

Appendix E: P.O.S./ATM machine integration

Effective POS/ATM surveillance systems use video text overlay technology to remotely monitor cashier areas, associate POS/cash register transaction data with videos, record videos and store all transaction data in Microsoft Access format for retroactive analysis, event monitor features, and output alarms for emergency situations.

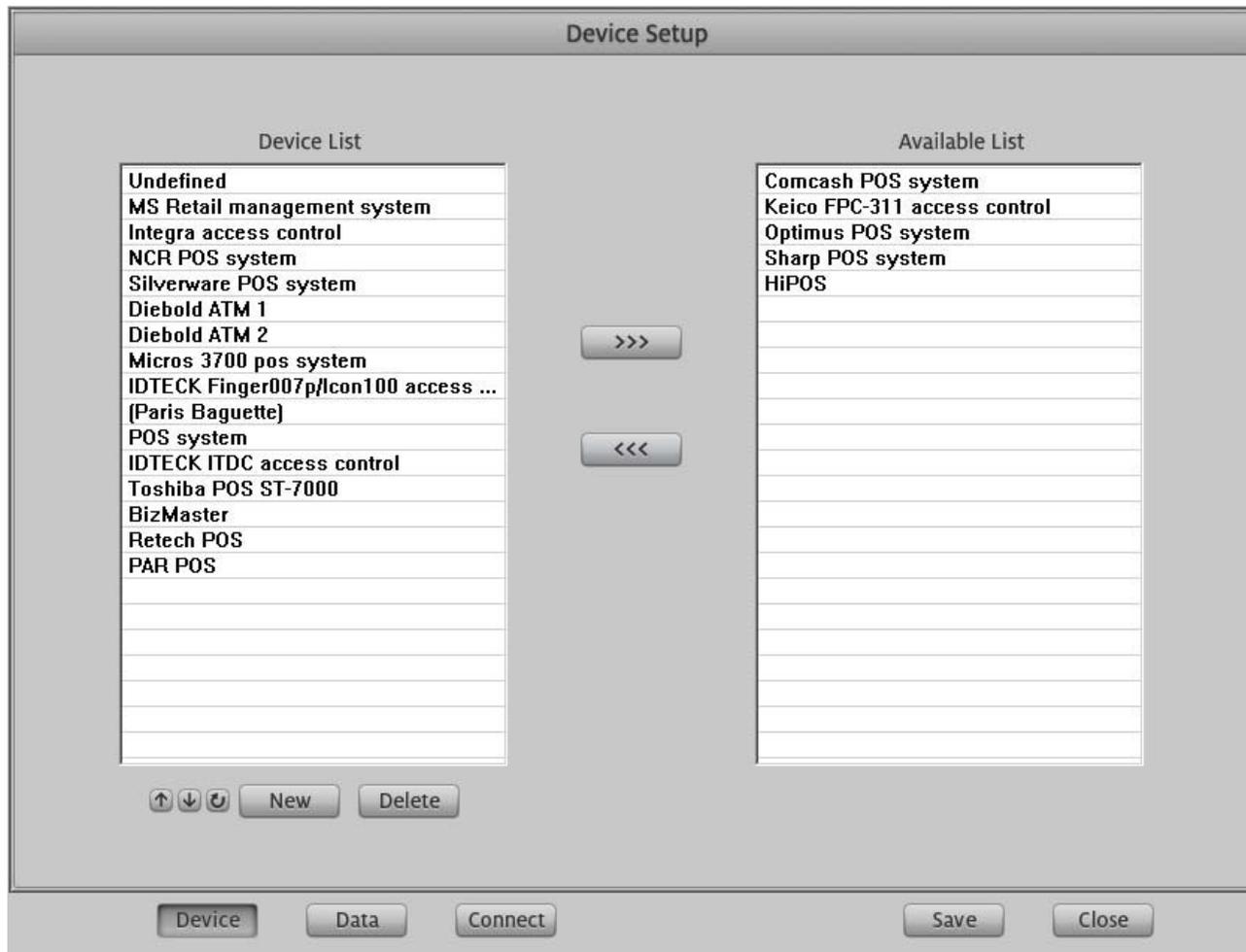
1. System Connections

ILDVR Server v9.x supports up to 48 POS/Cash register devices integrated into one PC-DVR system. COM ports can support a maximum of 16 connections each, while TCP ports can support up to 32 devices.

