

1 Overview

The Sensormatic EAS system can integrate with an exacqVision VMS through the exacqVision serial data interface.

Sensormatic components tested:

1. Ultra Exit 2.0m ABS Pedestal (model AMS-1090)
2. AMS-9050 Controller
3. CBC-4055 Local Device Manager

NOTE: This guide covers only the integration of the CBC-4055 (LDM) to exacqVision. It is not intended to cover the basic installation and configuration of EAS equipment.

Software versions tested:

- exacqVision Client 6.6
- exacqVision Server 6.6
- UltraLink/LDM Configurator version 8.3.0.0

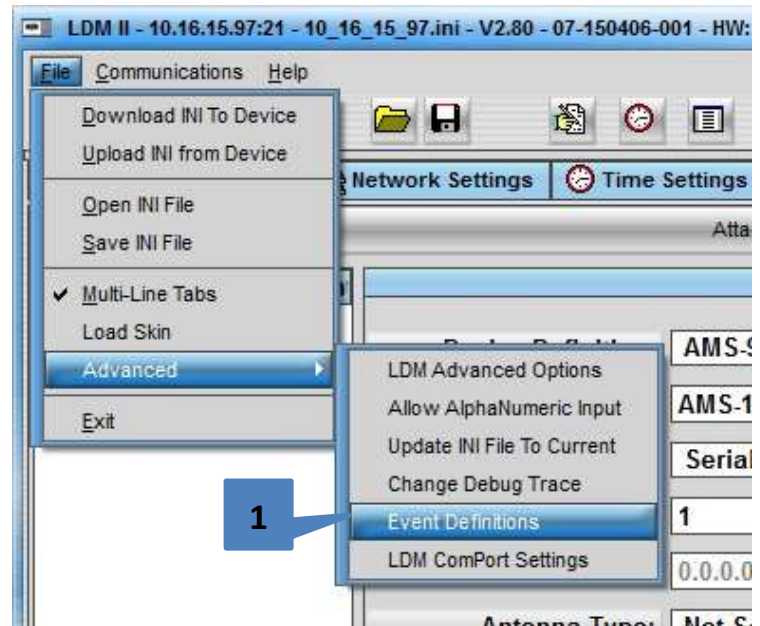


2 Configuration

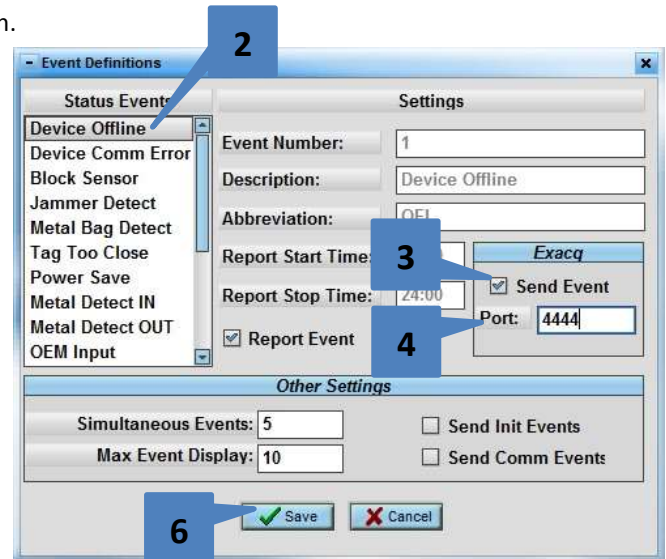
In this scenario, the exacqVision recorder receives unencrypted text from the LDM module through a serial-over-IP port. Both the LDM module and the exacqVision system must be configured properly for this integration to work. To configure the LDM to transmit serial data to the exacqVision recorder, open the LDM/UltraLink Configurator software and complete the following steps.

