

Release Version

Main Console	v3.2.0
Remote Desktop Viewer	v1.0.2.0
Driver Install Tool	v1.0.0.3
PDA Client	v1.0.0.8
Smart Phone Client	v1.0.0.8

New features:

1. IP cameras are licensed by online registration instead of USB dongles.
2. Support **Transcoding**. Users can have different resolution/frame rate/quality between recorded video and remote live video.
3. Support **Digital Watermark**. Prevent recorded video files/snapshots/AVI/ASF from being tampered.
4. Enhanced Remote Live Viewer
 - i. Support 64 channels live display (8x8) on one monitor.
 - ii. Support up to 128 channels live display on multiple monitors.
 - iii. Support auto scan function.
 - iv. Support digital PTZ control.
 - v. Support Multi-View (duplicate channels for the same camera). Combined with digital PTZ, users can enlarge different spots for a megapixel camera and view them in different channels.
 - vi. Support on screen display of POS data, recording status, counting status, and Smart Guard warning messages.
5. Support live video/PTZ control for Windows Mobile 5/6 mobile phones.
6. Support new languages: **Bulgarian, Norwegian, and Polish**
7. Support 25 languages for the web live viewer and web playback.
8. Support TFTP protocol for Arecont cameras.
9. Support 2-way audio for VIVOTEK 7000 series cameras that running commands V2.

Improvements:

[System]

1. Non-administrators can configure and save configurations of Remote Live Viewer and Playback System.
2. *Change the configuration format of the POS application.*
3. Use **SQLite3** to store system/event logs and POS data instead of MS Access.
4. Disable video decoding to save CPU processing power if user chooses to do pure recording. Please refer test report on Appendix B.

5. Improve image quality for live video, recorded video, and snapshot.
6. Provide a **new driver installer** which can automatically detect capture card types and install corresponding drivers.
7. Provide a "Synchronize video frame" option to avoid the "tearing" problem on video display.
8. No more audio cable is needed for listening live audio of the SCB-5000 series.
9. Provide an option to adjust image sharpness of SCB-7000 series.
10. System recovery: Main Console will be restarted automatically if software failure is detected.
11. Provide device level privilege control.

[Features]

12. Enhanced E-map: resizable and full-screen display.
13. Provide a handy I/O control panel which will be popped up upon I/O events.
14. Provide a **Resource Management Tool** for easily monitoring CPU/RAM/network conditions.
15. Support **DVD** backup for videos on local machine and remote servers.
16. Simplified disk recycle criteria.
17. Improve auto reboot function based on Windows Scheduler.
18. Support 64x digital zoom and graphical indicator on the screen.
19. Customizable snapshot region with date time OSD.
20. Resize the font of OSD to fit video layout automatically
21. User-defined OSD messages upon different events.
22. Open selection for target monitors for different popup events.
23. Support SSL for SMTP connection.
24. Support multiple SMS recipients.
25. Support exporting counting statistics.
26. Adjustable code page for POS transaction text data.
27. Support playing back recorded video in manually backed up folders.
28. Simplified login process for remote playback.
29. Support double-clicking Log Viewer events to bring up recorded videos.
30. Support date selection in DB tool.
31. Add camera name on sending E-mail notification.
32. Add camera number on Log Viewer when digital input event triggers.
33. Change "Record on Motion" to "Always Record" of Minor Mode in predefine schedule mode.
34. Extended password length of remote desktop viewer up to 256 characters.

Bug Fixed:

1. Fixed recycle failed problem when multiple storage locations were utilized.
2. Fixed MainConsole crash problem when changing recording schedule mode from record-on-event to always-record.
3. Fixed MainConsole crash problem on D3D texture handling.
4. Fixed MainConsole crash problem due to Event Report on closing when multiple monitors were utilized.
5. Fixed backup error due to create video file index failed.
6. Fixed error of configuring joystick option failed.
7. Fixed abnormal error that joystick functionality crashed with particular joystick devices.
8. Fixed compatibility issue between Windows Remote Desktop Connection tool and NUUO MainConsole.
9. Fixed no image on Playback due to change video format without restarting recording.
10. Corrected Mobotix D12D display and connect problem on abnormal resolution.
11. Corrected scramble code problem of sending SMS function with Simplified (Chinese) character.
12. Corrected multiline contents problem of sending e-mail.
13. Fixed memory error when closing IE browser.

