POS to Milestone VMS Integration

User Manual

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Overview

This User manual is intended to be used as a reference. This manual covers all of the components used in the C2P POS to Milestone integration. A large portion of this manual covers the configuration of Milestone and POS components as well as the C2P components.
The C2P portion of this integration can be installed in minutes and in many cases will work as shipped without any configuration needed. This manual serves as a reference for applications that go beyond a basic install of the C2P POS to Milestone integration.

Introduction

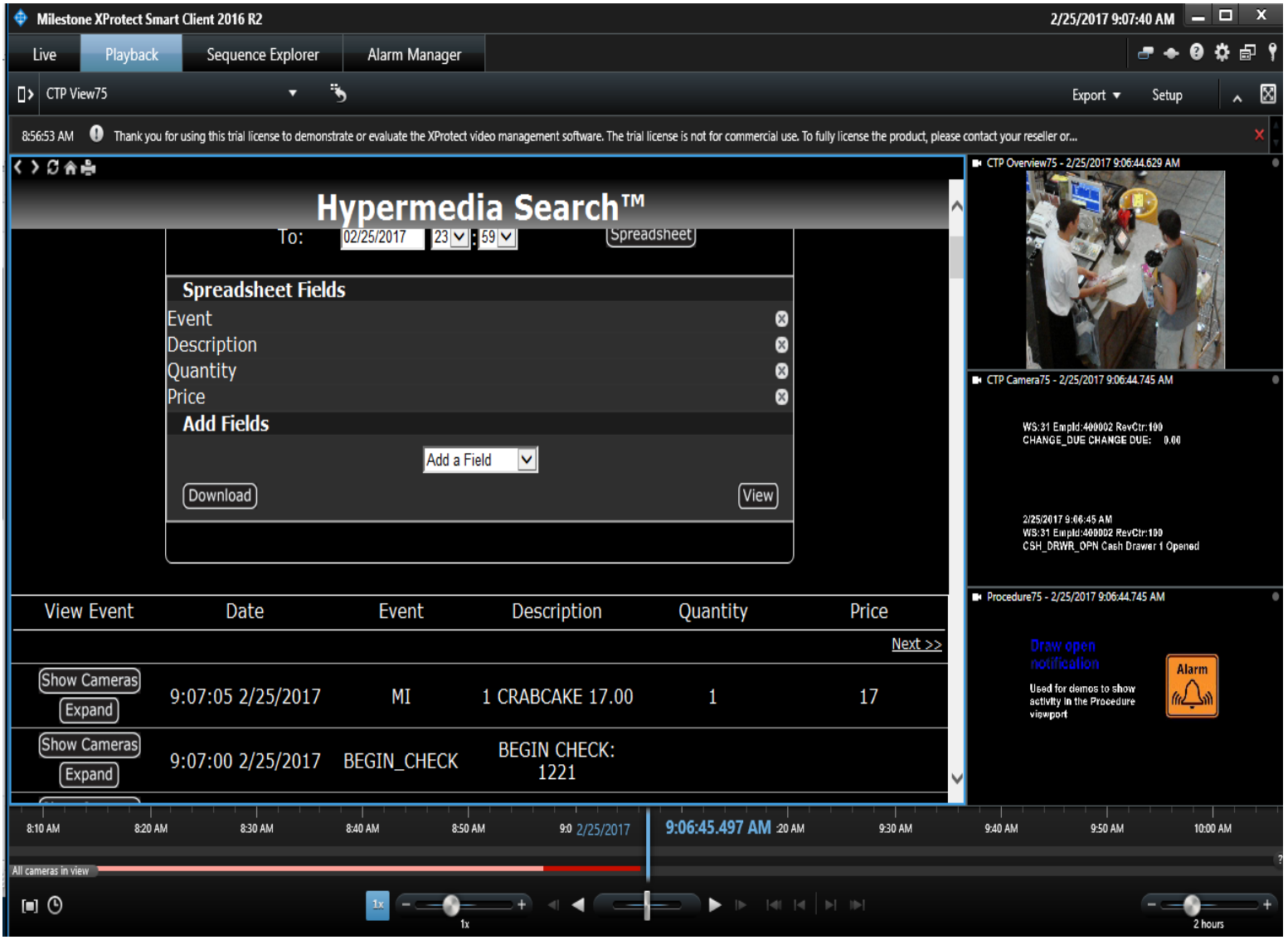
ConvergenceTP (C2P) is the market leader in bringing text and alert information from virtually any TCP/IP enabled appliance or sensor into the users Video Management System (VMS). Video surveillance is a powerful tool for security professionals, but the true benefits of video surveillance can only be realized when users have access to the data (all the data) from every TCP/IP enabled device in the customer enterprise. This Internet of Things (IoT) concept is the basis for the C2P middleware that connects the users VMS to their TCP/IP enabled devices.

The value for the user when their IP appliance and sensor data is captured and stored time synchronized with the video in the video surveillance system is they now have a way to index video in their surveillance system. With the C2P Hypermedia Search Engine (HSE) users can search on text received from a Point of sale terminal, License plate reader, Access control reader, Bar code reader, RFID sensor, etc. and then watch video of that specific event as it happened. Having the data time synchronized with the surveillance video means users can then bring up a view from any camera in their video surveillance enterprise and follow the person or object of interest as it moves out of view of one camera and into view of another.

Users can also setup the easy to use C2P real-time Rules Engine which allows them to flag specific events for immediate viewing, or push user defined procedures for that specific event to the VMS operators screen. The Rules engine also allows the user to push generic events to the VMS system to synchronize, annotate and bookmark the detected event within the VMS event database.

Critical features include:

- *POS transaction text captured by C2P is time synchronized with any and all video cameras attached to the Milestone VMS.*
- *POS transaction text can be viewed in real-time on any Milestone client.*
- *All POS transaction text received is stored and therefore available for future back office forensic searches.*
- *C2P provides an intuitive and powerful Hypermedia Search Engine (HSE) for use in researching specific events.*
- *HSE search results provide the full text of the events that are linked to the actual Milestone stored video of the event.*
- *C2P provides many real-time analytic tools that users can setup to trigger on specific events of interest.*



Installation

For new installations you will need both the C2P POS proxy installer as well as the C2P Base installers.
Note: included in the C2P Base installer is the ESE, HSE, HSE Proxy and License server.

Figure 1 below depicts a typical C2P POS deployment topology.

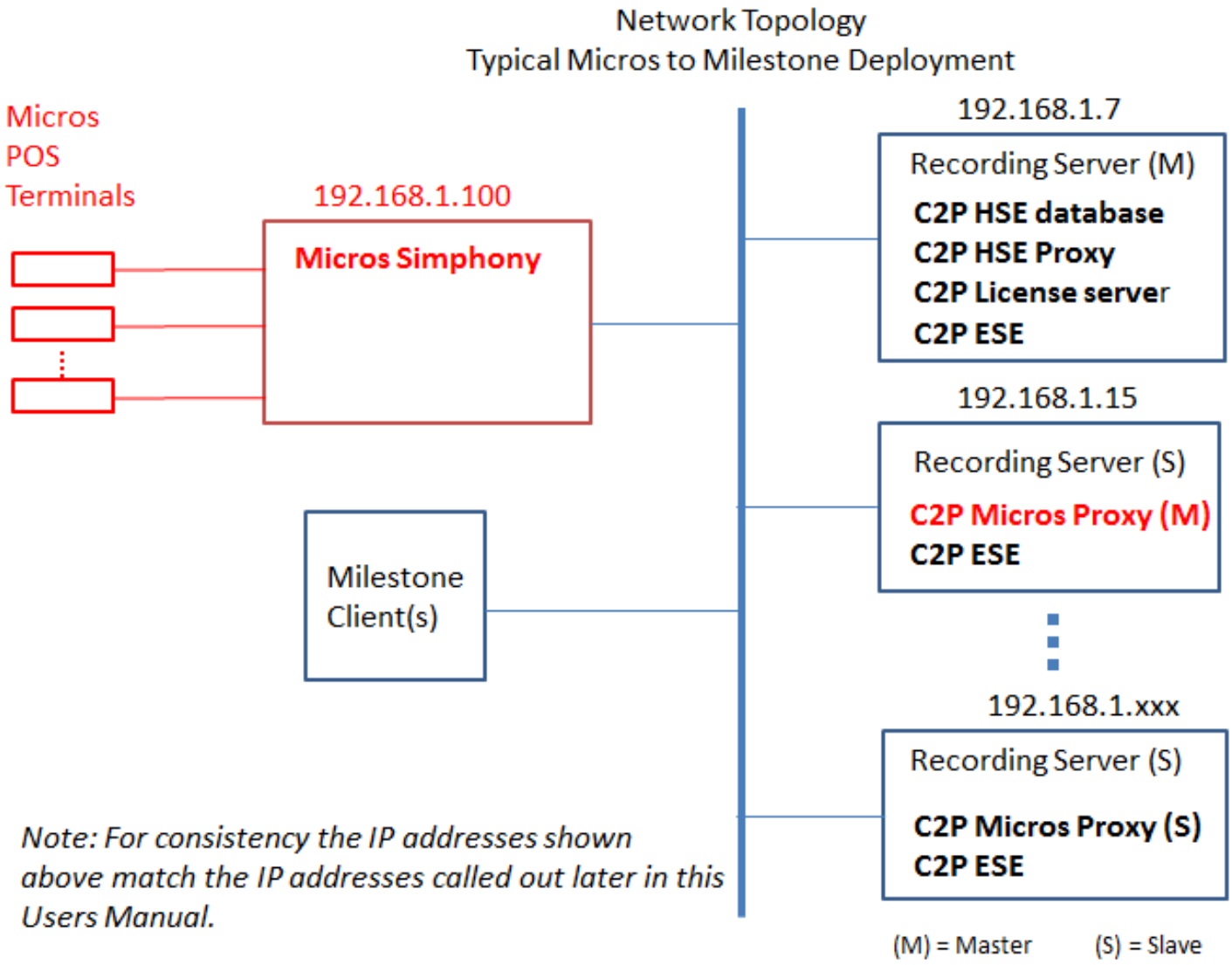


Figure 1

Note:
For evaluation and demo applications all of the components listed above can be installed on the same system without any further configuration required in the C2P software.

Pre-install requirements

The PC/server used to host the C2P ESE and HSE components require 4th gen, quad core, i7 class processor min.[1]
POSoft Windows® operating system Win 7/Server 2008 min[2]
The machine to be used for the install needs to be relatively current with Windows Updates.
Ensure that the machines hosting the C2P components are time synchronized with the VMS components.
During the install temporarily disable any antivirus SW and drop the local firewalls.
Ensure that there is a VMS Client installed on the PC/Server hosting the C2P POS Proxy software.
Internet Explorer 9 or above installed on any PC hosting VMS Client workstations.
At least 1 Universal Camera license from Milestone is needed. Defaults to 30 day demo on initial install.
Ability to temporarily set UAC to off while doing the install.
VMS Client "Basic" login account with valid credentials
Administrator account for use when installing CTP software
The Milestone VMS version needs to be Corporate, Expert, Enterprise, Professional or Express

Installation Process

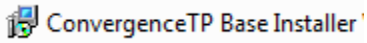
C2P Base

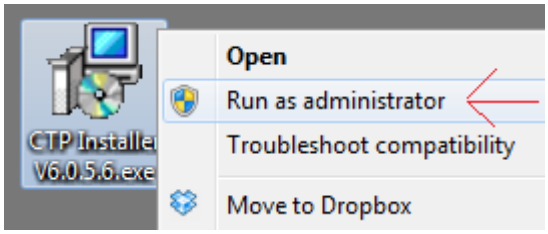
Note: Installing C2P Base for the first time may require a restart of the machine after the install completes.

The C2P Base software installs all of the components needed for the C2P Base system.
These components include:

- *The C2P Event Streaming Engine (ESE)*
- *The C2P Hypermedia Search Engine (HSE)*
- *The C2P Hypermedia Search Engine Proxy (HSE Proxy)*
- *The C2P License Server*

Installing the C2P Base

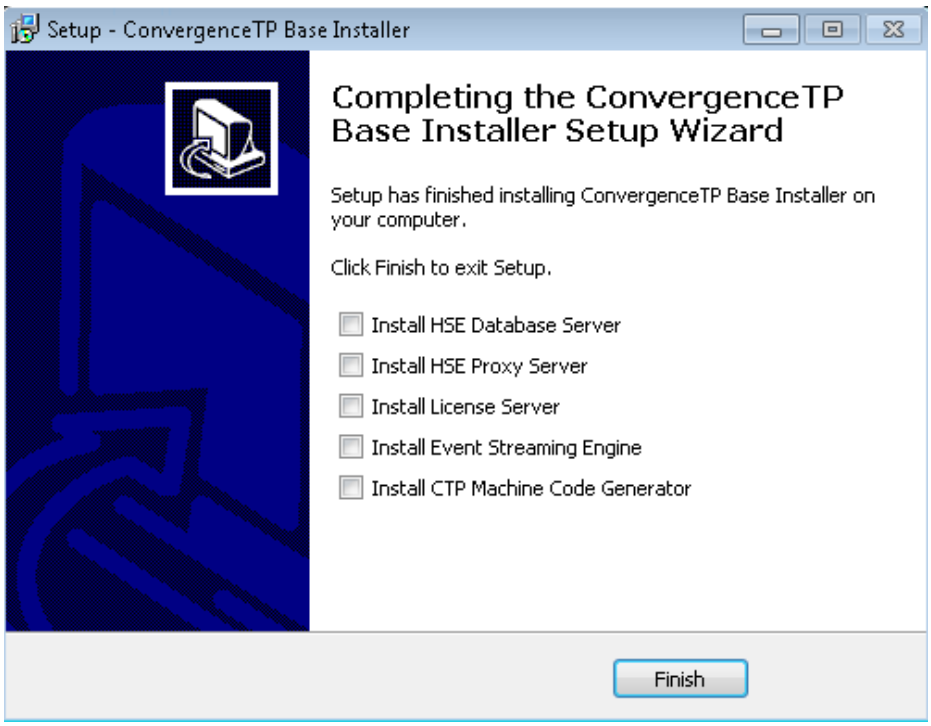
1) *Execute the C2P Base installer. "Run as administrator"* 



[1] The system requirements are the minimum of what will be required for satisfactory performance; your particular needs may differ or exceed the minimum requirements listed. Your specific needs will be dependent on several factors including number of IP appliances connected, number of users, the type of connected devices and the level of usage per device.
[2] If installing the C2P Real-Time charting or graphing package the OS needs to be 64-bit.

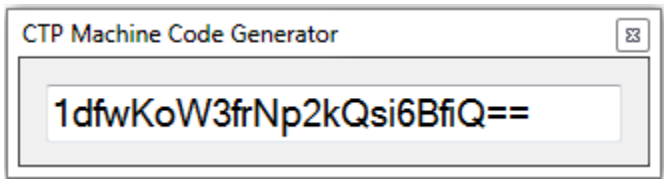
2) *Follow the default selections during the C2P Base install*
3) *Select the features being installed. See: C2P Base installer component selection menu.*
   See Figure 1 above for a definition of where each component is to be installed.

Note1: *You will need to run the C2P Base installer on both the PC/server hosting the Milestone Master recorder and the PC/Server hosting the recording server(s). Once the C2P base installer is run you can then select which component you want to install.*
For example as shown in Figure 1 the HSE database is installed on the same hardware as the Milestone Master recorder = 192.168.1.5



C2P Base installer component selection menu.