2. Device Setup

To use the ILDVR POS function, please enable “**ATM/POS Support**” in the System Configuration interface. On the Tools interface panel, click the  button to enter the **POS/ATM Function Setup** interface. There are 3 setup interfaces: **Device Setup**, **Data Filter Settings**, and **Connection Settings**. In the **Device page**, the “**Device List**” shows all the brand names of POS/ATM machines that the ILDVR system supports. The “**Available List**” shows all devices that can be used in the data filter configuration in the next section.

Please check your POS / ATM machine from the device list and move it to the Available List to enable it for use. If your device is not in the list, please click the “**New**” button so that you may add your device and name it for use. New devices must be setup correctly before being used. How to configure a new device? Please take a look at the next section.






 Click these buttons to put the device name in reverse or alphabetical order.

3. Data Setup

The DVR system captures data that transfers from a POS/Cash Register and analyzes the data according to the rules you set up. All rules must comply with the priority order. By default, the priority of 1 is set to “**Line**”. The priority of 8 is set to “**Addition**” (from left to right).

3.1 Rule of Line

On the “Line” setup interface, if there are no lines listed in the table, please click the “New” button to add a new Line. A “Line” represents a row of data in the table. If the Line already exists in the table, the “Update” button will replace the “New” button. You can select an existing “Line” in the table by clicking the “Update” button to modify it. Of course, you can delete a “Line” from the table by clicking the “Delete” button. This operation step applies to all the Rules setup interfaces.

Type	Position	Offset	Operation	Length	Data
Hexa	End	0	=	0	0A

Type: Choose a data type, either “Hexa” or “Ascii”

Operation: Select an operator used to compare ‘Data’ values with the data from the POS device.

Position: Select the position in which to search the data string.

Offset: Set the offset value.

Data: Set the Data to trigger the operation.

3.2 Trans

Set the rule for separating two sequential transactions. The setup operation steps are almost the same as Line (See above section).

3.3 Include

Set the rule for including a string or character to be displayed on the screen. The setup operation steps are almost the same as Line (See above section).

3.4 Exclude

Set the rule for excluding a string or character to be displayed on the screen. The setup operation steps are almost the same as Line (See above section).

3.5 Invalid

Set the rule for discarding a string or character. The setup operation steps are almost the same as Line (See above section).

Notice: If you set different rules with the same “Data” value that causes conflict, the system will operate by priority orders. That means that the higher priority rule will be executed.

3.6 Replace

Set the rule to replace a word or character by entering a “Data” value.

Data Type: Choose data type as ‘Hexa’ or ‘Ascii’.

Old Data: Input the original data string to be replaced.

New data: Input the new data string to replace the old one.

3.7 Event

Set the rule to trigger an alarm operation by entering a “Data” value.

Beep: Play sound warning.

Mark: Mark this event.

Popup: Pop up Event Monitor window.

3.8 Addition

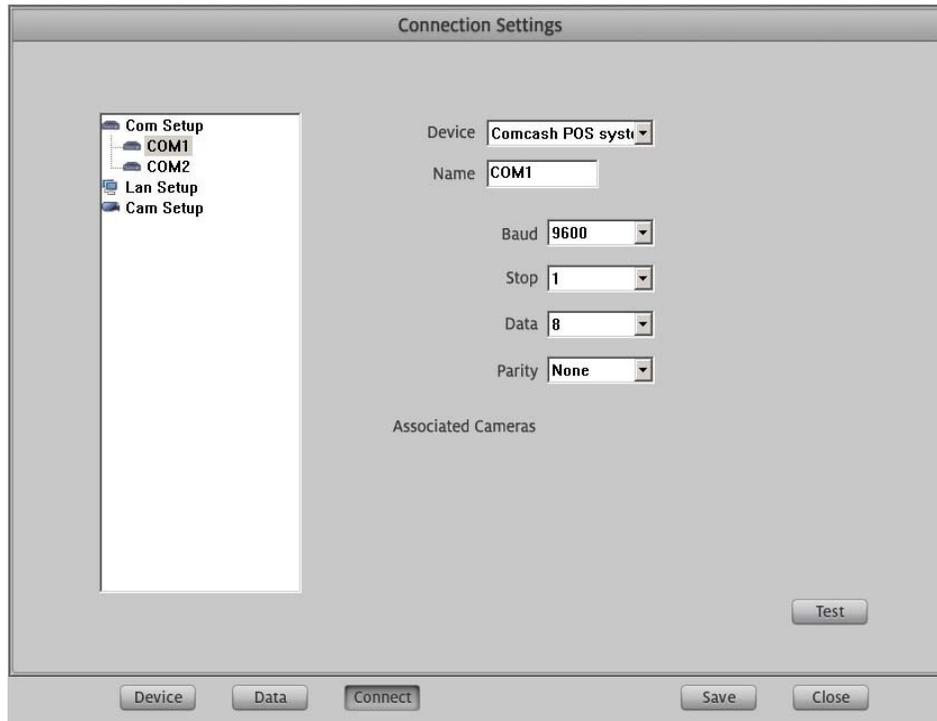
Set an additional rule for quick search by entering a “Data” value.

