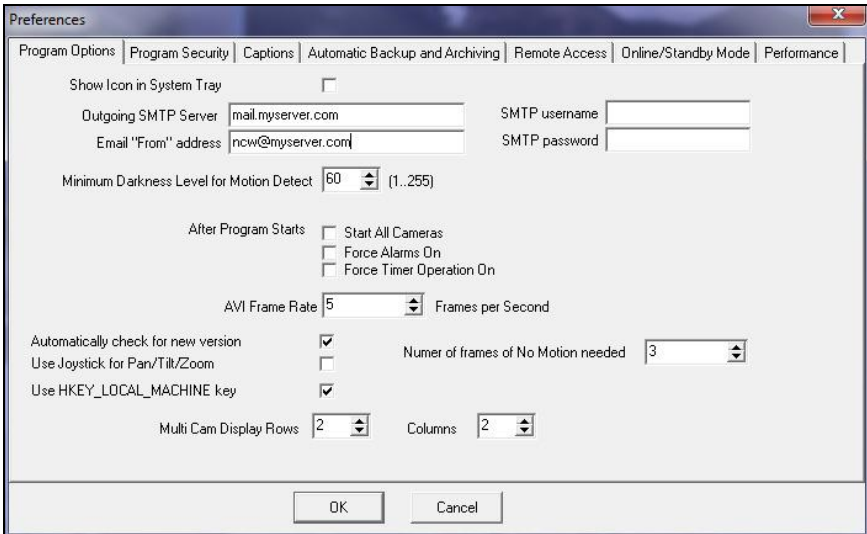
The image shows a dialog box titled "Proxy Settings" with a green title bar and a close button (X) in the top right corner. The dialog has a light gray background. It contains the following elements:

- A checkbox labeled "Use a proxy" which is checked.
- An "Address" text box containing "proxy.somewhere.com" and a "Port" text box containing "8080".
- A "Proxy Username" text box.
- A "Proxy Password" text box.
- A line of text: "Check with your system or network administrator to advise you on these settings".
- Two buttons at the bottom: "OK" and "Cancel".

Note that currently **Intellinet** and **VEO** cameras do not operate via a Proxy.

# Preferences

Set program preferences and options using the **Preferences** dialog on the **File** menu.



## Program Options Tab

- **Show Icon in System Tray:** The program minimizes to a small icon in the system tray.
- **Outgoing Email Server:** You need to specify an email (SMTP) server to use if you want to send e-mail alarms.
- **SMTP Username, SMTP Password:** Enter these here if your email server requires them. Otherwise leave blank.
- **Email From Address:** Used to identify outgoing email alarm messages.
- **Minimum Darkness Level for Motion Detect:** You can specify a value here for the lowest pixel value (1..255) that is considered for motion detection. Often cameras make excessive noise when there is little or no light and this can falsely trigger motion detection. Use a value here to prevent false alarms. Typical values to start with are 30-50
- **Start All Cameras, Force Alarms, Timer On:** If checked starts all the cameras or forces these buttons to be down on program start-up .

- **AVI frame rate:** When converting MJPEG to AVI this specifies the frame rate.
- **Automatically check for new version:** An automatic new version check is performed and you are notified on program shutdown if one is available.
- **Use Joystick for Pan/Tilt/Zoom:** If checked you can use a standard USB joystick for Pan/Tilt/Zoom functions. Use buttons 1 and 2 to zoom in and out.
- **Use HKEY\_LOCAL\_MACHINE key:** If checked this registry key will be used instead of HKEY\_CURRENT\_USER. This is useful if you want to run Netcam Watcher as a service as the run-as-service program and the normally run program will both use the same registry data. If you select this key it will prompt you to copy the current registry setup from the old to the new keys. Normally click **Yes**.
- **MultiCam Display Rows and Columns-** you can specify the number of rows and columns on the Multi Cam display. Maximum is 10 rows and 10 columns.

# Security Tab

*Netcam Watcher Professional* can be set up to require **Admin** and/or **User** passwords.