Configuring the LDM

1. From the **File** menu, select **Advanced** and then **Event Definitions**.



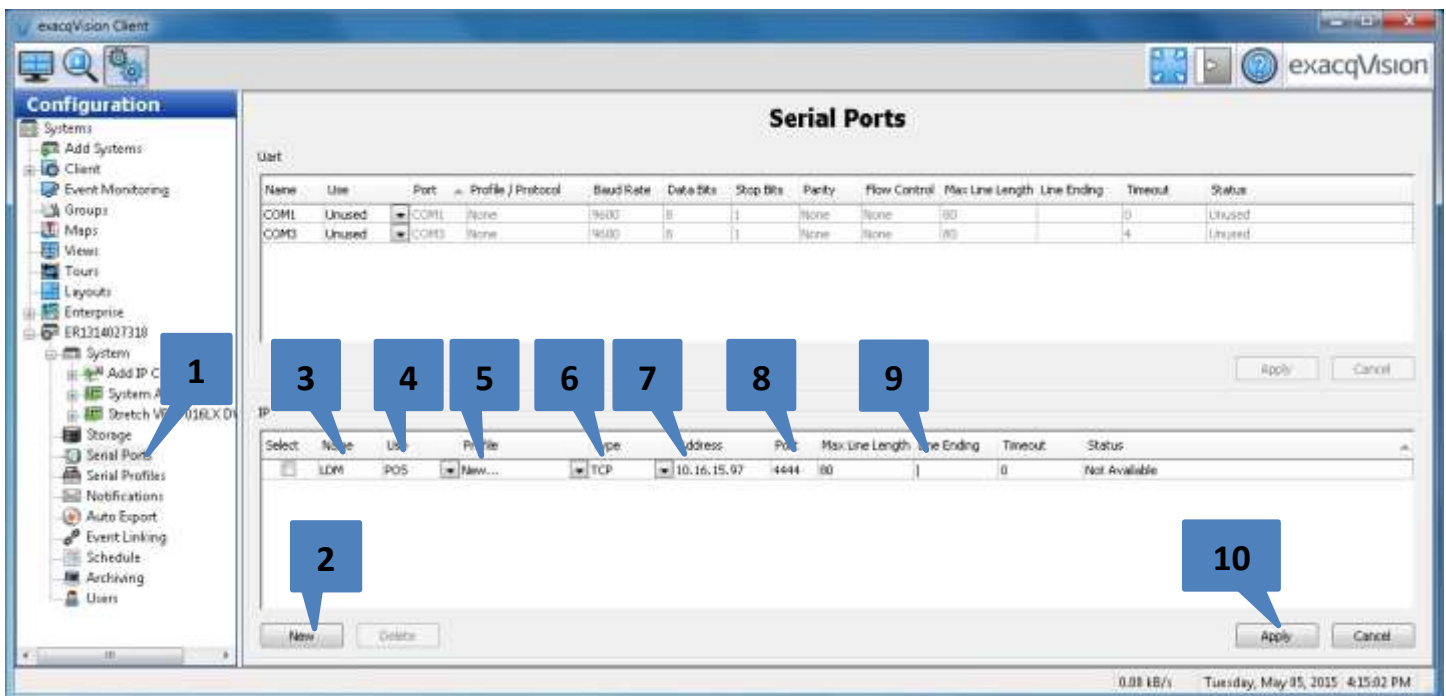
2. In the Status Events list, select an **Event** to report to exacqVision.
3. Enable the **Send Event** checkbox.
4. Enter any unused port number.
5. For any additional events to report to exacqVision, repeat steps 2–3. (The port number should remain the same for each added event.)
6. Click **Save** after all events have been added and configured.



Configuring exacqVision Serial Ports

Run exacqVision Client and complete the following steps:

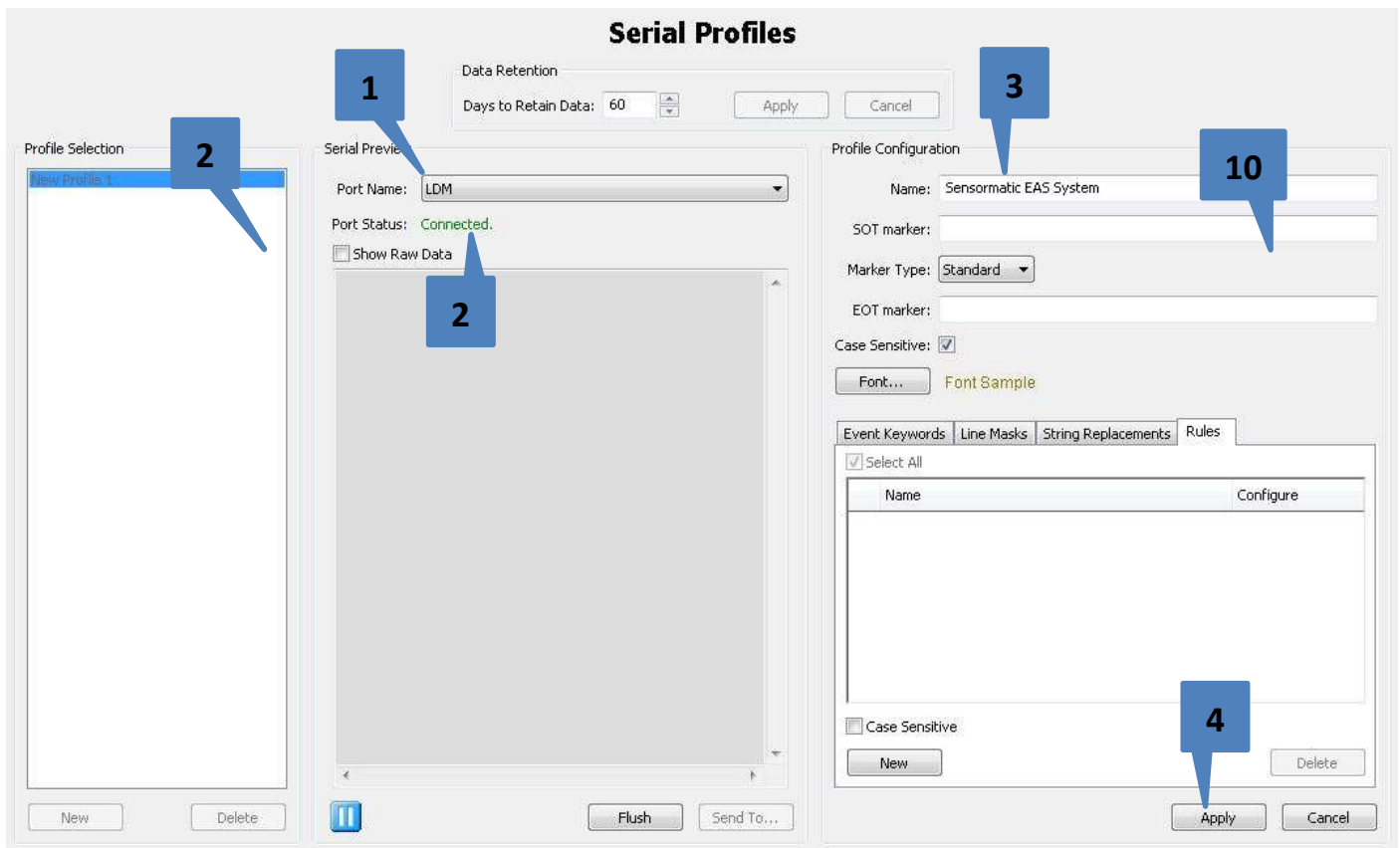
1. Select **Serial Ports** in the tree.
2. Click **New**.
3. Name the serial port.
4. Select **POS** in the **Use** column.
5. Select **New** in the Profile column (or an existing serial profile for this integration).
6. Select **TCP** in the **Type** column.
7. Enter the IP address of the LDM module.
8. Enter the port number configured in the LDM module.
9. Enter a pipe character (|) for **Line Ending**. All data is separated by this character.
10. Click **Apply**.



