



POS implementation

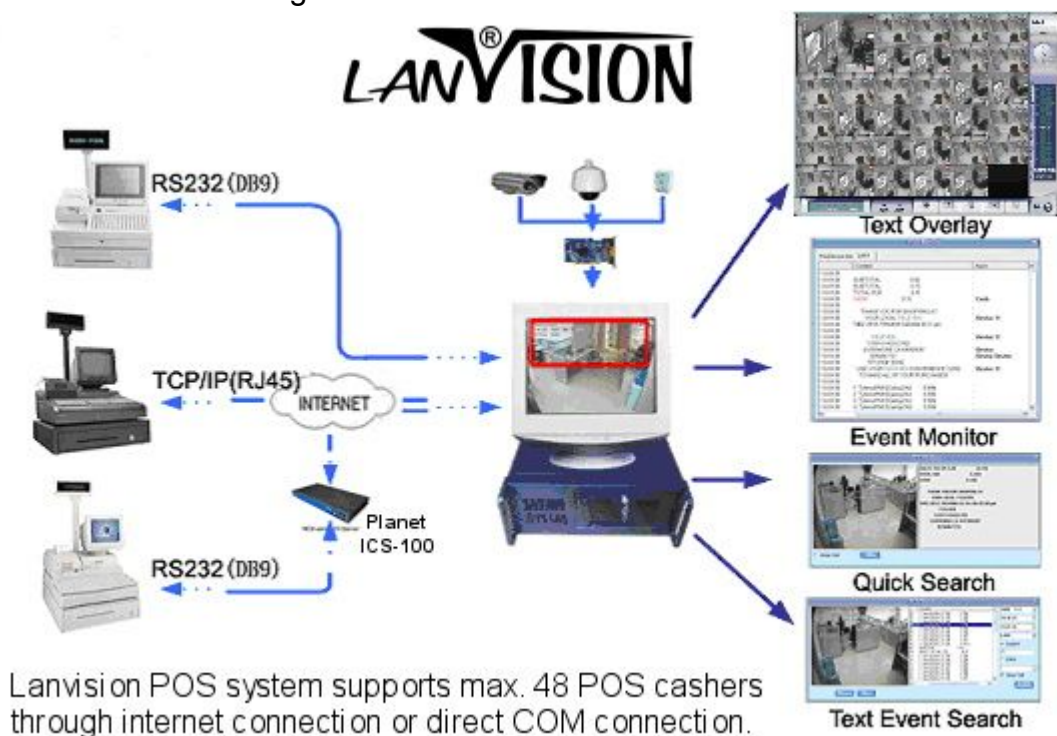
USER'S Manual



1.1 Pos introduction and function

1.1.1 Introductions

Lanvision POS-DVR surveillance system is a professional surveillance integrated with POS system. While connection between POS and Lanvision DVR system by LV-series connector, the Lanvision DVR surveillance system can turn into a POS-DVR surveillance system. By bringing video and POS transaction data together, the POS-DVR surveillance system provides visual text information to reduce shrinkage and prevent asset from losing.



1.1.2 Main features

Besides the basic functions of Lanvision DVR system, Lanvision POS-DVR surveillance system has following special functions:

POS Text Overlay with Video: Display/hide transaction text messages on screen (video files) to supervise every transaction real-time; customize text preset positions and font.

Quick Search: Single video search and playback with transaction data.

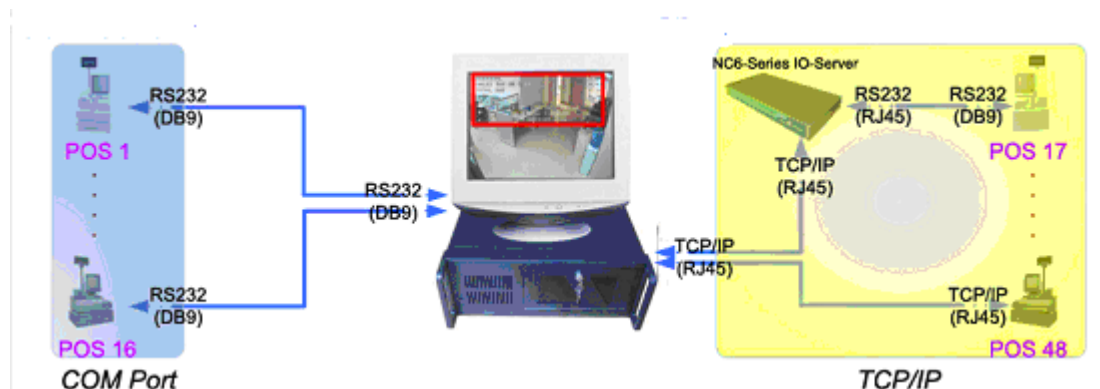
Text Events Search: Use pre-defined transaction criteria to search in a field

filter displaying the results in a newly created System Log, e.g. all the transactions containing the keyword "coke" will be screened out. Also you can press the text to preview corresponding video image.

Events Monitor: Store all transaction data in Microsoft Access format for retroactive analysis.

1.1.3 Connection

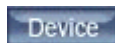
Up to 48 POS devices can be integrated with Lanvision POS-DVR system, include COM connections (Maximum 16 devices) and TCP connections (Maximum 32 devices).



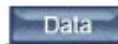
1.1.4 Pos function

Firstly, you must access **System Setup**; make sure that "POS Function" is enabling.

Then open Post function setup interface by clicking “POS Function Setup” in system Menu.



Press this button to enter Device Setup interface;



Press this button to enter Data Setup interface;



Press this button to enter Connect Setup interface;