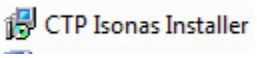
Note2: *The "Machine code generator" is only run on the PC/Server hosting the C2P License Server. The resultant seed code produced when the Machine code generator is run should then be cut and pasted into an email and sent to Support@c2p.com.*

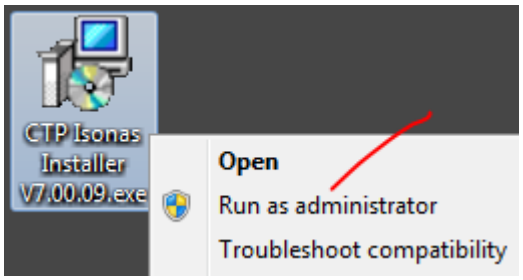


Note: *Cut-n-paste the above seed text along with the site name and PO number into an email.* ***Do not*** *send a screenshot of the text.*

Sample C2P Machine code generator output. Email to support @c2p.com

Installing the C2P POS Proxy

1) *Execute the C2P POS installer. "Run as administrator"* 

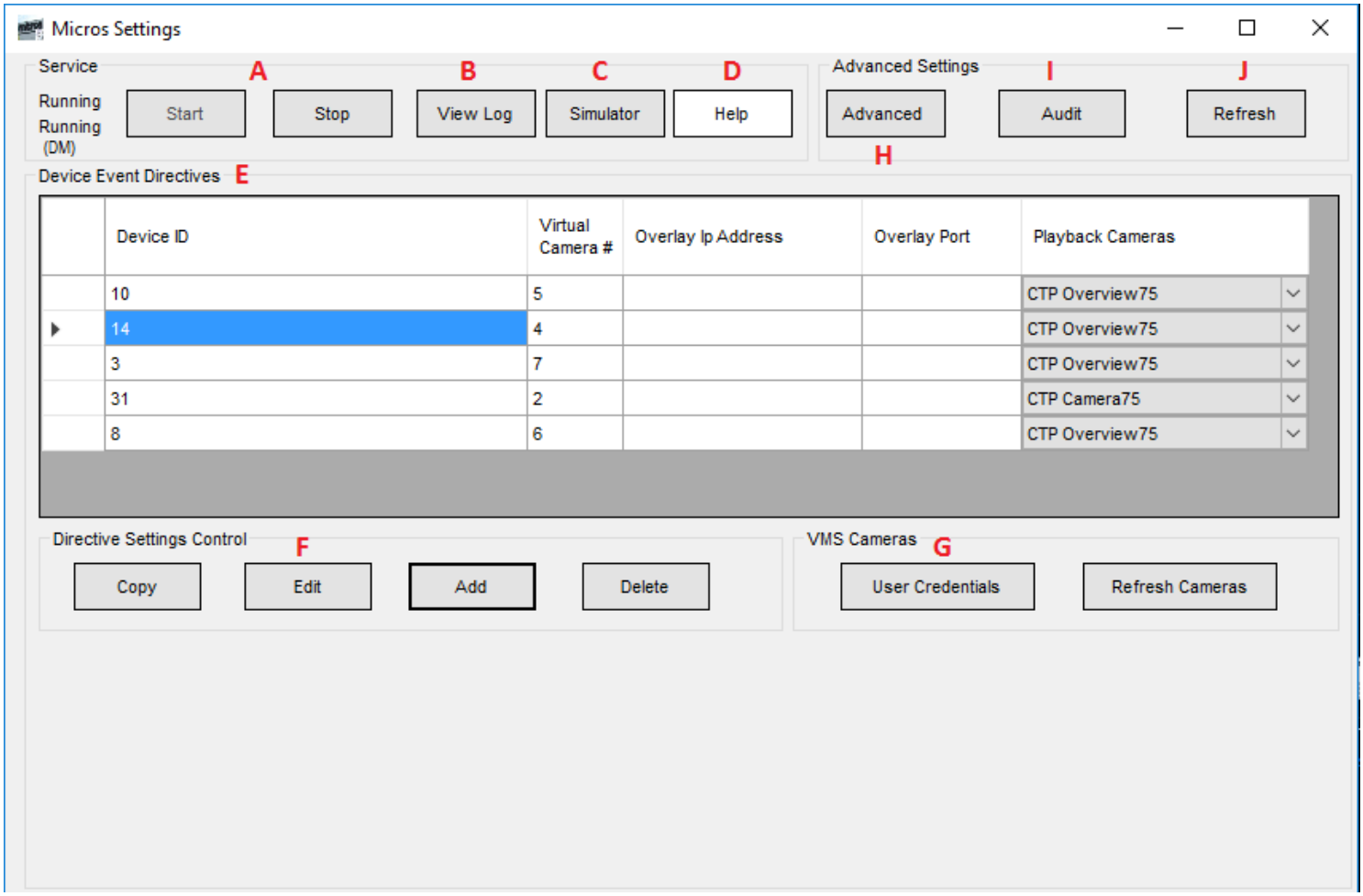


2) *Follow the default selections*

POS Proxy Configuration

If the C2P POS Proxy and the C2P Base are installed on the same PC/Server then no configuration is needed to run the C2P POS to Milestone VMS integration. This works out nice for setting up demo systems but is not how the system is normally deployed in practice. Refer to Figure 1 for the expected deployment topology.

Below is the C2P POS Proxy configuration GUI



C2P POS Proxy configuration GUI

***A** = POS Service Manual Stop and Start controls. When changes are made to the POS proxy GUI they can manually be loaded into the POS proxy service by manually stopping and then re-starting the Service or alternatively the user is prompted to have the service restarted automatically when the GUI is closed.*

***B** = View Log. This is an extremely useful real-time **log file** because it tells the user if the C2P POS Proxy is connected to the POS Simphony system. **This log file is the first place to look** before troubleshooting anything else related to the C2P POS integration. The Simphony application needs to connect to the C2P POS proxy before any POS transaction data can be sent.*

***C** = C2P POS Simulator. The C2P POS simulator is another very powerful resource for bringing up new installations. The C2P POS simulator works in parallel with any traffic being sent by the POS system. This allows all of the components of the C2P POS to Milestone integration to be completely tested prior to the POS system running or*

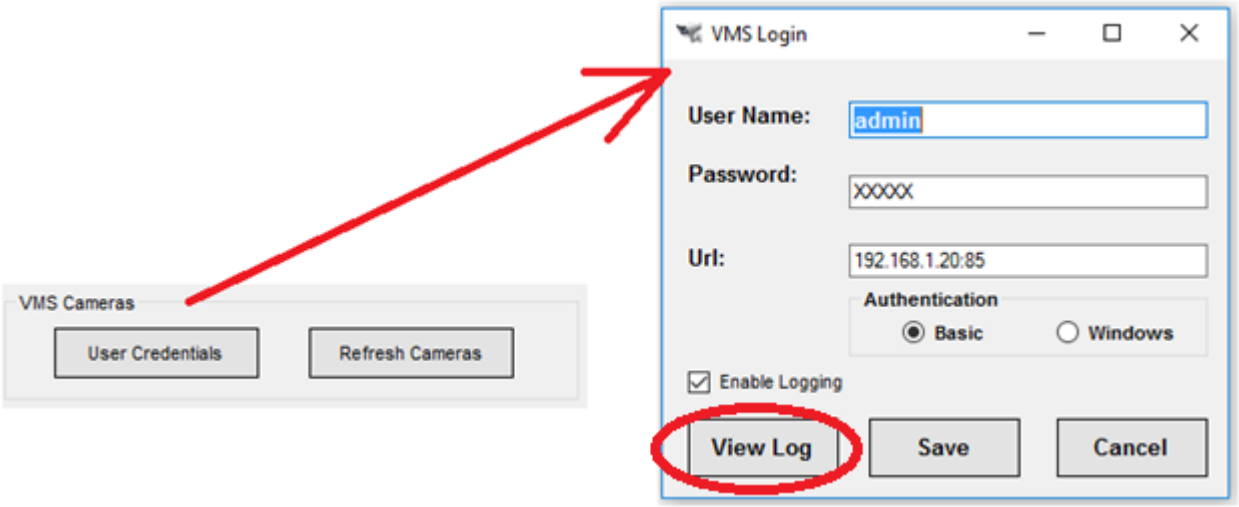
even being installed. Installers can run the simulator and ensure all of the C2P and Milestone integration components are functional and then turn on or install the POS Simphony system.

***D** = Help button. Explains how to use the F1 key in the GUI to get help text for each item in the GUI.*

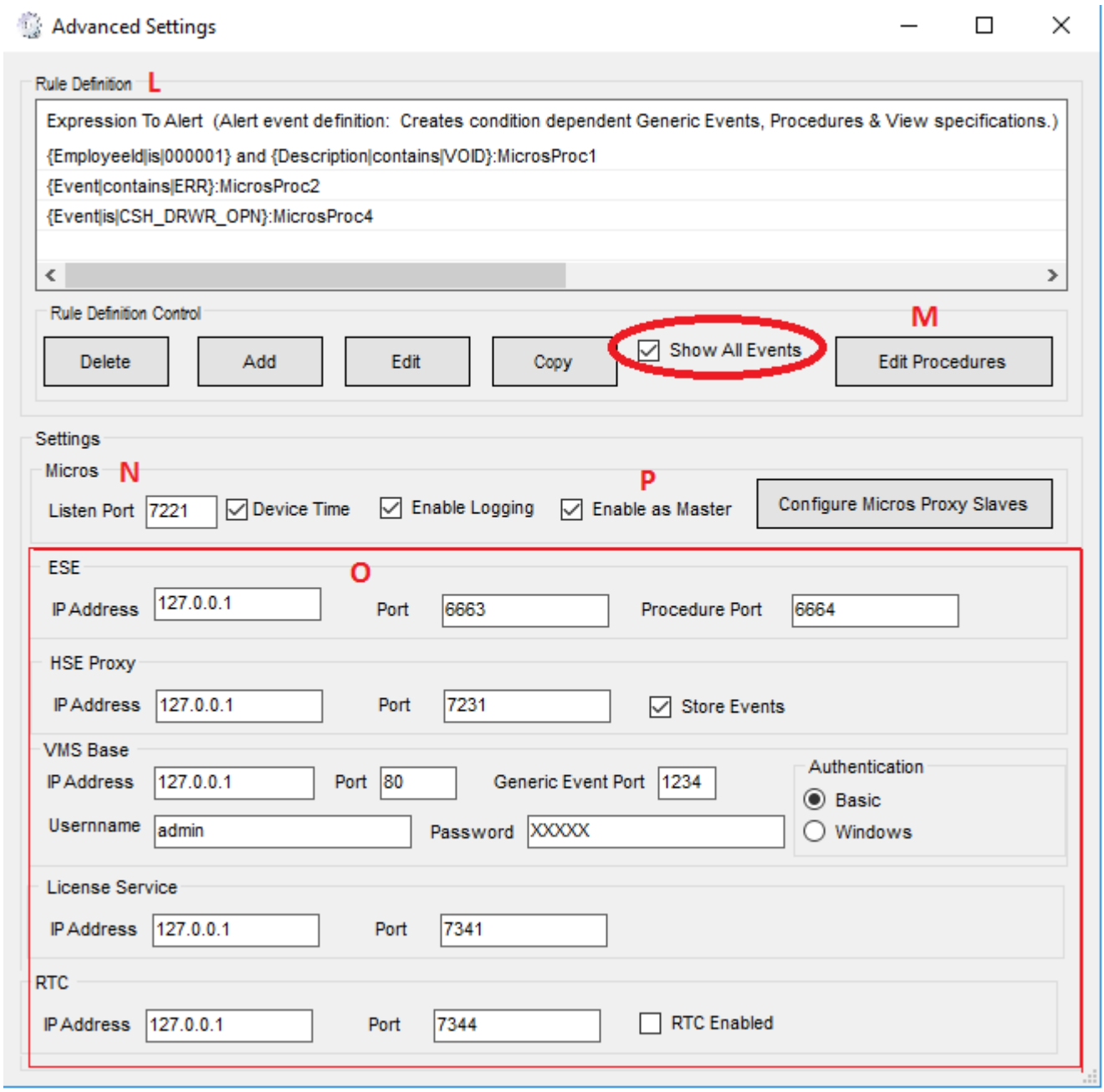
***E** =Device Event Directives. This table is used to assign properties to each unique POS transaction received. These properties are used by the C2P Hypermedia Search Engine (HSE) to assign the cameras to be populated in the VMS client during playback based on a POS transaction search result.*
The "Virtual camera" property defines which Milestone Universal camera in the recording server will be used to for the POS transaction data received for the POS terminal defined for this Device ID .
The "Overlay address and Port" are optional fields that allow the user to send a copy of the POS transaction text received to the overlay data port of external physical overview camera for POS terminal .
The "Playback Cameras" are the cameras that will be called up for viewing as a result of the user selecting "Show Cameras" in the Hypermedia Search Engine (HSE). This powerful feature further ties the relevant cameras to the POS transaction, giving the user overview video of POS terminal area at the exact time of the POS transaction.

***F** = Directives Setting Control. These are the controls used to add new lines to the Device Event Directives table as well as allowing the user to edit existing entries in the table.*

***G** = VMS Client. The VMS Client controls are used to provide the C2P POS Proxy with valid Milestone client login credentials. The C2P POS Proxy uses this login to receive the valid camera names that are assigned to these login credentials. The camera names are then available to the user for use in "Playback Cameras" portion of the Device Event Directives table.*
*In the expanded view of the Ocularis Cameras GUI below you can also see that there is a **log file** associated with this function. <u>The log file works extremely well</u> and will give you the details of why your credentials did or didn't work. If the credentials entered in the GUI are valid then the log file gives you a list of cameras that those credentials allow you to view.*
The "VMS Cameras" button is shown below.
***Note:** URL = IP address and port for Milestone Master recorder.*



H = Advanced Setting.



***I** = Event Streaming Engine (ESE). The ESE is normally installed on a recording server associated the overview cameras that are assigned to POS transactions being sent to this proxy. See also Figure 1*

***J** = Hypermedia Search Engine (HSE). The HSE is normally located on the server hosting the Milestone Master recording server.*

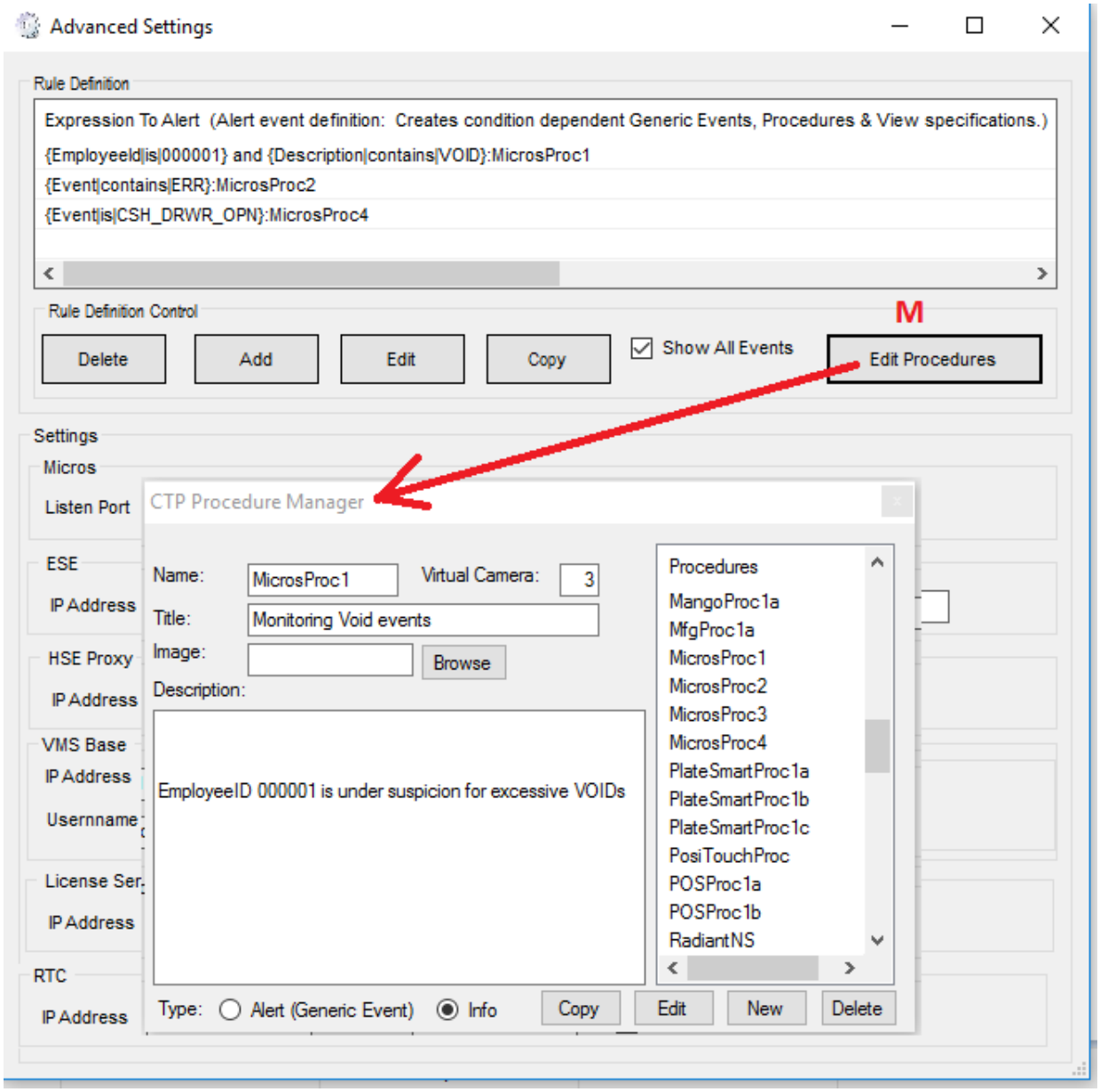
***K** = License Server. The C2P License Server is normally located on the server hosting the Milestone Master recording server.*

***L** = Rule Definition. The Rules Engine is where users can specify specific POS transactions to trigger live events in the Milestone Client as well as generate "Generic Events". When the "Show All Events" check box directly under the Rules Definition list box is not checked, then ONLY the events defined in the Rule Definition list will be shown*

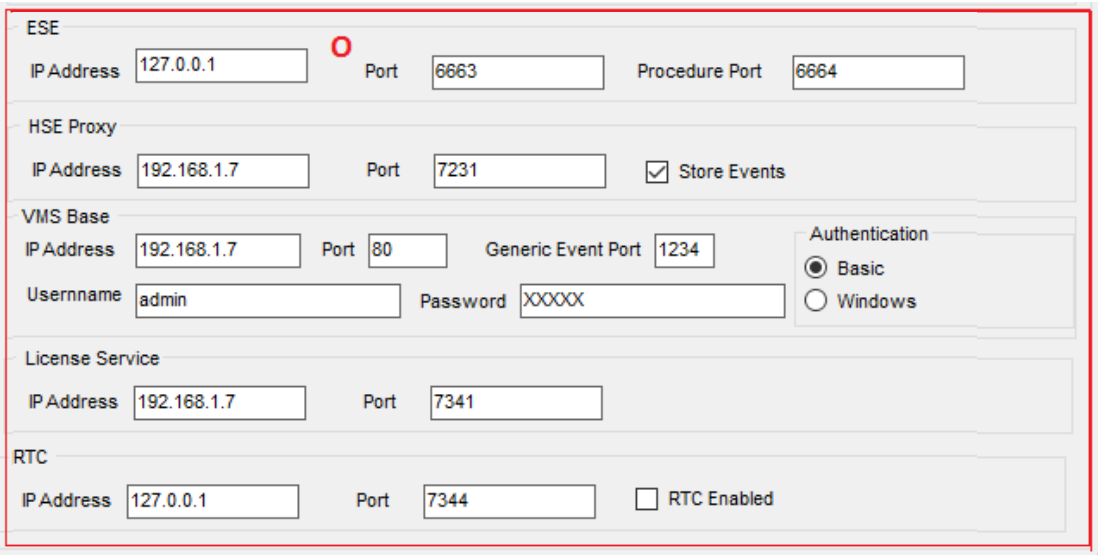
as live events in the Milestone client. This is done to limit the amount of live transaction traffic sent to the Milestone client to allow the user to see just the critical events happening live. If this is not done the amount to transaction data being sent by the POS system can make it nearly impossible to see specific events of interest. All data received from POS Access is stored for future viewing in the Hypermedia database so POS transaction data is ever lost. The "Show All Events" checkbox has no effect on what is being stored in the Hypermedia database. See also Appendix A (C2P POS GUI Rules Engine)

***M** = Edit Procedure. This feature allows the user to create their own text annotation that is displayed as a camera view in the Milestone client in real-time as the POS transaction trigger the Rules Engine. The procedure can also be setup to generate a Generic Event to the Milestone System if the procedure "Type" is set to "Alert". The Generic Event sent to Milestone will use the "Name" of the procedure as the Generic Event text.*
In the example below the Generic Event sent to Milestone when this event occurs will be "POSProc1a" as specified in the "Name" field of the Procedure.

