



Analyst Version 3.46

Event Monitor

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An extract from the full Analyst manual containing:

Event Monitor

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Event Monitor

What is Analyst Event Monitor?

Analyst Event Monitor is an Add-on module to the Analyst suite of products and is designed to increase the security in your shop by monitoring certain events on the PoS and PMR terminals. The occurrence of these events is reported back to the Event Monitor displaying the time, terminal and assistant involved with the event along with any event specific information.

The Event Monitor can in turn trigger further actions to be taken depending on your hardware and which event triggered. These are:

- Send an SMS text message to a mobile phone with details of an event.
- Capture the images from a webcam for a specified number of seconds before and after an event.
- Trigger settings on a burglar alarm panel including RedCare systems.

These can be setup in combination for more than one response to occur and can be set on a per-event basis. There are over 40 events captured by the Event Monitor in addition to the limitless number of Product Messages and Sale Restrictions which are setup by users in Analyst.

The following pages will describe the setup and usage of the Event Monitor and provide example images and responses from a webcam.

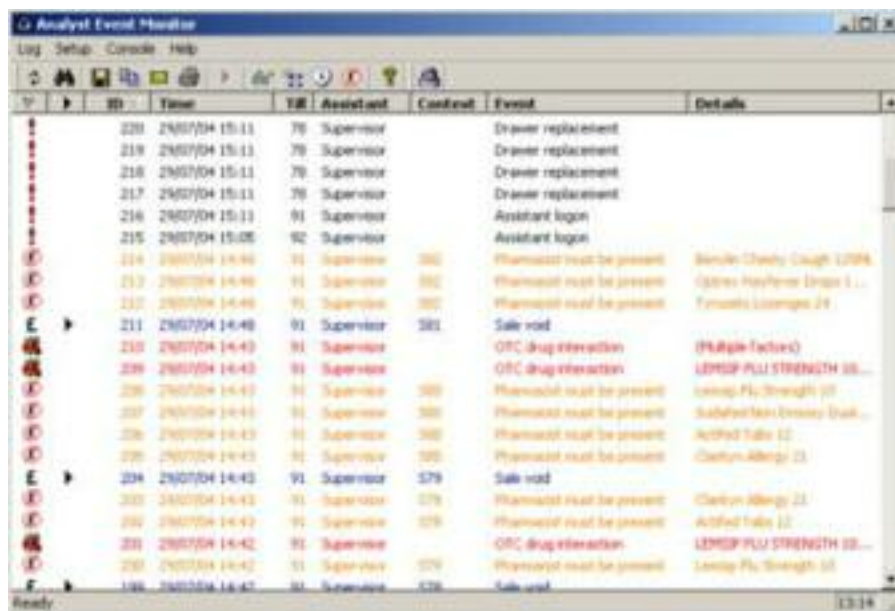
Using Analyst Event Monitor

Analyst Event Monitor is a standalone application which uses transmissions from Analyst terminals across the local network in your shop to log specified events. Analyst does not need to be registered on the terminal that Shop Monitor will run on.

In order for Event Monitor to log the events on the system it must be running at the time the event occurs. If it is not, the event log is not captured nor is a response initiated. Once launched, which can be automated at start up, the Event Monitor can be minimised to the bottom right of the desktop in the system tray/notification area next to the time.







Launching Event Monitor

The Event Monitor is launched from the icon on the desktop. After double-clicking the icon the Event Monitor Main screen will appear.



The screen is divided into familiar sections. A Menu bar contains options which reveal drop down menus. The Tool Bar beneath contains a row of icons for the more commonly used options whilst the main pane contains a number of columns with the details of each event.

These columns are an Icon column which displays the type of event at a glance:

-  System event
-  Sale event
-  Product message
-  Sale restriction
-  Dispensing event
-  Drug interaction

The remaining columns are:

- Unique event ID
- The time the event occurred
- The till/terminal the event occurred on
- The assistant logged on at the time of the event
- The sale or dispensing ID the event occurred in
- The event type
- Any detail relating to the event - account/patient name, interacting drugs, product, etc.

