Titan NVR Release Note

Release Version 1.6.7 (2014/5/19)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.6.7_0195_1655.bin
	NT-8040R/NT-8040RP	NT-8040R_1.6.7_0195_1658.bin
	Device pack	3.3
Application (Windows)	NUUO NuClient	V1.6.5(no update)
Application (Mac)	NUUO NuClient	V1.6.5(no update)

Enhancement:

1. Handle SSL heartbleed security issue.

2. Support IE 11

Known issue:

[Titan Server]

1. Sometimes when only add WAN IP for Sub server, it's possible that NuClient can't connect because of routing table issue.

2. [Camera issue] CNB-ISMC1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)

3. [Camera issue] VIVOTEK IP7135: Please lower camera GOP (group of picture) or close audio when camera GOP so big result to client define it as disconnect.

4. Please use English or Thai OS when use Thai client.

5. If downgrade FW from v1.3 to v1.2, then adds VIVOTEK fisheye camera: IP7135, and then upgrade, the camera status will be "Immervision", not VIVOTEK fisheye. To avoid this issue, please load to default when downgrade to v1.2.2.

6. [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

[Titan Client]

1. Not support G.726 24K audio codec for LG camera LW352, LW9226, LG_LDW2010.

2. Cross resolution exporting is not supported.

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Release Version 1.6.5 (2014/1)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.6.5_0189_1701.bin
	NT-8040R/NT-8040RP	NT-8040R_1.6.5_0189_1704.bin
	Device pack	2.19
Application (Windows)	NUUO NuClient	Titan_NVR_1.6.5_AP_Windows.zip
Application (Mac)	NUUO NuClient	Titan_NVR_1.6.5_AP_MacOSX.zip

New features:

N/A

Bug fixed:

3. User needs to manually close UAC for offline license activation tool.

4. Offline license information export might be fail in the computer without internet connection.

5. When the network connection of is not stable, sometimes the NuClient cannot login and "Unknown error"message will popup.

6. Slow down the pan/ tilt speed of Sony SNC-ER580.

7. Under specific settings of event and event schedule, sometimes the action won't stop when event is stopped.

8. When using automatically switch stream profile and switch between single grid and multiple grid, and then doing digital PTZ, the client is possible to overlay disconnect icon on the video for seconds.

9. The web NuClient ActiveX plugin installation might be fail.

10. Sometimes NuClient will fail to open signature file after computer reboot.

11. When backup a lot of video in the same time, sometimes the backup will fail.

12. Axis M1054 audio might be distorted because of incorrect AAC audio decoder setting.

13. When export video through WAN environment on Mac OSX, sometimes the progress will run to 99% then fail.

14. When using Main-Sub server structure, cameras on Sub servers need to be manually disconnected and then connected in the first time to view live video.

15. [Camera] For ACTi KCM-7911 and KCM-3911 fisheye camera, when assigned fisheye mode on camera web page, and then connect to Titan, the lens changed and then NuClient will display improperly.

Enhancement:

1. Enhance Fisheye Dewarp algorithm to improve the dewarp quality.

Known issue:

[Titan Server]

1. When only add WAN IP for Sub server, it's possible that NuClient can't connect because of routing table issue.

2. [Camera issue] CNB-ISMC1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)

3. [Camera issue] VIVOTEK IP7135: Please lower camera GOP (group of picture) or close audio when camera GOP so big result to client define it as disconnect.

4. Please use English or Thai OS when use Thai client.

5. If downgrade FW from v1.3 to v1.2, then adds VIVOTEK fisheye camera: IP7135, and then upgrade, the camera status will be "Immervision", not VIVOTEK fisheye. To avoid this issue, please load to default when downgrade to v1.2.2.

6. [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

[Titan Client]

1. Not support G.726 24K audio codec for LG camera LW352, LW9226, LG_LDW2010.

2. Cross resolution exporting not supported.

Release Version 1.6.2 (2013/08/29)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.6.2_0180_0905.bin
	NT-8040R/NT-8040RP	NT-8040R_1.6.2_0180_0908.bin
	Device pack	2.16.0
Application (Windows)	NUUO NuClient	1.6.1
Application (Mac)	NUUO NuClient	1.6.1

New features:

N/A

Bug fixed:

2. When displaying second stream in H.264 format and connect the stream for multiple times, it is possible that the video might be black on live view (won't affect recording).

3. [FAE] When logging in NuClient, it sometimes popup unknown error.

4. [FAE] When the connection between Titan and license server is not stable, it might popup wrong error code.

Known issue:

[Titan Server]

7. Please manually close UAC for offline license activation tool.

8. When only add WAN IP for Sub server, it's possible that NuClient can't connect because of routing table issue.

9. [Camera issue] CNB-ISMC1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)

10. [Camera issue] VIVOTEK IP7135: Please lower camera GOP (group of picture) or close audio when camera GOP so big result to client define it as disconnect.

11. Please use English or Thai OS when use Thai client.

12. If downgrade FW from v1.3 to v1.2, then adds VIVOTEK fisheye camera: IP7135, and then upgrade, the camera status will be "Immervision", not VIVOTEK fisheye. To avoid this issue, please load to default when downgrade to v1.2.2.

13. [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

[Titan Client]

3. Not support G.726 24K audio codec for LG camera LW352, LW9226, LG_LDW2010.

4. Cross resolution exporting not supported.

Release Version 1.5.1 (2013/01/21)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.5.1_0155_1900.bin
	NT-8040R/NT-8040RP	NT-8040R_1.5.1_155_1903.bin
	Device pack	V2.8.2
Application (Windows)	NUUO NuClient	Titan_NVR_1.5.1_AP_Windows.zip
Application (Mac)	NUUO NuClient	Titan_NVR_1.5.1_AP_MacOSX.zip

New features:

1. Support Windows 8 (32 bit and 64 bit)

2. Support IE 10 (32 bit)

    * Must add Titan as IE 10 **trusted server** and enable **compatibility view**.

    Microsoft reference: Trusted site

    http://answers.microsoft.com/en-us/ie/forum/ie9-windows_7/how-do-i-add-a-site-to-my-trusted-sites-list/98cc77c8-b364-e011-8dfc-68b599b31bf5

    Microsoft reference: Enable compatibility view:

    http://windows.microsoft.com/en-US/internet-explorer/use-compatibility-view#ie=ie-10

3. Support AXIS Joystick T8311

    ■ Supported function:

Type	Function
View and grid switching	Go to monitor # Next view Previous view Next grid Previous grid Go to grid #
Screen layout switching	Switch to layout # Toggle single camera view Toggle full-screen
PTZ control	Digital / Optical switch Zoom in Zoom out Go to preset #
View editing	Delete content

Bug fixed:

[Titan Server fixed]

1. [FAE] When use local IP for SMTP server, it will fail to send test mail.

2. [FAE] When closing local display, the display interface will show unnecessary pictures.

3. [Device Pack] Camera parameter can't be set from VIVOTEK 7000 and 8000 series.

[Titan Client fixed]: N/A

Known issue:

[Titan Server]

14. Please manually close UAC for offline license activation tool.

15. When only add WAN IP for Sub server, it's possible that NuClient can't connect because of routing table issue.

16. [Camera issue] CNB-ISMC1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)

17. [Camera issue] VIVOTEK IP7135: Please lower camera GOP (group of picture) or close audio when camera GOP so big result to client define it as disconnect.

18. Please use English or Thai OS when use Thai client.

19. If downgrade FW from v1.3 to v1.2, then adds VIVOTEK fisheye camera: IP7135, and then upgrade, the camera status will be "Immervision", not VIVOTEK fisheye. To avoid this issue, please load to default when downgrade to v1.2.2.

20. [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

[Titan Client]

5. Not support G.726 24K audio codec for LG camera LW352, LW9226, LG_LDW2010.

6. Cross resolution exporting not supported.

7. Patrol only support on LiveView, but on Playback UI, the icon not disable.

8. When event log DB is too big (over 50 MB), it is possible that playback time line can't be draw instantly.

9. When backup multiple channel, the backup might have several minute movement. For example, when choose backup 11:00:00 to 11:30:00, it might backup 11:01:00 to 11:31:00.