Creating an exacqVision Serial Profile

If you selected New in the Profile column on the Serial Ports page, exacqVision displays the Serial Profile configuration page automatically. Otherwise, open the Serial Profile Page from the tree to continue. Then complete the following steps:

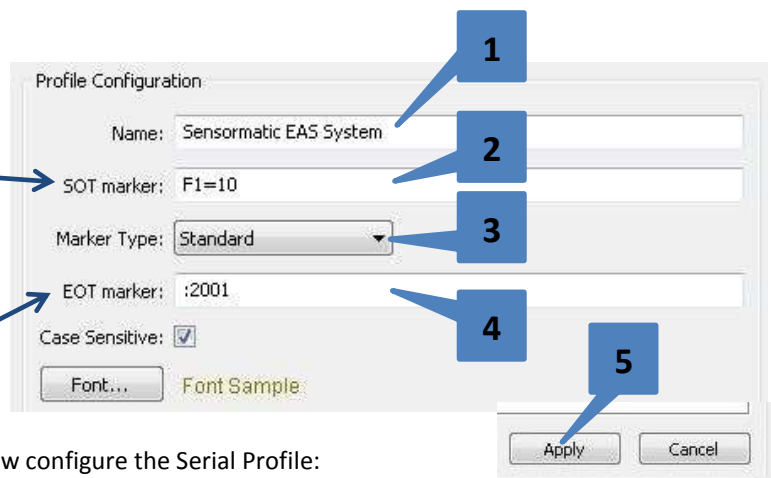
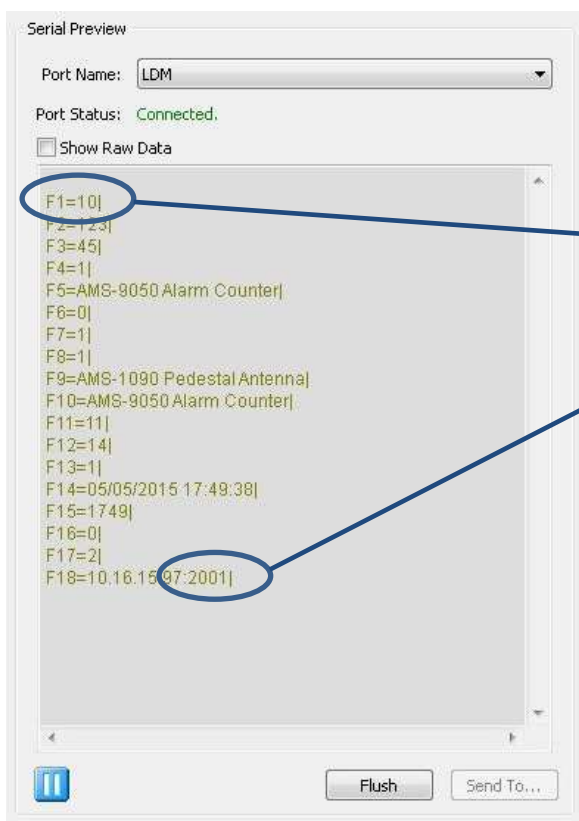
1. Select the serial port that you just created.
2. Verify that the **Port Status** is **Connected**. If not, there is a problem with the network connection between the LDM and exacqVision.
3. Change the name of the Serial Profile as desired.
4. Click **Apply**.