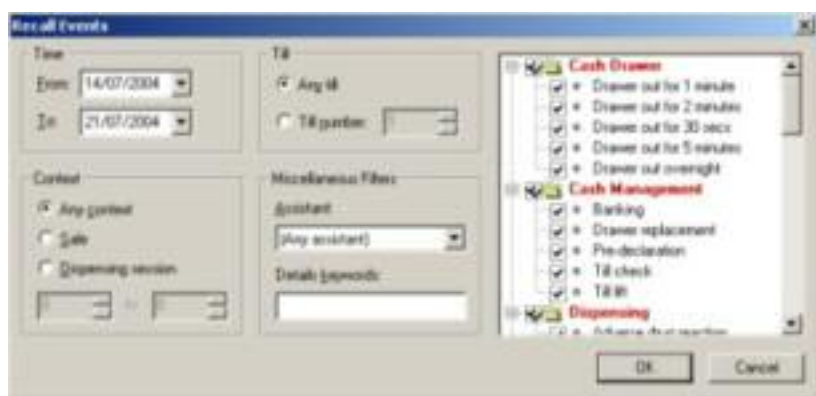
The information can be sorted by clicking on the column headers.

Finding Past Events

To prevent the main screen from becoming too cluttered, only the previous seven days' events are displayed. All previous events however are still stored and can be recalled on demand.



To recall the events for a certain period click the Recall button at the left of the toolbar, select **Log** then **Recall** or just press **F5** on our keyboard.



Complete this dialogue to narrow the search. Select a date range in the top left, a till in the top middle, a sale or dispensing session number range in the bottom left or select an assistant or any other keyword which can appear in any of the fields in the bottom middle. The pane on the right allows the selection of the events. By default all events are selected. Remove the tick next to the event to omit the event from the search, or the ticks next to the section headers to omit the whole section.

When complete press **OK** to return to the main screen which will now display the search results.

To clear the search and return to the chronological list of all events of the previous seven days Click the **Recall** button again and then **OK** to restore the defaults.

Searching for Events

To search for events click on the binoculars icon, select **Log** then **Find** or press **CTRL+F** on the keyboard.



Type into the **Find text** field what you would like to search for. By default the search looks through all of the fields listed in the pane beneath but fields can be omitted from the search by removing the tick from the relevant box.

To be more specific in your search text use a '/' (forward slash) at the beginning to denote that you would like to search for fields that start with the text you have typed. Otherwise the search will look for the text you have typed in any part of the fields ticked below.

Click **OK** to perform the search. The results will be displayed on the main screen.

NOTE: Only the contents of the main screen are searched through. Recall the events from the likely period before performing the search for best results.

Saving Events

The contents of the Event Monitor main screen can be saved, copied, emailed or printed if required by the use of the buttons on the toolbar.



Clicking the Save button (the disk) will display the Windows file save dialogue and will save the contents of the main window to a CSV file to be used by another application or to an XML file which is easier to view.

Click the Copy button (to the right of the Save button) to copy the contents of the main window to the Windows clipboard.

Click the Email button (the envelope) to open your email editor. Shop Monitor will place the contents of the main window in the body of an email with the subject "Analyst Event Monitor". This of course can be amended and the body of the email added or amended.

Click the Print button to send the contents of the main window to your A4 printer. A dialogue will be displayed to allow a filtering of what is to be printed. This can be all lines, above and including the highlighted line or below and including the highlighted line. A list of fields is also displayed which can be omitted by removing the tick next to the relevant field.



These functions can also be invoked by pressing **CTRL+S**, **CTRL+C**, **CTRL+M**, **CTRL+P** respectively.

Monitors

Configuring Monitors

The monitors in the system are the separate systems, like a camera or alarm, which respond to the events when triggered. Initially though these need to be configured.

From the Setup menu select the **Shop Monitors...** option or click the 'spectacles' icon on the tool bar.



The Event Monitor dialogue will now appear.



Use the check box to select which monitors you wish to use. They need not be active for each event, but if you wish to use one check the box in this dialogue. The monitors are:

Alarm Relay	The system can integrate into your burglar alarm via a relay input.
SMS Text Message	An SMS message centre can distribute text messages sent by Analyst.
Webcam	An off-the-shelf webcam connected to a terminal can capture a sequence of images.

To configure a monitor, highlight it in the list and click the configure button at the bottom left.



Axis Camera Setup

Positive Solutions endorse a network camera made by Axis Communications as an affordable multi-camera solution. These cameras produce a similar output to a good quality webcam but act as a node on the network rather than being connected to a computer removing the limitations posed by using a webcam.