10. When doing continuous PTZ on the video, and some message popup, the PTZ status won't stop. Please reclick PTZ on the video to stop PTZ command.

11. When export ASF files, and the video is not continuous, the audio will not sync with the video. Please export continuous video when needing to export in ASF.

12. [Camera issue] (VIVOTEK IP7135): VIVOTEK IP7135 camera watermark status is not stable, so sometimes it will close/ open automatically. If the status is closed, and then switch client to fisheye mode, it can't switch properly. Please open watermark if you encounter this issue.

13. [Camera issue] (VIVOTEK IP7135): If camera resolution over 640x480, the performance will be lower with resolution increase. (Camera SDK limitation.)

14. When the resolution is high, please export video as original avi or play with VLC. If exporting mpeg4 and H264 video to MOV files, sometimes the image will be broken.

15. If camera resolution is high, please play MOV video with VLC on MAC or Windows syatem, or please export as original AVI files. (VLC tested version: v2.0.1)

16. When use Fisheye or Immervision mode, please only view/ playback one channel or use original mode. If use more than one camera, the camera frame rate will be low down and audio can't play smoothly. (Camera vendor SDK issue. The SDK only enable client handling one channel Fisheye/ Immervision mode.)

17. For E-Map picture, please not use too big resolution, or it can't be shown on View.

18. When save video to msAVI, please not save more than 4GB every file.

19. The OffLineTool only support English.

Release Version 1.5.0 (2012/11/26)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.5.0_0149_1819.bin
	NT-8040R/NT-8040RP	NT-8040R_1.5.0_0149_1829.bin
	Device pack	V2.6.0
Application (Windows)	NUUO NuClient	Titan_NVR_1.5.0_AP_Windows.zip
Application (Mac)	NUUO NuClient	Titan_NVR_1.5.0_AP_MacOSX.zip

New features:

4. Support Patrol

   ■ Start patrol after PTZ idle

   ■ Individual duration for every preset point

   ■ Privilege for controlling Patrol

5. Support NTP (Network Time Protocol).

6. Support Mac OS X Mountain Lion (v10.8).

Notice:

1. For Main-Sub server structure, please use same FW version for Main server and Sub servers.

2. To utilize patrol, both Titan server and NuClient need to be upgraded to v1.5.0

3. When NTP (Network Time Protocol) server updates Titan server time, server will restart to update the time.

Enhancement:

1. Extend server password maximum length to 20 digit.

Bug fixed:

[Titan Server fixed]

1. [FAE] Solve the issue that if Cameraparam.ini file on camera is destroyed, it might cause server crash.

2. [FAE] Solve the issue that when users change streaming server port, it will occasionally cause server restart.

[Titan Client fixed]

1. [FAE] Solve the issue that when users don't have backup privilege, they can still use instant playback export.

2. [FAE] Solve issue that when play recording over 24 hours, the time line will lost 5-10 min bar for cross day recording. (Only bar disappear, and user can still query recording files.)

3. [FAE] When auto logging in NuClient, the used server IP and account will be recorded repeatly.

4. [FAE] Solve the issue that export .mov file with Panasonic WV-SC385 on Mac Lion will fail.

Known issue:

[Titan Server]

21. [Camera issue] CNB-ISMC1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)

22. [Camera issue] VIVOTEK IP7135: Please lower camera GOP (group of picture) or close audio when camera GOP so big result to client define it as disconnect.

23. Please use English or Thai OS when use Thai client.

24. If downgrade FW from v1.3 to v1.2, then adds VIVOTEK fisheye camera: IP7135, and then upgrade, the camera status will be "Immervision", not VIVOTEK fisheye. To avoid this issue, please load to default when downgrade to v1.2.2.

25. [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

[Titan Client]

20. Cross resolution exporting not supported.

21. Patrol only support on LiveView, but on Playback UI, the icon not disable.

22. When event log DB is too big (over 50 MB), it is possible that playback time line can't be draw instantly.

23. When backup multiple channel, the backup might have several minute movement. For example, when choose backup 11:00:00 to 11:30:00, it might backup 11:01:00 to 11:31:00.

24. When doing continuous PTZ on the video, and some message popup, the PTZ status won't stop. Please reclick PTZ on the video to stop PTZ command.

25. When export ASF files, and the video is not continuous, the audio will not sync with the video. Please export continuous video when needing to export in ASF.

26. [Camera issue] (VIVOTEK IP7135): VIVOTEK IP7135 camera watermark status is not stable, so sometimes it will close/ open automatically. If the status is closed, and then switch client to fisheye mode, it can't switch properly. Please open watermark if you encounter this issue.

27. [Camera issue] (VIVOTEK IP7135): If camera resolution over 640x480, the performance will be lower with resolution increase. (Camera SDK limitation.)

28. When the resolution is high, please export video as original avi or play with VLC. If exporting mpeg4 and H264 video to MOV files, sometimes the image will be broken.

29. If camera resolution is high, please play MOV video with VLC on MAC or Windows syatem, or please export as original AVI files. (VLC tested version: v2.0.1)

30. When use Fisheye or Immervision mode, please only view/ playback one channel or use original mode. If use more than one camera, the camera frame rate will be low down and audio can't play smoothly. (Camera vendor SDK issue. The SDK only enable client handling one channel Fisheye/ Immervision mode.)

31. For E-Map picture, please not use too big resolution, or it can't be shown on View.

32. When save video to msAVI, please not save more than 4GB every file.

33. The OffLineTool only support English.

Release Version 1.3.5 (2012/9/10)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.3.5_0137_1004_20120910.bin
	NT-8040R/NT-8040RP	NT-8040R_1.3.5_0137_1007_20120910.bin
	Device pack	Titan Device Pack v2.4.2.
Application (Windows)	NUUO NuClient	Titan_NVR_1.3.5_AP_Windows.zip
Application (Mac)	NUUO NuClient	Titan_NVR_1.3.5_AP_MAC.zip

New features:

N/A

Bug fixed:

[Titan Server fixed]

3. Playback session can't be created when it continuously run over 25 days.

4. Server memory will increase gradually when operating for long time.

[Titan Client fixed]

1. When user change view and click camera in the same time, NuClient might be close.

2. NuClient might popup disconnect message even when it is connected with server.

3. Export .mov file with Sony SNC-DH160 on Mac Lion might fail issue.

4. When NuClient keep receiving event log for a long time, memory issue might result in AP shut down.

5. PTZ control in NuClient will lag around 1 second.

Enhancement:

[Titan Client]

1. Modify pre-record and post-record default value and minimum value to 5 sec.

Known issue:

[Titan Server]

26. [Camera issue] CNB-ISMC1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)

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27. [Camera issue] VIVOTEK IP7135: Please lower camera GOP (group of picture) or close audio when camera GOP so big result to client define it as disconnect.

28. Please use English or Thai OS when use Thai client.

29. If downgrade FW from v1.3 to v1.2, then adds VIVOTEK fisheye camera: IP7135, and then upgrade, the camera status will be "Immervision", not VIVOTEK fisheye. To avoid this issue, please load to default when downgrade to v1.2.2.

30. [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

[Titan Client]

34. When users don't have backup privilege, they can still use instant playback export.

35. When event log DB is too big (over 50 MB), it is possible that playback time line can't be draw instantly.

36. When using "Auto backup", it is possible that playing the first backup channel will cause local playback AP crash. It's occasional, and not related to video. Upgrading NuClient and solve this version.

37. When backup multiple channel, the backup might have several minute movement. For example, when choose backup 11:00:00 to 11:30:00, it might backup 11:01:00 to 11:31:00.

38. When doing continuous PTZ on the video, and some message popup, the PTZ status won't stop. Please reclick PTZ on the video to stop PTZ command.