Creating an event with the EAS System



After creating the event you should see data appear in the Serial Preview window similar to the following:



Now configure the Serial Profile:

1. Enter a name.
2. Use **F1=10** as an SOT marker, as seen in the data preview
3. Leave **Marker Type** as **Standard**.
4. Enter the **EOT Marker** from the data preview (this value can vary).
5. Click **Apply**.

NOTES:

- The final section of this guide includes data definitions of System Events. Each field designated by F corresponds directly with the Field Position in the data definition. Use the definition to decode the values displayed after you create an event.
- Defining the SOT and EOT markers tells exacqVision to treat all the data between the markers as a single transaction.

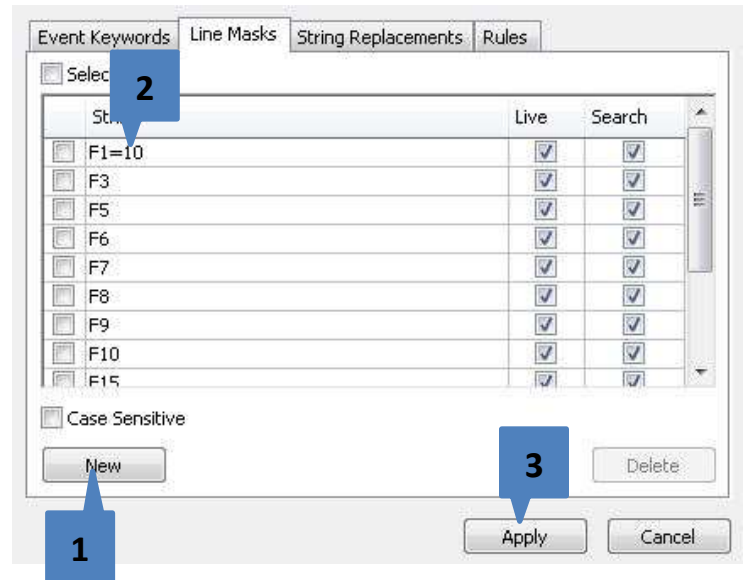
Configuring Line Masks

Line masks delete any line within the transaction in which the character string is matched (see the *Serial Integration User's Guide* for more information on these controls).

1. Click **New**.
2. Enter a character string to match.
3. Click **Apply**.

Repeat these steps for each line you want to delete from the transaction.

NOTE: The first entry is the same as the SOT. This is acceptable because exacqVision has already processed the incoming serial data for SOT and EOT before the line mask is applied.

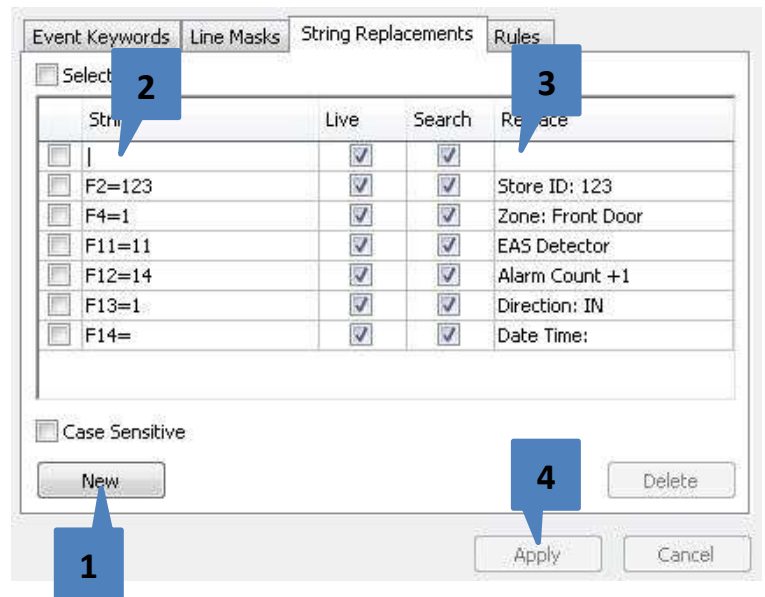


Configuring String Replacements

String replacements allow you to identify a character string within the transaction and replace it with another character string. In this case, we want to replace some of the coded data that comes from the EAS system with data that is human-readable (see the *Serial Integration User's Guide* for more information on these controls).


1. Click **New**.
2. Enter character string to match. In this example, it is a pipe character, which is used as the Line Ending in the Serial Ports configuration. The incoming serial data has already been processed by the port, so this delimiter character is no longer needed for this purpose.
3. Enter a space character using the space bar on the keyboard. This replaces the pipe character with a blank space.
4. Click **Apply**.

Repeat these steps for any other character strings you want to replace.

