

Intrepid Control Systems, Inc.

Setup Steps for Video Logging via neoVI ION

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1. Introduction:

This manual will show how to fulfil video logging feature on ION with camera

2. Setup Steps for Video Logging via neoVI ION:

2.1 Hardware Setup:

neoVI ION with FIRE VNET, AXIS P1214-E Camera

2.2 Procedure:

2.2.1 Camera Setup

- Power and connect the camera to PC with Ethernet cable
- Open the folder "AXIS INSTALL", run START.exe. Then click "AXIS IP Utility" and "Run AIXS IP Utility"
- The connected camera device will be shown here. If NOT, please check:
 - Press "Refresh" button.
 - Disconnect all your wireless network to make sure the camera is in the same network with your PC

AXIS IP Utility			
File View Tools Help			
R. 8 🔝 🔊			
Name	IP Address	Serial Number	
AXIS P1214-E - 00408CF92F98	169.254.120.244	00408CF92F98	

Figure 1: Camera in the AXIS IP utility.

• Double click the listed device, the browser will open a web based viewer for the video.



Figure 2: Image captured by Camera.

- Click the "Setup" tag on the right left of the page, enter username and password. Default username is "root", password is empty.
- Go to "Basic Setup" → "Instructions" → "Users", check the checkbox "Enable anonymous viewer login"

• Basic Setun	Users		0
Instructions	User List		
1 Users	User Name	User Group	
3 Date & Time 4 Video Stream	root	Administrator	*
• Video			
• Live View Config			
Detectors			
Applications			~
Events	Add Modif	y Remove	
Recordings	HTTP/RTSP Passwo	ord Settings	
System Options	Allow password type	e: Encrypted & unencrypted 🔻	
About	Usor Sottings		
			d required)
	Enable anonymou	us viewer login (no user name of password	a required)
	Enable Basic Set		
		Save Reset	

Figure 3: Settings from the AXIS utility for Camera settings

2.2.2 Set Scripts in VSPY(Stand Alone Mode):

- Install the latest VSPY version, 3.7.0.32 beta is used for demo here.
- To keep the ION wake, please add an ECU simulator on the bus. Just send some messages periodically. If you connect to a real car, ignore this step.
- Go to "Measurement" → "VehicleScape DAQ" → "Standalone Logging", you can set with your different requirements. To make it easy here, we just set:
 - "Collection Configuration" \rightarrow "Finish After # of Message", set it to 5000000.
 - "Generate" \rightarrow check "Enable video logging". Then click "Generate" button

Collection Configuration	
How should we finish each collection? Choose " <u>Einish After # of Messages</u> " to finish specified number of messages . Or, pick " <u>Finish on Expression</u> " to finish collect	each collection once we've collected a ing when an expression is true.
Finish After # of Messages	n
# of Messages 5000000 ~305.17578MB f _∞	
Restart Ontions	Collection Unload (wireless only)
Once we collect the data, what should we do? Select "Stop" to end the capture.	collection opioda (villeless only)
Select " <u>Restart</u> " to start capturing again .	At the end of the collection, upload the data to Wireless neoVI? Select both for fastest network.
Stop Restart	3G WiFi

Figure 5: VehicleScape DAQ settings to capture the number of messages.

Generate Vehicle Spy can generate a database that of currently have loaded. If you want this , <u>to SD card</u> " or just " <u>Save to local file system</u>	will decode all the data logged by this s check " <u>Generate decoding database</u> " and t <u>n</u> ". Then, click " <u>Generate</u> " and go!	etup. It does this by combining the databases you hen choose if you'd like the database to " <u>Transfer</u>
Generate decoding database Enable video logging	 Transfer to SD card Save to local file system 	Generate for CoreMini
		Advanced Options Clean

Figure 6: VehicleScape DAQ settings to Generate the CoreMini executable

- Click the "Generate" button to open generator window, make sure there's no compile error output in the "Build" tab.
- If you want to set the video quality, click the "Advanced Setting" tab for video setting, we just keep the default here.
- Download the CoreMini scripts into ION SD card device. Make sure check the "Run CoreMini after Download".