39. When export ASF files, and the video is not continuous, the audio will not sync with the video. Please export continuous video when needing to export in ASF.

40. [Camera issue] (VIVOTEK IP7135): VIVOTEK IP7135 camera watermark status is not stable, so sometimes it will close/ open automatically. If the status is closed, and then switch client to fisheye mode, it can't switch properly. Please open watermark if you encounter this issue.

41. [Camera issue] (VIVOTEK IP7135): If camera resolution over 640x480, the performance will be lower with resolution increase. (Camera SDK limitation.)

42. When the resolution is high, please export video as original avi or play with VLC. If exporting mpeg4 and H264 video to MOV files, sometimes the image will be broken.

43. If camera resolution is high, please play MOV video with VLC on MAC or Windows syatem, or please export as original AVI files. (VLC tested version: v2.0.1)

44. When use Fisheye or Immervision mode, please only view/ playback one channel or use original mode. If use more than one camera, the camera frame rate will be low down and audio can't play smoothly. (Camera vendor SDK issue. The SDK only enable client handling one channel Fisheye/ Immervision mode.)

45. For E-Map picture, please not use too big resolution, or it can't be shown on View.

46. When save video to msAVI, please not save more than 4GB every file.

47. The OffLineTool only support English.

Release Version 1.3.4 (2012/7/19)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.3.4_0134_1908_20120719.bin
	NT-8040R/NT-8040RP	NT-8040R_1.3.4_0134_1911_20120719.bin
	Device pack	Titan device pack v2.3
Application (Windows)	NUUO NuClient	Titan_NVR_1.3.4_AP_Windows.zip
Application (Mac)	NUUO NuClient	Titan_NVR_1.3.4_AP_MacOSX.zip

New features:

[New Titan hardware support]

1. New Titan hardware series:
   - NT-8040R: 8 bay internal storage, Intel Core i5 CPU model
   - NT-8040RP: 8 bay internal storage, Intel Core i5 CPU model, with redundant power

Bug fixed:

[Titan Server]

1. When record on event and bitrate range is big, it might cause record stop.
2. After user who has "power user" privilege adding license, they can't view the newly added license.
3. Video record over 50 days can't playback properly.

[Titan Client]

1. Go to preset, and then PTZ, choose the same preset point won't move.
2. After setup the stream profile on LiveView, then goes to Playback and changed the view grid, and then back to Live View, all stream profile will back to Original.

Known issue:

[Titan Server]

1. [Camera issue] CNB-ISMC1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)
2. [Camera issue] VIVOTEK IP7135: Please lower camera GOP (group of picture) or close audio when camera GOP so big result to client define it as disconnect.
3. Please use English or Thai OS when use Thai client.
4. If downgrade FW from v1.3 to v1.2, then adds VIVOTEK fisheye camera: IP7135, and then upgrade, the camera status will be "Immervision", not VIVOTEK fisheye. To avoid this issue, please load to default when downgrade to v1.2.2.

5. [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

[Titan Client]

1. When doing continuous PTZ on the video, and some message popup, the PTZ status won't stop. Please reclick PTZ on the video to stop PTZ command.

2. When export ASF files, and the video is not continuous, the audio will not sync with the video. Please export continuous video when needing to export in ASF.

3. [Camera issue] (VIVOTEK IP7135): VIVOTEK IP7135 camera watermark status is not stable, sometimes it will close/ open automatically. If the status is closed, and then switch client to fisheye mode, it can't switch properly. Please open watermark if you encounter this issue.

4. [Camera issue] (VIVOTEK IP7135): If camera resolution over 640x480, the performance will be lower with resolution increase. (Camera SDK limitation.)

5. When the resolution is high, please export video as original avi or play with VLC. If exporting mpeg4 and H264 video to MOV files, sometimes the image will be broken.

6. If camera resolution is high, please play MOV video with VLC on MAC or Windows syatem, or please export as original AVI files. (VLC tested version: v2.0.1)

7. When use Fisheye or Immervision mode, please only view/ playback one channel or use original mode. If use more than one camera, the camera frame rate will be low down and audio can't play smoothly. (Camera vendor SDK issue. The SDK only enable client handling one channel Fisheye/ Immervision mode.)

8. For E-Map picture, please not use too big resolution, or it can't be shown on View.

9. When save video to msAVI, please not save more than 4GB every file.

10. The OffLineTool only support English.

Release Version 1.3.3 (2012/6/11)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.3.3.0128_1406_20120611.bin
	NT-8040R/NT-8040RP	NT-8040R_1.3.3_0128_1410_20120611.bin
	Device pack	V2.1
Application (Windows)	NUUO NuClient	Titan_NVR_1.3.3_AP_Windows.zip
Application (Mac)	NUUO NuClient	Titan_NVR_1.3.3_AP_MacOSX.zip

Bug fixed:

[Titan Server]

1. [FAE] Titan will automatically reboot sometimes under certain situation.

2. [FAE] When reboot Titan, the system will repair DB.

3. [FAE] Arecont_2036: If camera parameter is too big, the video can't be playback and export.

4. [FAE] If user add VIVOTEK fisheye camera on v1.2, and then upgrade to v1.3, the camera status will show "Immervision" and the status is disable.

5. When user install wizard log in a brand new Titan server (no IP address), the system will popup time out message.

6. WAN backup might fail issue.

[Titan Client]

1. [FAE] On main-sub server structure, sometimes the sub server will disconnect.

2. [FAE] Continuous PTZ on video can't work.

3. [FAE] Arecont 5125IR: When setting H.264 and Half Resolution, the LiveView video will not play smoothly.

4. If camera GOP (group of picture) is too big, the video can't play smoothly.

5. When play recording for a long time, the time line won't update.

6. When digital zoom in/ out, the video OSD will disorder.

7. Daylight saving default value enhancement.

Known issue:

[Titan Server]

1. [Camera issue] CNB-ISMC1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)

2. [Camera issue] VIVOTEK IP7135: Please lower camera GOP (group of picture) or close audio when camera GOP so big result to client define it as disconnect.

3. Please use English or Thai OS when use Thai client.

4. If downgrade FW from v1.3 to v1.2, then adds VIVOTEK fisheye camera: IP7135, and then upgrade, the camera status will be "Immervision", not VIVOTEK fisheye. To avoid this issue, please load to default when downgrade to v1.2.2.

5. [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

[Titan Client]

1. When doing continuous PTZ on the video, and message interruptly popup, the PTZ status won't stop. Please reclick PTZ on the video to stop PTZ command.

2. When export ASF files, and the video is not continuous, the audio will not sync with the video. Please export continuous video when needing to export in ASF.

3. After setup the stream profile on LiveView, then goes to Playback and changed the view grid, and then back to Live View, all stream profile will back to Original.

4. [Camera issue] (VIVOTEK IP7135): VIVOTEK IP7135 camera watermark status is not stable, sometimes it will close/ open automatically. If the status is closed, and then switch client to fisheye mode, it can't switch properly. Please open watermark if you encounter this issue.

5. [Camera issue] (VIVOTEK IP7135): If camera resolution over 640x480, the performance will be lower with resolution increase. (Camera SDK limitation.)

6. When the resolution is high, please export video as original avi or play with VLC. If exporting mpeg4 and H264 video to MOV files, sometimes the image will be broken.

7. If camera resolution is high, please play MOV video with VLC on MAC or Windows syatem, or please export as original AVI files. (VLC tested version: v2.0.1)

8. When use Fisheye or Immervision mode, please only view/ playback one channel or use original mode. If use more than one camera, the camera frame rate will be low down and audio can't play smoothly. (Camera vendor SDK issue. The SDK only enable client handling one channel Fisheye/ Immervision mode.)