The cameras are constantly capturing images at the rate of one frame per second and those images are cached (stored internally) for a period of time. Upon an event Analyst will store however many frames from the cache of before the event occurred to however many after the event. This can be different for each camera if desired.

The installation of the camera(s) will be carried out by our engineers and they will configure them on the system ready for you to use. To adjust the settings for the cache click on the Monitor Setup icon on the toolbar.

The camera options will appear.

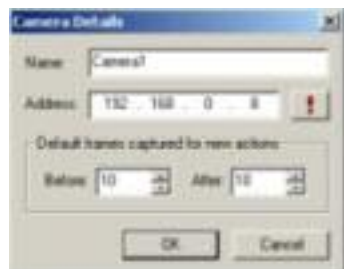


The cameras installed on the system are displayed with their name, IP (network) address and the number of frames the camera will store before and after an event. These can be different for each camera.

In the bottom half of the screen the global settings are displayed. The **Cache size** is the total number of frames stored in the cache for each camera. This is the maximum amount of frames that can be stored from any camera from before an event. The **Frame Interval** determines the number of seconds between each frame being captured by the camera. This is typically set to 1 second but can be increased if required though anything more than 5 seconds might prove useless when monitoring an event. The **Retain Pictures** field sets the

length of time the images should be stored for before discarding them. All of these option will impact the physical size of the cache on the computers hard disk drive. If space is at a premium these parameters can be changed to reduce the impact of Event Monitor on the overall performance of the computer.

Each of the cameras can have their own settings if the global setting described above do not suit the particular needs of a camera. Highlight the camera in the list and click the properties icon.



The camera name can be changed here if required. The address field relates to the network address of the camera and should not be changed. The Ping button (with the exclamation mark) however can be used to determine if the connection to the camera is still operational. A reply time of 1ms or similar will appear if it is working. No acknowledgement will appear if it is not. And the Default Frames to be captured can be set here rather than using the global settings on the main setup page.

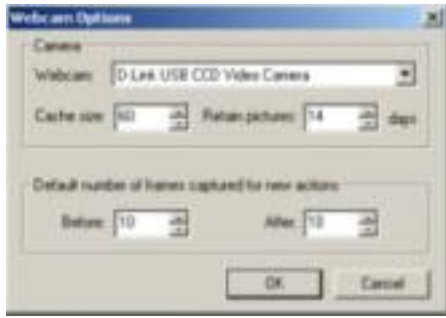
Webcam

Event Monitor can capture images by using an off-the-shelf webcam. Whilst the quality of image is suitable for monitoring purposes the main limitation is that the webcam must be installed on the terminal running Event Monitor and only one can be used to capture any images.

The webcam should first be installed onto the terminal which hosts Shop Monitor. Refer to the instructions supplied with the webcam for the correct installation procedure. When complete launch Event Monitor and select the Event Monitors icon on the tool bar. From the list that appears highlight the **Webcam** option and click the configuration icon at the bottom left of the window.



The Webcam configuration dialogue now appears.



The **Webcam** drop down menu contains all installed webcams on this terminal. If there is more than one, select which camera to use with Event Monitor. The webcam is continually filming its view at the rate of one frame per second and the images are cached in memory. The **Cache Size** field specifies how many frames should be stored before being discarded. This determines the maximum number of historical images that can be summoned when an event occurs. Also type in the number of days the images should be stored for following an event in the **Retain pictures** field.

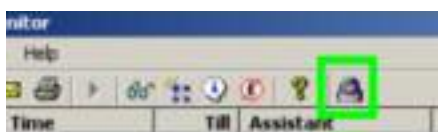
The bottom options specify the default number of frames to be captured both before and after an event when triggered. The **Before** value cannot exceed the **Cache size** but the **After** field can be however long you wish.

Here is an example of a webcam shot.



Well, it is misuse of a till!

The live image being taken by the webcam can be viewed by pressing the monitor button on the toolbar.



This opens a new pane displaying the image from the webcam in real-time. This window remains 'on top' and does not affect the capture of the image if an event is triggered.