***Note**: Anytime a procedure is edited or created you must select "Yes" when prompted while closing the procedure manager to allow the ESE to be restarted. The ESE reads in the procedures on a re-start.*



***O** = Static IP addresses, ports and credentials*
In this section the static IP addresses and ports for the various C2P and Milestone components are defined.
Refer also to Figure 1 for more detail. The setup shown below matches Figure 1 on page 5 of this document.



***ESE** = Event Streaming Engine*
This component serves as a virtual camera and provides the JPEG images containing the POS text to Milestone as a camera stream. Milestone connects to the ESE on port 89 as shown in the ESE config screen shown on page 15 of this document C2P Event Streaming Engine (ESE)
Ports 6663 and 6664 shown below are internal ports used by the C2P POS Proxy to communicate with the ESE.

***HSE** = Hypermedia Search Engine*
The HSE is where all the POS transaction data will be stored for this copy of C2P POS Proxy. For a single site deployment the HSE normally resides on the same machine hosting the Milestone Master recorder/Base.
In deployments where there one common Milestone system for several sites at different physical locations it is common (but required) to have the HSE located on a Milestone recording server at that site.
The port shown here is an internal port used by the C2P POS proxy to send transaction data to the HSE Proxy.
The store events checkbox enables text from this proxy to send POS transactions to the HSE database.

***VMS Base** = Milestone Master Recorder*
In this section the Generic port used by the C2P POS Proxy to send generic events to Milestone is defined.
The Milestone login address, port and credentials to be used by the C2P POS Proxy are also defined.
The C2P POS proxy uses this information to log into Milestone to get a list of the cameras that are allowed to be viewed by these credentials. The proxy uses these camera names in the dropdown configuration screens in the C2P POS Proxy GUI during the install and configuration process to define what physical cameras are assigned to each POS terminal. The HSE uses this camera assignment to provide video associated with each POS terminal when users want to see the video associated with POS text events.
See Section "E" in POS Proxy Configuration for more information on how these camera names are used.

***License Sever** = C2P License Server*
The C2P License Server is normally located on the machine hosting the Milestone master recorder/base.
The port shown here is the internal port that the C2P POS Proxy uses to valid with the C2P License server.

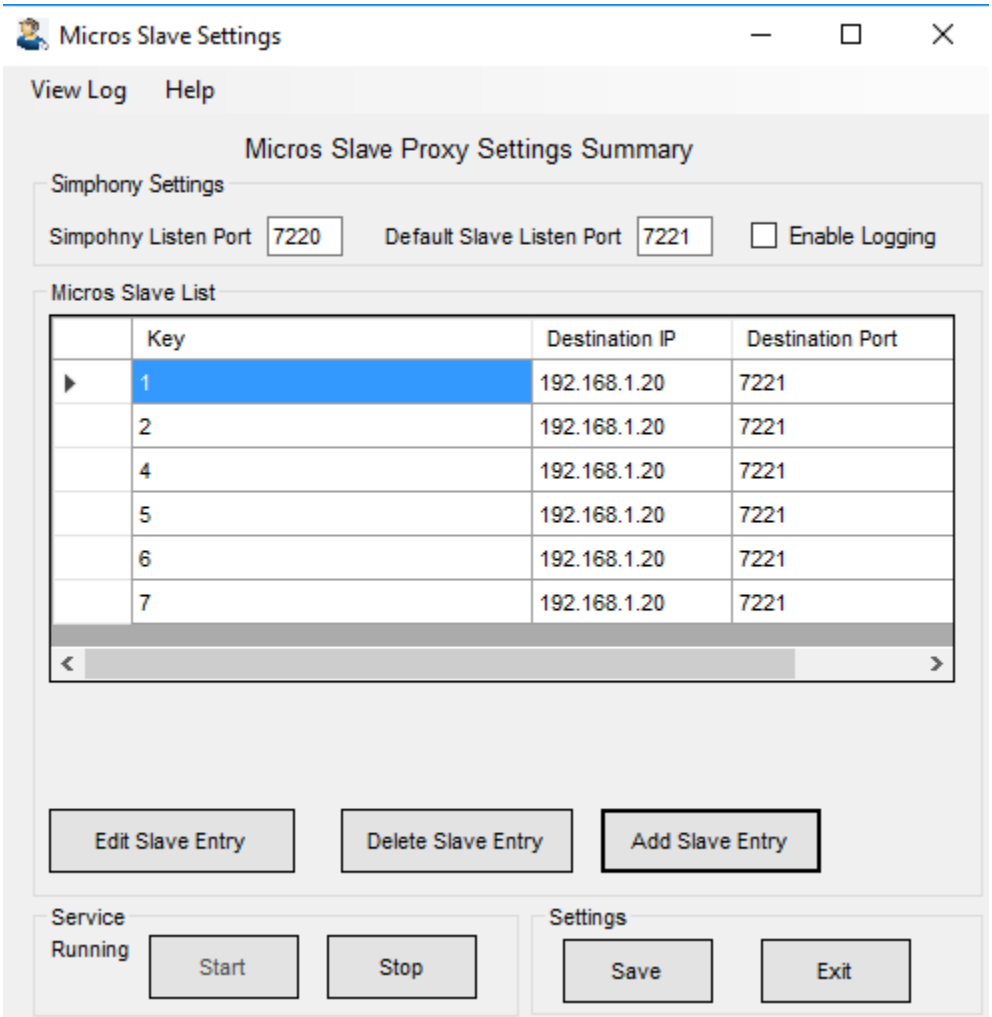
***RTC** = Real Time Charting*
Real-Time charting if used is usually hosted on the same machine hosting the C2P POS proxy.
The port shown here is the internal port used by the C2P POS Proxy to communicate with the RTC service.

***P** = C2P POS Slave Proxy definitions.*
*The GUI form below is only used if there is more than one C2P POS Proxy being used. The POS Simphony application sends all POS terminal transaction data out a single TCP/IP connection. Each C2P POS proxy can process 16 POS terminals meaning that if there are more than 16 POS workstations additional C2P POS proxies are needed. When more than one C2P POS proxy is needed then one proxy is assigned to be the **Master** and all the rest of the C2P POS proxies are slaves. The POS Slave List below is where the slave proxies are defined. The Master proxy forwards any POS terminals to the appropriate slave as needed based on this table.*
Any POS terminals not listed in this table below are assumed to be connected to the Master C2P POS proxy. This allows single C2P POS proxy deployments to work without concern for setting up the proxy in Master/Slave mode. In a single C2P POS proxy deployment this table below is not used.

*The **Simphony listening port** is the single TCP/IP connection that Simphony makes with the Master C2P POS Proxy.*

*The **default Slave listening port** is the port the Master C2P POS proxy uses to forward POS transaction data to the appropriate C2P POS Proxy slave. Note: C2P POS Slave proxies are show with an (S) suffix in Figure 1*
If the POS transaction data is for POS terminals defined in the Master C2P POS proxy then the Master proxy uses this port to send the POS transaction data to itself.

***Destination IP and port** – This is where the Master C2P POS Proxy will forward the POS terminal traffic from the POS terminal defined in the "Key" column to the slave defined in the Destination IP column.*
***Note:** In the example below: POS Terminal1 in the "key" column is sent to the slave proxy at 192.168.1.20:7221*

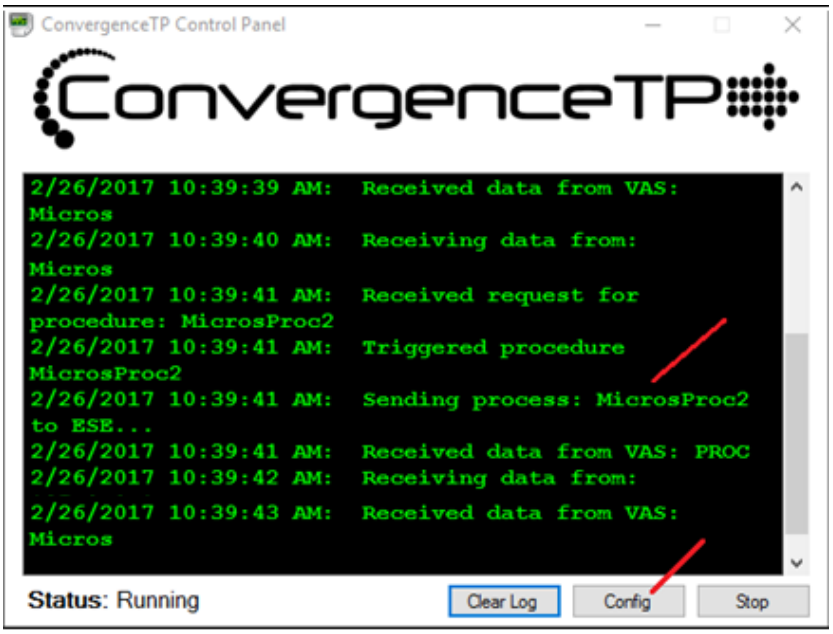


***Note:** As with any C2P proxy you should always "save" the "Stop" the "Start" the service after making changes.*

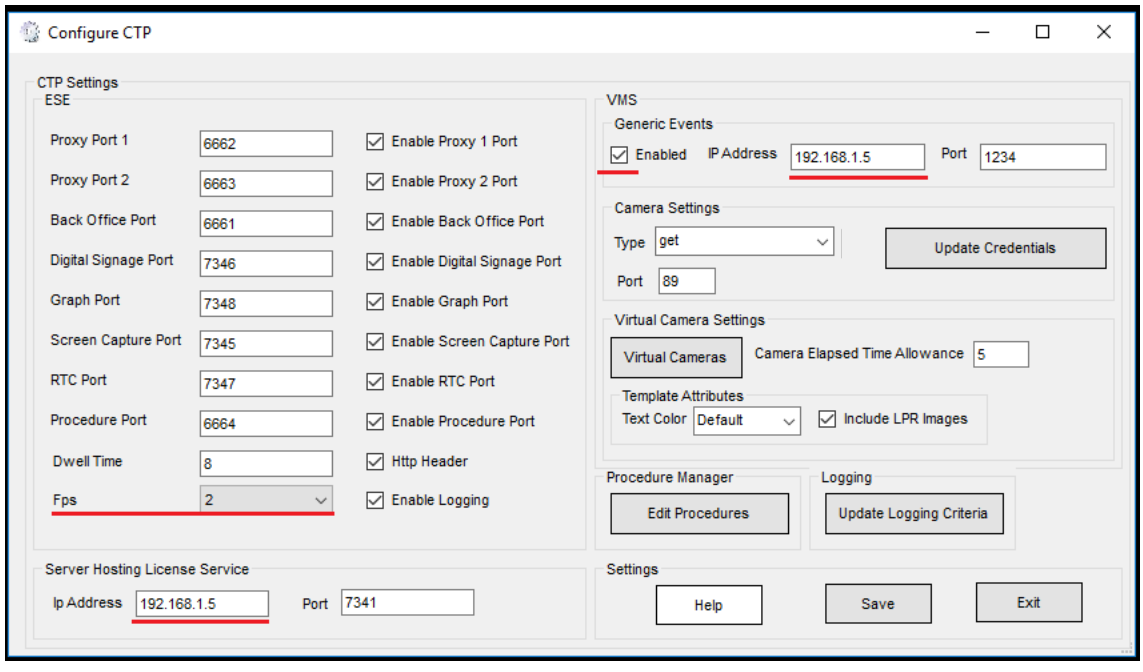
C2P Event Streaming Engine (ESE)

The C2P Event streaming Engine appears as a camera to Milestone. The Milestone recording server connects to the ESE using the Milestone "Universal Camera" interface as the Camera type when virtual cameras from the ESE are added to the Milestone recording server. Each C2P proxy uses a dedicated ESE for it's camera interfaces used to send POS transaction text to Milestone to be viewed and recorded as a camera stream.
The Milestone Universal Cameras use the IP address of the ESE as the virtual camera IP addressed with the default port being port 89. See also Universal Cameras
The normal Universal Camera configuration is to assign each POS terminal it's own virtual camera. You can see this assignment of POS terminals to virtual cameras in Section "E" in C2P POS Proxy configuration GUI
Each ESE can support up to 16 virtual cameras.

*The ESE Control Panel/**Log file** provides real-time feedback as to what the C2P Proxy is sending Milestone as live POS transaction text images to be displayed in the Milestone Client. (Including procedures)*



The "Config" button on the bottom of the ESE control panel brings up some configuration settings for the ESE. For non-demo installations the settings that will likely need to change are identified below.
See also Figure 1



C2P HSE Proxy GUI

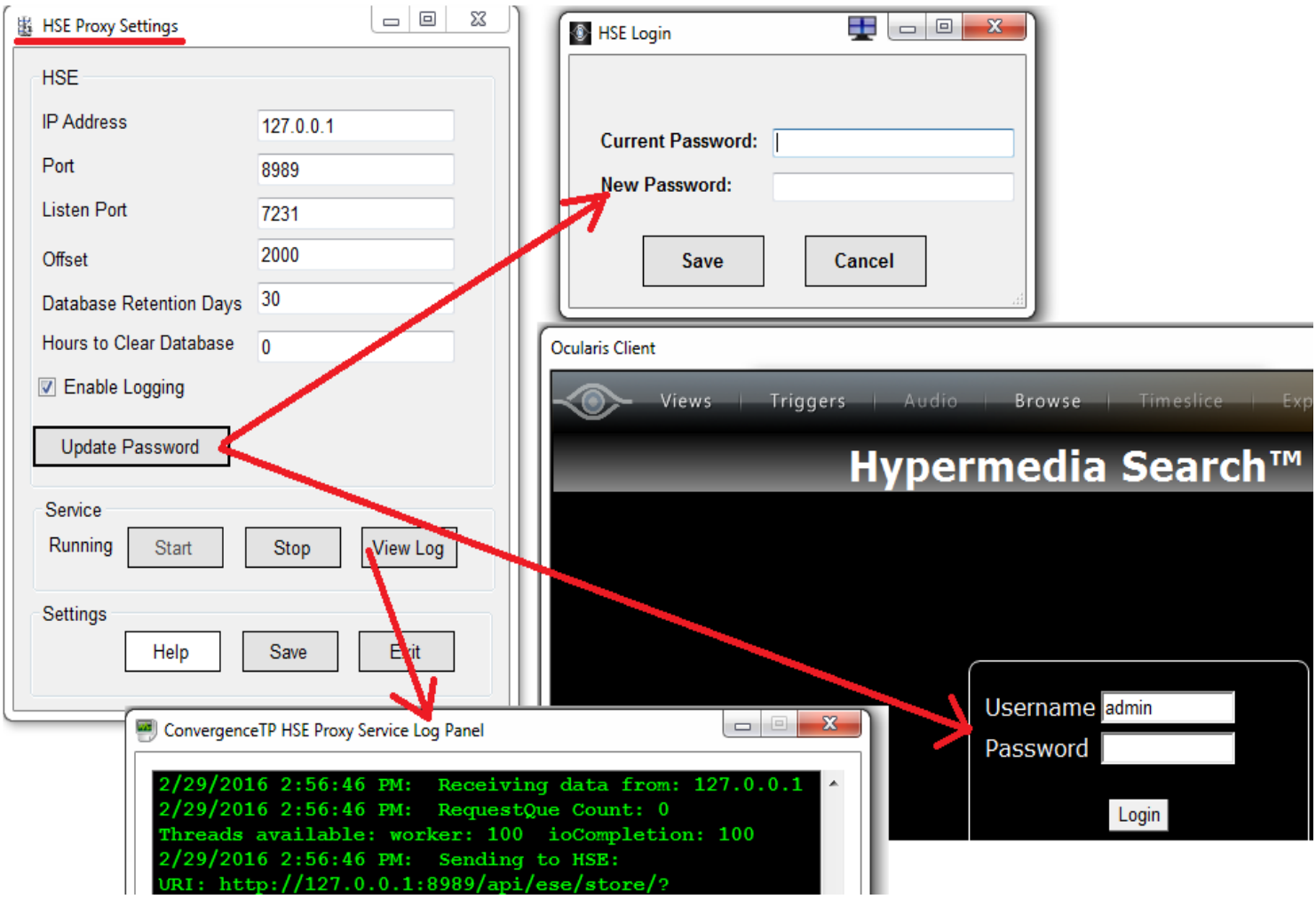
The HSE Proxy GUI contains the configuration needed for the C2P POS Proxy to send POS transaction data to the C2P Hypermedia Search Engine (HSE)
In most cases the user never needs to open the HSE Proxy GUI as all of the defaults work as installed as long as the HSE Proxy is installed and the same machine as the HSE = normal case.