9. For E-Map picture, please not use too big resolution, or it can't be shown on View.

10. When save video to msAVI, please not save more than 4GB every file.

11. The OffLineTool only support English.

Release Version 1.3.0 (2012/5/8)

Modules

Item		Version
FW	NT-4040/NT-4040R	NT-4040_1.3.0_0117
	NT-8040R/NT-8040RP	NT-8040R_1.3.0_0117
	Camera Package	2.0.0
Application (Windows)	NUUO NuClient	1.3.0.10
Application (Mac)	NUUO NuClient	1.3.0.10

New features:

[New Titan hardware support] *(Coming soon!)*

   3. New Titan hardware series:

     - NT-8040R: 8 bay internal storage, Intel Core i5 CPU model

     - NT-8040RP: 8 bay internal storage, Intel Core i5 CPU model, with redundant power

[Titan Server]

   1. Support isolated device pack 2.0 and above version.*

   2. Daylight saving time enhancement.

   3. Support license transfer.

   4. Local display channel enhancement

     - NT-4040/NT-4040R: Totally up to 64CH with 4CH tour**

     - NT-8040R/NT-8040RP: Totally up to 64CH with 16CH tour**

* For camera support list, please refer to device pack release note.

** For local display performance detail, please refer to NUUO performance report.

[Titan Client]

   1. Support VIVOTEK fisheye mode: (Set on Titan server)

     - Original

     - Rectilinear

     - Full-view panorama

     - Dual-view panorama (Only available on Ceiling and Ground)

   2. Motion search enhancement

   3. Server busy handling enhancement

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[Others]

1. New language support: Slovenian, Thai, Turkish

   - Language support list: (21 languages)

     Chinese (Simplified), Chinese (Traditional), Czech, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese (Brazil), Russian, Serbian, Spanish, Swedish, Slovenian, Thai, Turkish

2. New external storage model support:

   - DAS: Proware EP-D501-C3A

   - iSCSI: HP MSA2000 G2

Enhancement:

1. Enhance the record icon status to identify status easier.
2. License mechanism and message enhancement.

Bug fixed:

[Titan Server]

7. [Camera issue] (Arecont): When adding Arecont camera on 6th channel or above, it can't adjust parameter.

8. [Camera issue] (Panasonic_WV-SC385): It not supports continuous Pan/Tilt.

9. [Camera issue] (Vivotek_IP7361): If set more than 2 motion detection zone on camera web, motion detection can't be triggered.

[Titan Client]

8. [Camera issue] (Grandstream GXV3601): Fix the issue that audio codec G.726 is not support.

9. [Camera issue] (CNB IDC4050VR): Fix the issue that video not play smoothly.

10. Fix the issue that playback might not show timeline casually.

11. If camera has high bit rate, the liveview video can't be played smoothly.

12. Webclient export MOV files incorrectly.

13. If naming blank name for camera, this camera can't show on the grid.

    Fixed: Now the camera name will be the IP address of the camera if not naming it, and it can be show on the grid.

14. The motion search zone will sometimes delay after drawing on the video.

15. If computer haven't install IE but install Firefox client directly, it can't switch multiple languages.

Known issue:

[Titan Server]

6. [Camera issue] (CNB-ISMC1063N): Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)

7. [Camera issue] (VIVOTEK IP7135): Please lower camera GOP or close audio when camera GOP so big result to client define it as disconnect.

8. Please use English or Thai OS when use Thai client.

[Titan Client]

12. [Camera issue] (VIVOTEK IP7135): VIVOTEK IP7135 camera watermark status is not stable, sometimes it will close/ open automatically. If the status is closed, and then switch client to fisheye mode, it can't switch properly. Please open watermark if you encounter this issue.

13. [Camera issue] (VIVOTEK IP7135): If camera resolution over 640x480, the performance will be lower with resolution increase. (Camera SDK limitation.)

14. When the resolution is high, please export video as original avi or play with VLC. If exporting mpeg4 and H264 video to MOV files, sometimes the image will be broken.

15. If camera resolution is high, please play MOV video with VLC on MAC or Windows syatem, or please export as original AVI files. (VLC tested version: v2.0.1)

16. When use Fisheye or Immervision mode, please only view/ playback one channel or use original mode. If use more than one camera, the camera frame rate will be low down and audio can't play smoothly. (Camera vendor SDK issue. The SDK only enable client handling one channel Fisheye/ Immervision mode.)

17. For E-Map picture, please not use too big resolution, or it can't be shown on View.

18. When save video to msAVI, please not save more than 4GB every file.

19. OffLineTool only support English.

Release Version 1.2.2 (2012/3/27)

Modules

Item		Version
FW	NVR	1.02.02_0104.0104
	Camera Package	1.02.02_0104.0104
Application (Windows)	NUUO NuClient	1.2.2
Application (Mac)	NUUO NuClient	1.2.2

Bug Fixed

[Titan Server]

1. Fix (DigtalWatchDog-MPA20M) do not use MJPEG(1920*1080,1440*1080)

2. Fix (Santec_SNC4302)not support Audio codec(G.726)

3. Fix (Samsung_SNP3301)not support Audio

4. Fix (Arecont)do not suggest add after Ch6,and select Protocal(UDP) parameter

5. Fix (Santec_SNC-4302)not support Quality select between H.264 and MJEPG

6. Fix (Sony_SNC-EP520)do not support MJPEG(720*480)

7. Fix (Zavio_F7210) do not support Audio

8. Fix (GrandStream) do not support Audio codec(G.726)

[Titan Client]

1. Fix (Axis Q6034) slow PTZ response issue

2. Fix "Sub servers are in arbitrary order on Device List, and the top sub server on the list cannot be connected."

Release Version 1.2.1 (2012/3/12)

Modules

Item		Version
FW	NVR	01.02.0096.0096
	Camera Package	01.02.0096.0096

New Camera Supported

1. ACTi: KCM5111, KCM5211, KCM5211E, KCM5311, KCM5311E, KCM7111, KCM7211
2. Arecont: AV1115, AV1125, AV2115, AV2125, AV3115, AV3125, AV5115, AV5125, AV10115, AV20185DN, AV20365DN
3. Axis: 231D+, 232D+
4. **CORUM**: CS-190-IO / CS-190-IP / CS-190-IW, CS-265-IO / CS-265-IP / CS-265-IW, CS-285-IP

/ CS-285-IW, CS-325-IO / CS-325-IP, CS-385-IO / CS-385-IP / CS-390-IO / CS-390-IP, CS-410-IP / CS-410-IW / CS-415-IP / CS-415-IW

5. **Digital Watch Dog**: MPA20M
6. **Grandstream**: GXV-3501, GXV-3504, GXV-3601, GXV-3601HD, GXV-3601LL, GXV-3611HD, GXV-3611LL, GXV-3615, GXV-3651FHD, GXV-3662HD
7. LevelOne: FCS-3031
8. Panasonic: WV-SC384, WV-SF132, WV-SF135, WV-SF342, WV-SF346, WV-SW152/M, WV-SW155/M, WV-SW352, WV-SW355
9. **Probe**: PMI-H2000
10. Samsung: SNB-7000, SND-7080, SNP-3301, SNP-3370, SNV-3120, SNV-5010, SNV-7080, SNV-7080R, SNZ-5200
11. SANTEC: SNC-3302, SNC-3342, SNC-4302, SNC-5312IR, SNC-6302, SNC-6312IRH, SNC-6332, SVS-3001
12. Sony: SNC-DH110T/B, SNC-DH110T/W, SNC-DH220, SNC-DH220T, SNC-EP520, SNC-EP521, SNC-EP550, SNC-EP580, SNC-ER520, SNC-ER521, SNC-ER550, SNC-ER580
13. **Vista**: VK2-1080VRD, VK2-2MPVRD, VK2-540VRD, VK2-600PTZ[1], VK2-VGAVFD
14. Vivotek: FD8133V, FD8134V, FD8162, FD8361L, FD8362, FD8362E, IP8151P, IP8162, IP8162P, IP8331, MD7530, MD7560X, MD8562, PZ81x1, PZ81x1W, SD8362E, SD83x1E, SD83x2E, SD83x3E, VS8401
15. Zavio: D5110, D5111, F7110, F7115, F7210