New Camera Supported:

- ACTi:** ACD-2400, ACM-1231, ACM-4100, ACM-7411, ACM-8511
- Arecont:** AV2155DN, AV8185
- Axis:** M1011, M1011-W, M1031-W, Q1755
- Basler:** BIP-1000c, BIP-1300c, BIP-1600c
- Digimerge:** DNS1010, DND7100E
- Fine:** MD-D1200, TCP670DNU, TCP680DNU
- HIKVision:** DS-2CD852MF-E, DS-2DF1
- IQiVision:** IQeye855
- Panasonic:** BB-HCM527, BB-HCM531, BB-HCM403
- Pixord:** P415M, P416
- Sanyo:** VCC-HD4000P, VCC-HD4000, VDC-DP9585P, VDC-DP9584N, VCC-9800P, VCC-9800NA, VCC-ZM600N
- Sony:** SNC-DF85N, SNC-DF85P
- Truen:** TCAM-230, TCAM-250, TCAM-251, TCAM270L, TCAM270M, TCAM270H
- VIVOTEK:** FD7132, FD7141, IP7133, IP7134, IP7161, IP7251, IP7330, PZ7111
- Y-cam:** White, Black
- Zavio:** D520E, F520E, F521E, F731E, M510E, M510W, M511E, M511W

Note:

1. 3.2.0 only support software license key, **not** support USB dongle license
2. If success to transfer USB dongle license to software license key, the dongle would **not** be valid again.
3. **Not** support Windows Internet Explorer 8
4. **Not** support Hotkey
5. **Not** support Probe cameras
6. Compatibility:

a. NUUO Application

	MainConsole v3.1.0	NVR mini v2.0	NVR mini v1.3
3.2.0 Remote Application Tool	N/A	Supported*	N/A

* Only support live and recorded video.

b. Windows

	Windows XP	Windows Vista	Server 2003	Server 2008	Windows 7
3.2.0	Supported	Supported*	Supported	N/A	N/A

* SCB-4016 and SCB-5000 series capture card don't support Vista drivers

* Not support Resource management and phone call alarm functions

c. Windows Internet Explorer Browser

	IE 6	IE 7	IE 8
3.2.0 Remote Application	Supported	Supported	N/A

Appendix A – Newly-added Camera Models Support List

ACTi											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	ACD2400	AGD-R2N-V2.05.02-AC	16	MPEG4 MJPEG	D1	X	TCP UDP	32/32	O	2 Way	8K PCM
3	ACM4100	A1D-220-V3.09.14-AC	1	MPEG4 MJPEG	640x480	X	TCP UDP	X	X	2 Way	8K PCM
4	ACM7411	A1D-220-V3.09.14-AC	1	MPEG4 MJPEG	1280x1024	X	TCP UDP	1/1	X	2 Way	8K PCM
5	ACM8511N	A1D-220-V3.09.14-AC	1	MPEG4 MJPEG	720X480	X	TCP UDP	1/1	O	2 Way	8K PCM
Arecont											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	AV8185	65121	1	MJPEG H264	1600X1200	X	HTTP TCP UDP	X	X	X	X
AXIS											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	M1011	5	1	MPEG4 MJPEG	640x480	O	TCP UDP HTTP	X	X	X	X
2	M1011-W	5	1	MPEG4 MJPEG	640x480	O	TCP UDP HTTP	X	X	X	X
3	M1031-W	5	1	MJPEG MPEG4 H264	640x480	O	TCP UDP HTTP	1/0	X	2 way	ACC G.711 G.726
4	Q1755	5.02	1	MJPEG H264	1920x1080	O	TCP UDP HTTP	1/1	O	2 Way	ACC G.711 G.726
Basler											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	BIP-1000c	BIP-1000c-1.3-0	1	MPEG4 MJPEG	1600x1200	X	TCP UDP	1/1	X	X	X
2	BIP-1300c	BIP-1300c-1.3-0	1	MPEG4 MJPEG H264	1280X960	X	TCP UDP	1/1	X	X	X
3	BIP-1600c	BIP-1600c-1.3-0	1	MPEG4 MJPEG	1600x1200	X	TCP UDP	X	X	X	X