Reasons to use this GUI would be:

1) *If the user wanted to change the default Password used by the HSE*

2) *If the user wanted to change the HSE database retention time from the default 30 days.*
   ***Note:** If "Hours to Clear Database" is zero as shown below then the database is never cleared.*
   Otherwise if a non-zero number is used then that number represents how often the database is truncated to the selected number of days specified in "Database Retention Days"

3) *If the user wants to verify that data is actually being sent to the HSE database. For this they could look at the HSE Proxy Log file as shown below.*



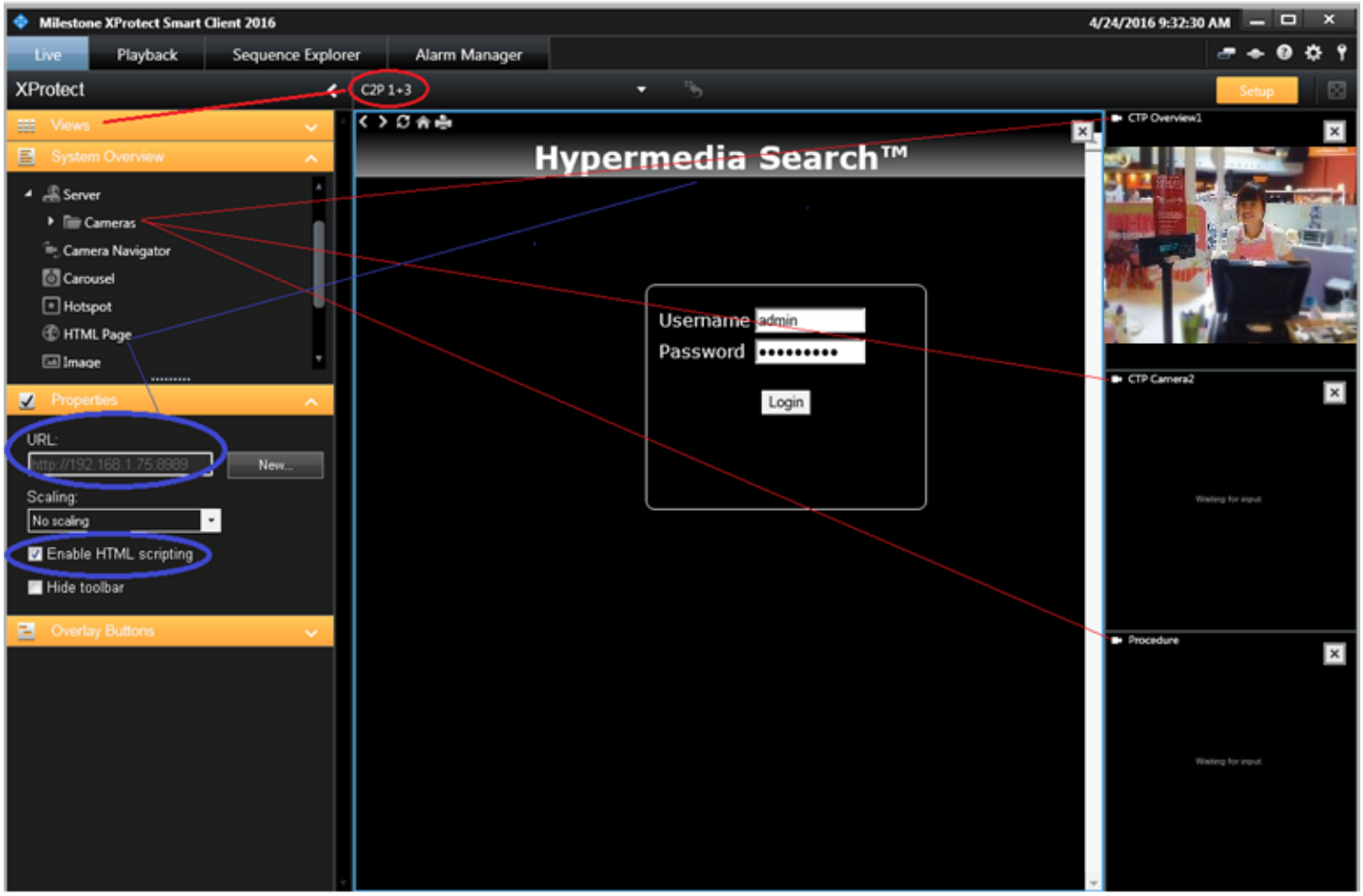
Smart Client view setup for C2P integration

C2P uses a common Smart Client view for all C2P integrations. The view is a 1 + 3 view with the Hypermedia Search Engine (HSE) being in the "1" view and the "3" corresponds to the 3 camera views that are to the immediate right of the HSE view.

Below is a screenshot of the C2P 1 +3 view setup screen in the Smart Client.
The Hypermedia Search Engine (HSE) uses the larger Web portal for its view.
The URL used for the HSE = http://IP_Adr:8989 Below this is shown as http://192.168.1.7:8989
In order for the buttons within the HSE to work be sure to enable HTML scripting. Shown in blue highlight below.

The cameras that are populated on the far right are simply drag and drop from the Camera tab.
These can be any cameras listed in the Cameras tab but the C2P normal convention is to put the physical overview camera in the top right view, followed underneath by the Universal camera assigned to be the text screen for the IP appliance being monitored by the physical overview camera. The bottom right view is general reserved for any user defined procedures that are triggered.

***Note1:** The default HSE login password is Password1. To change the password see C2P HSE Proxy GUI*

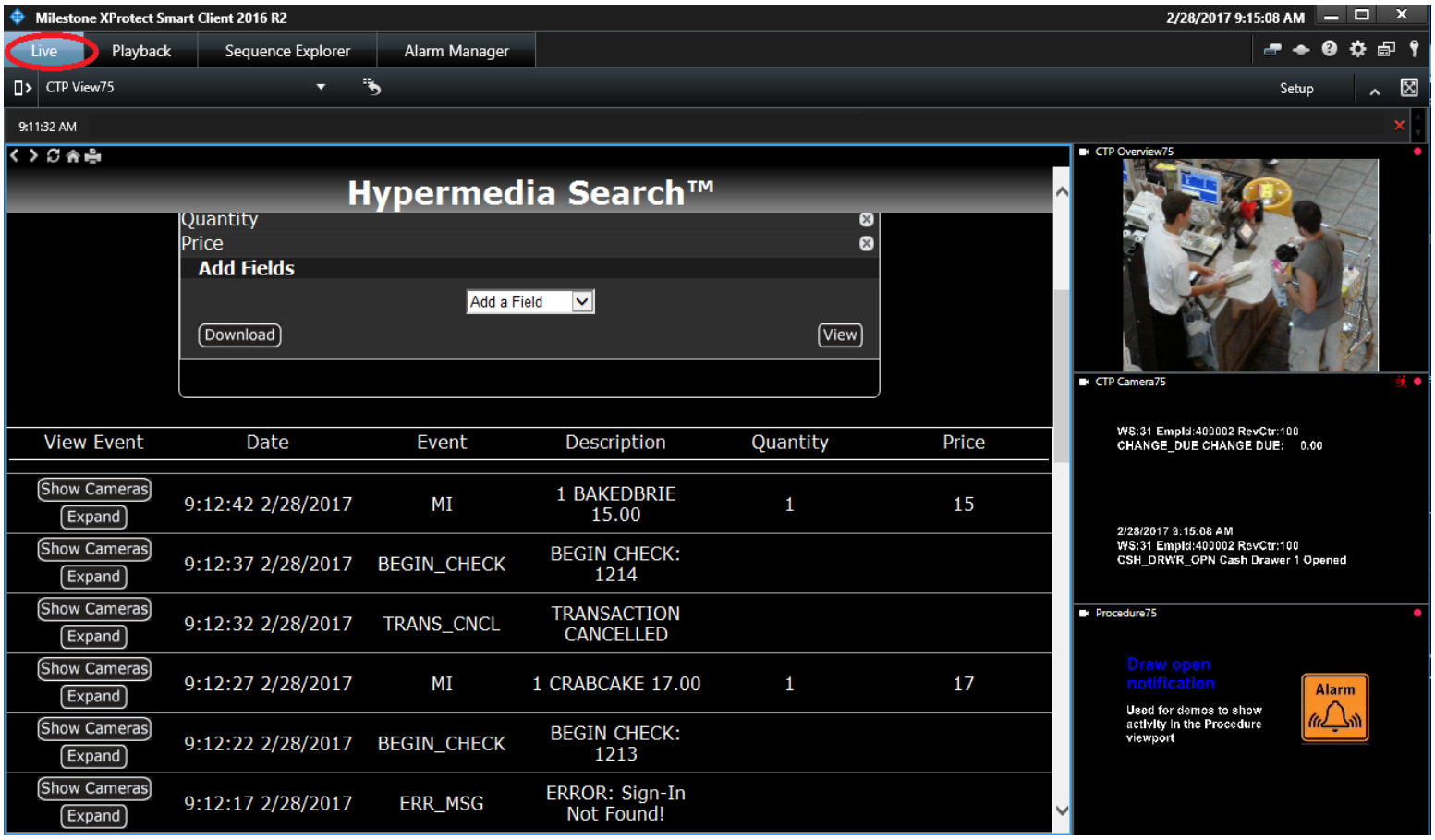


Live viewing

Note: *The default HSE login password is Password1. To change the password see C2P HSE Proxy GUI*

As with any security application access to live events in real-time is critical. The C2P POS to Milestone integration provides several features which give the user creative options for how they may want the Live Access Control activity reported.

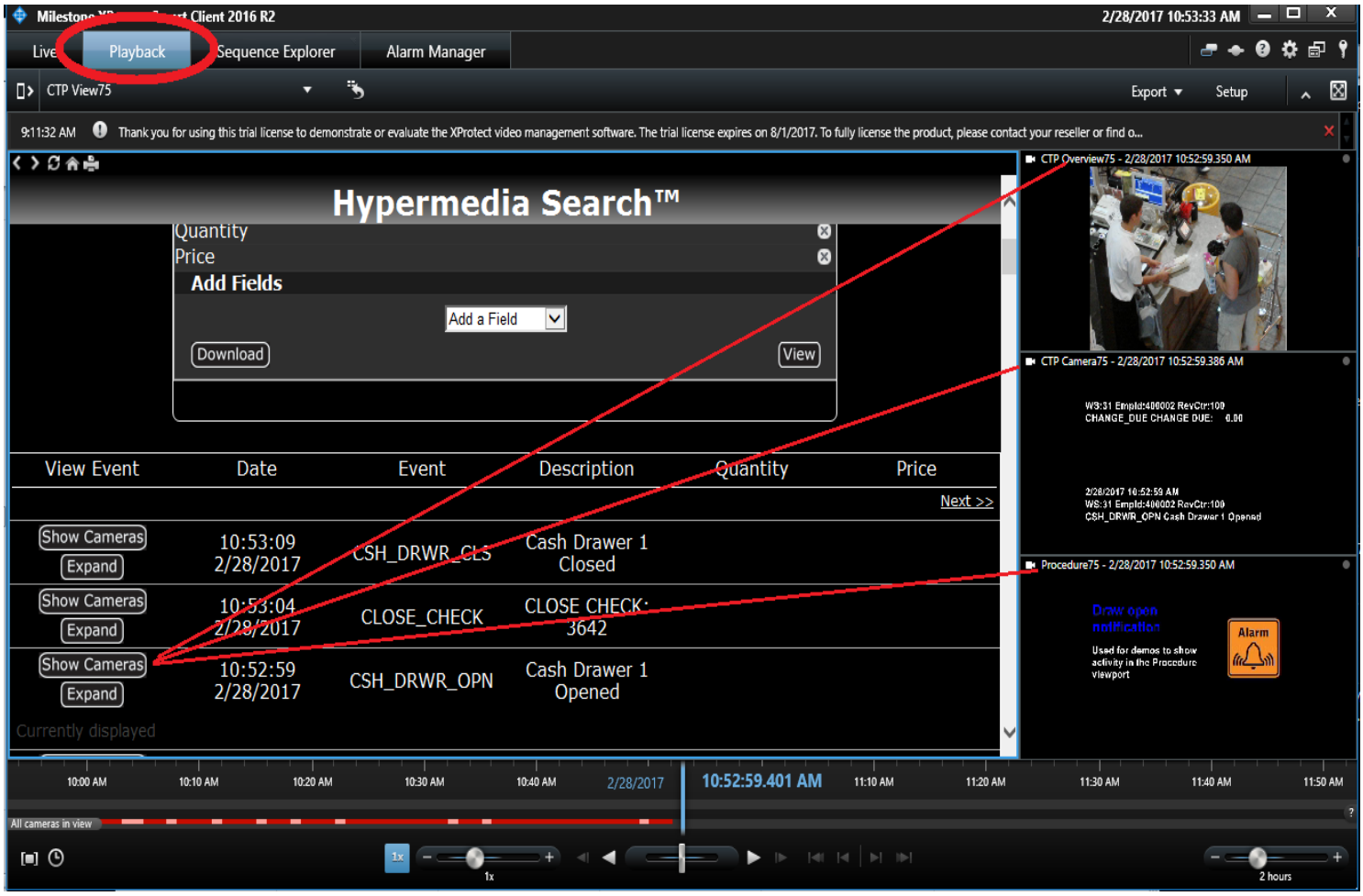
The default mode of operation for the integration is shown below.
In this mode of operation the user has access to any camera in the Milestone enterprise along with any C2P virtual cameras that they have setup for viewing Live Access Control related activity. The benefit here is the user is able to not only to see Access Control activity of interest but is also able to see other related images of interest like where the person swiping the badge came from, who they were with, what were they carrying, etc.. This allows the user to potentially follow the event as it unfolds.
Alternatively the user can setup the C2P Rules engine (see section "L" in C2P POS Proxy configuration GUI) to only show all Live Access Control activity from a particular POS camera etc.
Live Access Control activity can be annotated with user defined text based on a "Procedure" being defined in a specific rule in the Rules Engine. An example Procedure can be seen in the bottom right view in the screenshot below.
Users can also combine the C2P POS integration with the C2P Dispatcher product to then have a pop-up come up in front of the Milestone client anytime user defined rules are executed by the Rules Engine. This pop-up can contain a single predefined camera view or up to 6 camera views can be pushed to a single user's screen or multiple user screens based on a single Access Control event.
These pop-ups can be sent to any PC on the user's network even if the user is not currently using, or has ever used the Ocularis Client.



Browsing (Investigation Mode)

Note: *The default HSE login password is Password1. To change the password see [C2P HSE Proxy GUI]*

The ability to be able to search on "ANY" text data that is sent by the IP appliance integrated with the VMS is the true measure of the value of the integration. In this case the IP Appliance is the POS Access Control System but the C2P Hypermedia Search Engine (HSE) works exactly the same way for any IP Appliance.
This means that users can jump between searches from one IP Appliance to another within the C2P HSE and the look, feel and function is exactly the same.
Below is the default Hypermedia Search screen that comes up in the Milestone Client. In the example below the user had done a search and selected "Show Cameras" for a specific Access Control event of interest. The red line in the image below shows the relationship of the "Show Cameras" button to the cameras associated with that Access Control event being populated in the Milestone Client screen as a result of Show Cameras being selected. The user can now play the video forward or backwards from that point and use any of the many other powerful tools within the Milestone client.
For example the user could zoom in on anything of interest, take a snapshot of a still, export evidence using the Milestone export tools, etc.
The user can also add, change or replace cameras while keeping the view time synchronized with the original Access Control event search result or they could download the Hypermedia Search result as a CSV file for use with any spreadsheet analysis tool they prefer for further analysis or for use in an incident report.



