# **POS Machine Connection Guide**

For

## HVR Server v10.x

POS-DVR surveillance system is a professional surveillance integrated with POS 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.

HVR System can integrate any POS devices that send plain text data based on ASCII code through serial port (RS-232-C) or network (TCP/IP).

When text information was sent to HVR through COM port or network, user can set filter rule according to the data information. After correct settings, HVR will overlay text information over the video image.

#### 1. Connection

HVR System supports two methods to receive the data from POS system: Serial port and network. Result from that, POS system can send data through serial port or network directly, or the combination of them by using converter.

#### **1.1 Direct COM port connection**

For direct COM port connection, we recommend user send the data for pole display to our POS system, since it is real time and will not send much data at a time, which will cause the difficulty to read the fast scroll text over the video. And user should use cross-line cable to connect two ends.

If the POS system support copying the data for pole display to another COM port, user can connect that COM port with the HVR directly.

If the POS system does not support copying the data for pole display to another COM port, user can make a spy monitor cable to divide the data from POS to pole display (RS-232-C serial port connection) to two terminals, one for pole display and the other for HVR.

Note: before you make the DIY spy cable, please consult your POS supplier to be sure the pin definition of the RS-232-C cable between POS System and Pole Display.

A. Half duplex RS232 spy cable without handshaking



\* Since we just need the data from POS system to Pole display, so we just connect the pin 3(Transmit data) of POS system with pin 2 (Receive data) of HVR. Next is the same.

HVR	Function
3 (POS system) 2*	Tx Rx
5 (POS system) 5	Signal Ground

#### B. Half duplex RS232 spy cable with handshaking

Our HVR does not need any flow controls for direct COM port, including software and hardware flow control. If the POS system need flow control, user should do some changes as below:



For more detailed information, please refer to: http://www.lammertbies.nl/comm/cable/RS-232.html.

Since serial cable can only be used in near distance, when the distance is too far, use can use direct network connection or RS232 to network connection:

#### 1.2 RS232 to network connection

For this connection, we supply a converter for client to convert RS232 to network: NC6XX series IO-Server.

	Function
3 (POS system) 2	Tx Rx
5 (POS system) 5	Signal Ground
1 + 4 + 6	DTR CD + DSR
7 + 8	RTS CTS

The IO server adopts RJ45 standard RS-232-C interface, for the conversion between DB9 and RJ45, please refer to corresponding manual, here take NC602 for instance:

#### **1.3 Direct network connection**

Generally speaking, user use network printer for direct network connection, since it will cause difficulty to read the text over video, we do not recommend user to use this connection.

A. Install Generic / Text Only printer driver on the PC you run HVR (such as 192.168.0.102)

	POS System (DB9)
1 TXD	2 RXD
2 RXD	3 TXD
3 RTS	8 CTS
4 CTS	7 RTS
5 DSR	4 DTR
6 GND	5 GND
7 DTR	6 DSR
8 DCD	1 DCD







J S d	elect the manufacture lisk, click Have Disk. compatible printer softw	er and model of your printer. If your printer car If your printer is not listed, consult your printer vare.	ne with an installation documentation for
Manufac GCC Generic Gestetne HP IBM	turer r	<ul> <li>Printers</li> <li>Generic / Text Only</li> <li>Generic IBM Graphics 9pin</li> <li>Generic IBM Graphics 9pin wide</li> <li>MS Publisher Color Printer</li> </ul>	

Select "Generic" 'Generic / Text Only

If you want to share th suggested name or typ users. O D <u>o</u> not share this p o <u>S</u> hare name: pr	his printer, you must provide a share name. You can use the ppe a new one. The share name will be visible to other network printer rnter
users. ODo not share this p OShare name: pr	printer rnter
○ Do not share this p	printer rnter
⊙ <u>S</u> hare name: pr	rnter
	$\searrow$
	v

### Share the "printer"

Now you can think the HVR as a shared network printer.

Add Printer Wizard		
	Comple Wizard	ting the Add Printer
	You specified	the following printer settings:
k i	Name:	Printer
	Share name:	Printer
	Port:	LPT1:
	Model:	Generic / Text Only
	Default:	Yes
	Test page:	No
	Location:	192.168.0.102
	Comment:	Generic Text only
	To close this	wizard, click Finish.
		< Back Finish Cancel

B. Set a port (such as 6001) to get text information from POS under POS setup interface in HVR.



Set the port 6001 in HVR to receive the text information from POS

C. Add the printer on the PC that run HVR as a network printer for POS (such as 192.168.0.123) and set it as the default printer for POS.

d Printer	Wizard
Local or N The wiz	etwork Printer and needs to know which type of prnter to set up.
Select t	he option that describes the printer you want to use:
OLoc	al printer attached to this computer
<b>V</b>	Automatically detect and install my Flug and Play printer
💽 A ne	twork printer, or a printer attached to another computer
	$\mathbf{k}$
į)	To set up a network printer that is not attached to a print server, use the "Local printer" option.
	Cancel

ld Printer W	zard
Specify a Pri If you don' that meets	nter t know the name or address of the printer, you can search for a printer your needs.
What print	er do you want to connect to?
O Browse	for a printer
📀 Connec	t to this printer (or to browse for a printer, select this option and click Next):
Name:	\\192.168.0.102\printer
	Example: \\server\printer
🔿 Connec	t to a printer on the Internet or on a home or office network:
URL:	
	Example: http://server/printers/myprinter/.printer
	< Back Next > Cancel