Known issue

1. (DigtalWatchDog-MPA20M) do not use MJPEG(1920*1080,1440*1080)

2. (Santec_SNC4302)not support Audio codec(G.726)

3. (Samsung_SNP3301)not support Audio

4. (Arecont)do not suggest add after Ch6,and select Protocal(UDP) parameter

5. (Santec_SNC-4302)not support Quality select between H.264 and MJEPG

6. (Sony_SNC-EP520)do not support MJPEG(720*480)

7. (Zavio_F7210) do not support Audio

8. (GrandStream) do not support Audio codec(G.726)

Appendix

Stream profile (updated)
- Original
- Low: under 300kbps; designed for mobile client single-view
- Minimum: under 100 kbps; designed for mobile client multi-view

Brand/Series	Cameras	Low Profile		Minimum Profile	
		Resolution	Framerate	Resolution	Framerate
ACTi		CIF	3~6	CIF	1~2
Arecont		half	3	half	1
Axis		CIF	5	QCIF	5
Brickcom		CIF	10	CIF	4
CNB	IGx10xx, ixP40xx ixP4000xx	CIF~SXGA	0.1~10	CIF~SXGA	0.1~10
CNB	INS2000/IBxxxx/Xpeed IP	QVGA~D1	0.1~10	QVGA~D1	0.1~10
CNB	IGx2050F, IDC4050xx,	QVGA~D1	0.1~10	QVGA~D1	0.1~10

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[1] Preset

	IXC8050IR, IVC5050xx,IVP5055xx, IDP5055xx,IXP3055VR				
CORUM		CIF	1~3	CIF	0.1~1.5
Dahua (Others)		CIF	5	CIF	2
Dahua	HF3211P	D1~1080p	0.1~10	D1~1080p	0.1~10
Digital Watch Dog		CIF~1080p	0.1~10	CIF~1080p	0.1~10
Dynacolor		QCIF~Full HD	0.1~10	QCIF~Full HD	0.1~10
Eneo	GLS-1701/IR	QCIF~Full D1	0.1~10	QCIF~Full D1	0.1~10
Eneo	GLS-2104	QCIF~Half D1	0.1~10	QCIF~Half D1	0.1~10
Eneo	GLS-2301H	CIF~Full D1	0.1~10	CIF~Full D1	0.1~10
Eneo	NLC-1401, NLD-1401, NLS-1401	CIF	5	CIF	2
Eneo	NXC-1301M, NXC-1302M, NXC-1401M, NXC-1402M, NXD-1301M, NXD-1302M, NXD-1401M, NXD-1402M	CIF	15	CIF	5
EverFocus (ONVIF)	EQN2200, EQN220	QCIF~UXGA	0.1~6	QCIF~UXGA	0.1~6
EverFocus (Others)		QVGA	5	QVGA	1.5
Fine		CIF	1~3	CIF	0.1~1.5
Forenix		CIF	1~3	CIF	0.1~0.5
Grandstream (D1/PAL/Video server)	GXV-3501, GXV-3504, GXV-3601, GXV-3601LL, GXV-3611LL, GXV-3615,	176x112~352x288	0.1~5	176x112~352x288	0.1~5
Grandstream (SXGA)	GXV-3662HD	320x240	0.1~10	320x240	0.1~10
Grandstream (UXGA)	GXV-3601HD, GXV-3611HD	320x240	0.1~5	320x240	0.1~5
Grandstream (5 megapixel)	GXV-3651FHD	320x240	0.1~10	320x240	0.1~10
Grundig		QCIF~FullHD	0.1~10	QCIF~FullHD	0.1~10
Honeywell		640x368	15	640x368	5
LevelOne B1	WCS-0030, FCS-0030, FCS-0031, FCS-1121, FCS-5041, FCS-6010	CIF	10	CIF	4
LevelOne B2	FCS-3061	QCIF~FullHD	0.1~10	QCIF~FullHD	0.1~10
LevelOne D	FCS-1131, FCS-1141, FCS-3071, FCS-3081, FCS-4041, FCS-5051, FCS-5061	QCIF~FullHD	0.1~10	QCIF~FullHD	0.1~10
LevelOne S	FCS-0040, WCS-0040	CIF	10	CIF	3
LevelOne V	FCS-1151	CIF	3	QCIF	3
Mobotix		CIF	3	QCIF	2
NetworkCamera		CIF	10	CIF	4
Panasonic BB/BL		CIF	4	QCIF	2
Panasonic i-pro 3 megapixel		VGA	1	VGA	0.5
Panasonic i-pro others		CIF	2	CIF	1
Pelco		CIF~D1	0.1~10	CIF~D1	0.1~10
Probe		QCIF~720p	0.1~10	QCIF~720p	0.1~10
Samsung	SNB-1000, SNB-5000,	CIF	6	CIF	2

	SND-1010, SND-5080/F, SNO-5080R, SNP-3120/V/VH, SNP-3430H, SNP-5200, SNP-5200H, SNV-5080, SNV-5080R, SPE-100				
Samsung	SNP-3301, SNP-3370	CIF	0.1~10	CIF	0.1~10
Samsung	SNV-3120, SNB-7000, SND-7080, SNV-5010, SNZ-5200	QCIF~FullHD	0.1~10	QCIF~FullHD	0.1~10
Samsung	SNV-7080, SNV-7080R	CIF~SXGA	0.1~10	CIF~SXGA	0.1~10
SANTEC (D1)		VGA	1~3	VGA	0.3~0.8
SANTEC (1.3 Mega)		VGA~D1	1~3	VGA~D1	0.3~0.8
SANTEC (3 Mega)		VGA~3M	1~3	VGA~3M	0.3~0.8
SANTEC (video server)		VGA~D1	1~3	VGA~D1	0.3~0.8
Sanyo HD1, HD3, HD4	HD1: VCC-HD2500, VDC-HD3500 HD3: VCC-HD5400, VCC-HD5600 HD4: VCC-HD4600	CIF~VGA	3	CIF~VGA	1
Sanyo HD2	HD2: VCC-HD2100, VCC-HD2300, VDC-HD3100, VDC-HD3300	CIF~4 Mega	0.1~3	CIF~4 Mega	0.1~3
Sony		QCIF~Full HD	0.1~10	QCIF~Full HD	0.1~10
StarDot		CIF	3	CIF	1
Sunell		D1~QCIF	0.1~10	D1~QCIF	0.1~10
TRUEN		CIF~Full D1	0.1~10	CIF~Full D1	0.1~10
UDP		QVGA~VGA	0.1~10	QVAG~VGA	0.1~10
Videosec	IBF-211, IDA-210, IP-206M, IS-240	QVGA	5	QQVGA	5
Videosec	ICS-13, ICS-20F, ID-20	CIF~Full HD	0.1 ~ 10	CIF~Full HD	0.1 ~ 10
Vista Model C	VK2-1080VRD, VK2-2MPVRD	QVGA~4CIF	5~15	QVGA~4CIF	2~15
Vista Model A	VK2-540VRD, VK2-600PTZ, VK2-VGAVFD	CIF	5	CIF	2
Vivotek 7000v2/8000 (General)		CIF	5	CIF	2
Vivotek 7000v2/8000 (2 Mega)		CIF	3	QCIF	3
Vivotek 8000 (VS series)		QCIF~D1	0.1~10	QCIF~D1	0.1~10
Vivotek 8000	IP8330, IP8332, IP8352	CIF	3	CIF	1
Vivotek 8000	IP8362	CIF	5	CIF	3
Vivotek	FD8162, FD8362, FD8362E, IP8162, MD8562	CIF	8	QCIF	6
Vivotek	SD8362E	CIF	6	QCIF	6
Vivotek	IP8331, MD7530, MD7560X, PZ81x1, PZ81x1W, SD8313E, SD8312E, SD8311E	CIF	3	QCIF	3
Zavio		CIF	5	QCIF	3
Zavio (Mega)		CIF	7	CIF	2
Zavio (2 Mega)	F7210	640x480	4	640x480	1.3