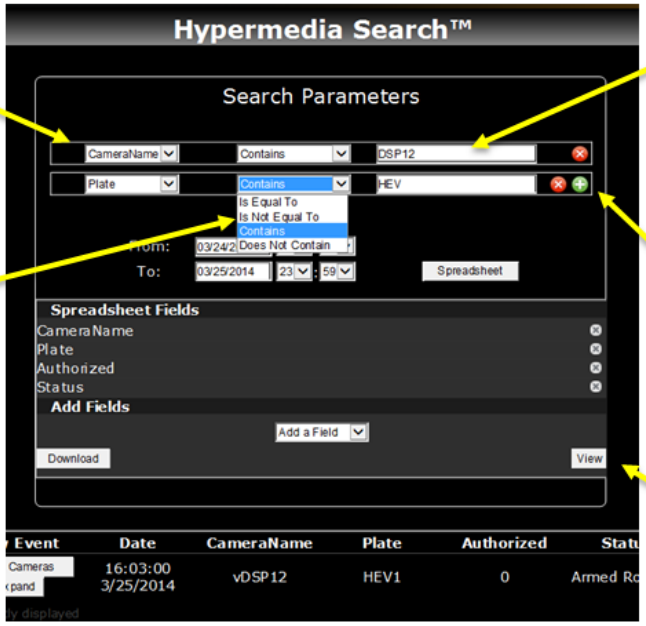
The bubble diagram below illustrates the intuitive ease and simplicity of using the Hypermedia Search Engine in an POS application.

Select search parameter from drop down tab.

Qualify your search with equal to, not equal to, contains, etc.

Setup your spread sheet columns using either default settings or add or delete columns.

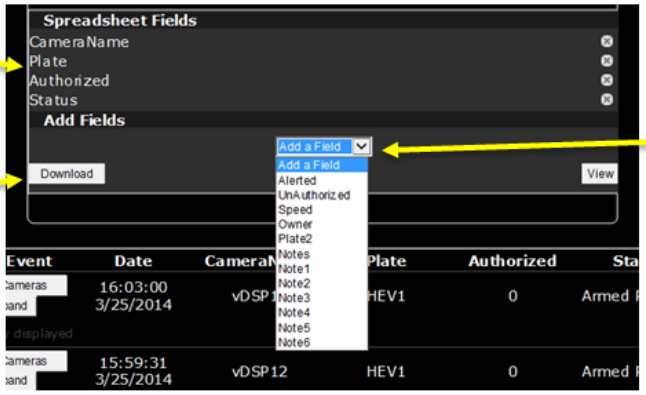
Select Download to export data in CSV format to a spread sheet where you can create a visual representation of the data.



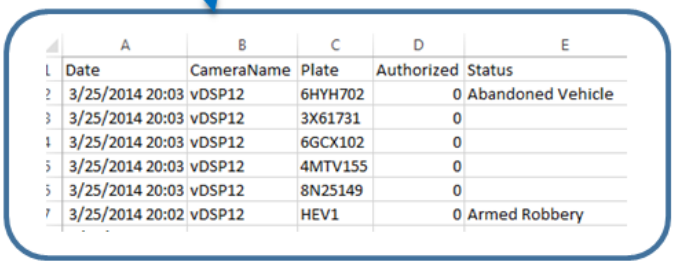
Use full or partial keywords from metadata to setup the search.

Filter your search by adding multiple keywords.

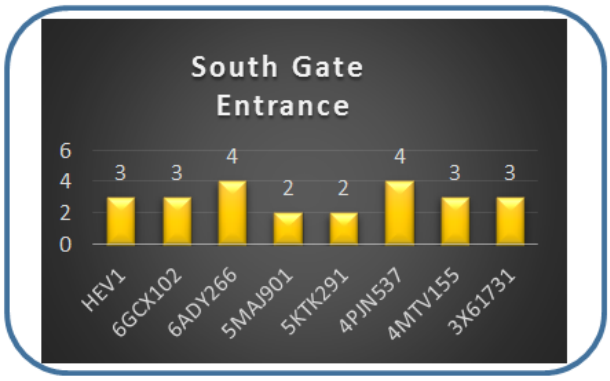
Once your search parameters are defined select view to present results in table.



Add new columns to your spread sheet using drop down menu.



	A	B	C	D	E
1	Date	CameraName	Plate	Authorized	Status
2	3/25/2014 20:03	vDSP12	6HYH702	0	Abandoned Vehicle
3	3/25/2014 20:03	vDSP12	3X61731	0	
4	3/25/2014 20:03	vDSP12	6GCX102	0	
5	3/25/2014 20:03	vDSP12	4MTV155	0	
6	3/25/2014 20:03	vDSP12	8N25149	0	
7	3/25/2014 20:02	vDSP12	HEV1	0	Armed Robbery



Troubleshooting

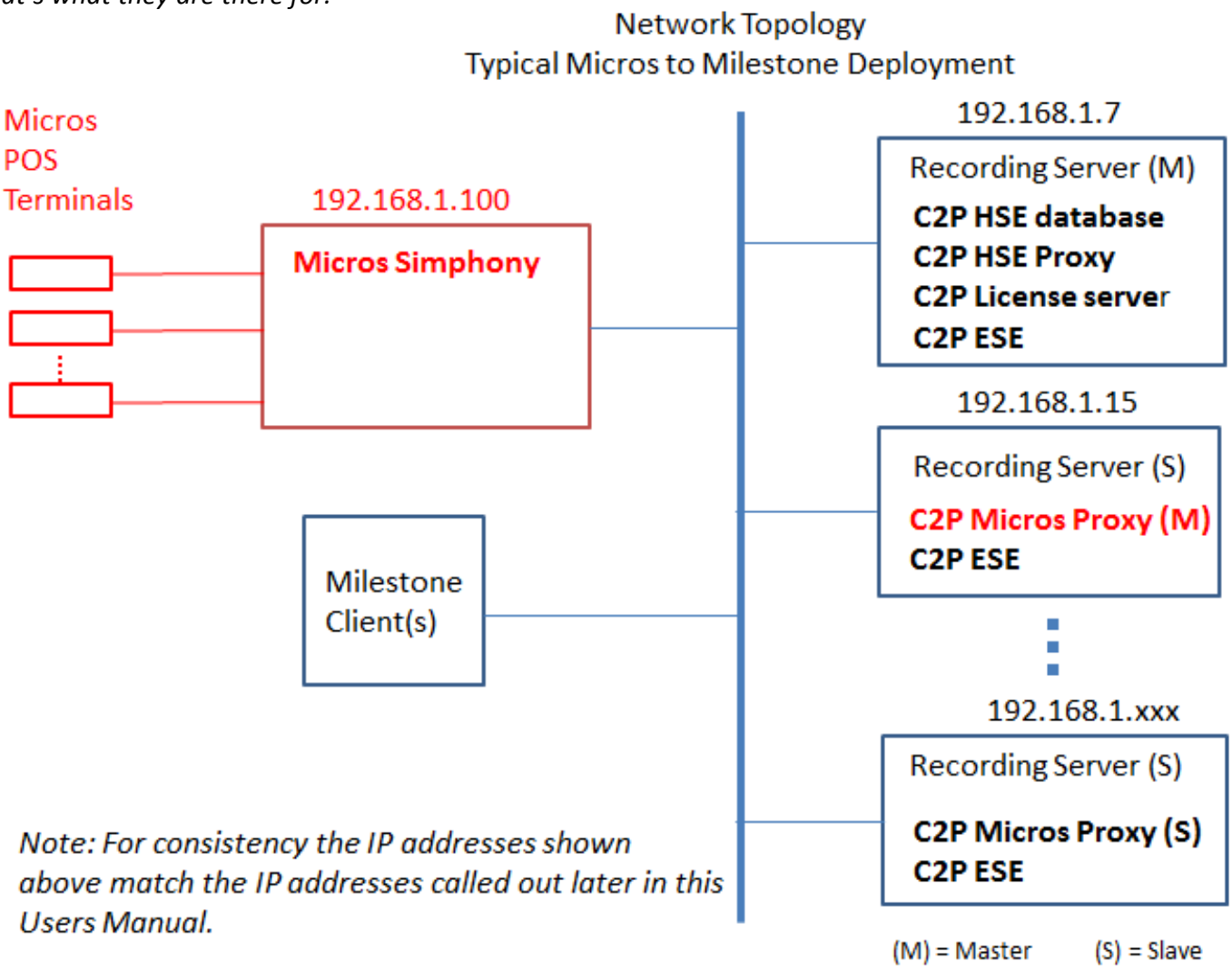
In the event that your install doesn't work as planned, or your system stops working at some point, below are some basic troubleshooting tips.

If you are not seeing metadata events being reported in the VMS client, the first thing you need to do is move to the point in the system where the data first enters the C2P integration.

This is where most people get hung up.

In troubleshooting the rule is the output device is great for alerting you that there is a problem but that's usually all it is good for relative to troubleshooting.
As with troubleshooting any electronic device the same basic principles apply = start at the source and work your way through the system to determine where the data goes bad.
Look for things like a blocked port (firewalled) or wrong IP Address specified in one of the C2P settings GUIs.

The block diagram below shows where all of the C2P software components are located with the POS transaction data source being the machine hosting the POS Simphony application. This is the starting point, and most likely where the problem resides. The first thing that you want to do is to verify that the C2P POS Master Proxy (M) is receiving data from the POS Simphony application. The process of checking the log is simple as was illustrated earlier in this User Manual See:
item "B" in C2P POS Proxy configuration GUI and also Appendix A: Sample C2P Mocros proxy log files
Each of the other C2P software components shown below all have their own respective Log Files as explained in each of their respective sections of this manual. Use the log files first when troubleshooting.
That's what they are there for.



Note: For consistency the IP addresses shown above match the IP addresses called out later in this Users Manual.

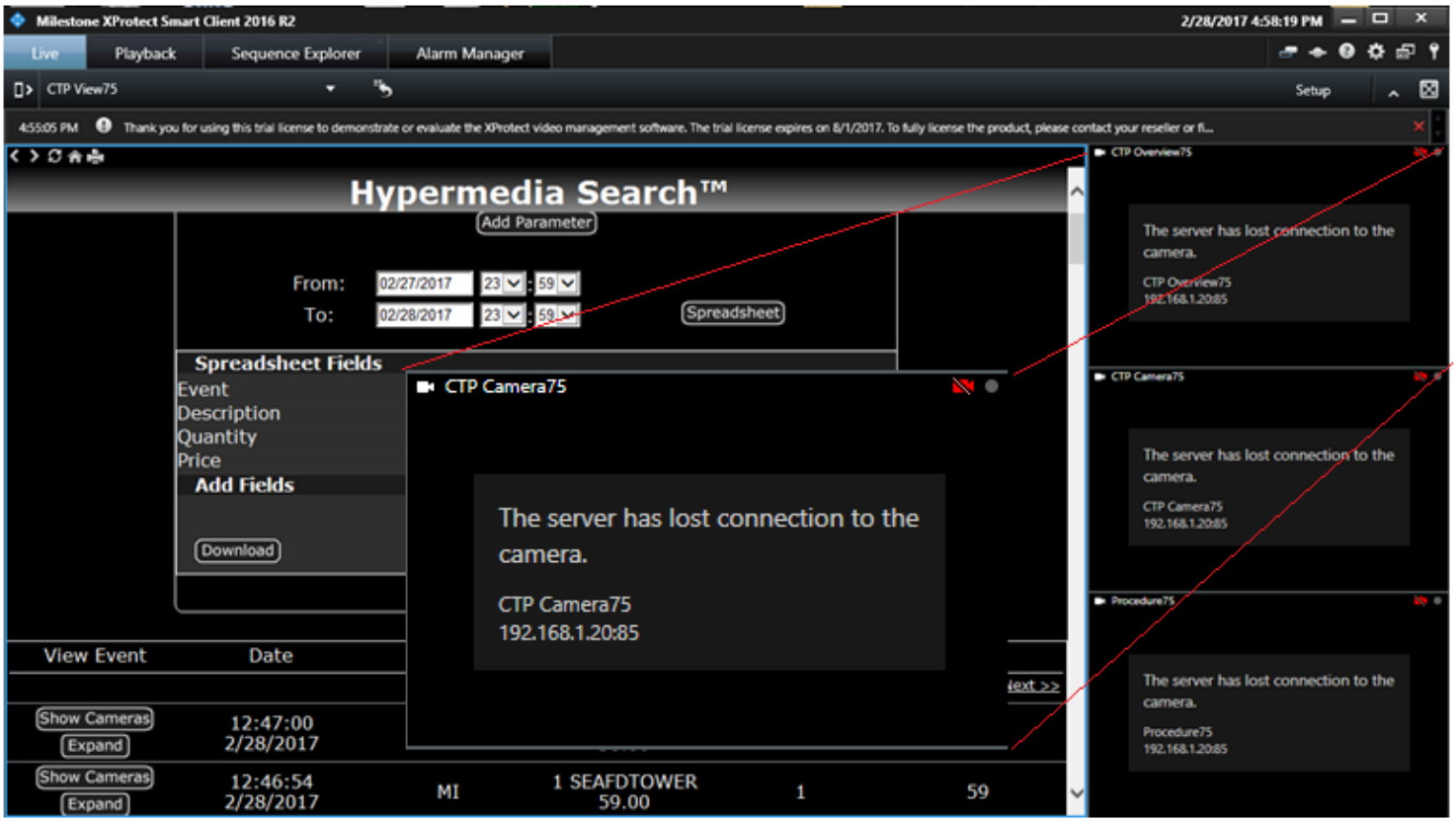
Troubleshooting Virtual Cameras

C2P uses Virtual Cameras as a means to display text within VMS systems. Although virtual cameras used for this purpose are a uniquely C2P creation they still appear to the VMS as any other physical camera.

For C2P virtual cameras the default splash screen below ("Waiting for input") is what you want to see when the virtual camera is working properly.

Below is a screenshot displaying what happens when a VMS loses connection to a camera.

In this screenshot below the cameras are virtual cameras but <u>the result is the same for physical or virtual cameras</u> when the recorder is not able to connect to the camera = "The server has lost connection to the camera".

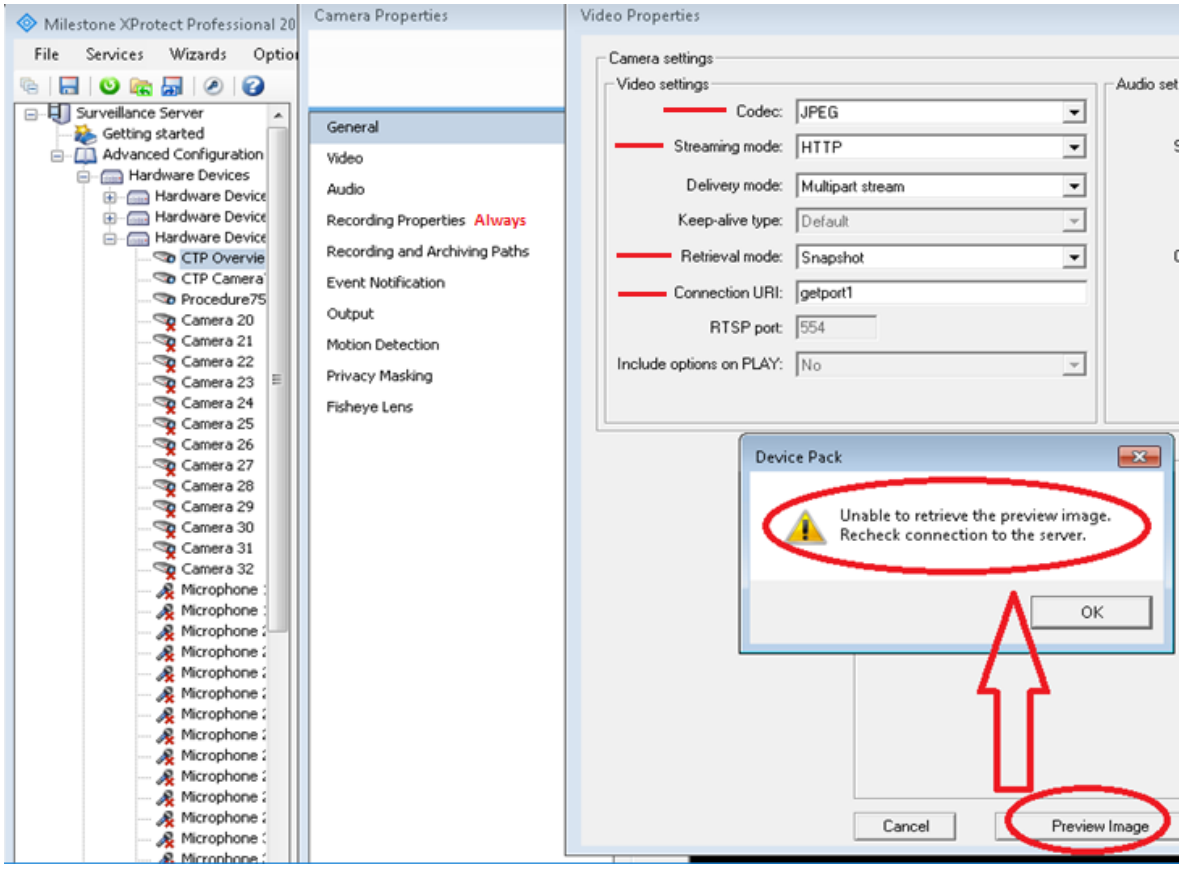


Below is a screenshot of the recording server hosting the virtual cameras used on the previous page.