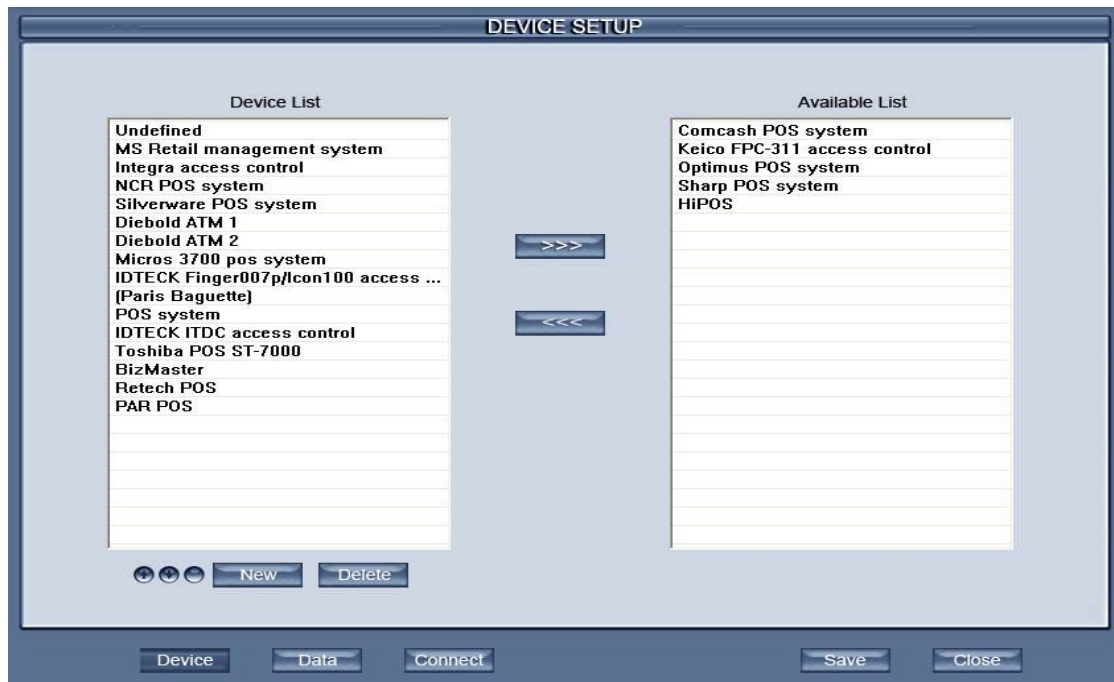
Press this button to save the modification for all settings and exit POS setup interface; when you modify any settings, system will not save the changes before you press this button;



Press this button to exit POS setup interface.


1. DEVICE SETUP

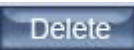
POS-DVR is a universal POS surveillance system; you can define and add any POS devices to this system; actually, every device is a type of data. For different type data, you can define different device. After that you can assign them to available list. They will be listed in the drop-list when you set rules for devices.




 Move Pos device from Device list to Available list. .

 Remove Pos device from available list.




 Add a new Pos device into Device list ,and you can rename device name by single-left click it



 Select Pos device which you want to delete in Device list, click this button to delete it.

 Reordered the device name by the Alphabetical.

 Default order

2. DATA SETUP

 /  These two buttons are couple buttons. When there are no items or no selected items, button  will be shown.

1. In case of no any items in rule list, user can edit parameters directly and press button  to add an item to rule list; then it will be replaced by button .

2. In case of no selected item in rule list, user can select one item and button **New** will be placed by button **Update**; then user can modify the parameters of current selected item. After that user can press button **Update** to update parameters of current item.

Delete Select one item and press this button to delete this item.

Finally, user should press button **Save** to save modifications.

DATA FILTER SETUP

Device: Comcash POS system

Line Trans Include Exclude Invalid Replace Event Addition

Type	Position	Offset	Operation	Length	Data

Priority: 1

Type: Hex Opera: = Len: 0

Pos: Non Offset: 0 Data:

New Delete

This rule is used to define the newline character of data from POS. When system gets the character that user set here, system will recognize it as the end of a line; then the following data will be regarded as another line.

DATA FILTER SETUP

Device: Comcash POS system

Line Trans Include Exclude Invalid Replace Event Addition

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

Priority: 1

Type: Hex Opera: = Len: 0

Pos: End Offset: 0 Data: 0A

Update Delete

[Priority]: Set the priority of the rule. The smaller priority number is, the higher priority is.

[Type]: Choose the type of new line character from POS. Data type should be “Hex “or “ASCII”

[Pos]/ [Len]/ [Offset]: They are all optional settings and not used here.

[Opera]: Select an operator to be used when comparing character in column ‘Data’ with data from POS. For this setting, you should select equal (“=”) as the operator.

[Data]: Set the newline character for the Data from POS.

Example:

You can set Hex data (select “Hex” in column “**Type**”) “0A” as the newline character (enter “0A” in column “**Data**” and select “=” in column “**Opera**”); then when system gets the data form POS and meets hex data “0A”, system will separate the data to two lines form here.

DATA FILTER SETUP

Device:

Type	Position	Offset	Operation	Length	Data
Ascii	End	0	=	0	Thank You

Priority:

Type: Opera: Len:

Pos: Offset: Data:

This rule is used to define the end character of every transaction. When system gets the character that user set here, system will recognize it as the end of a transaction; then the following data will be regarded as another transaction.

The editing procedure is same as setting Line rule.

DATA FILTER SETUP

Device:

Type	Position	Offset	Operation	Length	Data
Hexa	None	0	=	0	E0 00 E0

Priority:

Type: Opera: Len:

Pos: Offset: Data:

Set a rule for the data from POS (line as the unit) which includes the string or character that user set here. If the data line form POS includes the string or character user set here, system will overlay this line on the screen; or system will skip this line.

The editing procedure is same as setting Line rule.

DATA FILTER SETUP

Device:

Type	Position	Offset	Operation	Length	Data
Ascii	None	0	=	0	WELCOME
Ascii	None	0	=	0	TEXT SAMPLE

Priority:

Type: Opera: Len:

Pos: Offset: Data:

Set a rule for excluding the data from POS (line as the unit) which includes the string or character that user set here. If the data line form POS includes the string or character user set here, system will drop this line directly.

The editing procedure is same as setting Line rule.

Note: Exclude rules may be in conflict with Include rules, system will process them according to Text filter rules priority policy.

Text filter rules priority policy

If the text filter rules setting are in conflict, the operation of the order is determined by priority, the smaller of the value, and the higher of the priority.

When the priority of **Include** is bigger than **Exclude** (The priority number of **Include** is smaller):

Case 1: Set only **Include** rule without **Exclude** rule:

Data comply with **Include** rule ----- Reserve;

Data does not comply with **Include** rule ----- Delete;

Case 2: Set only **Exclude** rule without **Include** rule:

Data comply with **Exclude** rule ----- Delete;

Data does not comply with **Exclude** rule ----- Reserve;

Case 3: Set both **Include** rule and **Exclude** rule:

Data comply with **Include** rule (skip **Exclude** rule) ----- Reserve;

Data comply with neither **Include** rule nor **Exclude** rule ----- Reserve;

Data comply with **Exclude** rule but not **Include** rule ----- Delete;

Case 4: Set neither **Include** rule nor **Exclude** rule ----- Reserve;

When the priority of **Exclude** is bigger than **Include**

(The priority number of Exclude is smaller).