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Digimerge											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	DNS1010	2.74-wisHttp	1	MPEG4 MJPEG	D1	X	HTTP	1/1	O	1 Way	8K PCM
2	DND7100E	L.M. 1.6.16.03_d emo	1	MPEG4 MJPEG	640X480	O	TCP UDP HTTP	1/1	X	2 Way	G711
Fine											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	MD-D1200	3.2.56	1	MPEG4 MJPEG	D1	O	HTTP	X	O	1 Way	ADPCM
2	TCP-670DN U	V3.2.50_F	1	MPEG4 MJPEG	D1	O	HTTP	X	X	2 Way	ADPCM
3	TCP-680DN U	V3.2.50_F	1	MPEG4 MJPEG	D1	O	HTTP	X	X	2 Way	ADPCM
HIKVision											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	DS-2CD852 MF-E	V2.0 build 090430	1	MPEG4	1280x720	X	TCP UDP	1/1	O	2Way	G.711 u-law
2	DS-2DF1	V2.2 build 20081219	1	H264	704x576	X	TCP UDP	2/2	O	2Way	G.711 u-law
IQEye											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	IQeye 855	V2.8/6(0803 13)	1	MJPEG	2560x1920	X	UDP	1/1	X	X	X
Pixord											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	P415M	V3.2.48.R02 .PN	1	MJPEG MPEG4	1280 x 1024	X	HTTP	1/0	X	X	X
2	416	V3.2.48.R02 .PN	1	MJPEG MPEG4	D1 (720x480)	Not Tested	HTTP	1/1	O	2 Way	ADPCM

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Sanyo											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	VCC-HD4000P	1.02-02 <090218-00>	1	MJPEG H264	2288 x 1712	O	UDP HTTP	2/1	O	X	X
2	HD4000	1.02-02	1	MJPEG H264	1280x720	X	TCP UDP HTTP	X	X	2 Way	L-PCM
3	VDC-DP9585P	2.00-00 <M08101001>	1	MJPEG	720x286	X	UDP HTTP	X	O	2 Way	L-PCM
4	VDC-DP9584N	2.00-00 <M08101001>	1	MJPEG	720x240	X	HTTP	2/1	O	2 Way	L-PCM
5	VCC-MC9800P	2.00-00 <H08070300>	1	MJPEG H264	720x576	X	TCP UDP HTTP	X	O	2 Way	G711
6	VDC-9800NA	2.00-00 <H08070300>	1	MJPEG H264	720x480	X	TCP UDP HTTP	X	O	2 Way	G711
7	VDC-ZM600N	2.20-01 <C09033100>	1	MJPEG H264	720x480	X	TCP UDP HTTP	X	Z	X	NA
Sony											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	SNC-DF85N	0.9	1	MPEG4 MJPEG H264	640X480	X	HTTP	1/2	X	2Way	G.711 G.726
2	SNC-DF85P	0.9	1	MPEG4 MJPEG H264	640X480	X	HTTP	1/2	X	2Way	G.711 G.726
Truen											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	TCAM series (230/250/251/270)	Encoder: V1.T122	1	H.264	720x480	X	TCP UDP	1/1	X	2 Way	G.711 u-law
2	TCAM251	V1.T122	1	H.264	720x480	X	TCP UDP	1/1	X	2 Way	G.711 u-law
3	TCAM270	V1.T122	1	H.264	720x480	X	TCP UDP	1/1	O	2 Way	G.711 u-law

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VIVOTEK											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	FD7132	0100f	1	MPEG4 MJPEG	640X480	O	TCP UDP HTTP	1/1	X	2 Way	AAC GAMR
2	FD7141	0100g	1	MPEG4 MJPEG	720x480	O	TCP UDP HTTP	1/1	X	2 Way	AAC GAMR
3	IP7133	0100b	1	MPEG4 MJPEG	640x480	O	TCP UDP HTTP	1/1	X	1 Way	AAC GAMR
4	IP7134	0100a	1	MPEG4 MJPEG	640x480	O	TCP UDP HTTP	1/1	X	1 Way	AAC GAMR
5	IP7161	0100f	1	MPEG4 MJPEG	1600x1200	O	TCP UDP HTTP	1/1	O	2 Way	AAC GAMR
6	IP7251	0100f	1	MPEG4 MJPEG	640X480	O	TCP UDP HTTP	1/1	O	2 Way	AAC GAMR
7	IP7330	0100f	1	MPEG4 MJPEG	640x480	O	TCP UDP HTTP	1/0	X	X	X
8	PZ7111	0100f	1	MPEG4 MJPEG	704x480	O	TCP UDP HTTP	1/1	O	2 Way	AAC GAMR
Y-cam											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	White	2.1	1	MPEG4 MJPEG	640x480	O	TCP UDP	X	X	1 way	G.726
2	Black	2.1	1	MPEG4 MJPEG	640x480	O	TCP UDP	X	X	1 Way	G.726
Zavio											
No.	Device Name	Tested Firmware	Video Chan	Video Standard	Max Resolution	UPnP	Protocol	I/O Channels	PTZ Support	Audio	Audio Codec
1	D520E	LM.1.6.16.03	1	MJPEG MPEG4	640X480	O	TCP UDP HTTP	1/1	X	2 Way	G.711
2	F520E	LM.1.6.16.03P2	1	MJPEG MPEG4	640X480	O	TCP UDP HTTP	1/1	O	2 Way	G.711
3	F521E	LM.1.6.16.03	1	MJPEG MPEG4	640X480	O	TCP UDP HTTP	1/1	X	2 Way	G.711
4	F731E	LM.1.6.16.03	1	MJPEG MPEG4	640X480	O	TCP UDP HTTP	1/1	X	2 Way	G.711