New Camera Support

ACTi

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Camera Search Tool	Remarks
KCM5111	A1D-311-V5.04.07-AC	H.264 MPEG4 M-JPEG	1	2032x1920	1-way	2/2	-	Yes	-	Yes	
Note:	On-edge motion: H.264 and MPEG4.										
KCM5211	A1D-311-V5.04.07-AC	H.264 MPEG4 M-JPEG	1	2032x1920	1-way	2/2	Yes	Yes	-	Yes	
Note:	On-edge motion: H.264 and MPEG4.										
KCM5211E	Refer to KCM5211E	H.264 MPEG4 M-JPEG	1	2032x1920	1-way	2/2	Yes	Yes	-	Yes	Supported by design
Note:	On-edge motion: H.264 and MPEG4.										
KCM5311	A1D-311-V5.04.07-AC	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	2/2	Yes	Yes	-	Yes	
Note:	On-edge motion: H.264 and MPEG4.										
KCM5311E	Refer to KCM5311E	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	2/2	Yes	Yes	-	Yes	Supported by design
Note:	On-edge motion: H.264 and MPEG4.										
KCM7111	A1D-311-V5.04.07-AC	H.264 MPEG4 M-JPEG	1	2032x1920	1-way	2/2	-	Yes	-	Yes	
Note:	On-edge motion: H.264 and MPEG4.										
KCM7211	A1D-311-V5.04.07-AC	H.264 MPEG4 M-JPEG	1	2032x1920	1-way	2/2	Yes	Yes	-	Yes	
Note:	On-edge motion: H.264 and MPEG4.										

Arecont

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Camera Search Tool	Remarks
AV1115	65201	H.264 M-JPEG	1	1280x1024	-	1/1	-	Yes	-	Yes	

AV1125	Refer to AV1115	H.264 M-JPEG	1	1280x1024	-	1/1	-	Yes	-	Yes	Supported by design
AV2115	Refer to AV2125	H.264 M-JPEG	1	1920x1056	-	1/1	-	Yes	-	Yes	Supported by design
AV2125	65201	H.264 M-JPEG	1	1920x1056	-	1/1	-	Yes	-	Yes	
AV3115	65201	H.264 M-JPEG	1	2048x1536	-	1/1	-	Yes	-	Yes	
AV3125	Refer to AV3115	H.264 M-JPEG	1	2048x1536	-	1/1	-	Yes	-	Yes	Supported by design
AV5115	65201	H.264 M-JPEG	1	2560x1600	-	1/1	-	Yes	-	Yes	
AV5125	65201	H.264 M-JPEG	1	2560x1600	-	1/1	-	Yes	-	Yes	
AV10115	65201	H.264 M-JPEG	1	3648x2752	-	1/1	-	Yes	-	Yes	
AV20185DN	65170	H.264 M-JPEG	4	2560x1920	-	1/1	-	Yes	-	Yes	
AV20365DN	Refer to AV20185DN	H.264 M-JPEG	4	2560x1920	-	1/1	-	Yes	-	Yes	Supported by design
Note:	On-edge motion: turn off the "enable extended on motion detection" function on camera web.
Note:	For multiple-channel models, such as AV8180 and AV20185DN, there might be some issues if configuring different protocols on each channel. (i.e. the resolution we receive is half of the original)

AXIS

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
231D+		MPEG4 M-JPEG	1	704x576	-	4/4	Yes	Yes	Yes	Supported by design
232D+		MPEG4 M-JPEG	1	704x576	-	4/4	Yes	Yes	Yes	Supported by design

CORUM

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
CS-190-IO / CS-190-IP / CS-190-IW		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design
CS-265-IO / CS-265-IP / CS-265-IW		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design

CS-285-IP / CS-285-IW		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design
CS-325-IO / CS-325-IP		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design
CS-385-IO / CS-385-IP / CS-390-IO / CS-390-IP		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design
CS-410-IP / CS-410-IW / CS-415-IP / CS-415-IW		H.264 M-JPEG	1	1280x1024	1-way	-	-	Yes	-	Supported by design

Digital Watch Dog

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	ONVIF Search	Remarks
MPA20M	1.0.0.0	H.264 MPEG4 M-JPEG	1	1920x1080	-	-	-	-	-	Yes	
Note:	Implement with ONVIF protocol v1.02.										
Note:	Due to the limitation of ONVIF protocol, ONVIF search works only as cameras keep default administrator name and password.										
Note:	There are two port settings on camera web, web port and service port. When NVR and camera are located in the same network, you can use this web port as configuring port on NVR. While if NVR and camera are located in different network, you must choose service port. For the latter, "go to web" function on NVR setting page might direct to the wrong url.										

Grandstream

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
GXV-3501	0.0.4.25	H264 M-JPEG	1	704x480	1-way	1/1	Yes	Yes	-	
GXV-3504	0.0.4.25	H264 M-JPEG	4	704x480	1-way	4/4	Yes	Yes	-	
GXV-3601	0.0.4.25	H264 M-JPEG	1	704x480	1-way	1/1	Yes	Yes	-	
GXV-3601HD	0.0.4.25	H264 M-JPEG	1	1600x1200	1-way	1/1	Yes	Yes	-	
GXV-3601LL	0.0.4.25	H264 M-JPEG	1	720x576	1-way	1/1	Yes	Yes	-	
Note:	Video cannot be connected under the following settings: H.264 codec, 320x240, fps=1 and bit rate >= 1024. This might be camera FW issue.									
GXV-3611HD	0.0.4.25	H264 M-JPEG	1	1600x1200	1-way	1/1	Yes	Yes	-	

GXV-3611LL	1.0.4.31	H264 M-JPEG	1	720x576	1-way	1/1	Yes	Yes	-	
Note:	Video cannot be connected under the following settings: H.264 codec, 320x240, fps=1 and bit rate >= 1024. This might be camera FW issue.									
GXV-3615	0.0.4.25	H264 M-JPEG	1	720x576	1-way	-	Yes	Yes	-	
Note:	Video cannot be connected under the following settings: H.264 codec, 320x240, fps=1 and bit rate >= 1024. This might be camera FW issue.									
GXV-3651FHD	0.0.1.51	H264 M-JPEG	1	2560x1920	1-way	1/1	Yes	Yes	-	
Note:	Not support 5 megapixel with M-JPEG codec currently.									
Note:	Video cannot be connected under the following settings: H.264 codec, 2560x1920, fps < 5. This might be camera FW issue.									
Note:	Video disconnects easily under the following settings: H.264 codec, megapixel, fps >= 2, highest bit rate with dim light. This might be camera FW issue.									
GXV-3662HD	0.0.1.50	H264 M-JPEG	1	1280x960	1-way	1/1	-	Yes	-	
Note:	All cameras: audio noise on G.726 codec.									
Note:	All cameras: audio is not playing smoothly as users watch live videos on both NVR side and camera side, which might be camera FW bug or performance consideration.									

LevelOne

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
FCS-3031	V1.0.04	MPEG4 M-JPEG	1	640x480	1-way	1/1	-	-	Yes	
Note:	The frame rate is 15 even configuring frame rate 1 under 320x240 and 160x120 resolution, which belongs to camera issue. Not support on-edge motion currently due to camera issue.									

Panasonic

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
WV-SC384	Refer to WV-SC385	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	Yes	Yes	-	Supported by design
WV-SF132	Refer to WV-SW155/M	H.264 M-JPEG	1	1280x960	1-way	-	-	Yes	-	Supported by design
WV-SF135	Refer to WV-SW155/M	H.264 M-JPEG	1	1280x960	1-way	-	-	Yes	-	Supported by design

WV-SF342	Refer to WV-SF332	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	Yes	Yes	-	Supported by design
WV-SF346	Refer to WV-SF336	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	Yes	Yes	-	Supported by design
WV-SW152/M	Refer to WV-SW155/M	H.264 M-JPEG	1	1280x960	1-way	-	-	Yes	-	Supported by design
WV-SW155/M	1.03	H.264 M-JPEG	1	1280x960	1-way	-	-	Yes	-	
WV-SW352	Refer to WV-SW352	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	-	Yes	-	Supported by design
WV-SW355	1.41	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	-	Yes	-	

Probe

PROBE

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	ONVIF Search	Remarks
PMI-H2000	v1.0.0_2012 0106	H264 M-JPEG	1	1920x1080 (1080i)	1-way	-	Yes	-	Yes	Yes	

Note:	Implement with ONVIF protocol v1.02.
Note:	Due to the limitation of ONVIF protocol, ONVIF search works only as cameras keep default administrator name and password.
Note:	Due to camera FW issue, users have to go to camera web for configuring resolution to 1080i. Currently, users might get error message on NVR side.