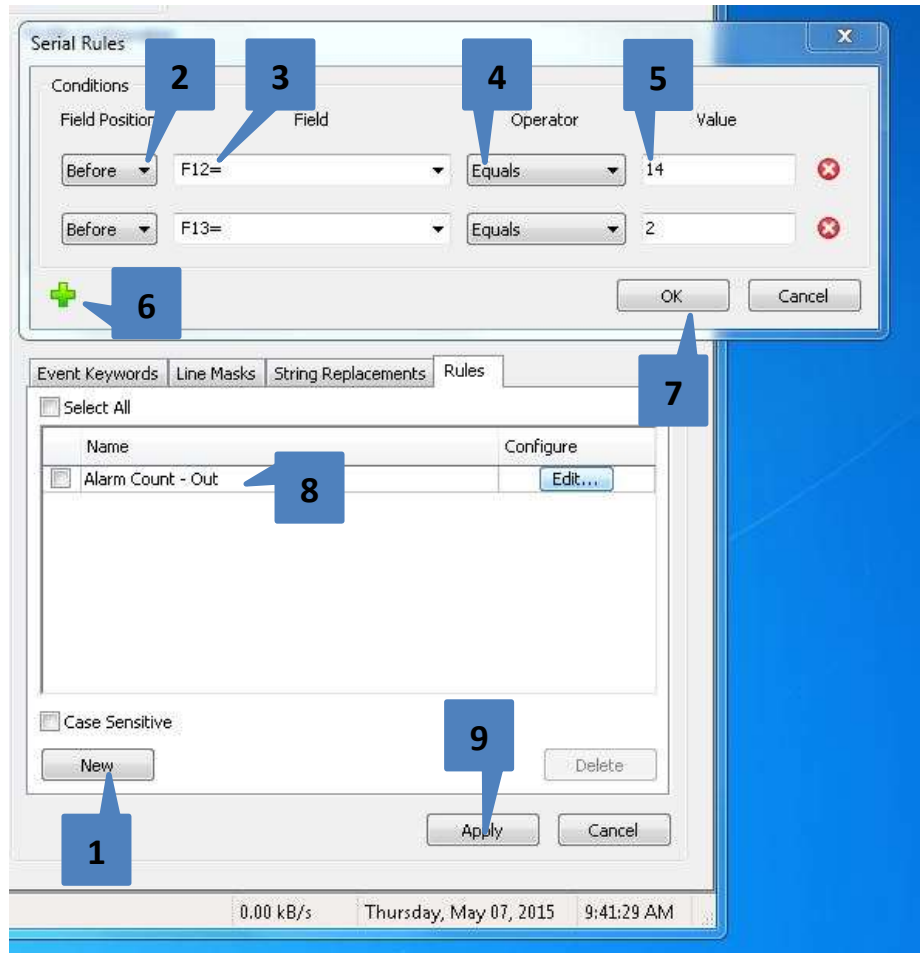


Configuring Serial Rules

Serial Rules allow you to employ logic to incoming data. In this example, two conditions are created and then ANDed together (see the *Serial Integration User's Guide* for more information on these controls).

1. Click **New**. A new line item is created and the **Serial Rules** conditions dialog appears.
2. Leave **Field Position** as **Before**. This indicates to exacqVision that the field name F12= occurs before the value in question.
3. Enter the field character string (this is simply the character string just before or after the value).
4. Select **Equals** as the operator.
5. Enter the value expected.
6. Click the green plus sign  and repeat these steps for the second condition.
7. Click **OK**.
8. Rename the rule as desired.
9. Click **Apply**.

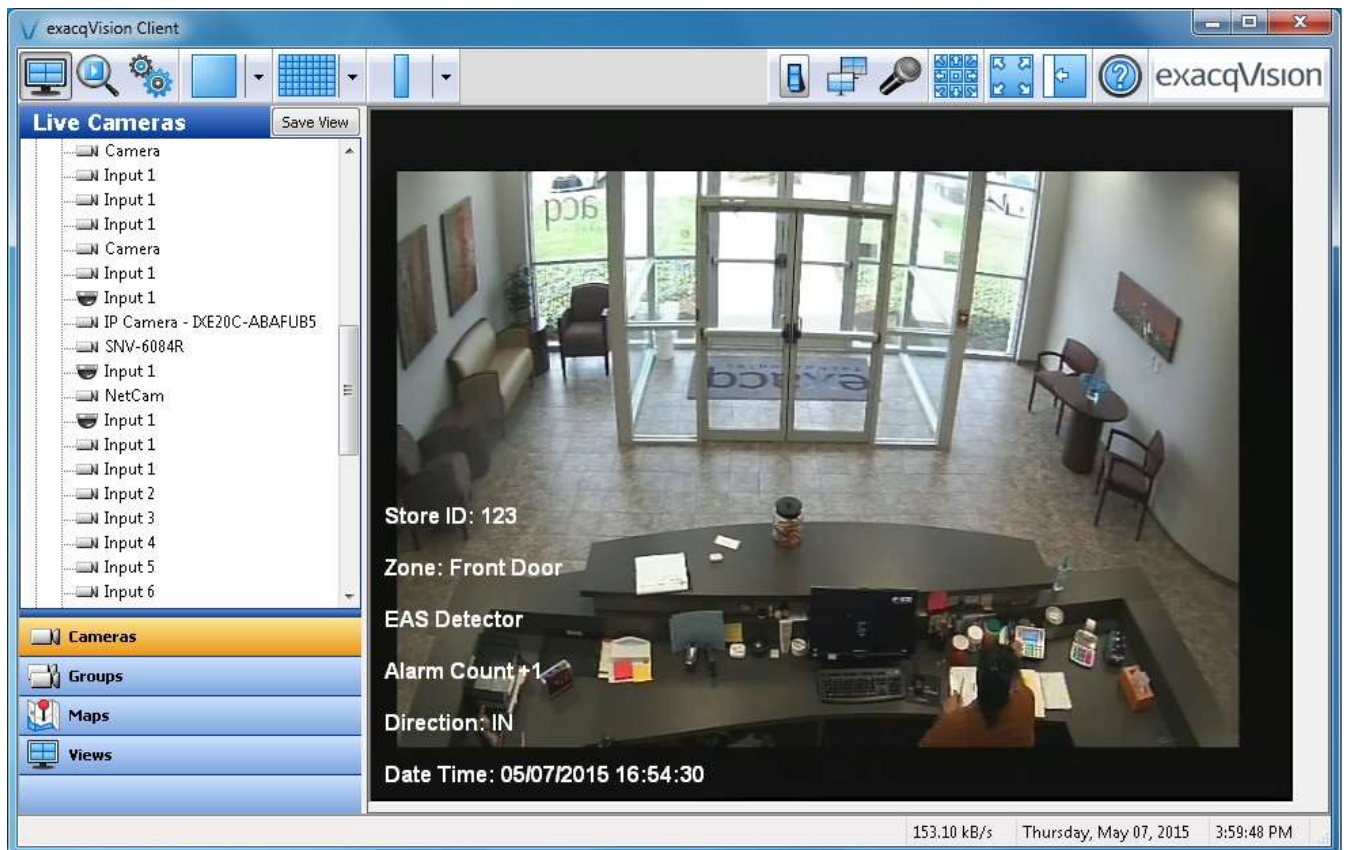
Now that a Serial Rule has been created, it will be available in Event Linking and Event Monitoring (see the sections later in this guide).