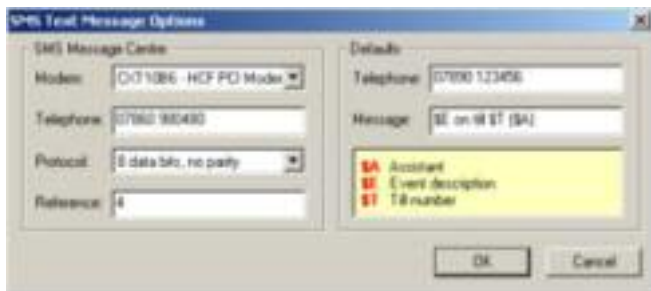
SMS Text Messages

Event Monitor can be configured to call an SMS message centre through the host PC's modem and phone line to deliver a message to a target mobile phone.

To configure the SMS messaging click the Event Monitor icon on the toolbar, highlight **SMS Text Message** and click the configuration button at the bottom left.



The configuration screen will then appear.



In the **Modem** field select the modem to be used to dial up the message centre. In most cases there will be only one option in this drop-down box. The message centre **Telephone** number for O2 is filled in by default. This can be replaced with your preferred message centre number if required. If you do, select the **Protocol** that matches the SMS message centre (find this out when you find the number). The **Reference** will prefix any message sent from Event Monitor with the shop number or name if entered here.

In the Defaults section type in the **Telephone** number to send the messages to and the **Message**. The message can be composed using placeholders for the assistant (\$A), event description (\$E) and till number (\$T). The message "\$E on till \$T (\$A)" is default. These 'default' fields can be overwritten on a per-event basis if required. For the configuration pictured the message would read something like "Shop: 4:Till check on till 2 (Rick O'Shea)"



Important notes.

1. SMS Messages should not be relied upon to relay important messages. Although most are delivered promptly, the delivery times can vary and very occasionally the message is lost entirely.
2. Every event configured to send an SMS will dial up to a message centre and a charge will be incurred. This varies with the SMS provider, your phone provider, length of connection and time of day. During testing to the O2 message centre used as default by Event Monitor incurred an average cost of 0.055p (+VAT) per message. This should be treated as guidance only.
3. It is impossible to associate the message sender unfortunately. As above in the right image the sender is identified as '1111'. This is a limitation of the transmission protocol.

Alarm Relay

A additional unit can be added to a PC or Micro Terminal to emit a signal emulating that of an alarm relay from a conventional alarm motion sensor, door or window switch or panic button. You are advised to contact your original alarm installer or reputable electrical professional to connect the these additional sensor wires into your alarm system.

The relay unit has 4 configurable outputs which might draw various responses depending on the configuration of your alarm panel.



By highlighting the **Alarm Relay** option in the Event Monitor dialogue and clicking the configuration button the Alarm Relay Options screen appears.

Type in a descriptive reminder for each output which is wired into the alarm panel. The **Active** field allows the pulse length required by the alarm panel to be configured. Typically 1 second is sufficient (10x100ms) but should the alarm not be raised during tests the alarm's instruction manual or installer should be referred to for the appropriate pulse length for each output.

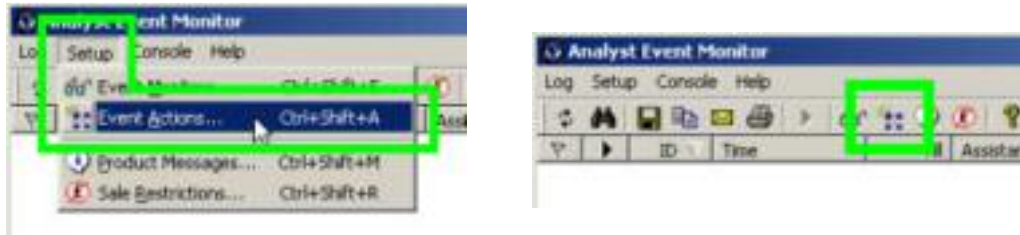
At the bottom left set which **Serial port** of this terminal is connected to the relay unit.