Case 1: Set only **Include** rule without **Exclude** rule:

Data comply with **Include** rule ----- Reserve;

Data does not comply with **Include** rule ----- Delete;

Case 2: Set only **Exclude** rule without **Include** rule:

Data comply with **Exclude** rule ----- Delete;

Data does not comply with **Exclude** rule ----- Reserve;

Case 3: Set both **Include** rule and **Exclude** rule:

Data comply with **Exclude** rule (skip **Include** rule) ----- Delete;

Data comply with neither **Include** rule nor **Exclude** rule ---- Delete;

Data comply with **Include** rule but not **Exclude** rule ---- Reserve;

Case 4: Set neither **Include** rule nor **Exclude** rule ----- Reserve;

Type	Position	Offset	Operation	Length	Data
Hexa	Start	0	=	0	18

Set a rule to discard a character (character as the unit) and change it to character “*”. If the data form POS includes the string or character user set here, system will change it to character “*”.

The editing procedure is same as setting Line rule.

Example:

You can set that system drop Hex data (select “Hex” in column “**Type**”) “18” (enter “18” in column “**Data**” and select “=” in column “**Opera**”); then when system gets the data form POS and meets hex data “18”, system will change it to “*”.

DATA FILTER SETUP

Device:

Type	Old data	Type	New data
Ascii	TH	Ascii	AB

Priority:

Type: Type:

Old: Data:

Set a rule to change a word or character to another one.

[Data Type]: Choose the type of data that you want to be replaced. Data types must be 'Hex' or 'ASCII'.

[Old Data]: Enter data string that needs to be replaced.

Note: Old data string of each item in this rule list should not be part of the Old data string of any other items. For example, Old data of item 1 is set "AA", other item should not be set "AAB" (include the old data string of item1) or "A" (included by item 1).

[New data]: Enter a new data string that will take a place of the Old Data and Null is available.

Example:

You can set that system change Hex data (select "Hex" in column "**Type**") "TH" (enter "TH" in column "**Old**") to Hex data "AB" (enter "AB" in column "**Data**"); Then when system gets the data form POS and meets hex data "TH", system will change it to "AB".

DATA FILTER SETUP

Device: Comcash POS system

Line Trans Include Exclude Invalid Replace Event Addition

Type	Data	Notify
Hexa	D0 AF	

Priority: 4

Type: Hex. Data: D0 AF

Beep Mark Popup

Update Delete

Set a rule to trigger beep, mark or popup event. When the data from POS meet these items, system will trigger the event that user set here.

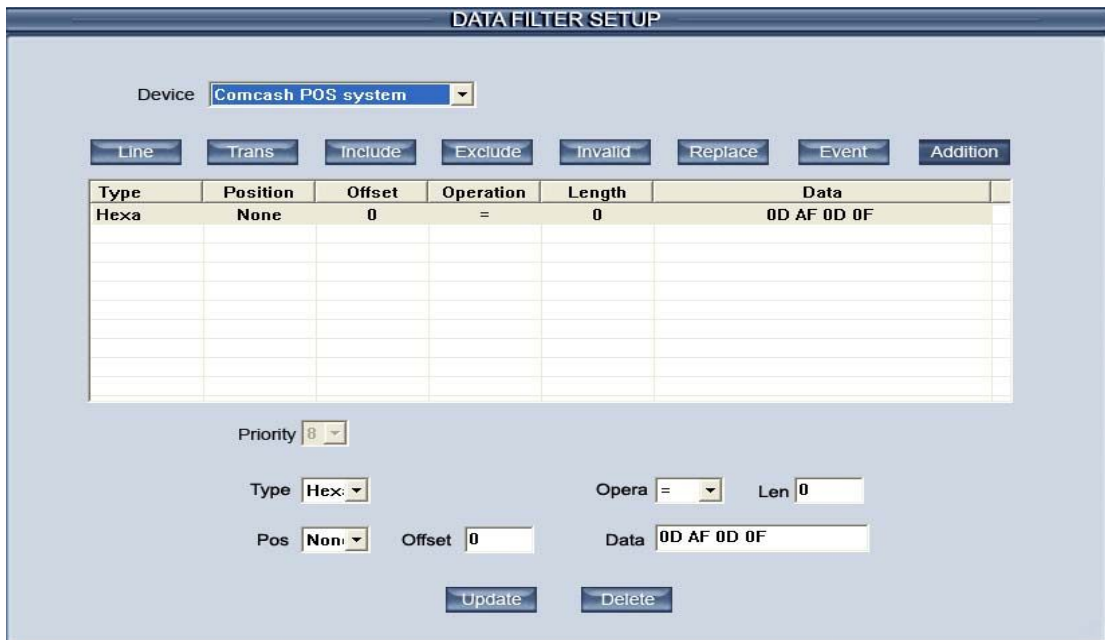
[Data type]: Choose a type of data. Data types must be 'Hex' or 'ASCII'.

[data]: Set Data that will trigger the operation.

[Events]: Set the events that will be triggered when the data from POS satisfies the items user set here, include beep, mark and popup, but just beep is used currently.

Example:

You can set that system Beep (check "Beep") when system gets the data from POS and meets hex data "00 0D" (select "Hex" in column "**Type**" and enter "00 0D" in column "**Data**").