Now create another event and observe the Serial Profile preview window. You should now see text formatted in a more usable way. Results will vary depending on configuration settings in the LDM and other factors. You might need to adjust the Serial Profile configuration accordingly.



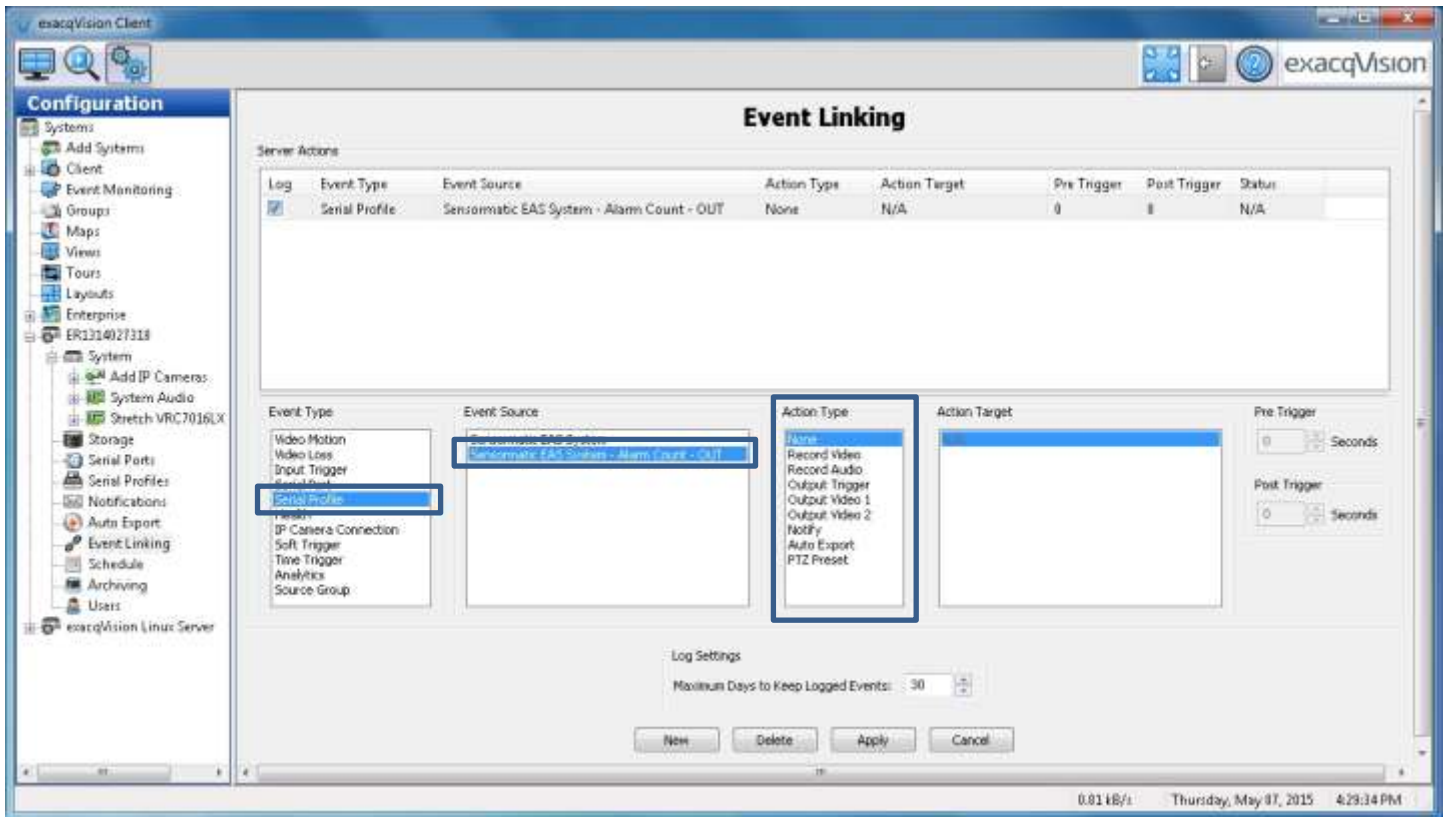
Here is an example of how the data could look overlaid on a camera in Live View.