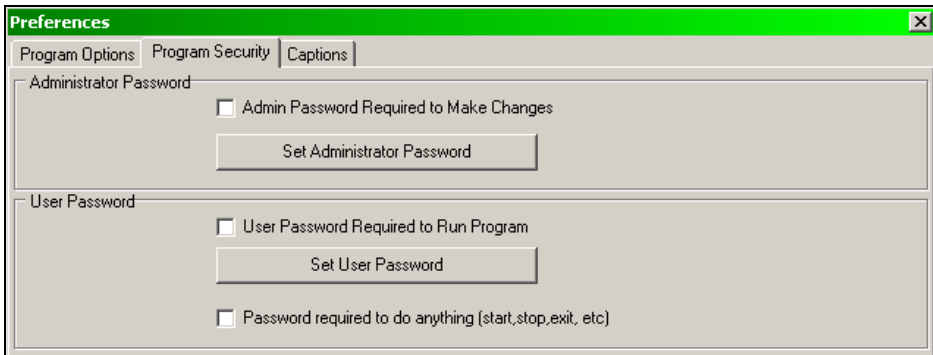
If an *Admin* password is set, the following functions require the *Admin* password to be entered:

- Editing Cameras or Motion Detection Masks
- Editing Schedules
- Editing Alarm Schedules
- Changing Preferences
- Changing Proxy Setup

If a **User** password is set then either this or the *Admin* password must be entered to run the program.

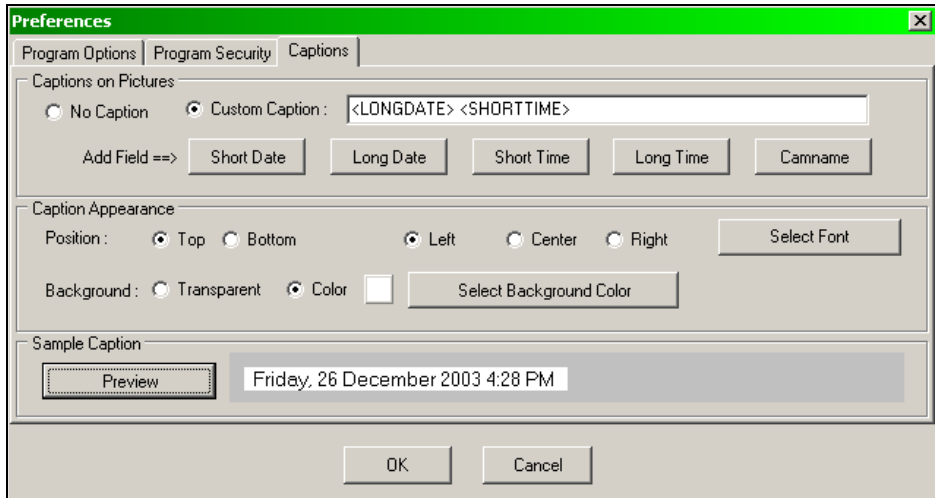
If **Password required to do anything** is checked then any action (including starting and stopping cameras, playing recordings or quitting the program) require a password.

Set and configure the Security settings on the **Program Security** tab on the global **Preferences** dialog.



## Captions on Pictures Tab

*Netcam Watcher Professional* can be set up to write captions onto pictures. The captions can contain the date and time stamps, camera name as well as fixed text. Use the **Captions on Pictures** dialog on the **File** menu.



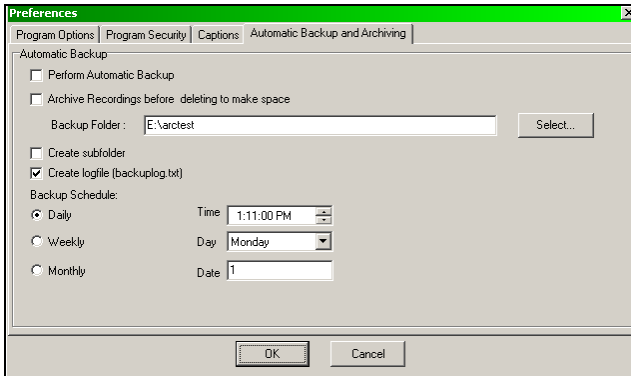
If you want to write a caption onto your pictures, select Custom Caption and enter the caption that you want into the edit box. You can click the buttons provided to enter fields such as dates and times.