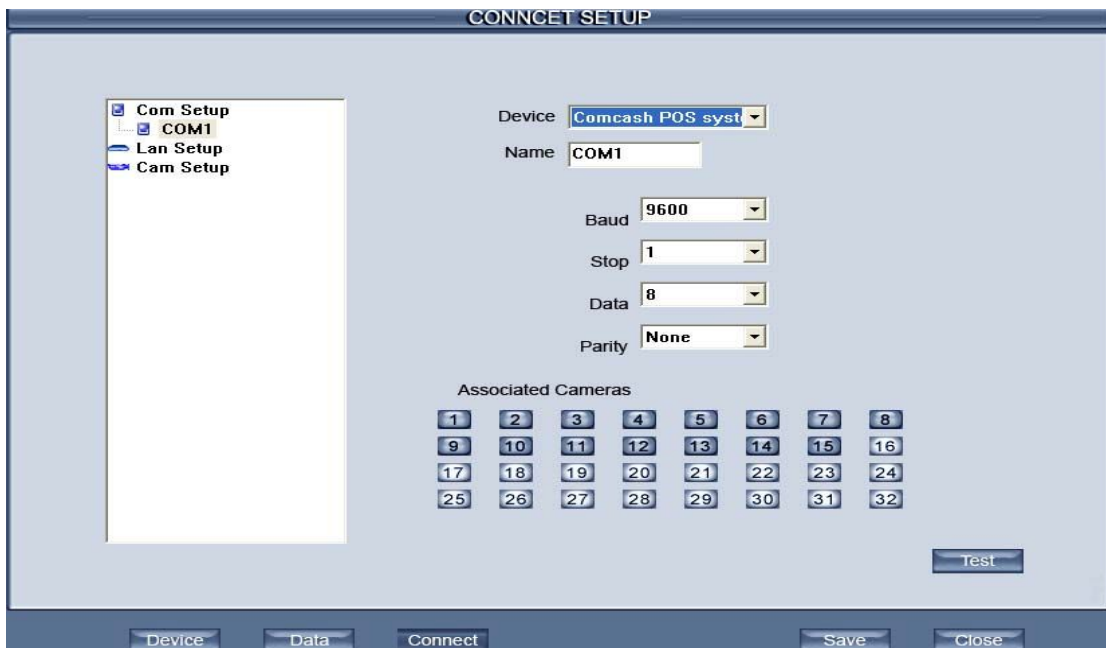


Set a rule to add a string or character. Editing procedure is same as Line break.

Note: All settings of the DATA SETUP will be expressed in pos monitor.

3. CONNECT SETUP

(1) Com Setup



All available Com ports are listed in tree view . Select the COM Port which you wan to set.

[Device]Select the Device connect to this COM Port.

[Name]Set a name for current connection

[COM Port Parameters]Set the parameters of COM Port, includes baud tare, stop bit, data bit and parity.

Choose Associated Camera/Cameras.

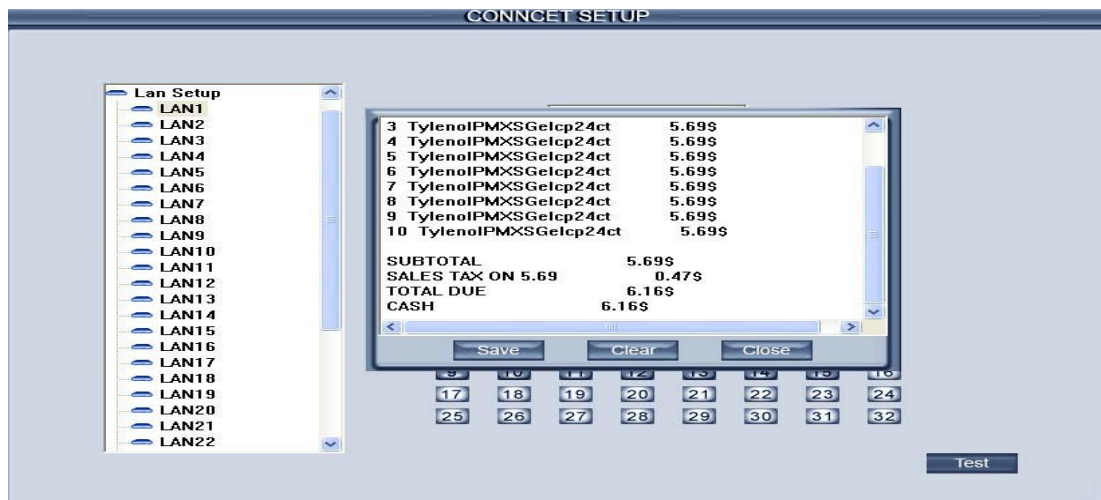
Associated Cameras have three statuses:


1 Not selected by any COM.

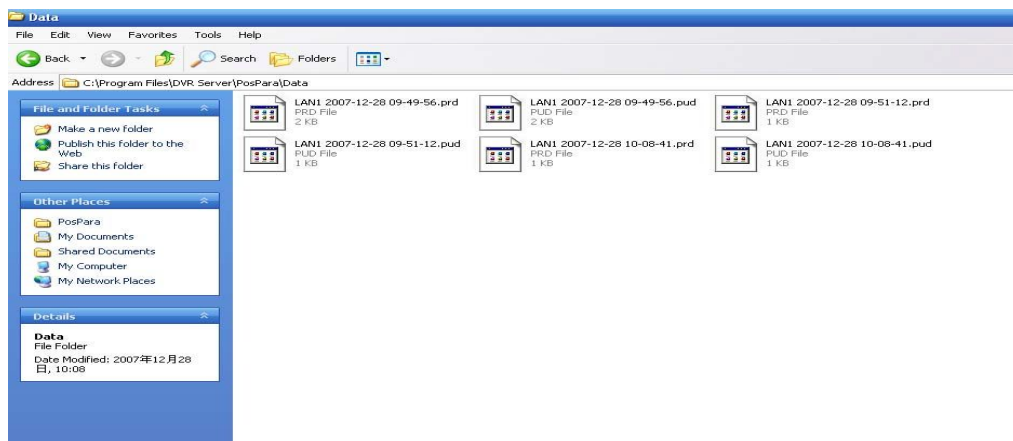
1 Selected by current COM.