Type	Data	Notify

4. Connection Setup

4.1 COM Setup

On the **Connection Settings** interface, there is a tree-view on the left side that lists all the available COM ports in the DVR system. Select the COM port that you are trying to setup. After you finish, please click the “**Test**” button to see if the POS device connection works.



Device: Select the device connecting to this COM port.

Name: Name this connection.

Parameters: Set the parameters of this COM port, including Baud Rate, Stop Bit, Data Bit and Parity.

Associated Cameras: Select the cameras that associate with the above selected device. The camera number button has three status colors:

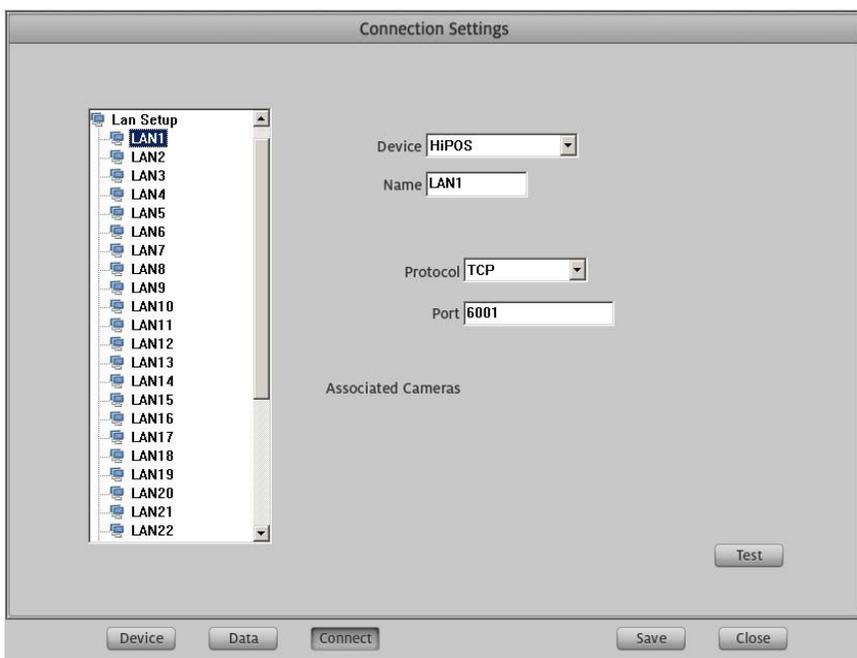
- 1 Grey color indicates this camera does not associate with any COM port.
- 2 Light color indicates this camera is associated to a different COM port.
- 3 Dark color indicates this camera is associated to the current COM port.

4.2 LAN Setup

ILDVR system supports multiple POS device connections through a single TCP/IP connection (32 in total), but you must assign an exclusive port number to every POS

device you connect. To setup a LAN connection, please choose LAN from the tree-view list.

After finishing the setup, please click the “**Test**” button to test if the POS device is connected correctly. If it doesn’t work, please try using the **PING** command to test the network connection. If you have network connectivity, you might want to see if your router is blocking access to that specific port. If this is the case, just **enable port forwarding** (for security purposes, forward only the port numbers you are going to use) to the POS device. Look in your router’s instruction manual for more support on enabling port forwarding.



Device: Select the device connecting to this LAN port.

Name: Name this connection

Protocol: Set network protocol (Supports TCP or UDP)

Port: Change port number to match the POS device TCP or UDP port number.