Click the **Preview** button to see how your caption will appear on the image.

# Automatic Backups and Archiving Tab

*Netcam Watcher Professional* can be set up to perform automatic backups of camera configurations and recordings. It can also archive recordings before deleting old recordings to make space for new ones.

To set this up, select **File > Preferences** and then click the **Automatic Backup** tab



This lets you specify whether you want Automatic Backups and/or Archiving. Also you can specify the location to back up (or archive) to.

This also lets you set the frequency, **Daily**, **Weekly** or **Monthly**, and various other settings.

**Note** that the Archiving function only controls whether files are saved prior to deleting them. It does not actually control when files are deleted. This is controlled on a per-camera basis on the Edit Cam dialog. You can specify here is files are deleted when a certain amount of disk space has been used or after a certain amount of time.

## Remote Access Tab

This tab lets you enable remote access using **Netcam Watcher Remote Control** software. You can set the following fields:

- **Allow Remote Client Access** : check this to enable Netcam Watcher to act as a server for Netcam Watcher Remote Control. If you check this you will need to restart the program. Also you may need to give Netcam Watcher permission with your firewall to act as a server.
- **Remote Access Port** : This is the port that Netcam Watcher will listen on. This needs to be the same as the port configured on Netcam Watcher Remote Control. If you are using a router and are using NAT you will need to “pass through” this port.
- **System Name**. Give a descriptive name for the system.
- **Description** : (Optional) A description of the system.
- **Remote Access Password**: This is the password that needs to be set in **Netcam Watcher Remote Control** to access this system.

Once you have configured remote access you can connect to this system using **Netcam Watcher Remote Control**. If you want to access the system from across the Internet you need to make sure that your router is configured to make this IP address and port visible.

For detailed instructions on setting up Remote Access, please see

<http://netcam-watcher.com/ncwrchowto.php>

## Online / Standby Mode Tab

This tab lets you set up **Netcam Watcher** to operate in Online / Hot Standby mode for ultra-high availability. Using this in conjunction with AlwaysUp will guarantee very high overall availability.

To do this you need two PCs, both configured with the same cameras. You can do this by setting up one PC, exporting the camera definitions and then importing them on the second PC.

Note that each PC must have its own separate licence code.

The first PC that starts will operate in **ONLINE** mode; the other will operate in **STANDBY** mode.

If the **ONLINE** PC is closed down, crashes or otherwise stops communicating with the **STANDBY**, the **STANDBY** switches over to **ONLINE** operation and starts all cameras running and enables Timer operation (if needed).

- **Use Online / Standby Mode** : check this to enable Online / Standby operation.
- **Partner System Address** : This is the IP address of the other system. You can use a dotted address like 192.168.0.111 or you can use the system's name such as SYSTEM\_A. You can check whether the name is properly resolved by opening a command prompt window and typing

```
PING <system_name>
```

If it is correct you should see a Ping reply. If invalid you will see a message that Ping cannot find the remote host.

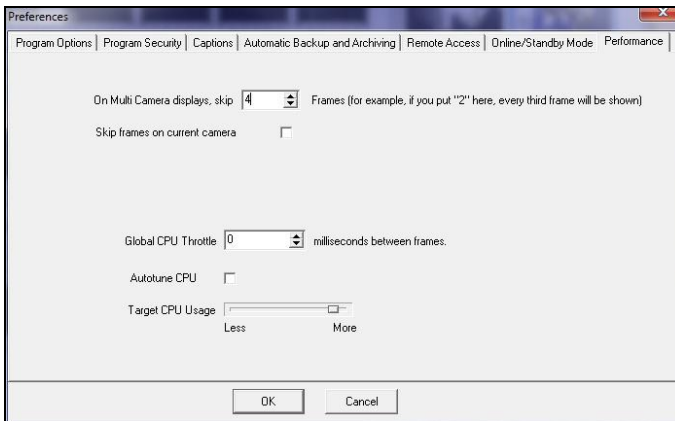
- **Ping Port** : This is the port used to exchange heartbeat messages. Unless you have a good reason to change, leave at 8800. It must be the same on both systems.
- **Send email to this address**: (Optional) An email address where failover (switchover from STANDBY to ONLINE) notifications are sent.