Device Configuration a neoVI (USB) neoEC	nd Download J (CAN) RS232/UART/Bluetooth	
Configure Device (B Download CoreMini	it Rates, Initial Pin States, Resistor E :	inables, etc): 🛛 🕮 Hardware Setup
Device	neoVLION(3.0) 400339	Storage SD Card
Send	Extract Clear	Run CoreMini After Download 🔲 Advanced Settings
Connected to device. S neoVI updated (Tim	iD Card: 29.81 GB e 1442 ms) - Success	

Figure 7: VehicleScape DAQ settings to download CoreMini executable in ION

- You can check the LED from ION and camera status, they should be:
 - LED 1 on ION is blinking fast (CoreMini is running).
 - LED 2 on ION is blinking with about 2 seconds cyclical time (Data is written to SD card)
 - LED NET on camera is blinking very fast (Video data is captured and transferred via the Ethernet port. It will take about 2 minutes to camera boot up before LED NET blink.

2.2.3 Extract Data:

- After logging for a while, take out SD card from ION. Insert your SD card into PC or with a USB card reader. We don't recommend extract data via ION through USB.
- Go to "Tools" → "Utilities" → "Extract/Export", SD card will be shown as bellow. If not, please restart your VSPY and try again.

潯 Extract / Export	t	
Results		
Card is 0.0	1% full	
Start time:	2014/06/17 23:04:57:465633 [l	JTC:2014/06/18 03:04:57:465633] Offset: 420C00
Stop time:	2014/06/17 23:20:58:384616 [l	JTC:2014/06/18 03:20:58:384616] Offset: 6739C0
Extract Export		
Directories		
Source Data	F:\LOGGER 32GB	Browse
Output Data	C:\Users\Fred\Desktop	Browse
Extraction		2014/06/47 22:04/67/466022 2014/06/47 22:20/60/204010
Extrac	t to VSPY binary (.vsb)	2014/06/17 23:04:57:465633 - 2014/06/17 23:20:36:384616 2014/06/17 23:04:57:465633
Ac	Ivanced Settings	2014/06/17 23:20:58:384616
Clear Log Data		Show UTC time

Figure 8: Extractor settings to extract the logged files from the SD Card

• Click "Advanced Settings..." and check "Generate Video from Extracted Images" to get video (AVI format) after extraction. Or else only images will be exported.

Enable Pre/Post Trigger Cropping - Interprets neoVI trigger messages. Necessary for Pre/Post Captures (default on). Extract older records - If extractor finds records older than the CoreMini they will be processed (default off).	
Extract older records - If extractor finds records older than the CoreMini they will be processed (default off)	
Continue scanning partition even if first record is blank (default off).	
🔲 Ignore Timestamps - Process records regardless when they are time stamped (default off). Normally older records are ignored.	
🔲 Search All Records - Normally extract stops after reaching blank records. If enabled, extract continues until end of SD Card/ VSA file (default	off).
Force MOST CAN Gateway to CAN (default off).	
☑ Generate Video from Extracted Images (default off) ☑ Extract JPEG images (default on)	

Figure 9: Advanced settings to generate video from the logged data.

• Click "Extract to VSPY binary (.vsb)", after extraction, data will be shown like following:

名称	修改日期	类型	大小
📙 Video	2014/6/18 12:46	文件夹	
🚮 Collection 1 2014-06-18 00-35-39-52	2014/6/18 12:46	Vehicle Spy Bina	1 KB
🔢 Collection 1 2014-06-18 00-35-39-52	2014/6/18 12:52	Vehicle Spy Bina	1,910 KB
DAQ 1_MessageDatabase.vsdb	2014/6/18 12:34	VSDB 文件	39 KB
Notes.txt	2014/6/18 12:52	文本文档	4 KB

Figure 10: Extracted Data in the data directory

- Video folder will include both video and images logged from camera:

名称	修改日期	类型	大小
AVI	2014/6/18 12:46	文件夹	
JPEG	2014/6/18 12:52	文件夹	

Figure 11: Video folder

2.2.4 Review Buffer and Playback:

- Go to "File" → "Review Buffer", select the logged file with .vsb extension. Then click "OK" in the "Choose VSB Method" window.
- Go to "Measurement" → "Video Frames Review" to open the video viewer. You can move the time bar to see different image on corresponding time.