Events

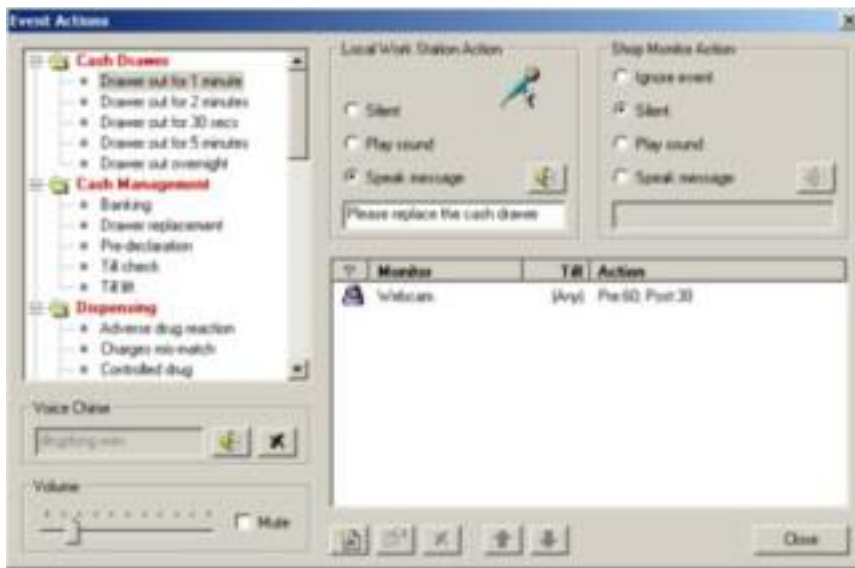
Configuring Event Actions

An event is one of over 40 sale and dispensing features which can occur during the natural use of the system but may pose a security threat. An action can be defined for each of these actions if required to respond to the potential problem.

To configure these actions in the Event Action dialogue select **Setup** and **Event Actions**, use **CTRL+Shift+A** or click the icon on the toolbar to the right of the spectacles.



The Event Actions dialogue will then appear.



The pane in the top left displays all the events for which a response can be set. All lines in black will be logged, although no other action may be triggered. Lines which are Greyed out are set to be ignored. There is an expanded view of the events here.

The **Local Work Station Action** defines what will happen at the terminal where the event occurs and the **Event Monitor Action** defines what will happen at the terminal Event Monitor is running on. It can be Silent, play a sound (which must be selected from your PC), or Speak a message.

Ignore Event	The event is not to be logged by Event Monitor.
Silent	The event is logged by Event Monitor but there are no audible warnings.
Play Sound	A WAV file from your PC is played when the event occurs. Choose the WAV file to play from the Open file dialogue which opens when the option is selected.
Speak Message	A simulated voice reads the message typed in the field beneath the option. Use the loudspeaker button to preview the message. You may need to type the message phonetically to achieve the correct pronunciation.

In association with the 'Speak Message' option, a WAV file can be played before any simulated voice by using the **Voice Chime** section below the list of events. Use the loudspeaker button to preview the WAV file chosen. If '(none)' is chosen then use the button next to the loudspeaker with three dots to search for a WAV file to play. When a WAV file is selected this button becomes a delete button to remove the selected WAV.

The system volume can be adjusted with the volume control and mute box at the bottom right of the screen.

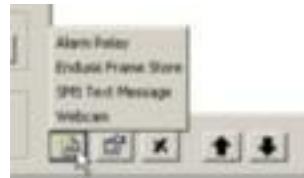
The power of the add-ins are the ability to execute a number of responses from simply logging system activity, down to a level where you can monitor one terminal for specific events. The add-in monitors are:

- Alarm Relay
- SMS Messaging
- Webcam image capture

Any or all of these, subject to your hardware installation can be set to respond to your events.



From the Event Actions screen select the event from the left pane to work on and click the New Action button underneath the main pane and select the add-in monitor to configure.



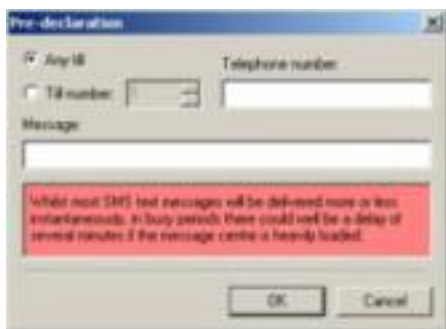
Alarm Relay



The option to define this event for any till or for a specific till is displayed in the left of this window. On the right are the Alarm relay outputs which have been defined in the Monitor Setup. Select which output to trigger which this event occurs by placing a tick next to the appropriate option on the right and click the **OK** button.