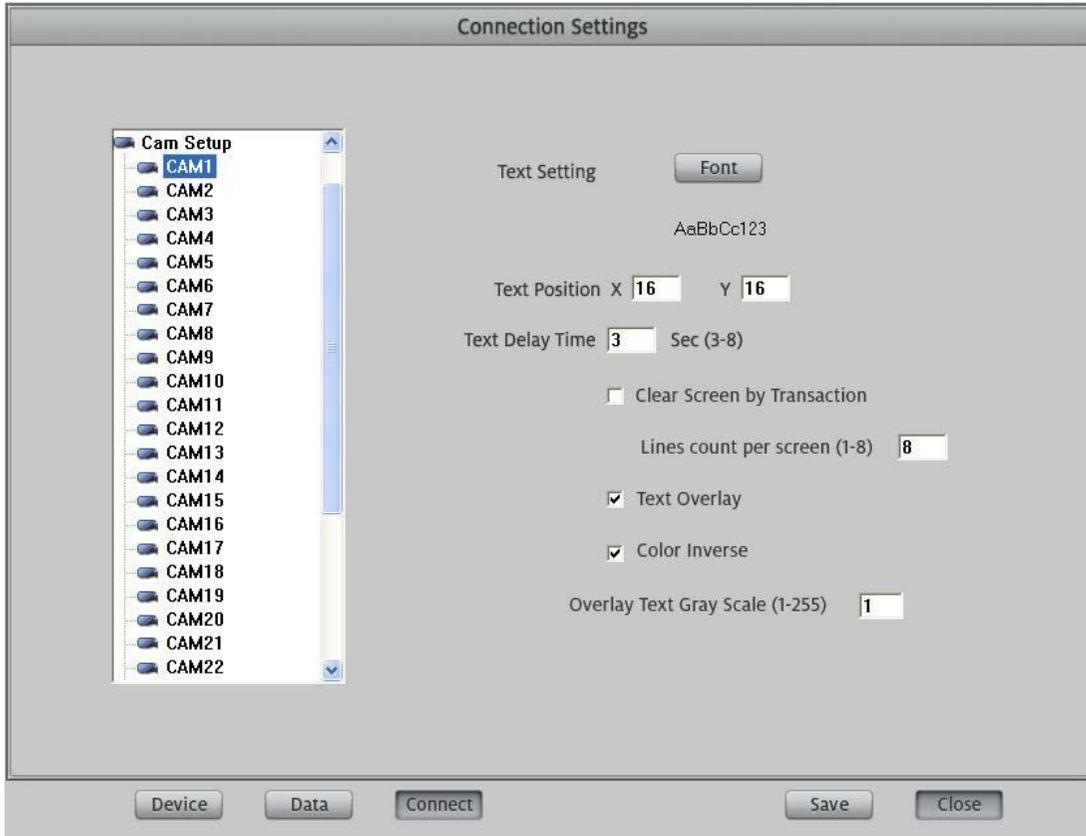
Associated Cameras: Choose the cameras that associate above selected device.

The camera number button has three status colors

- 1 Grey color indicates that this camera does not associate to any LAN port.
- 2 Light color indicates that this camera associates with a different LAN port.
- 3 Dark color indicates that this camera associates with the current LAN port.

4.3 CAM Setup

From left tree-view list, click any of the camera icons to configure its parameters as below.



Font: Click the “Font” button to change font, size, and color.

Text Position: Set the overlay text position for on screen display. Default is set to the top of the screen.

Text Delay Time: Set the idle time for the overlay text to show on the screen after a user swipes their ID card, for example.

Clear screen by transaction: Keep the overlay text displaying until transaction is completed.

Lines count per screen: Set the number of lines (1-8) to display the overlay text. Disable this if “By Transaction” is displaying.