Scroll		Details	P. Exper	d 9 al Time Ab	🖑 Pesiso		iave 🗙 Erase 🍠
U	315	Tirst	Tx Er	Description	Arbid/Header	Len	DataBytes
Filter							
E 0%	7505	40 µ		Video Recording Report	146	8	03 00 00 07 00 00 00 00
7	7506	55.045 m	5	HS CAN \$7F1	771	8	11 11 11 11 11 11 11 11
E 010	7507	45.950 m		VNET A Stats	142	8	28 AS 00 00 00 00 DE AS
8	7508	26 µ	5	Video Recording Report	146	8	03 00 00 07 00 00 00 00
0,30	7509	56.003 m		HS CAN \$7F1	291	8	13 11 11 11 13 13 13 11 11
E #1+	7510	44.792 m	5	WHET A Stats	142	8	E9 A6 00 00 00 00 E9 A8
8 014	7511	36 yr		Video Recording Report	146	8	02 00 00 07 00 00 00 00
	7512	24.899 m	s	Report Message (GPS Rags)	112	8	00 00 00 00 00 00 00 00
H 014	7513	38 µ		Report Nessage (GPS Lethude)	130	8	00 00 00 00 00 00 00 00
E #10	7514	39 µ	s	Report Message (GPS Longit	111	8	00 00 00 00 00 00 00 00 00
8.014	7515	39 µ		Report Message (GPS Althude)	113		00 00 00 00 00 00 00 00
E 110	7516	39 µ	5	Report Message (SPS Speed	124	8	00 00 00 00 00 00 00 00 00
E 010	7517	39 µ		Report Nessage (GPS Accura	115	8	00 00 00 00 00 00 00 00
E	7518	29 (÷ .	Report Message (GPS Time)	136		00 00 00 00 00 00 00 00
070	7519	32.028 m		HS CAN \$771	771	8	11 11 11 11 11 11 11 11
H	7520	43.985 m		VNET & Stats	142	8	59 A9 00 00 00 00 FE AB
E 01.0	7521	36 at		Video Recording Report	146		02 00 00 07 00 00 00 00
-	7522	58.019 m	2	HS CAN \$7F1	751	8	11 11 11 11 11 11 11 11
H	7523	42,785 m		VNET & Stats	142	8	ES ASIDA OD DO DO DO MA
E. m.e.	7524	×		Video Decordion Report	146		03 00 00 07 00 00 00 00
0/10	2525	50.167 m		HS CAN AZE I	771		
-	2526	18 799 -		Report Massage (GPS Ram)	112	8	00 000000 00 00 00 00 00
	7577	70.00		Depart Message (CDS) with da	130	1	00 00 00 00 00 00 00 00
	7528	44.00		Report Message (CPS Loonit	111		00 00 00 00 00 00 00 00 00
	1579	79.0		Report Message (CDS Although)	117		00 00 00 00 00 00 00 00
	7530	44.0		Report Massage (CPS Sneed	114		00 00 00 00 00 00 00 00 00
	7521	29.0		Papert Marrage (SPS Arrura	115		00 00 00 00 00 00 00 00
	1001	25 4		Property and the stand of the s			
	7500	22.000 -		veges crossingle (sea comp	100		
	/533	23.099 R		THE I H SLOD	194	6	221MA 04 00 00 00 20 82
2 018	/534	36 µ		voteo kielonong Report	140	4	03 00 00 07 00 00 00 00
7	/233	59.931.0		PD CAN \$/F1	m1	d	11 11 11 11 11 11 11 11 11
= 018	/536	40.848 m		110C1 IN 20925	142	6	INS AACHE OU OU DO 34 BS
15 min	7537	410	5	video Recording Report	146		03 00 00 07 00 00 00 00
7	7538	61.149 m	5	HS CAN \$7"1	7*1	8	11 11 11 11 11 11 11 11
E #1#	7539	39.942 m	5	VNET A Stats	142	8	TAVAB 00 00 00 00 HC BB
E ma	7540	36 µ		Video Recording Report	146		03.00.00.03.00.00.00.00
E 010	7541	29.775 m	5	Report Message (GPS Rags)	112	8	00 00 C7 00 00 00 00 00
E 014	7542	46 p		Report Message (SPS Latitude,	130	8	00 00 00 00 00 00 00 00
10							

Figure 12: Review the Video frames in VSPY

• You can also go online in simulation mode with the .vsb file. Video will loaded automatically and be played

3. Contact Us:



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