SMS Text Message

Analyst uses message centres to deliver SMS messages to your designated mobile telephones. You must have a modem enabled in your system and have it connected to a telephone line for this feature to work. Select the **SMS Text Message** option from the New Action button. Specify whether this configuration is to apply to any till triggering this event or a specific till number and type in the mobile telephone number to send the message to.



Type in the message to be sent in the field in the middle of the window. This can be no longer than 160 characters. This message will replace any default message set in the monitor setup section. The place holders **\$A**, **\$E**, and **\$T** can be used to put the assistant name, event name and till number in the text message. If either the Telephone number or Message fields are left blank the default is used from the monitor setup.

NOTE: The red pane on this dialogue contains the important message that although SMS Text Messaging is fairly reliable there are, on occasion, delays in delivery and rarely, complete failure of delivery. DO NOT rely on SMS text messages for important notices.

Webcam

Add the webcam as a response for this event by clicking the New Monitor button and selecting the **Webcam** option. The webcam dialogue will appear and allow the response to be for any till or a specific till number. The default number of frames are displayed in the **Before** and **After** fields which can be modified for this event if required (the **Before** field cannot exceed the **Cache** value in the monitor setup).



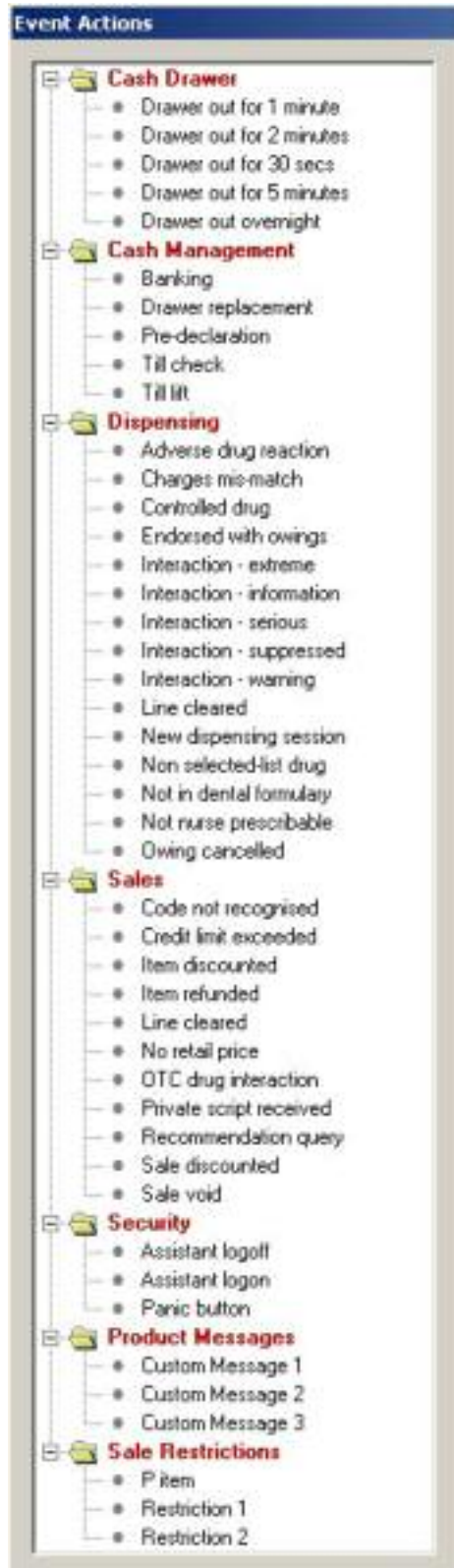
Axis Camera

Add the Axis camera as a response for this event by clicking the New Monitor button and selecting the **Axis Camera** option. The Axis dialogue will appear and allow the response to be set for each camera or for any till or a specific till number. The default number of frames are displayed in the **Before** and **After** fields which can be modified for this event if required (the **Before** field cannot exceed the **Cache** value in the monitor setup).



Event Actions List

Here is an expanded view of the Event Actions which are available. The Product Messages and Sale Restrictions sections at the bottom will contain the messages and restrictions from your Analyst PoS setup.



Editing Messages and Restrictions

The Product Messages and Sale Restrictions which are usually setup in Analyst PoS can be setup directly from Event Monitor.