1 Selected by other COM.

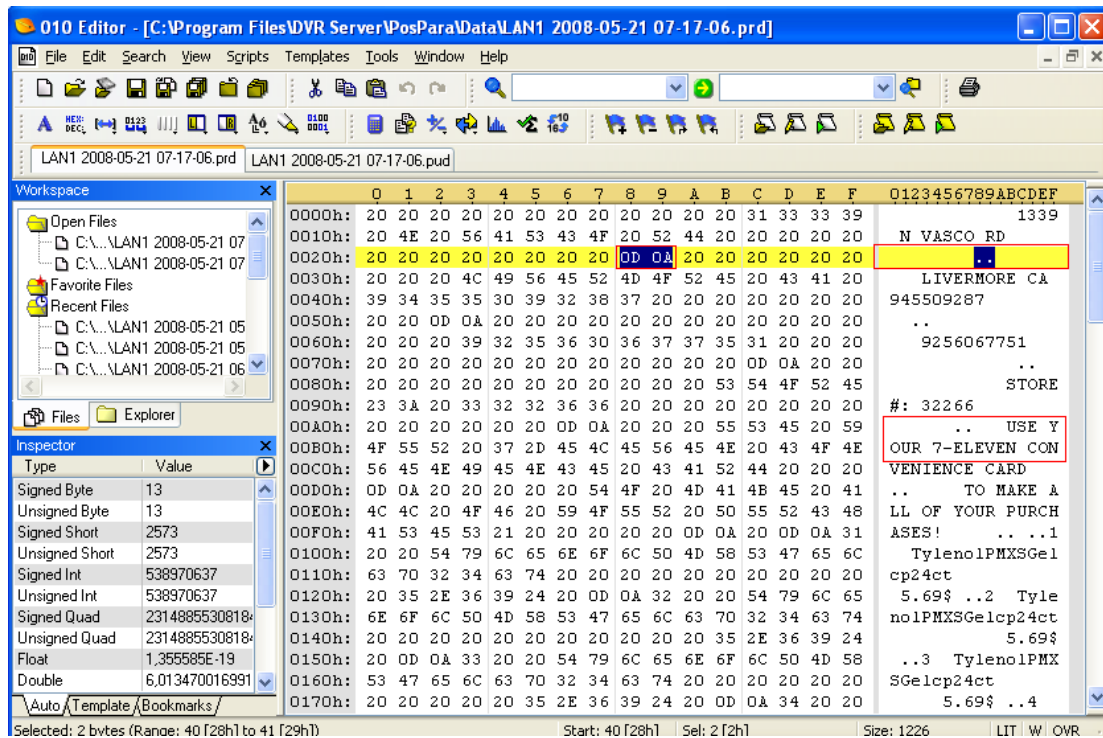
After setting, press “Test” button to test whether the external device is connected successfully or not and system will pop up dialog as below:



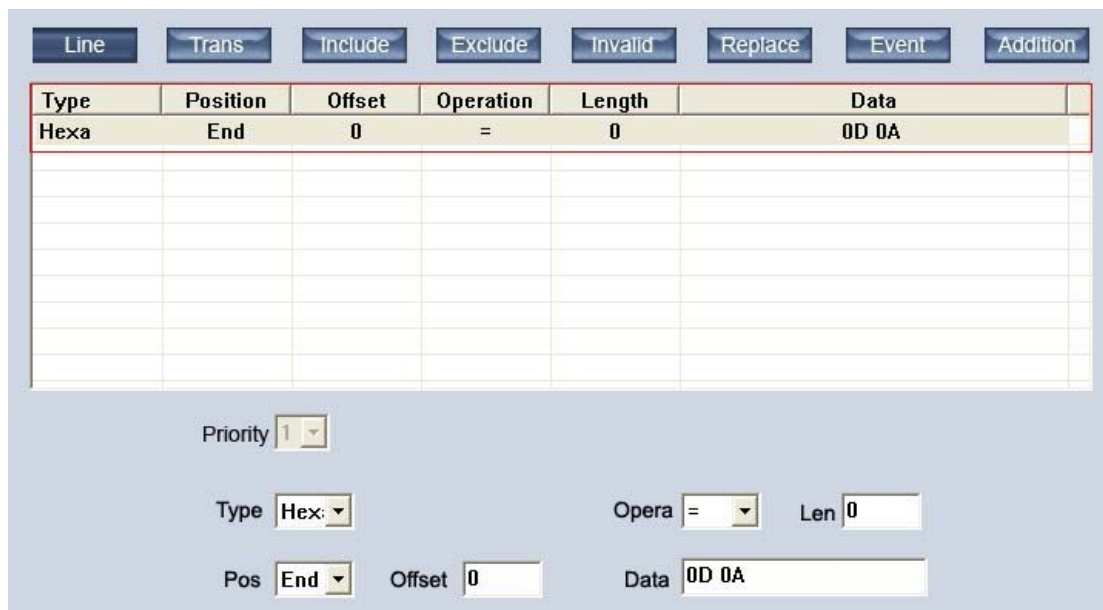
All of the original and filtered data will save if you press the button in the  C:\Program Files\DVR Server\PosPara\Data ,the suffixal name of the .prd is the original data and the suffixal name of the „.pud“ is the filtered data.



You should use the hex viewer software to open up the file and compare the „.prd“ with the .pud to check the filter rule effectively or not.



Eg: You set Hex data (select “Hex” in column “Type”) “0D 0A” as the newline character (enter “0D 0A” in column “Data” and select “=” in column “Opera”); then when system gets the data form POS and meets hex data “0D 0A”, system will separate the data to two lines form here. “.. ” is the sign of the newline.



Type	Position	Offset	Operation	Length	Data
Ascii	None	0	=	0	YOUR
Ascii	None	0	=	0	7-ELEVEN

Priority

Type Opera Len

Pos Offset Data

You can set that system drop Hex data (select “ASCII” in column “Type”) “YOUR ” “7-ELEVEN” (enter “YOUR ” “7-ELEVEN” in column “Data” and select “=” in column “Opera”); then when system gets the data form POS and meets ASCII data “YOUR ” “7-ELEVEN”, system will change it to “***”.

010 Editor - [C:\Program Files\DVR Server\PosPara\Data\LAN1 2008-05-21 07-17-06.pud]

File Edit Search View Scripts Templates Tools Window Help

LAN1 2008-05-21 07-17-06.prd LAN1 2008-05-21 07-17-06.pud

Workspace

Open Files
 C:\...LAN1 2008-05-21 07
 C:\...LAN1 2008-05-21 07
 Favorite Files
 Recent Files
 C:\...LAN1 2008-05-21 05
 C:\...LAN1 2008-05-21 05
 C:\...LAN1 2008-05-21 06