Event Linking

This example demonstrates how the Serial Profile Rule is available for Event Linking. The Event Source is labeled “Sensormatic EAS System - Alarm Count – OUT.” The Action Type displays the actions available when the Serial Rule becomes true.

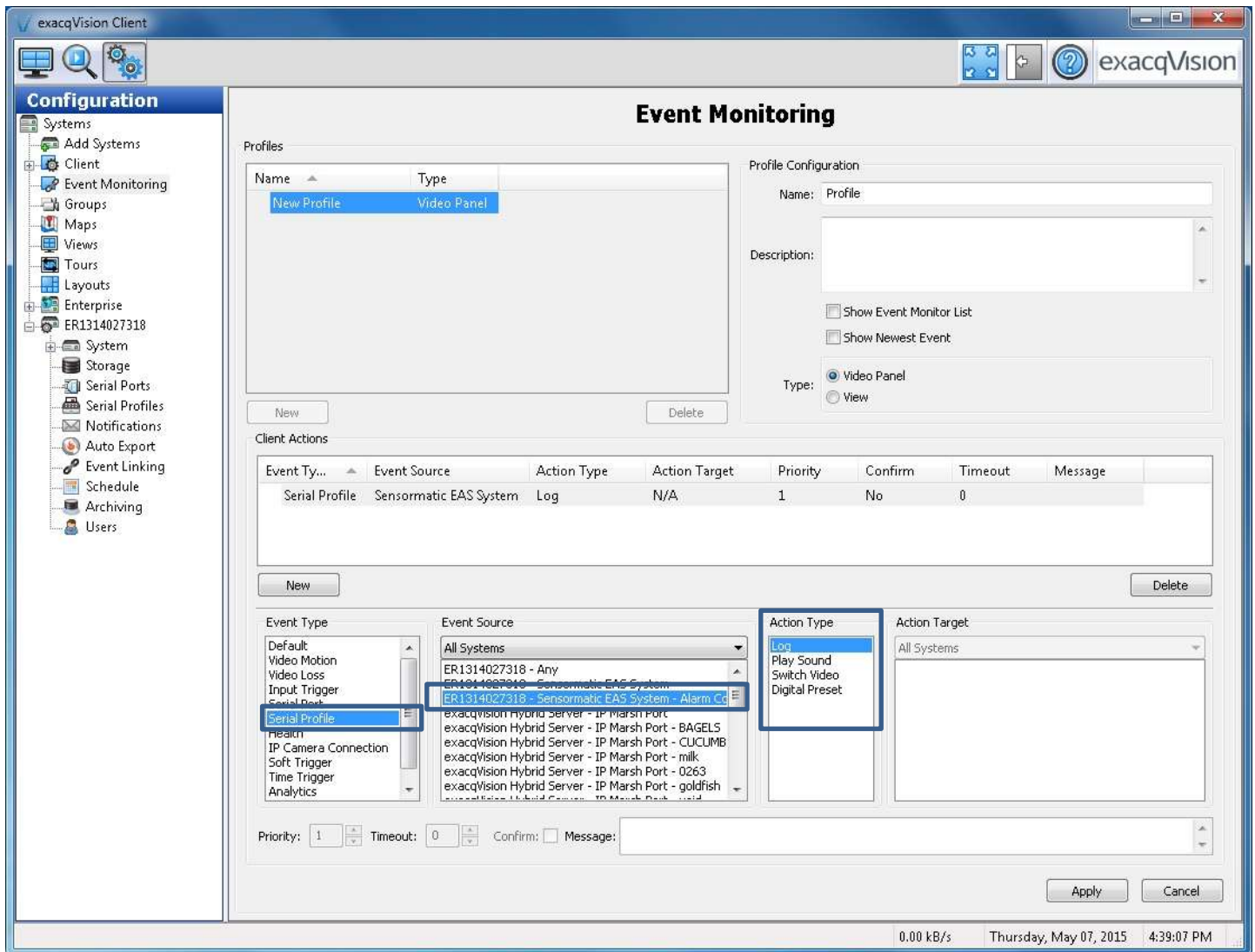
NOTE: This is not a complete Event Link because no Action Type or Action Target has been selected. This example is informational only. For more information, see the *Serial Integration User’s Guide* or the context-based Help.