The screen below shows where to go within the Milestone Management Application to see the health of the cameras attached to the recording server as well as a live image from the virtual cameras. This is where the C2P virtual camera streams first enter Milestone and therefore where you want to begin any troubleshooting related to virtual camera issues.
To see a live image from a particular camera of interest simply select that camera in the Milestone Management Application and then select "Preview Image" as shown below. At this point the C2P default splash screen will come up within a second displaying the "Waiting for Input" splash.
If you don't see the default C2P splash screen but instead see the "unable to retrieve image" screen below its time to start troubleshooting. Below is a list of places to start looking.
Note: When troubleshooting Virtual camera issues start by first checking is working properly in the recoding server using "preview image" as shown below. The VMS client is the last place you need to check

Common causes:

1) *C2P ESE is not running. See C2P Event Streaming Engine (ESE) GUI*
2) *Improperly configured virtual camera. See Universal Cameras*
   Common settings mistakes = Streaming Mode, Retrieval mode, Connection URI, Recording property.
3) *C2P or Milestone license issue. For C2P go to the machine hosting the C2P license server and check the real-time license server Log file. Appendix C: CTP License Server Control Panel*
4) *No permissions given to the user to view the Virtual Camera. See Milestone Recording Server Management Application for permissions.*
5) *Camera name change in VMS but VMS Client and/or C2P proxy was not restarted.*
   (see item A in POS Proxy Configuration)
6) *Duplicate virtual cameras exist in multiple Milestone recorders with exactly the same name.*
7) *Recording server not running, CPU at 100%, or not connected to the Milestone master recorder.*
8) *Disk drive full*



Troubleshooting the Hypermedia Search Engine

The Proxy is located on the same machine that hosts the HSE database. Any data that is sent to the HSE database must first go through the HSE proxy. This makes the log file within the HSE proxy very valuable when looking for suspected HSE issues.

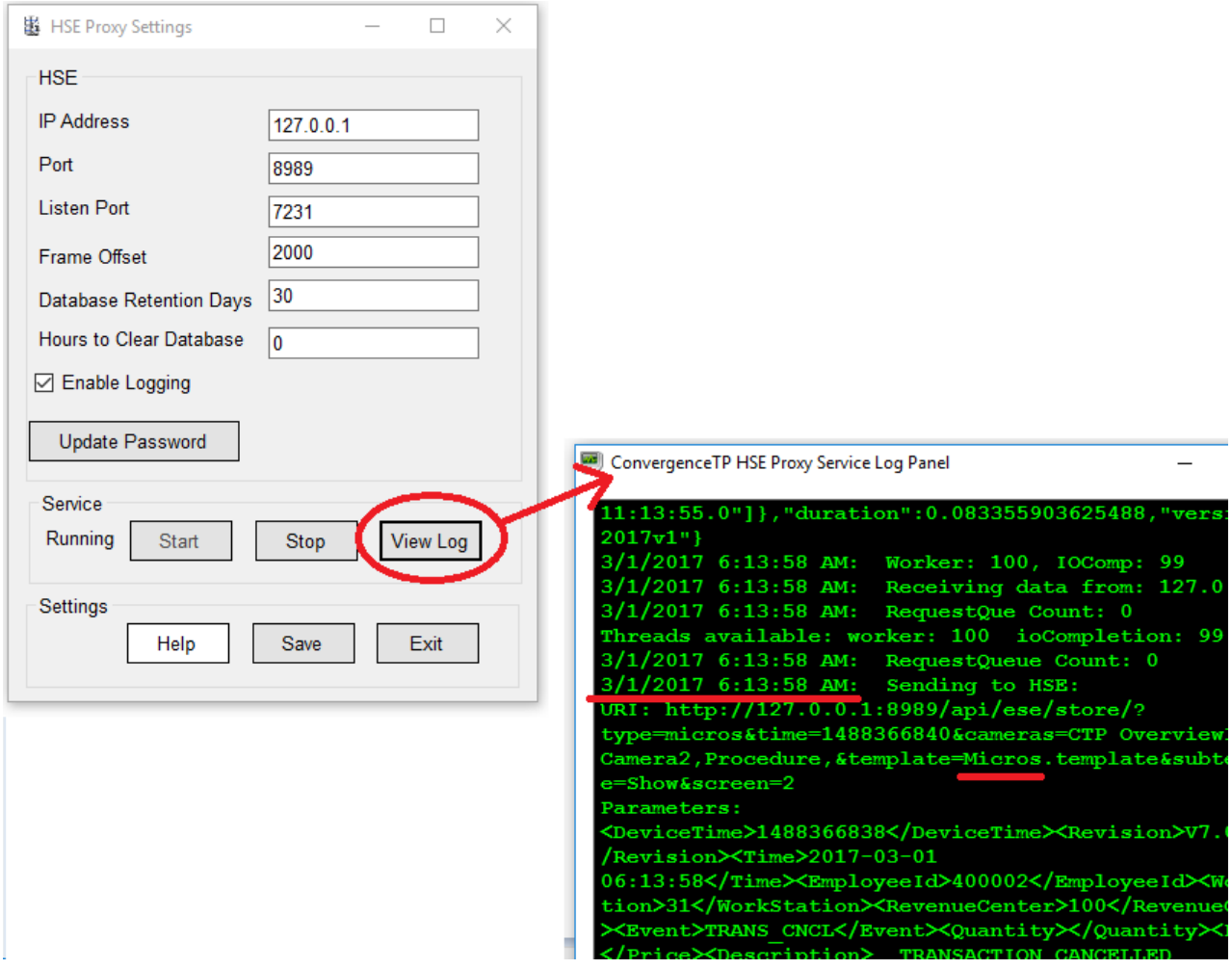
There are 3 HSE related issues that can come up if the system is not configured properly.

1) *No POS events are listed in the Hypermedia Search Engine (HSE).*
   This usually caused by the wrong IP address being used for the HSE in the POS Proxy settings.
   See: Section "O" under" Advanced setting" in the POS Proxy. H = Advanced Setting.

2) *No cameras come up in the HSE when "Show Cameras" is selected.*
   a) *In the Milestone Client check "Settings" to make sure that "HTML Scripting" is enabled. See Milestone Client Setup*
   b) *The cameras defined for the POS terminal indicated in the Show Cameras search are either defined wrong (spelling) or not defined at all. See section "E" in POS Proxy Configuration*
   c) *This can also be caused if the VMS name for the camera has changed but the VMS client and/or the C2P proxy was not restarted after the camera name change. (see item A in POS Proxy Configuration)*

3) *When "Show Cameras" is selected in the HSE the corresponding video of that event is not in sync with the HSE text for that event.*
   The recording server(s) are not in time sync. The synchronization between all recorders and all machines hosting C2P software need to be time synchronized to within a second.

Below is a screenshot of the HSE log file

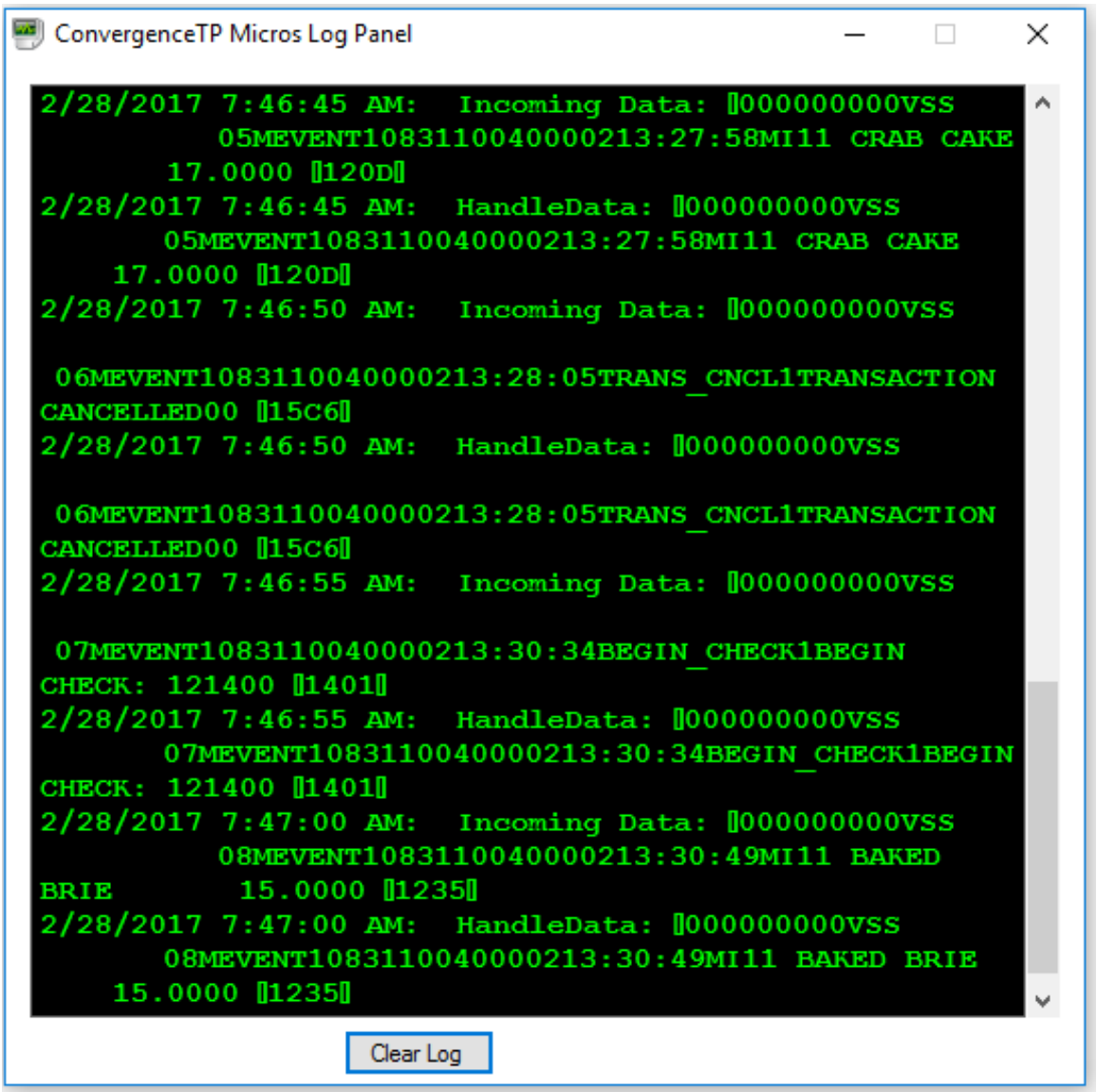


Appendix A: Sample C2P POS proxy log files

This screenshot below is a real-time stream log file trace of all the POS transactions sent by POS.

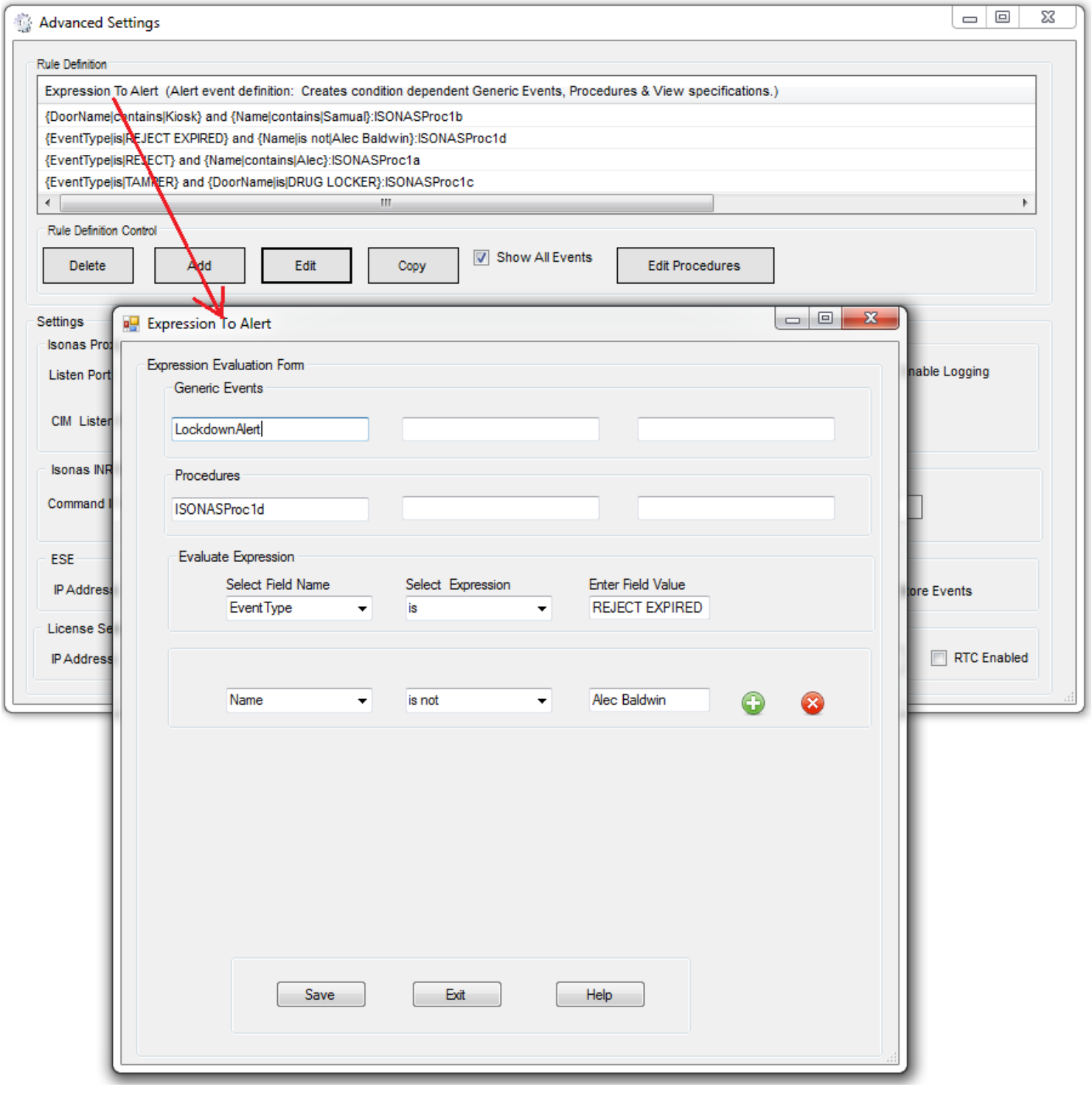
Each Mocros proxy has a log file on the front end of the proxy to log every all POS transactions received.

<u>If nothing is being received by this log file then nothing is being sent by the ALPR application.</u>



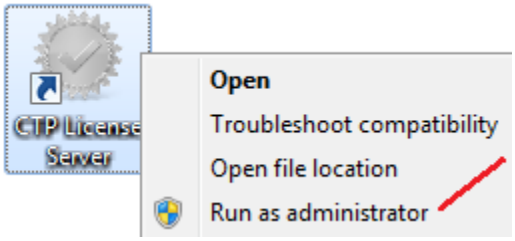
Appendix A: C2P POS GUI Rules Engine

The C2P Rules engine allows users to create their own rules based on the Live text received from the Access Control system.
These rules are evaluated for each Access Control event sent from the Access Control system to the C2P integration.
The GUI for the Rules Engine makes it very easy to add, delete or edit a rule. The Rules GUI provides dropdown selections for adding field names. Rules can be a single expression or several expressions AND'd together.
Rules can push procedure for immediate viewing on the Milestone client. Rules can be sent Milestone or other 3rd party applications TCP/IP Generic event text.



Appendix C: CTP License Server Control Panel

To see the CTP License Server Control Panel you need to be on the machine hosting Ocularis Base.
To view the Control Panel you can "Run as administrator" the CTP License Server desktop icon. See below.



If the CTP License Server icon is not on the desktop you can also run the executable in:
C:\ConvergenceTP\License server CTP License Control Panel.exe

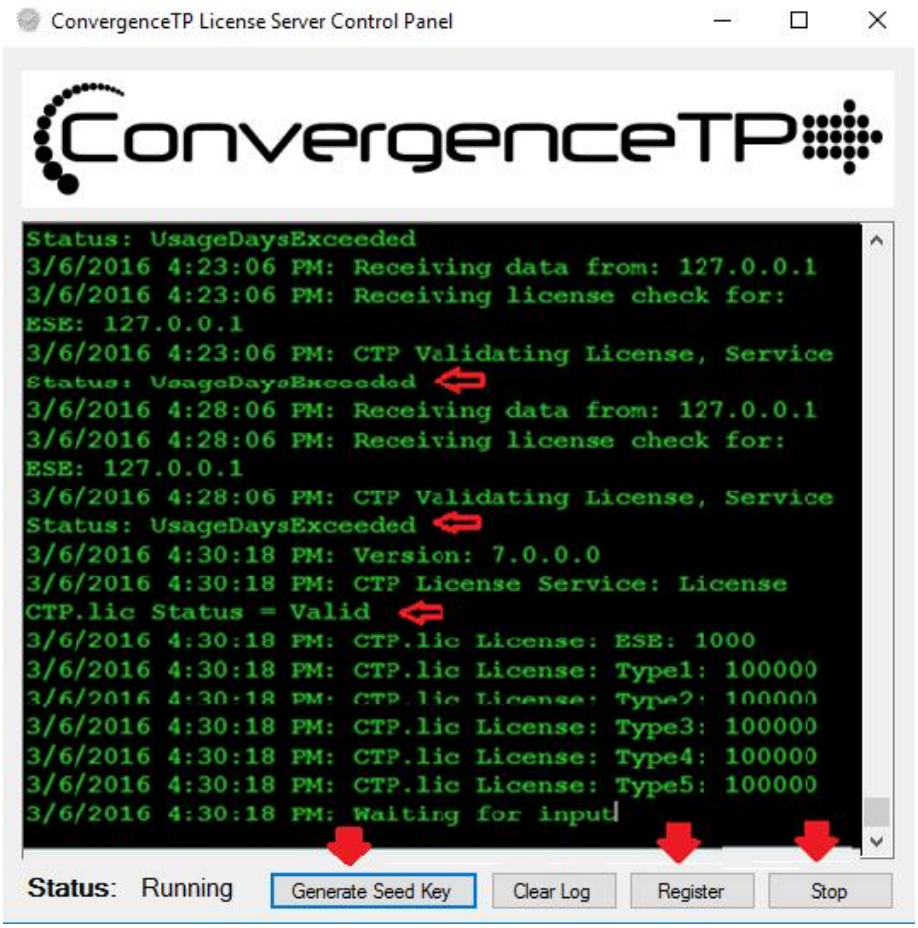
The License Server Control Panel is where real-time licensing information is displayed.