Samsung

SAMSUNG ELECTRONICS

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
SNB-7000	Refer to SNB-7080	H.264 M-JPEG	1	2048x1536	1-way	1/1	-	Yes	-	Supported by design
SND-7080	v1.10_110819	H.264 M-JPEG	1	2048x1536	1-way	1/1	-	Yes	-	
SNP-3301	v1.21_110310	H.264 MPEG4 M-JPEG	1	704x480	1-way	4/2	Yes	Yes	-	
SNP-3370	v1.21_110310	H.264 MPEG4 M-JPEG	1	704x480	1-way	4/2	Yes	Yes	-	
Note:	SNP-3301/SNP-3370: not support QCIF resolution with H.264 through TCP.									
SNV-3120	v1.24_110816	H.264 MPEG4 M-JPEG	1	704x480	1-way	1/1	Yes	-	-	

Note:	PTZ: support zoom and focus.									
SNV-5010	v2.00_110727	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	-	-	Yes	-	
Note:	The frame rate of main stream decrease to the half if watching dual stream video. Camera vendor fix this issue in FW 2.10_111227.									
SNV-7080	Refer to SND-7080	H.264 M-JPEG	1	2048x1536	1-way	1/1	-	Yes	-	Supported by design
SNV-7080R	Refer to SND-7080	H.264 M-JPEG	1	2048x1536	1-way	1/1	-	Yes	-	Supported by design
SNZ-5200	v1.05_111216	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	Yes	Yes	-	

SANTEC

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
SNC-3302	Refer to SNC-4302	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
SNC-3342		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
SNC-4302	1.0.0.9	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
SNC-5312IR	Refer to SNC-4302	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
SNC-6302	Refer to SNC-4302	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
SNC-6312IRH	Refer to SNC-4302	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
SNC-6332		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
SVS-3001		H.264 M-JPEG	1	720x480	1-way	1/1	Yes	Yes	Yes	Supported by design

Sony

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Camera Search Tool	Remarks
SNC-DH110T /B / SNC-DH110T /W	Refer to SNC-DH110	H.264 MPEG4 M-JPEG	1	1280x960	-	-	-	Yes	-	Yes	Supported by design
SNC-DH220	1.50.00	H.264 MPEG4 M-JPEG	1	1920x1440	1-way	1/1	Yes	Yes	-	Yes	

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
SNC-DH220T	Refer to SNC-DH220	H.264 MPEG4 M-JPEG	1	1920x1440	1-way	1/1	Yes	Yes	-	Yes	Supported by design
SNC-EP520	1.40.00	H.264 MPEG4 M-JPEG	1	720x480	1-way	2/1	Yes	Yes	-	Yes	
SNC-EP521	1.42.00	H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	-	Yes	
SNC-EP550	Refer to SNC-ER550	H.264 MPEG4 M-JPEG	1	1280x720	1-way	2/1	Yes	Yes	-	Yes	Supported by design
SNC-EP580	1.42.00	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	2/1	Yes	Yes	-	Yes	
Note:	For performance consideration, users are unable to watch live videos on both NVR side and camera side.									
SNC-ER520	1.42.00	H.264 MPEG4 M-JPEG	1	720x480	1-way	2/1	Yes	Yes	-	Yes	
SNC-ER521	1.42.00	H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	-	Yes	
SNC-ER550	1.40.00	H.264 MPEG4 M-JPEG	1	1280x720	1-way	2/1	Yes	Yes	-	Yes	
SNC-ER580	1.51.00	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	2/1	Yes	Yes	-	Yes	
Note:	For performance consideration, users are unable to watch live videos on both NVR side and camera side.									

Vista

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
VK2-1080VRD	2.2.64	H.264 M-JPEG	1	1920x1080	1-way	2/0	-	Yes	Yes	
VK2-2MPVRD	2.2.64	H.264 M-JPEG	1	1600x1200	1-way	2/0	-	Yes	Yes	
Note:	VK2-1080VRD/VK2-2MPVRD: on-edge motion of video with M-JPEG codec works only as stream 1 is enabled on camera web.									
Note:	VK2-1080VRD/VK2-2MPVRD: camera may be disconnected if users configure format as H.264 on one NVR and configure format M-JPEG on another.									
VK2-540VRD	2.1.8-release	H.264 MPEG4	1	704x576	1-way	1/0	-	Yes	Yes	
VK2-600PTZ	2.1.8-release	H.264 MPEG4	1	704x576	1-way	1/0	Yes	Yes	Yes	
Note:	The operation of setting preset point is special because setting password is a must. We suggest users finish preset point settings on camera web.									
VK2-VGAVFD	1.7.4-T2_release	H.264 MPEG4	1	640x480	-	1/0	-	Yes	Yes	

Note:	All cameras: modifying parameter frequently may lead to camera shutdown due to slow CGI response.
Note:	All cameras: the port value we get is always 80 via UPnP search, which implies the cameras would be disconnected if users change HTTP port to another number on camera web.

Vivotek

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
FD8133V	Refer to FD8134	H.264 MPEG4 M-JPEG	1	1280x800	-	1/0	-	Yes	Yes	Supported by design
FD8134V	Refer to FD8134	H.264 MPEG4 M-JPEG	1	1280x800	-	1/0	-	Yes	Yes	Supported by design
FD8162	Refer to FD8362	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	Yes	Yes	Yes	Supported by design
FD8361L	Refer to FD8361	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
FD8362	0100f	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	Yes	Yes	Yes	
FD8362E	Refer to FD8362	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	Yes	Yes	Yes	Supported by design
IP8151P	Refer to IP8151	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	Yes	Yes	Yes	Supported by design
IP8162	0100f	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
Note:	The frame rate of main stream decrease to the half if watching dual stream video, which is the limitation of camera HW.									
IP8162P	Refer to IP8162	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
IP8331	0100c	H.264 MPEG4 M-JPEG	1	640x480	-	1/0	-	Yes	Yes	
MD7530	0100d	MPEG4 M-JPEG	1	640x480	1-way	1/0	-	Yes	Yes	
MD7560X	Refer to MD7560	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/0	-	Yes	Yes	Supported by design
MD8562	0100c	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/0	-	Yes	Yes	
Note:	The frame rate of main stream decrease to the half if watching dual stream video, which is the limitation of camera HW.									
PZ81x1	0100e	H.264 MPEG4 M-JPEG	1	720x480	1-way	3/2	Yes	Yes	Yes	
PZ81x1W	Refer to PZ81x1	H.264 MPEG4 M-JPEG	1	720x480	1-way	3/2	Yes	Yes	Yes	Supported by design

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
SD8362E	0102b	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	3/2	Yes	Yes	Yes	
SD83x1E	Refer to SD83x3	H.264 MPEG4 M-JPEG	1	720x480	1-way	3/2	Yes	Yes	Yes	Supported by design
Note:	SD83x1E and SD83x2E are detected as SD83x3E.									
SD83x2E	Refer to SD83x3	H.264 MPEG4 M-JPEG	1	720x480	1-way	3/2	Yes	Yes	Yes	Supported by design
Note:	SD83x1E and SD83x2E are detected as SD83x3E.									
SD83x3E	0100g	H.264 MPEG4 M-JPEG	1	720x480	1-way	3/2	Yes	Yes	Yes	
VS8401	Refer to VS8801	H.264 MPEG4 M-JPEG	4	720x480	1-way	4/4	Yes	Yes	-	Supported by design