Event Monitoring

This example demonstrates how the Serial Rule is available in Event Monitoring. Again, the Event Source is “<Server Name> - Sensormatic EAS System - Alarm Count – OUT.” The Action Type displays the actions available when the Serial Rule becomes true.

NOTE: This is not a complete Event Monitoring entry because no Action Type or Action Target has been selected. This example is informational only. For more information, see the *Serial Integration User’s Guide* or the context-based Help.



Sensormatic EAS System Data Format Definition - 10 System Events

Data definition for the LDM System Events frame of data sent from the LDM to exacqVision (see notes on next page).

Field Pos.	Field Name	Data Type	Length	Required Field?	Null Allowed	Field Description
1	Device Category	Numeric	2	Y	N	Always 10 for system events
2	Store ID	Character	25 max	Y	N	Alphanumeric ID to identify the store
3	Division	Character	25 max	Y	N	Alphanumeric ID to identify the store's division
4	Zone ID	Character	25 max	Y	N	Alphanumeric ID for the Zone/doorway
5	Zone Description	Character	25 max	Y	N	The door description as defined in the LDM II
6	Zone Type	Numeric	1	Y	N	Defined as 0 = Entrance, 1 = Exit, 2 = Both
7	Device ID	Numeric	2	Y	N	Defined in the .INI file
8	Device RS-485 address	Numeric	3	Y	N	Device ID of this RS-485 device attached to the LDM II
9	Device Description	Character	25 max	Y	N	Device description as defined in the .INI file
10	Device Definition	Character	50 max	Y	N	Device definition as defined in the Configurator
11	Global Category	Numeric	2	Y	N	Type of system category 11 = EAS Detectors 12 = EAS Deactivators 13 = EAS Detachers 14 = People Counters 15 = EAS Directional Alarms 16 = OEM Relay Single Count 17 = OEM Relay Dual Count 26 - RFID 27 - RFID Directional
12	System Event ID	Numeric	2	Y	N	System error associated with this device. Examples: 0 = Device Definition Notification 1 = Offline (aggregate) 2 = Communications Error (aggregate) 3 = Blocked Sensor (aggregate) 4 = Jammer Detect (event) 5 = Metal Bag Detect (event) 6 = Tag Too Close (event) 7 = Power Save (aggregate) 8 = Metal Detect inbound (event) 9 = Metal Detect outbound (event) 10 = OEM Input (event) 11 = Offline (event) 12 = Online (event) 13 = Excessive Counts (event) 14 - Alarm Count (event) 15 = People Count (event) 16 = Deactivator Count (event) 17 = Detacher Count (event) 18 = RFID Counts (event)
13	Device Error / DIP / Count Event Directionality	Numeric	4	N	N	Error reported by the device itself or DIP for System Event = 0 People Counts - 1=IN, 2=OUT, 3=BOTH Directional Alarms / RFID - 1=IN, 2=OUT, 3=IN & OUT, 4=ND, 5=IN & ND, 6=OUT & ND, 7= IN, OUT & ND
14	Date/Time Stamp	Character	19	Y	N	The date and time of the system event. Format is MM/DD/YYYY HH:MM:SS
15	Time	Numeric	4	Y	N	The time of the system event in 24 hour time. Format is HHMM (see Note 2)
16	Error Duration	Numeric	2	Y	N	Time (in minutes) error has been in effect
17	Devices total	Numeric	3	Y	Y	Number of RS-485 devices attached to the LDM II
18	IP Address	Character	20 max	Y	N	IP address of the LDM II (255.255.255.255:2001)
19	MAC Address	Character	20 max	Y	N	MAC Address included only for Web Services

1	Empty fields are designated with two delimiter characters with no space between. The following is a sample system event record with the pipe character () as the delimiter. 10 022 1 1 North Womens 2 2 18 Lane 1 ScanMax Pro 12 1 0 11/28/2006 14:30:00 1430 1 3 10.38.9.175:2001 00-03-09-9C-00-8E
2	The 24th hour daily record is a special case of 23:59:00 for the Date/Time Stamp. Time is 2400. 10 022 1 1 Mens 2 2 18 Lane 2 ScanMax Pro 12 1 0 11/28/2006 23:59:00 2400 1 3 10.38.9.175:2001 00-03-09-9C-00-8E
Rmk:	<p>If field #12 (System Event ID) is defined as an 'aggregate', it means that field #14 (Date/Time Stamp) will be the end of the integration period (as defined in the LDM, i.e 15' or 1 hour) and field #16 (Error Duration) will be the duration of the event within the integration period. For instance, for field # 12 = 1 (offline), field #14 = 02/23/2009 10:45:00, field #16=12 meaning that the system was offline for 12 minutes between 10:30 & 10:45</p> <p>If field #12 (System Event ID) is defined as an 'event', it means that field #14 (Date/Time Stamp) will be the the time of the event itself and field #16 (Error Duration) will be zero. For instance, for field # 12 = 4 (jammer detect), field #14 = 02/23/2009 10:45:12, field #16=0 meaning that a jammer was detected at 10:45:12</p>