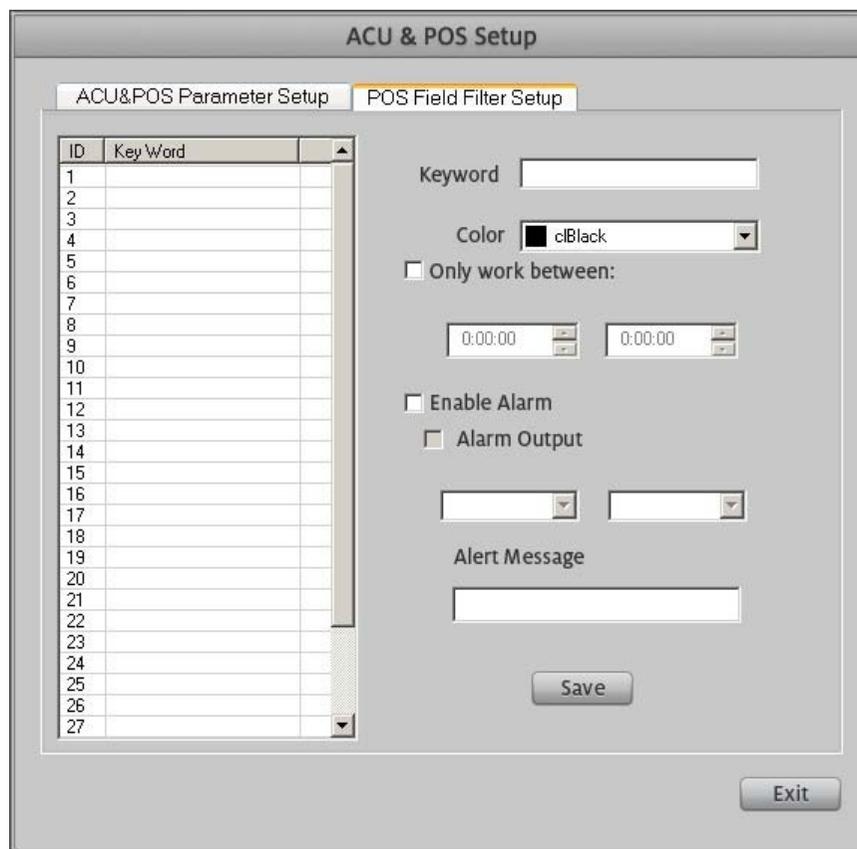
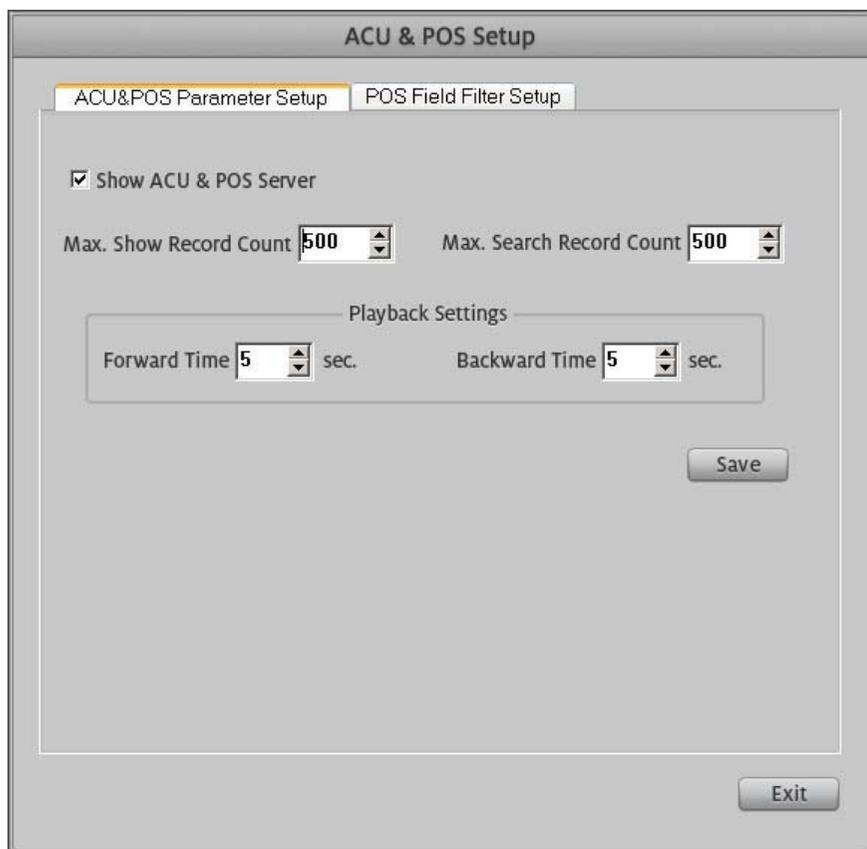
Text Overlay: Check this to enable the on screen overlay feature. If this is not checked, it is still possible to view the overlay text in Search and Remote Monitor.

Color Inverse: Set this to automatically change the font’s darkness according to the color of the background image.

Overlay Text Gray Scale: Set the font grayscale.

5. P.O.S Event Monitor

On the **ACU&POS Monitor** interface, you can read all the connection details from the right table.



In the “**ACU&POS Parameter Setup**” interface you can configure how many POS transaction and search records to display in one search page (maximum of 1000). In the “**POS Field Filter Setup**” interface you can set a keyword font color for a quick search. For example, if you set the font color of EIGHT to red and the work time between 12:00:00 and 15:00:00, when the EIGHT appears in this period of time, it will display red on the screen. Choose a record and double click it. The video will display according to the **Forward Time and Backward Time** settings.