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5	M510E	LM.1.6.16.0 3	1	MJPEG MPEG4	640X480	O	TCP UDP HTTP	1/1	O	2 Way	G.711
6	M510W	LM.1.6.16.0 3P2	1	MJPEG MPEG4	640X480	O	TCP UDP HTTP	1/1	O	2 Way	G.711
7	M511E	LM.1.6.16.0 3P2	1	MJPEG MPEG4	640X480	O	TCP UDP HTTP	1/1	O	2 Way	G.711
8	M511W	LM.1.6.16.0 3	1	MJPEG MPEG4	640X480	O	TCP UDP HTTP	1/1	O	2 Way	G.711

Appendix B –NUUO 64 ch Test Report

Software version: 3.2.0.39

Hardware specification:

HP Z800 Work station	
CPU	Xeon X5560 X2
RAM	DDR3 16G
Display	NVIDIA Quadro FX 580 (512 MB)
Ethernet	Giga Lan
Hard Disk	SAS 136Gb
OS	Vista SP1

Software configuration:

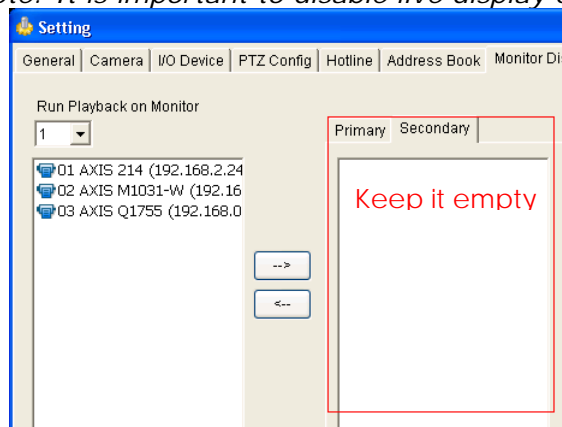
1. Disable Live Display on Main Console
2. Disable Smart Guard detection
3. Setup recording mode to Always Record without customized encoding

Test System Configuration

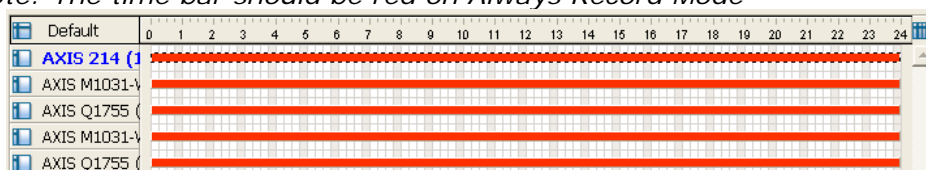
Camera	Format	Resolution	Frame	Bitrate	CPU usage
64 ch	H.264	2560 X 1920	10 FPS	10 MB/s	13~15%

Test Scenario:

1. In new installed condition
 2. Move to Config > Setting > Camera
 3. Add 8 Camera
 4. Move to Monitor Display Page
 5. Cancel all cameras on both Primary and Secondary monitor
- Note: It is important to disable live display option to save CPU usage.*



6. Click OK to Save Configuration
 7. Repeat step 2-6 to add up to 64 cameras
 8. Move to Schedule page, check all camera setup to record on Always Record Mode
- Note: The time bar should be red on Always Record Mode*



9. Click Start > Start Recording Schedule
10. Check the CPU usage

Note:

Please check the status of Smart Guard, start detection will raise CPU loading of Main Console system and reduce recording efficiency.

Please check the stream profile usage of Remote Live Viewer, query trans-coded profiles will raise CPU loading of Main Console system and reduce recording efficiency. For IP camera, Original and Recorded profiles are non trans-coded, other ones are trans-coded.