Click on the Messages button (information bubble) or Sale Restriction button (crossed out £) to launch the Analyst editors for [Product Messages](#) or [Sale Restrictions](#).

Added or amended messages or restrictions will appear instantly in the Events Action list at the bottom.

Viewing Footage

Viewing Live Footage

When using any of the camera options (Webcam or Axis) the live footage can be displayed for one camera at a time without interfering with any recording that might need to take place in response to a current event. If the monitor has been configured on your system the relevant icon will be displayed in the toolbar. All three are displayed below, though you are unlikely to have all three displayed at once on your system.



Click the appropriate button to view the live image.

-  View Axis camera(s)
-  View Webcam

The preview pane is displayed.



In the case of the Axis system the view can be switched between cameras by clicking the icon in the top left.



Select the camera to be viewed and, if required, set the image to remain on top so other applications can be used but this pane remains in view. It can also be made smaller or larger to suit your needs.

Viewing Webcam Footage








For events which have triggered the capture of webcam footage the images will be available to review for the number of days specified in the Monitor Setup for the Webcam. Items with webcam footage are displayed on the Shop Monitor main screen with a black triangular "play" icon in the second column.

To view this footage select the line on the Event Monitor main screen and click the "Play" icon in the toolbar or select **Log** then **Replay Event** or press **CTRL+R**. The Replay console will then appear. After a webcam event has been triggered it can take up to 3 or 4 minutes for the buffer to be processed and saved to be viewed so don't be alarmed if the message "The image sequence is still being saved" appears well after the recording period had ended, this is quite normal. Simultaneous or overlapping recordings are unaffected by the time it takes to save the image sequence.



The image taken is displayed with the controls beneath. A progress bar displays the position of the current frame in the footage sequence and information about the frame is displayed in the yellow information panel to the right which contains the frame number and number in sequence as well as the date and time that the frame was recorded.

The buttons beneath control the playback and orientation of the image.

-  Initial frame
-  Previous frame
-  Next frame
-  Final frame
-  Play all frames
-  Stop play sequence
-  Rotate image

Press the Play button to play the sequence of frames.



If your webcam is mounted at an angle the rotate button can be used to rotate the image through 90°, 180° or 270° by repeatedly clicking the rotate button. Once set, Event Monitor remembers the orientation of your webcam so you don't have to keep changing the rotation. The slider at the bottom right changes the speed of playback.

Ensure that your webcam is in focus for the sharpest image and that lighting is suitable to illuminate the intended subject.

Viewing Axis Camera Footage








For events which have triggered the capture of Axis camera footage the images will be available to review for the number of days specified in the Monitor Setup for the camera. Items with footage are displayed on the Event Monitor main screen with a black triangular "play" icon in the second column.

To view this footage select the line on the Event Monitor main screen and click the "Play" icon in the toolbar or select **Log** then **Replay Event** or press **CTRL+R**. The Replay console will then appear. After an event has been triggered it can take up to a minute for the buffer to be processed and saved to be viewed so don't be alarmed if the message "The image sequence is still being saved" appears well after the recording period had ended, this is quite normal. Simultaneous or overlapping recordings are unaffected by the time it takes to save the image sequence.



The image taken is displayed with the controls beneath. A progress bar displays the position of the current frame in the footage sequence and information about the frame is displayed in the yellow information panel to the right which contains the frame number and number in sequence as well as the date and time that the frame was recorded.

The buttons beneath control the playback and orientation of the image.

-  Initial frame
-  Previous frame
-  Next frame
-  Final frame
-  Play all frames
-  Stop play sequence
-  Rotate image

Press the Play button to play the sequence of frames.



If your camera is mounted at an angle the rotate button can be used to rotate the image through 90°, 180° or 270° by repeatedly clicking the rotate button. Once set, Event Monitor remembers the orientation of your Axis camera so you don't have to keep changing the rotation. The slider at the bottom right changes the speed of playback.

Ensure that your Axis camera is in focus for the sharpest image and that lighting is suitable to illuminate the intended subject.

Selecting the Camera

If you have more than one camera in the system, use the combo box next to the playback buttons to select which camera to view.



The controls for each camera are identical and the time stamp in the yellow section can be used to determine different angles of the same event at the same time.

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