Inspector

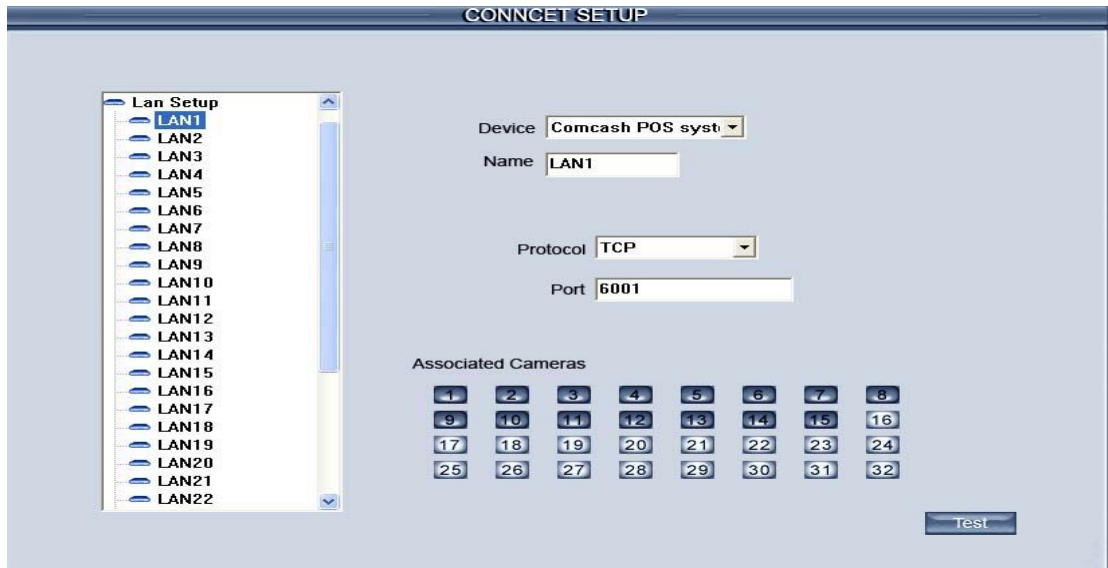
Type	Value
Signed Byte	32
Unsigned Byte	32
Signed Short	8224
Unsigned Short	8224
Signed Int	858857504
Unsigned Int	858857504
Signed Quad	56295624262780
Unsigned Quad	56295624262780
Float	4.124024E-8
Double	2.186915048724

Auto/Template/Bookmarks/

Hex	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	0123456789ABCDEF	
0000h:	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	1339
0010h:	20	4E	20	56	41	53	43	4F	20	52	44	20	20	20	20	20	20	N VASCO RD
0020h:	20	20	20	20	20	20	20	20	0D	20	20	20	20	20	20	20	20	.
0030h:	20	20	4C	49	56	45	52	4D	4F	52	45	20	43	41	20	39	20	LIVERMORE CA 9
0040h:	34	35	35	30	39	32	38	37	20	20	20	20	20	20	20	20	20	45509287
0050h:	20	0D	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	.
0060h:	20	39	32	35	36	30	36	37	37	35	31	20	20	20	20	20	20	9256067751
0070h:	20	20	20	20	20	20	20	20	20	20	0D	20	20	20	20	20	20	.
0080h:	20	20	20	20	20	20	20	20	53	54	4F	52	45	23	3A	20	20	STORE#:
0090h:	33	32	32	36	36	20	20	20	20	20	20	20	20	20	20	20	20	32266
00A0h:	20	20	20	0D	20	20	20	55	53	45	20	2A	2A	2A	2A	20	20	. USE ****
00B0h:	2A	2A	2A	2A	2A	2A	2A	2A	20	43	4F	4E	56	45	4E	49	20	***** CONVENI
00C0h:	45	4E	43	45	20	43	41	52	44	20	20	20	0D	20	20	20	20	ENCE CARD .
00D0h:	20	20	54	4F	20	4D	41	48	45	20	41	4C	4C	20	4F	46	20	TO MAKE ALL OF
00E0h:	20	2A	2A	2A	2A	20	50	55	52	43	48	41	53	45	53	21	20	**** PURCHASES!
00F0h:	20	20	20	20	20	0D	20	0D	31	20	20	54	79	6C	65	6E	20	. .1 Tylenol
0100h:	6F	6C	50	4D	58	53	47	65	6C	63	70	32	34	63	74	20	20	o1PMXSGelcp24ct
0110h:	20	20	20	20	20	20	20	20	20	20	35	2E	36	39	24	20	20	5.69\$
0120h:	0D	32	20	20	54	79	6C	65	6E	6F	6C	50	4D	58	53	47	20	.2 Tylenol1PMXSG
0130h:	65	6C	63	70	32	34	63	74	20	20	20	20	20	20	20	20	20	elcp24ct
0140h:	20	20	20	35	2E	36	39	24	20	0D	33	20	54	79	6C	20	20	5.69\$.3 Tylenol
0150h:	65	6E	6F	6C	50	4D	58	53	47	65	6C	63	70	32	34	63	20	enolPMXSGelcp24c
0160h:	74	20	20	20	20	20	20	20	20	20	20	20	35	2E	36	39	20	t 5.69
0170h:	24	20	0D	34	20	20	54	79	6C	65	6E	6F	6C	50	4D	58	20	\$.4 Tylenol1PMX

Pos: 10 [Ah] Val: 32 20h 00100000b Size: 1196 LIT W OVR

(2) LAN Setup



Multiple external devices can be connected with single TCP/IP connection. Each device must be given a unique port number.

Choose LAN from list firstly.

[Device] Select Device


[Name] Set a name for current connection


Change port setting to match up the device.(support TCP or UDP)

Choose Associated Camera/Cameras.

Associated Cameras have three statuses:

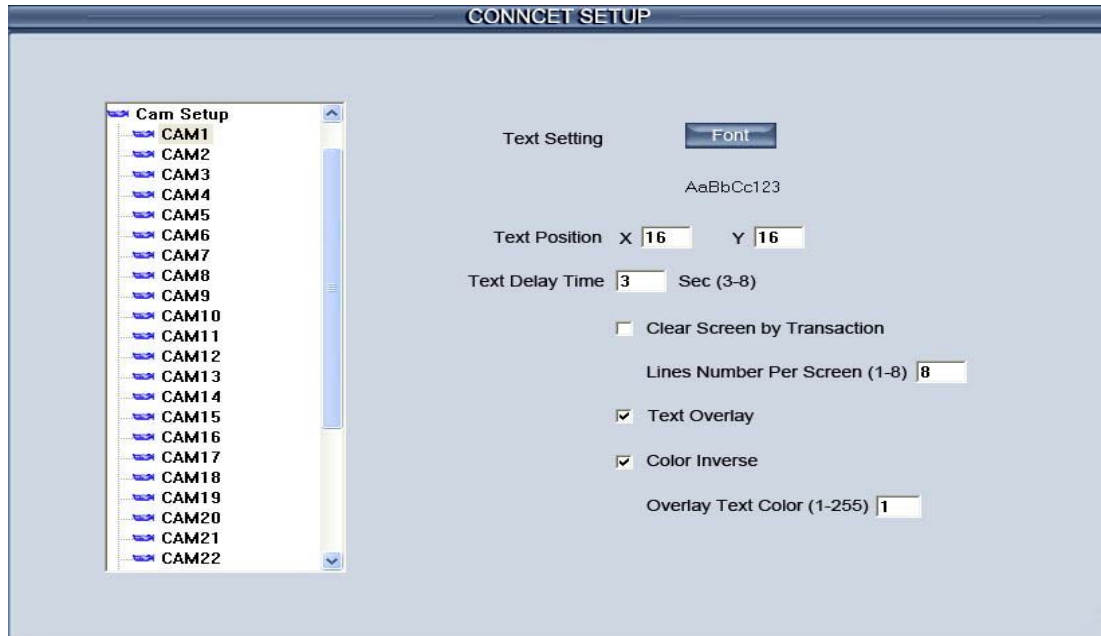
 Not selected by any LAN.