Loading a new CTP License File

You can also load in your purchased license files using the "Register" button on the bottom of the panel.
If you do Register a new license using the Control Panel BE SURE TO STOP AND START THE CONTROL PANEL afterwards.

***Note**: The new license is not read in until the License Server service is restarted so it's important to stop then start the service using the "Stop" button below, which turns into a "Start" button once the service has stopped.*

Also shown below is what the Control Panel looks like when a demo license expires and then a valid license is loaded using the Register button process. The valid license was loaded in at 4:30:18 PM.

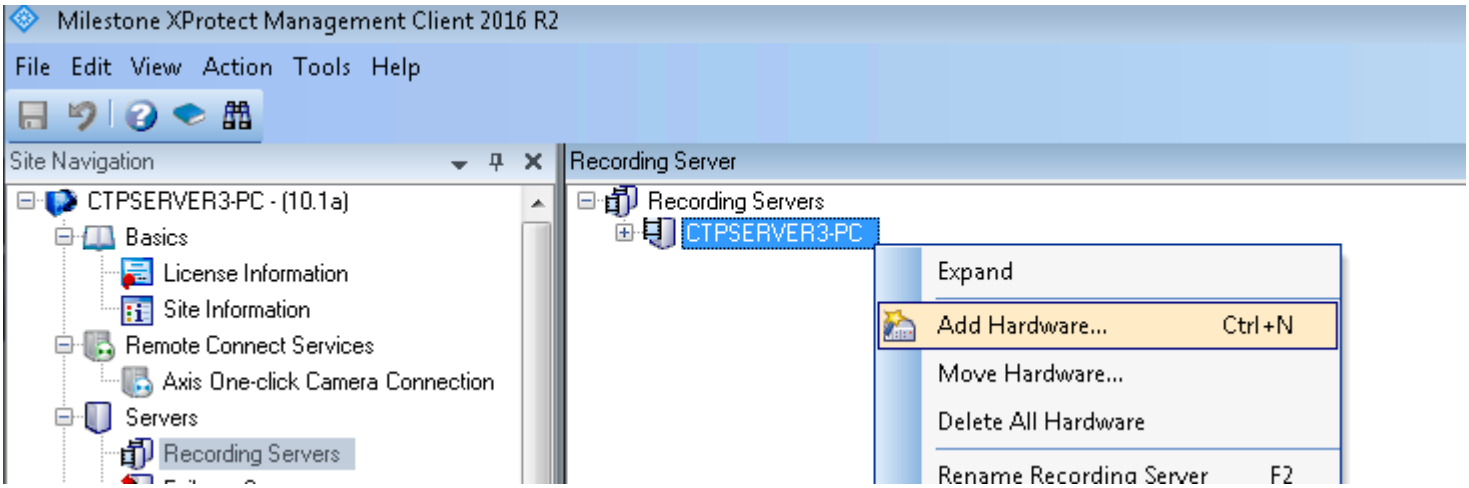


Universal Cameras

XProtect Corporate and Expert

Creating Virtual cameras in XProtect Corporate or Expert.

First select add hardware as you would when adding any other camera.

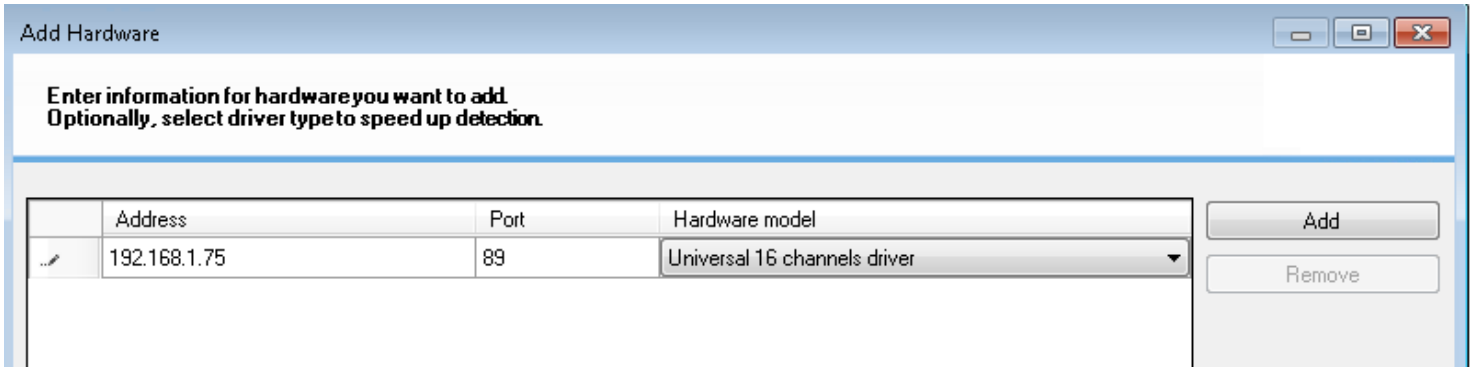


Next select “Manual” mode for the hardware detection method.

Select “Universal” as the camera type

In the Add Hardware form:

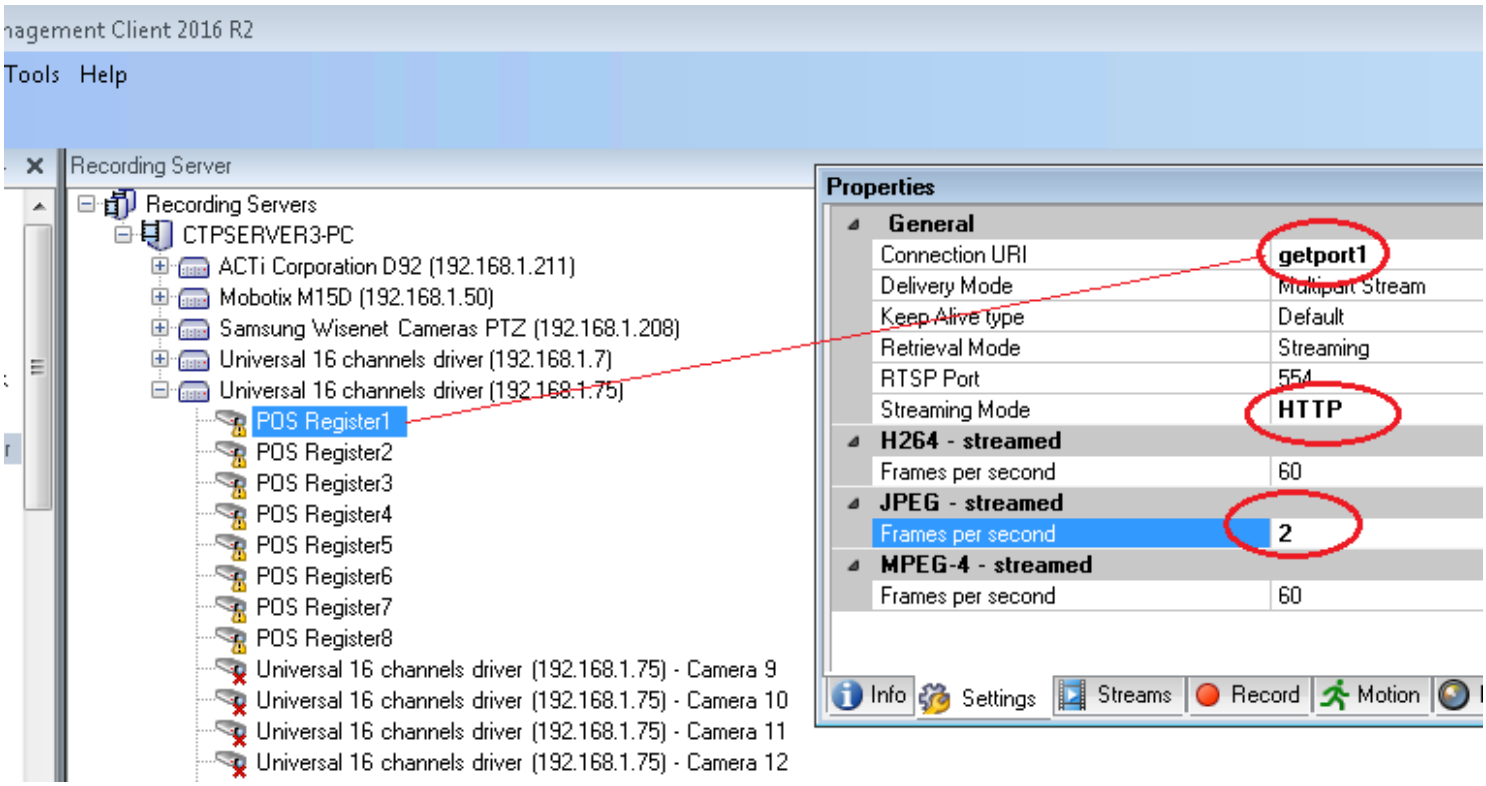
The Address is the address of the PC/Server hosting the C2P ESE
The Port is 89
The Hardware model is Universal “xx” channels where xx can be 1, 16 or 64



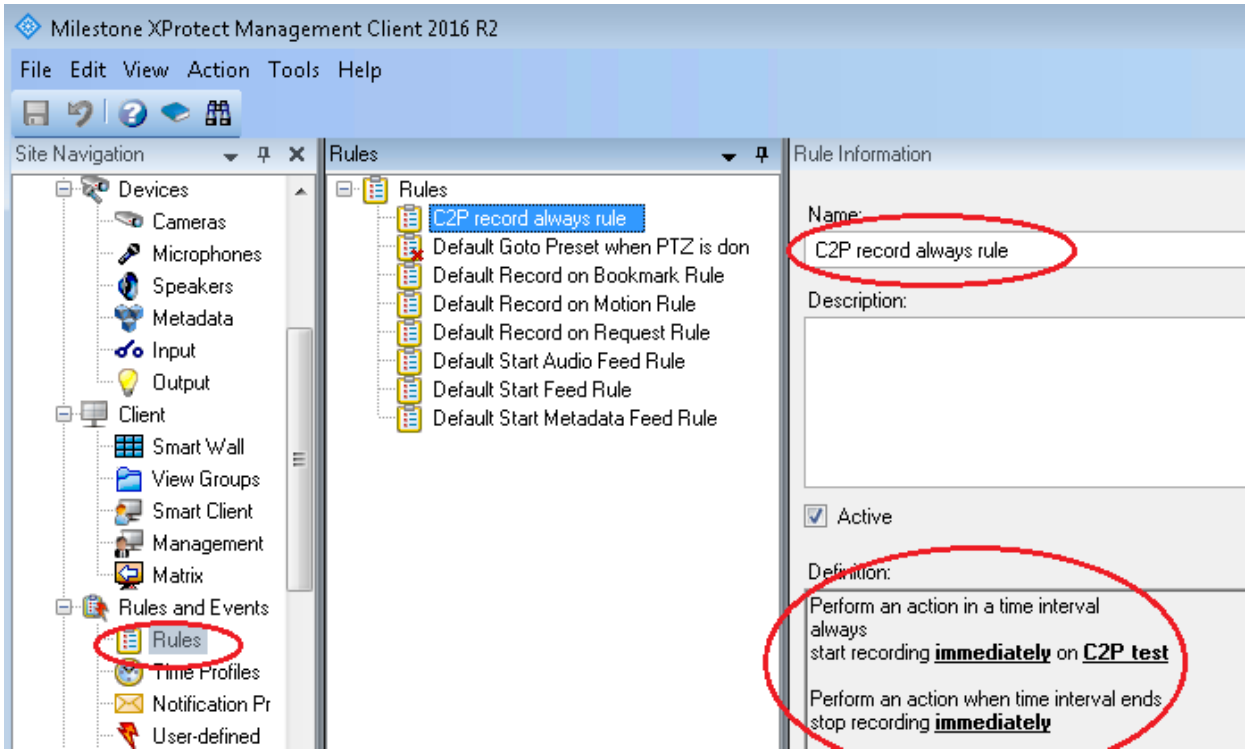
Next enable the Universal channels needed being sure to DISABLE ALL MICROPHONE CHANNELS
Next add your new Universal cameras to a group

This completes adding the Universal Camera definitions.

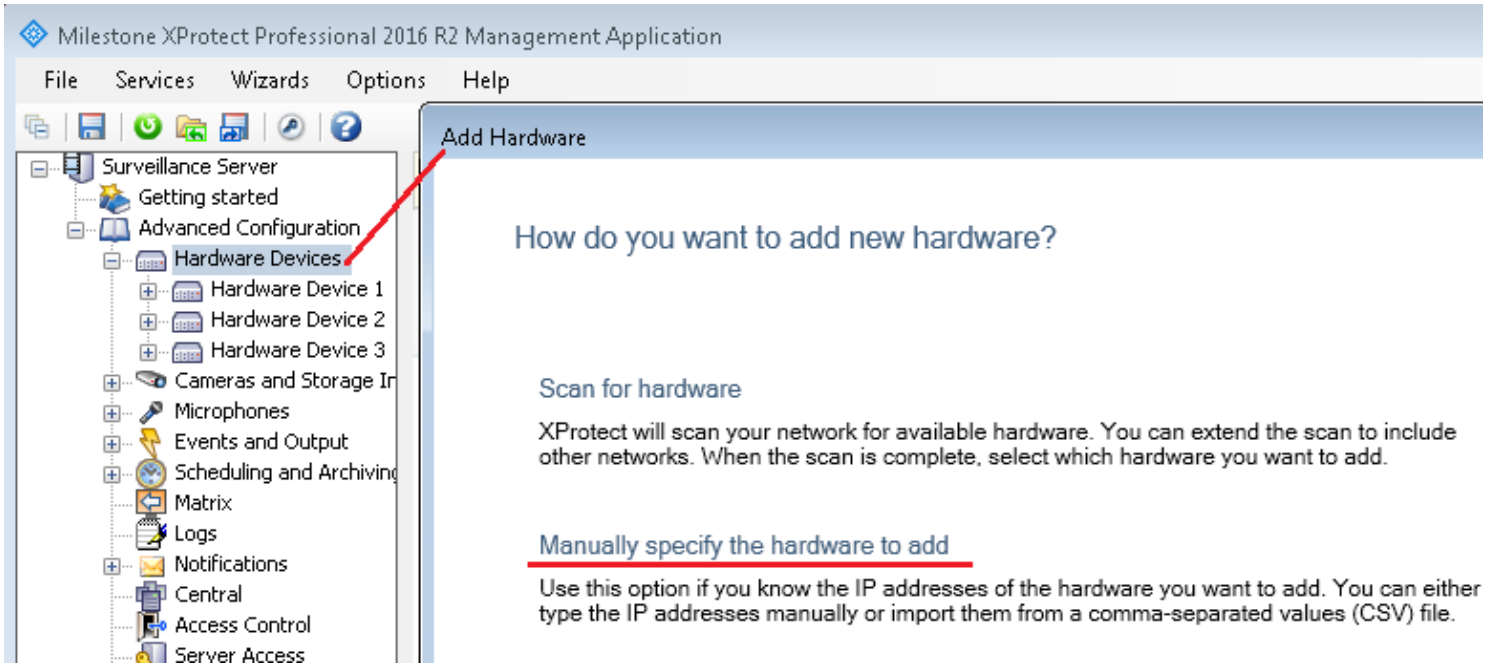
Next you will need to name the individual camera names and configure each individual camera and setup each virtual camera.
The setup below is shown for “POS Register1”. Each virtual camera is setup the same way with the only exception being the “Connection URI” field. Each virtual cameras must be given a unique URI that the C2P ESE recognizes. The ESE recognized naming convention is the first virtual camera uses getport1 , the second virtual camera uses getport2, the third getport3, etc. All other property fields are the same between virtual cameras.