When operating in Online / Standby mode, the system will show the current mode on the program title bar, for instance the Online will say

**Netcam Watcher Professional : ONLINE**

# Performance Tab

This tab lets you set up **Netcam Watcher** performance related settings:



- **On MultiCam screen skip X frames:** Number of frames to skip on the MultiCam and DisplayWindow displays. When displaying large numbers of cameras on-screen, a significant amount of CPU is used and this can lead to reduced system performance. By skipping some frames you can keep the recording speed up.
- **Skip Frames on Current Camera:** If unchecked (default value) then the current camera is shown at full speed (ie no frames skipped). If checked, it is displayed as for other cameras (frames are skipped according to the above setting)
- **Global CPU Throttle:** Number of milliseconds paused between each frame received. If you have high CPU usage (85% or above, adding some CPU throttle will make the system more responsive. Start with a figure of 10)
- **Autotune CPU:** If checked, Netcam Watcher will constantly monitor it's CPU usage and attempt to keep to the target CPU usage specified on the slider

# Using FTP

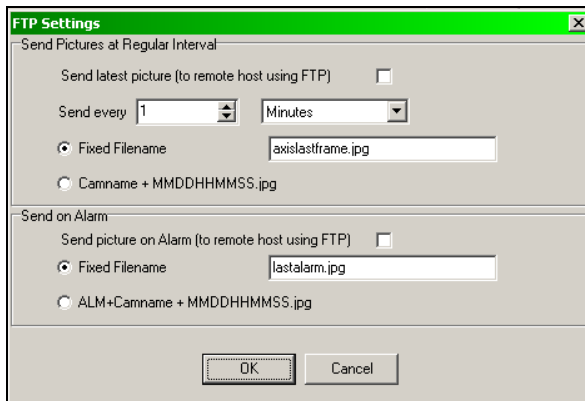
*Netcam Watcher Professional* can use **FTP** (File Transfer Protocol) to send cameras latest pictures and/or alarm pictures to a remote host. If the remote host is an Internet web server then you can then view these images from across the Internet.

There are two parts to getting this working. Firstly you configure the remote host by using File > FTP Settings

This opens a simple dialog that lets you specify details about the remote host:

- **Remote Host** e.g. [www.myserver.com](http://www.myserver.com) or 192.111.333.123
- **Username**
- **Password**
- **Remote Path** you can put the pathname here to store the pictures or leave blank for the default folder.
- **Alarm Remote Path** similar to Remote Path but for alarm images.
- **Use Passive Mode** often this works best if you have a firewall
- **Write FTP Log file** writes a log file to **FTPLOG.TXT** in the Netcam Watcher Program Folder.

The second part is set up on a per-camera basis, by clicking the **FTP** button on the Edit Camera dialog.



You can select whether to send pictures at regular intervals, or when an alarm occurs, also the frequency and filenames to use. You can also check a box to ensure that the camera returns to home position (preset # 1) before a regular FTP.

# Command Line Switches

If you want to automatically start *Netcam Watcher Professional* then it's often useful to be able to enable the timer, etc.

You can use a number of command line parameters to automatically start the Timer, enable the alarms, etc.

- **-TIMER** this enables the scheduler, like pushing the *Timer* button down
- **-ALARMS** this enables the Alarms, like pushing the *Alarms* button down
- **-AUTOSTART** starts all cameras
- **-MINIMIZE** runs the program minimized
- **-NOPASSWORD** skips initial password check. Useful when running as a service.
- **-AUTODELAY** similar to -AUTOSTART but with a 20 second delay. This is useful on some systems to allow network drives to become reconnected.

To use these parameters you must set up an extra shortcut to *Netcam Watcher Professional* and add the parameters to the end of the command line.

For example, a command line in a shortcut might look like this:

```
"E:\Program Files\BeauSoft\ncwpro\ncw.exe" -TIMER -MINIMIZE
```

If you want *Netcam Watcher Professional* to start automatically when your system starts, put the shortcut into your **Startup** folder.