 Selected by current LAN.

 Selected by other LAN.

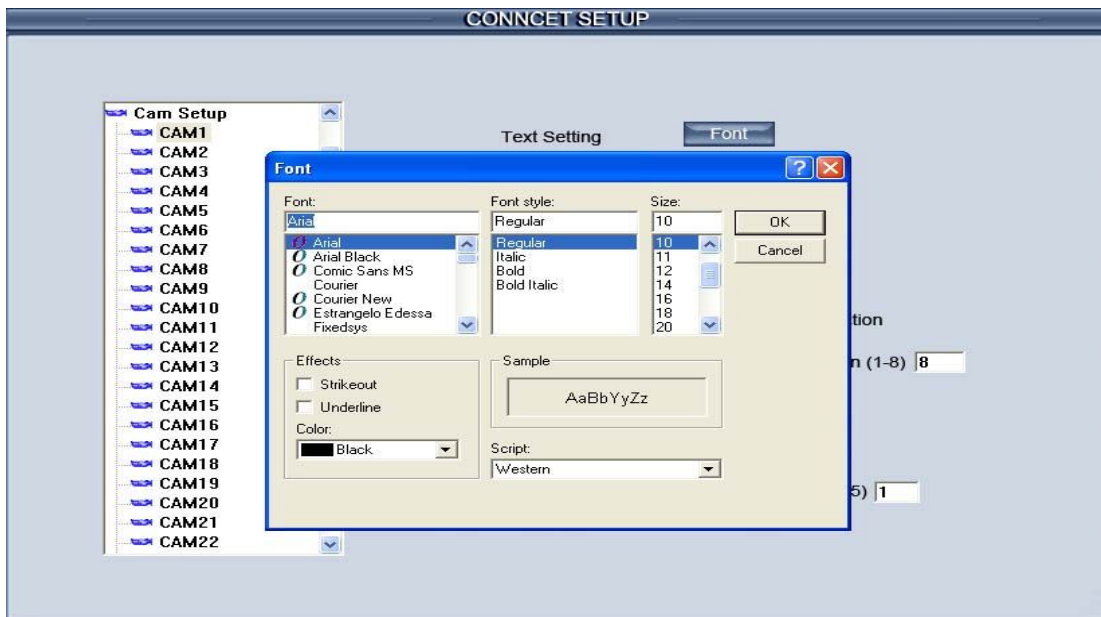
After setting, press "Test" button to test the connectivity of external device be connected successfully or not .If noting comes up in Test data capturing, correct the port setting and cable connection.

(3) Cam Setup



Firstly, choose camera number in list.

[Font] Click Browse and change font, size and color as below:



[Position] Setup the position of text. Default is set to top of the screen. As number increases, text will be displayed farther from the top.

[Text delay time] Set time (sec 3-8) for text to stay on screen.

[Clear screen by transaction] Keep display text until transaction break is delivered.

[Lines number per screen] Set the desired lines(1-8) to display text. Disabled if "by transaction" is displayed.

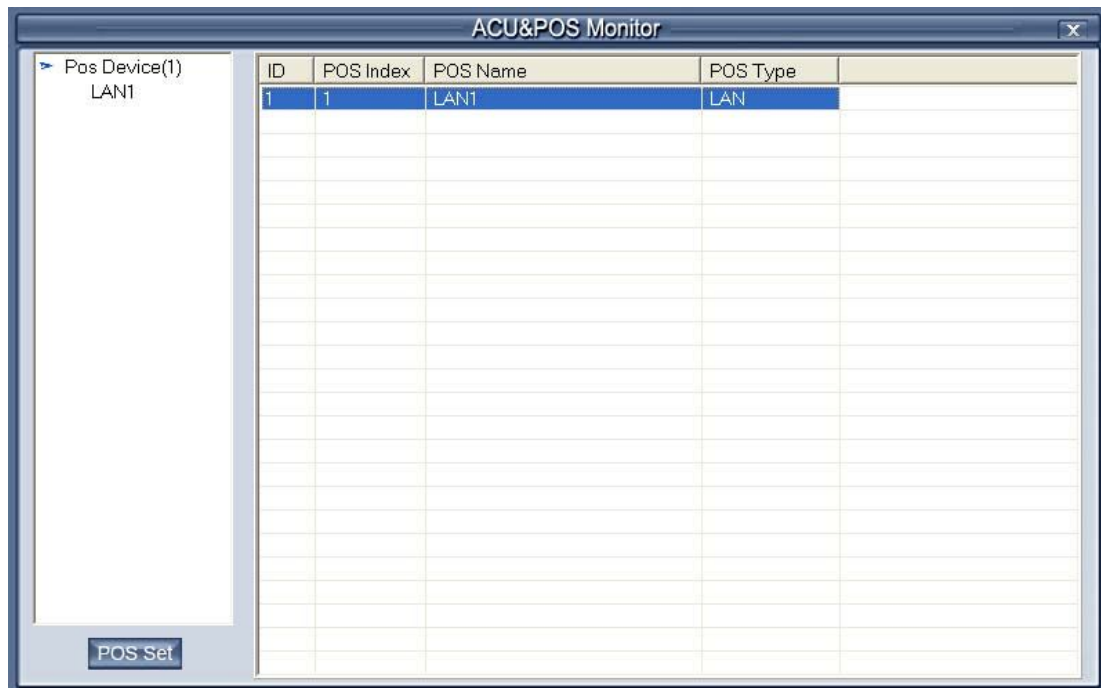
[Use overlay] When checked, camera image and data from external device is compound together (depending on external device, main display in

device can be compound as well). When unchecked, they are not compound together. However, It is still possible to verify the data and image together in the Search and remote access.