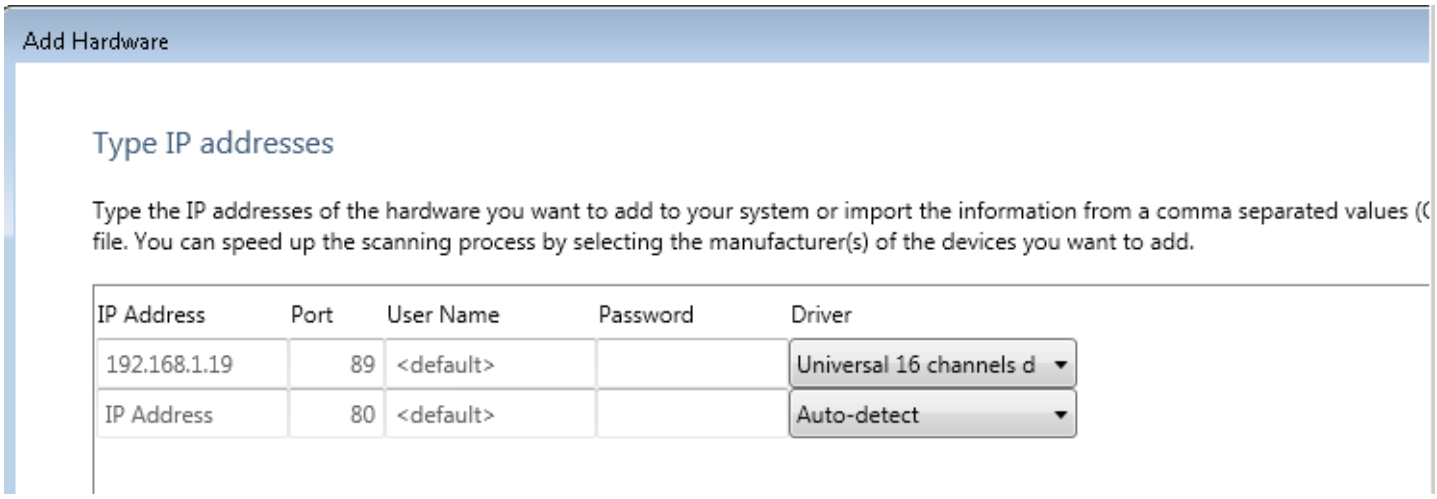


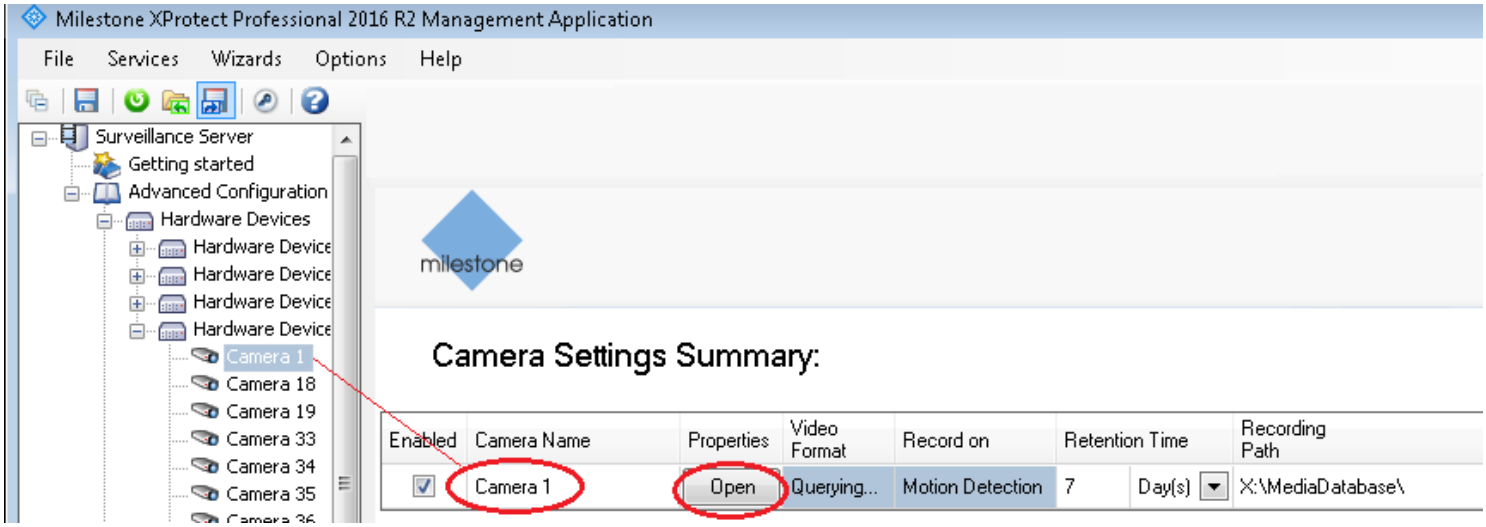
The last step is to create a “Record Always” rule for the virtual cameras

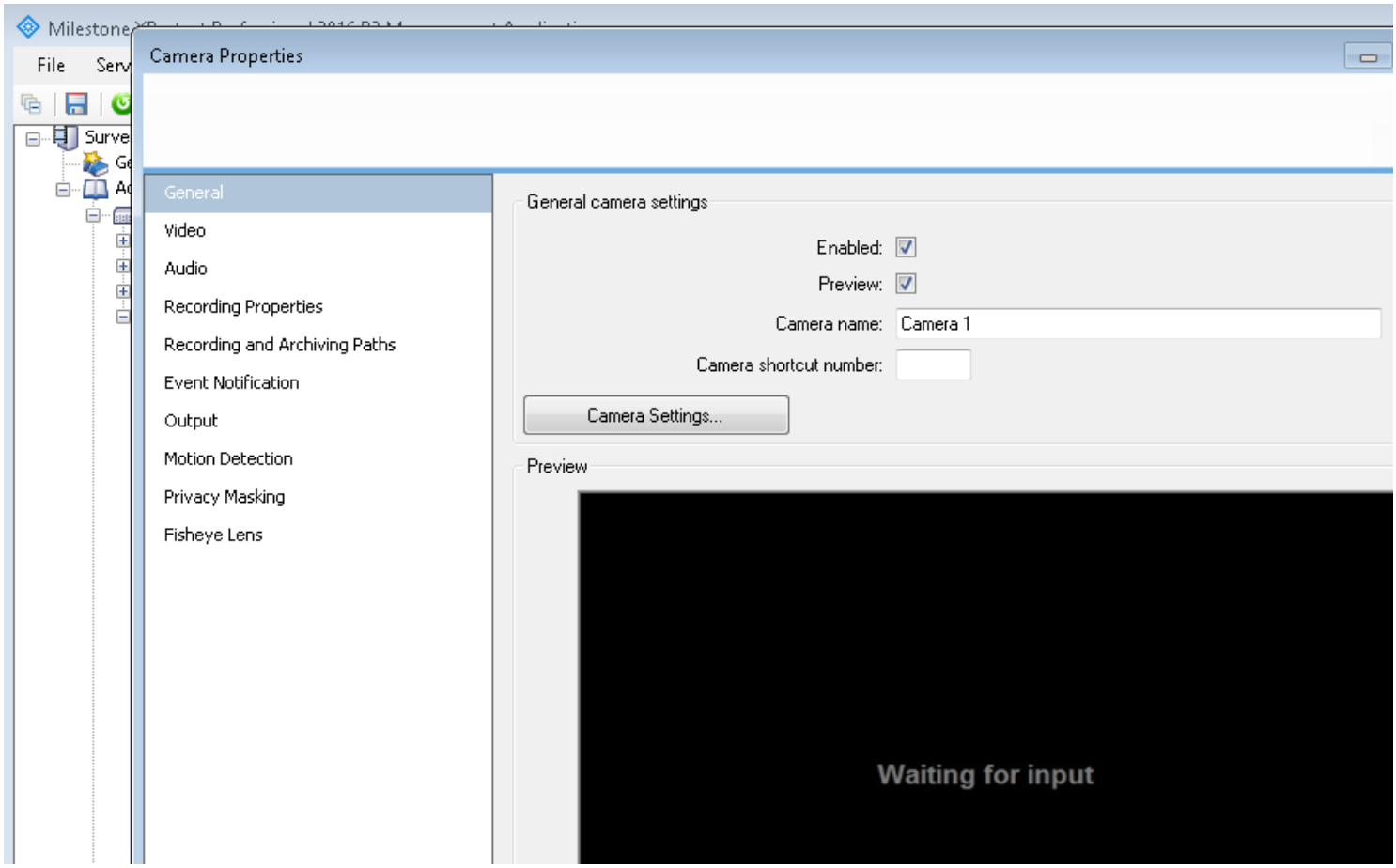


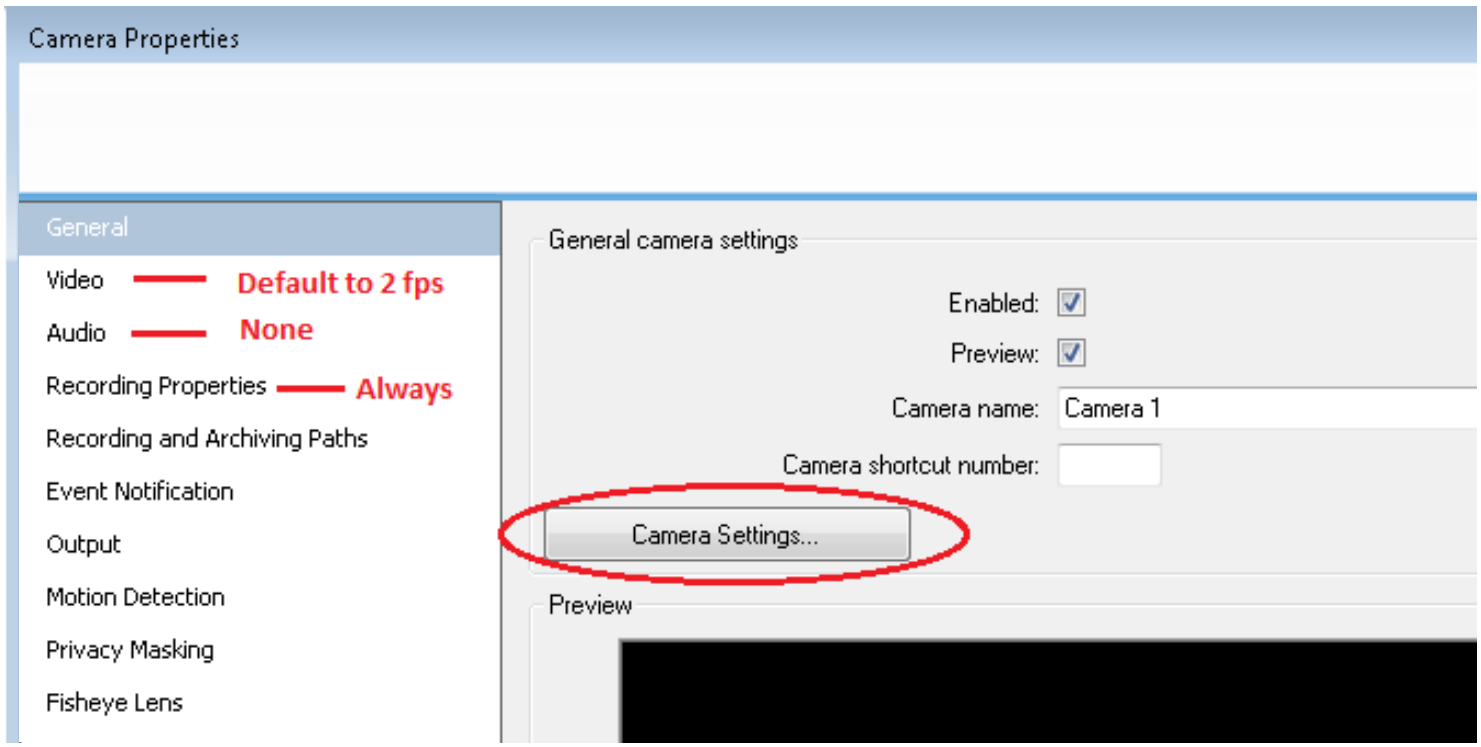
Enterprise, Professional and Express

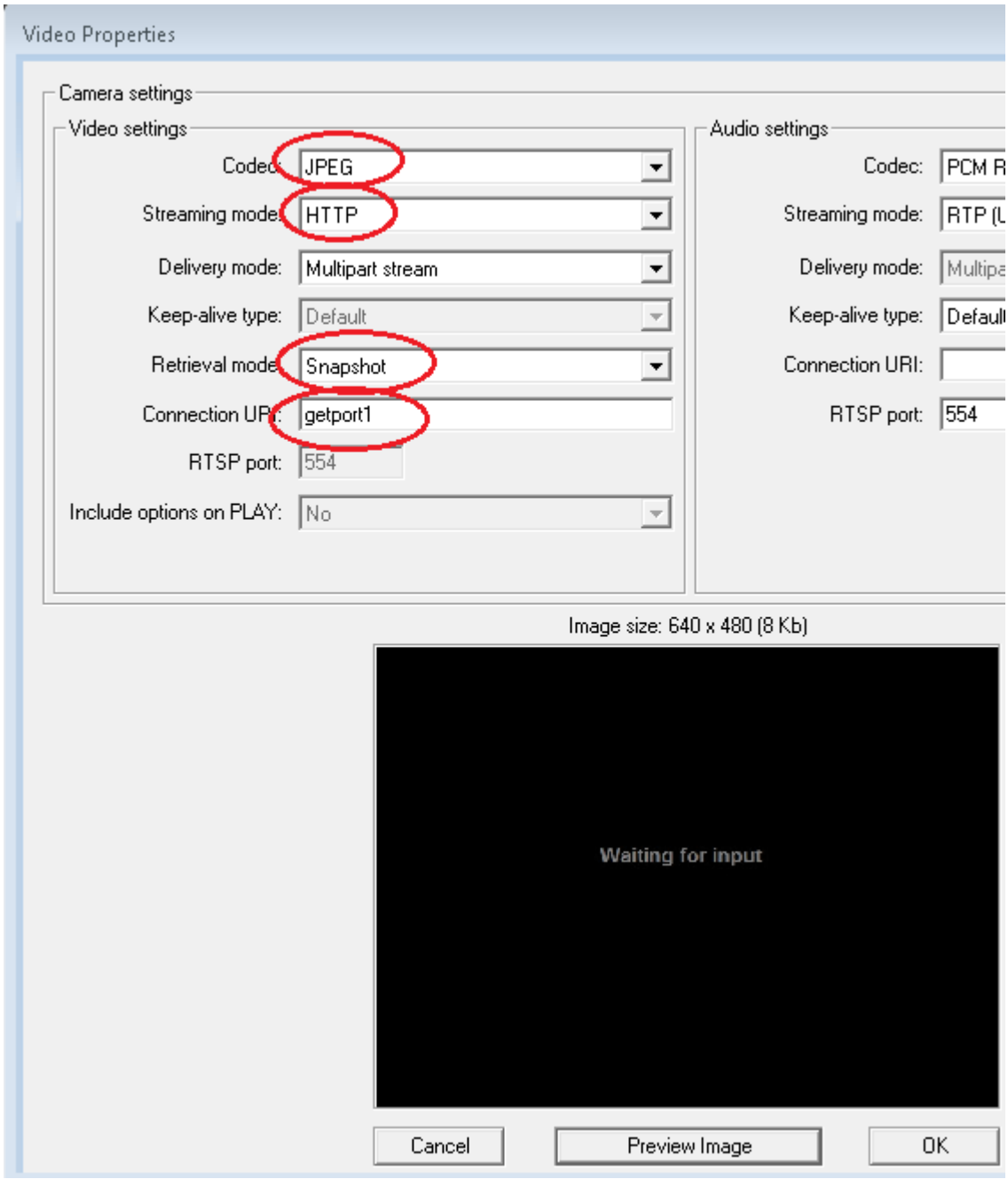







Camera Properties
General
Video
Audio
Recording Properties
Recording and Archiving Paths
Event Notification
Output
Motion Detection
Privacy Masking
Fisheye Lens
General camera settings
Enabled:
Preview:
Camera name:
Camera 1
Camera shortcut number:
Camera Settings...
Preview
Waiting for input


Camera Properties
General
Video
Default to 2 fps
Audio
None
Recording Properties
Always
Recording and Archiving Paths
Event Notification
Output
Motion Detection
Privacy Masking
Fisheye Lens
General camera settings
Enabled:
Preview:
Camera name:
Camera 1
Camera shortcut number:
Camera Settings...
Preview


Video Properties
Camera settings
Video settings
Codec: JPEG
Streaming mode: HTTP
Delivery mode: Multipart stream
Keep-alive type: Default
Retrieval mode: Snapshot
Connection URI: getport1
RTSP port: 554
Include options on PLAY: No
Audio settings
Codec: PCM R
Streaming mode: RTP (U
Delivery mode: Multipa
Keep-alive type: Default
Connection URI:
RTSP port: 554
Image size: 640 x 480 (8 Kb)
Waiting for input
Cancel
Preview Image
OK

Milestone Client Setup

Be sure to show where the URL for the HSE is defined and also mention "Enable Scripting"

C2P Port Map

Contact Information

ConvergenceTP

PO Box 3713

Danbury, CT 06813

Website	*www.c2p.com*	
Sales Support	*Sales@c2p.com*	*800.252.6840 x1*
Technical Support	*Support@c2p.com*	*800.252.6840 x2*