Alternatively, consider using **AlwaysUp** to run the program as a windows service. (This is the preferred option)

# AlwaysUp

To use AlwaysUp:

1) Download and Install AlwaysUp from

[http://www.coretechnologies.com/products/alwaysup/AlwaysUp\\_Installer.exe](http://www.coretechnologies.com/products/alwaysup/AlwaysUp_Installer.exe)

2) Save the licence file that was sent to you when you registered "AlwaysUp.dat" into the AlwaysUp program folder (this is the licence file). If you need this file resent, contact us.

3) In NCW, File > Preferences, select "Use HKEY\_LOCAL\_MACHINE" and then click yes when prompted (this makes the run as service and foreground incarnations use the same registry data)

4) Run AlwaysUp and add Netcam Watcher. You can add arguments, like -AUTOSTART to start all the cameras (see the section in the NCW user manual "command line switches")

5) If you want to use the Cambar you will need to set the user account to be your own user account and not the default system one.

6) If you want to use the new Sanity Check, run AlwaysUp and edit Netcam Watcher. Go to the Monitor tab and check "Whenever it fails the following sanity check". And then click the "..." button to browse to the Netcam Watcher program folder and locate the file NCWPING.BAT and click OK. Use an interval of one minute or 30 seconds.

**NOTE** for Vista and Windows 7 users: AlwaysUp will start Netcam Watcher in a "session" that is different to the session that you use when you log in. What this means is that it's running in the background and you can't see it. This is fine (in fact good) if you just need to record in the background

But if you want to use the user interface (ie see the program) you must do this through AlwaysUp. You run AlwaysUP and do Application > Restart NCW in this session

DO NOT just run Netcam Watcher from the shortcut on the desktop or there will be two incarnations running and this will cause problems.

If you have any questions regarding AlwaysUp, please contact us for help.

# Importing and Exporting Cameras

You can save your current camera definitions (i.e., the current cameras that you have configured) by using *Tools > Export Camera Definitions*. This creates a coded file with the default name *webcams.def*

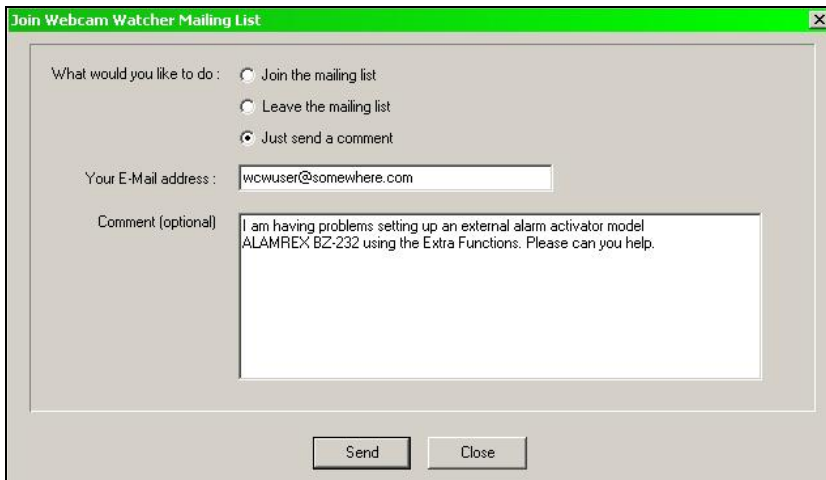
You can also load cameras from a *.def* file, using *Tools > Import Camera Definitions*. In this case any cameras in the *def* file that you open are added to the current set of cameras.

**NOTE** : It is a good idea to export your camera definitions after any changes, and keep a backup in a safe place.

## Help and Support

*Netcam Watcher Professional* can send an email message directly to the support center. Use **Send Us a Comment** on the **Help** menu.

You can send technical support or other questions and we will get back to you as soon as possible.



Join Webcam Watcher Mailing List

What would you like to do :

- Join the mailing list
- Leave the mailing list
- Just send a comment

Your E-Mail address :

Comment (optional)

I am having problems setting up an external alarm activator model ALAMREX BZ-232 using the Extra Functions. Please can you help.

Send Close

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