Add a network printer

Default Printer Your computer will always send otherwise.	documents to the default printer unless you specify
Do you want to use this printer a	s the default printer?
💽 Yes	
⊖ No	
	$\searrow$

Add the printer shared in 192.168.0.102 (HVR)

Set the shared printer in 192.168.0.102 as the default printer

D. Add a standard TCP/IP Port for default printer of POS:

printer Properties		? ×	Printer Ports	? 🖡
General Sharing Ports A	dvanced Device Se	ttings	Augilable part turner	
printer		-	Available port types: Local Port Microsoft Document Imaging V Standard TCP/IP Port	Writer Monitor
Print to the following port(s). D checked port.	ocuments will print to	the first free		
Port Description	Printer	^		
LPT1: Printer Port	printer		New Port Type	New Port Cancel
LPT2: Printer Port		=		
COM1: Serial Port				
COM2: Serial Port				
COM3: Serial Port				
COM4: Serial Port		×		
Add Port	Delete Port	Configure Port		
Exable bidiractional surre	ak li			
Enable printer pooling	10			
ſ		ancel Applu		

Add Standard TCP/IP Prin	ter Port Wizard 🛛 🔀
	Welcome to the Add Standard TCP/IP Printer Port Wizard You use this wizard to add a port for a network printer. Before continuing be sure that: 1. The device is turned on. 2. The network is connected and configured.
	To continue, click Next. < Back Next > Carcel

Id Standard TCP/IP Printer Add Port For which device do you want	Port Wizard : to add a port?
Enter the Printer Name or IP a	ddress, and a port name for the desired device.
Printer Name or IP Address:	192.168.0.102
Port Name:	IP_192.163.0.102
	<pre></pre>

Add Standard TCP/IP Port

Additional Por The device	t Information Requi could not be identified.	red		N.
The detected de 1. The device is 2. The address o Either correct the previous wizard p	vice is of unknown type properly configured. on the previous page is address and perform a page or select the device	e. Be sure that: correct. another search c ce type if you are	n the network by retu sure the address is r	urning to the correct.
Device Type Standard Custom	Generic Network Car Settings	d		<b>~</b>
			3ack Next >	Cancel

Add Standard TCP/IP Prin	ter Port Wiza	ırd 🛛 🔀	
	Completing the Add Standard TCP/IP Printer Port Wizard You have selected a port with the following characteristics.		
	SNMP: Protocol: Device: Port Name: Adapter Type:	No RAW, Port 9100 192.168.0.102 P_192.168.0.102 Generic Network Card	
	To complete th	ii: wizard, click Finish. < <u>B</u> ack Finish Carcel	

Network printer: IP 192.168.0.102, default port: 9100

💩 printer Pr	operties		? 🛿
General Sha	ring Ports	Advanced Device	Settings
pri 실	nter		
Print to the fo	bllowing port(s). t.	. Documents will prin	t to the first free
Port	Description	Printer	
COM2:	Serial Port		
	Serial Port		
	Serial Port		
FILE:	Print to File		
Mier	Local Port	FAIF FOIC	
			~
Add P	ort	Delete Port	Configure Port
Enable bio	firectional supr	hoo	
Enable ori	nter poolina		
P.			
_			
		Close	Cancel Apolu
		CIOSE	Сансен

General Sharing Ports Advanced Device Settings	Port Settings Port Name: Printer Name or IP Addres	IP_192.168.0.102
Print to the following port(s). Documerts will print to the first free checked port.	Protocol	○ LPR
Point     Description     Printer       COM1:     Serial Port       COM2:     Serial Port       COM3:     Serial Port       COM4:     Serial Port       FILE:     Print to File       IP_1     Standard TCP/IP Port       Micr     Local Port	Raw Settings Port Number: LPR Settings Queue Name: LPR Byte Counting	9100
Add Port Delete Port Configure Port Enable bidirectional support Enable printer pooling	SNMP Status Enabl Community Name: SNMP Device Index:	led public
OK Cancel Apply		OK Cance

The result of setting

Configure the standard TCP/IP Port

Port Name: 🔓	IP_192.168.0.102		
Printer Name or IP Address:	192.168.0.102		
Protocol	21.224 (KCV)		
💿 Raw	○ LPR		
Raw Settings			
Port Number:	5001		
LPR Settings			
Queue Name:			
LPR Byte Counting En	abled		
SNMP Status Enabled	P		
Community Name:	public		
SNMP Device Index:	1		
	·		

Change the default port 9100 to 6001

The port 6001 is the port for HVR to receive the information from POS. Or user can change the receive port of HVR to 9100, which is the same as the default network printer port.

#### 2. POS Setup

Add/delete device

Device Setup				
Device List Undefined MS Retail management system Integra access control NCR POS system Silverware POS system Diebold ATM 1 Diebold ATM 2 Micros 3700 pos system IDTECK Finger007p/lcon100 access [Paris Baguette] POS system IDTECK ITDC access control Toshiba POS ST-7000 BizMaster Retech POS PAR POS	>>>	Available List         Comcash POS system         Keico FPC-311 access control         Optimus POS system         Sharp POS system         HiPOS		
Device Data Con	nect	Save Close		

Open POS Setup interface and press Device button, user can add/delete device in the left list:

Press New button, system will add a device named "New Device", user can single-left-click to select it and again to change its name as you like.

After that, user can press the arrow in the middle to add them to the available list.

For more info please refer to HVR Server user manual.

Manufacturer: ILDVR DIGITAL TECHNIOLGY USA INC

Web site: www.ildvr.com Tech-support: support@ildvr.com