1.1.5 Pos Event Monitor

Access Pos monitor interface:

All connection details display on table:



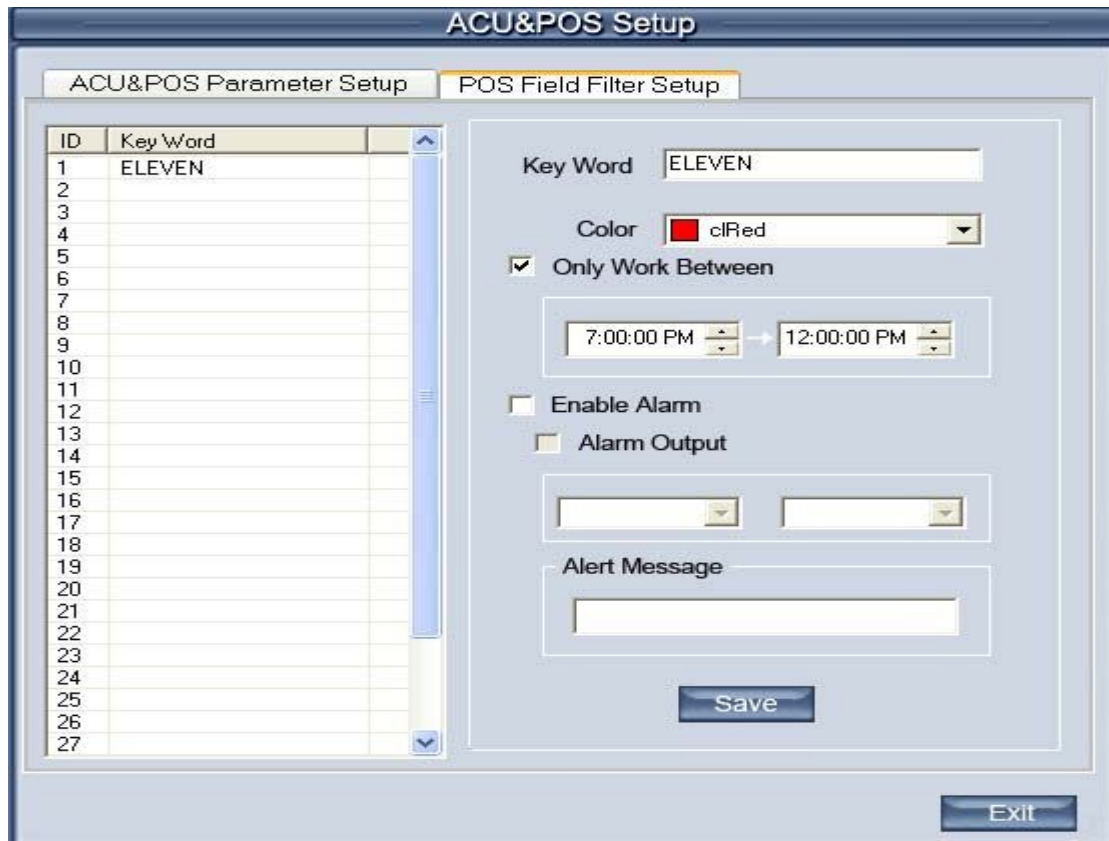
The screenshot shows a window titled "ACU&POS Monitor" with a table of device connections. On the left side, there is a tree view under "Pos Device(1)" containing "LAN1". Below the tree view is a "POS Set" button. The table has the following columns and data:

ID	POS Index	POS Name	POS Type
1	1	LAN1	LAN

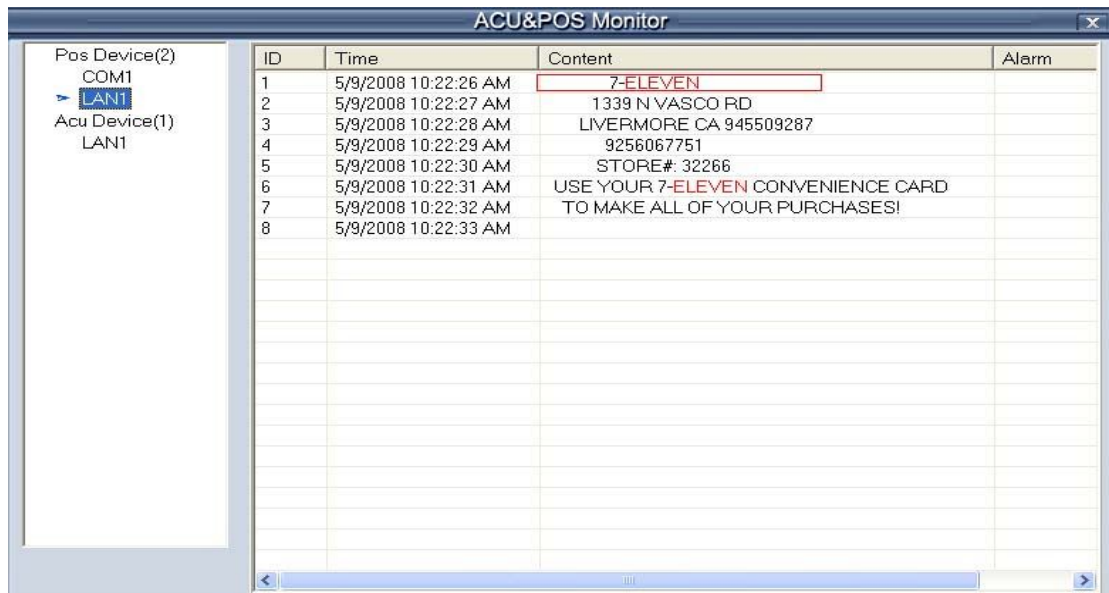
Select the POS which you want to set and press the “**POS Set**” button.



The toolbar can set the POSRecord Count to display, the max count is 1000



The diagram can set the POS Field Filter, such as: the color of ELEVEN in the keyword is set cored and the work time between 2:00:00 and 23:59:59, if the ELEVEN appears in the periods, it will display in cored. the same as the Alarm Output



Select a record, and double-clicked, It will display the period bases on the Forward time and Back time Compared to the time which the count is recorded.

ACU&POS Playback



Fri, May 16, 2008 PM02:19:00
Camera03

5/16/2008 2:19:14 PM THANK YOU FOR
SHOPPING AT
5/16/2008 2:19:15 PM YOUR LOCAL 7-ELEVEN
5/16/2008 2:19:16 PM **** REPRINT ****
5/16/2008 2:19:17 PM T#02 OP25 TRN4986 04/04/06
02:00 pm
5/16/2008 2:19:18 PM 7-ELEVEN
5/16/2008 2:19:19 PM 1339 N VASCO RD

Show Text

Replay