Zavio

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
D5110	Refer to D5111	H.264 MPEG4 M-JPEG	1	1280x1024	-	2/2	Yes	Yes	Yes	Supported by design
D5111	MG.1.6.03P7_app7	H.264 MPEG4 M-JPEG	1	1280x1024	-	2/2	Yes	Yes	Yes	
F7110	MG.1.6.03P3_r1072	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	2/2	Yes	Yes	Yes	
F7115	Refer to F7110	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	2/2	Yes	Yes	Yes	Supported by design
F7210	M2.1.5.08	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	2/2	Yes	Yes	Yes	

Release Version 1.2.0 (2012/2/3)

Modules

Item		Version
FW	NVR	01.02.0000.0090
	Camera Package	01.02.0000.0090
Application (Windows)	NUUO Install Wizard	1.0.0.22
	NUUO NuClient	1.2.0.19
	NUUO Backup Player	1.2.0.19
	NUUO Offline License Tool	1.0.1.37
	NUUO Verification Tool	1.2.0.19
Application (Mac)	NUUO Install Wizard	1.0.0.23
	NUUO NuClient	1.2.0.19
	NUUO Backup Player	1.2.0.19
	NUUO Offline License Tool	N/A
	NUUO Verification Tool	1.2.0.19
Document	Titan Server User Manual	1.2.0
	NuClient User Manual	1.2.0
	Titan Quick Start Guide	1.1.0

New Feature

[Titan Server]
1. Support recording to Storage Area Networks(iSCSI)

[Titan Client]
1. Play video from event list in Liveview/Playback—popup or assign video to empty/first grid
2. Popup a Camera Window when double click E-Map camera indicator
3. Snapshot video with Emap and I/O
4. Instant Playback support snapshot, export and sync to Playback
5. Support camera optical continuous PTZ (Depends on camera)
6. Add Server property: Frame rate and Bit rate

[New Codec support]
1. Support export MOV video format on Windows
2. Support AAC audio codec
3. Support MJPEG export on MAC

[Language support]
Chinese (Simplified), Chinese (Traditional), Czech, Dutch, English, Finnish, French, German, Hungarian, Italian, Japanese, Korean, Polish, Portuguese (Brazil), Russian, Serbian, Spanish, Swedish
* The new supported language on v1.2 is marked as red.

Improvement

[Titan Client]
1. When user selects camera item, show I/O status & controls on I/O Dock.
2. Playback frame by frame.
3. Support close video by "trash can".
4. "Open file after export" option for Snapshot.
5. Playback support drag to change cue in/ out time.
6. NuClient health display: download bitrate.

7. Editable cue in/out time in export dialog.

Bug Fixed

[Titan Server]
1. Fixed Axis 210A will disconnect after long time connection.
2. Enhanced Mobotix Q22 can't be connected on MJPEG.
3. Fix Arecont 4CH camera-- AV8180/AV8185/AV8185DN/AV8360/AV8365, can only view one CH.
4. Fixed the issue that the second to forth channel of Fine WB-H814 cannot be connected.
5. Fixed the wrong model name detection issue on Fine WB-H814.[2]
6. DDNS configuration can be updated successfully.
7. Fixed the issue that frame rate and bit rate data on camera status page go wrong as users enable dual stream or start preset point patrol.

[1] We cannot assure the detection result if the camera returns slowly due to poor network connection.

[Titan Client]
1. After switching to Playback window, the configuration changing about content title would be applied.
2. When exporting video, and AP popup re-login dialog, the AP won't auto re-login after click ok.
3. Support Fine 1612 export MOV.
4. Verification tool can verify MOV files. (**Note:** Not support Zavio P5110)

New Camera Supported
16. Brickcom: FD-130Ae, FD-130Ap, VD-130Ae, VD-130Ap
17. LevelOne: FCS-0030, FCS-0031, FCS-0040, FCS-1121, FCS-1131, FCS-1141, FCS-1151, FCS-3061, FCS-3071, FCS-3081, FCS-3091, FCS-4041, FCS-5041, FCS-5051, FCS-6010, WCS-0030, WCS-0040

New Camera Support

Brickcom

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
FD-130Ae	Refer to VD-130Ap	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	
FD-130Ap	Refer to VD-130Ap	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	
VD-130Ae	Refer to VD-130Ap	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	
VD-130Ap		H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	Supported by design

LevelOne

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
FCS-0030	Refer to WCS-0030	H.264 MPEG4 M-JPEG	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
FCS-0031	1.0.0.35	H.264 MPEG4 M-JPEG	1	1280x800	1-way	-	-	Yes	Yes	
Note:	Not support on-edge motion with MJPEG format, which is camera limitation.									
FCS-0040	Refer to WCS-0040	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	-		Yes	Supported by design
Note:	Not support on-edge motion currently due to camera issue.									
FCS-1121	1.0.0.33	H.264 MPEG4 M-JPEG	1	1280x800	1-way	1/1	-	Yes	Yes	
FCS-1131	L20101222NS	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
FCS-1141	L20100623NS	H.264 M-JPEG	1	1280x960	1-way	1/1	-	Yes	Yes	
Note:	UPnP search doesn't work properly sometimes, which happens on camera's own search tool. We are clarifying with vendor.									
FCS-1151	0100c	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	Yes	Yes	Yes	
Note:	UPnP search doesn't work properly sometimes, which happens on camera's own search tool. We are clarifying with vendor.									
FCS-3061	1.0.0.34	H.264 MPEG4 M-JPEG	1	1280x800	1-way	1/1	-	Yes	Yes	
FCS-3071	L20101222NS	H.264 M-JPEG	1	1920x1080	1-way	-	-	Yes	Yes	
FCS-3081	L20101222NS	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
FCS-3091	2.0.0629	MPEG4 M-JPEG	1	1600x1200	1-way	4/1	-	-	Yes	
Note:	Not support on-edge motion & dual stream in this camera FW due to its limitation.									
FCS-4041	LE20111116NSA	H.264 M-JPEG	1	1920x1080	1-way	4/2	Yes	Yes	Yes	
Note:	Not recommend to setting MJPEG Q Factor over 60 on camera web, because the video may be broken due to camera limitation.									
FCS-5041	1.0.0.46	H.264 MPEG4 M-JPEG	1	1280x800	1-way	1/1	-	Yes	Yes	

FCS-5051	L20101222NS	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
FCS-6010	1.0.0.11	H.264 MPEG4 M-JPEG	1	1280x800	1-way	1/0	Yes	Yes	Yes	
Note:	Not support DO in this camera FW. Cannot get video stream through TCP/UDP sometimes, which belongs to camera issue. Camera may reboot itself when changing video format to MPEG4, which belongs to camera issue.									
WCS-0030	1.0.0.35	H.264 MPEG4 M-JPEG	1	1280x800	1-way	-	-	Yes	Yes	
WCS-0040	1.0.0.3	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	-	-	Yes	
Note:	Not support on-edge motion currently due to camera issue.									

Known Issue
[Titan Server]
1. Please lower the GOV setting.
2. VIVOTEK camera IP7130 only supports MJPEG.
3. CNB camera: CNB-ISMC1063N Audio is not clear on G.711 codec.
4. Joystick control UDP camera IPE4100 PTZ will lag.

[Titan Client]
1. The following camera models not support MOV:Sony-SNC_RX530; Zavio 5110; VIVOTEK 7131; LevelOne cameras; Zavio P5110.
2. The screen resolution for IE browser suggest to bigger than 1440 pixel.
3. Please save image fusion to view before editing it.
4. When minimize client, please put back the docking window.
5. When minimize web client to system tray, please turn off the audio.
6. For searching camera connection lost event, the event type need to choose "camera", "all", or event type choose "DI", and assign one camera source.
7. We suggest not use too long period for Playback event search.
8. If there's no video on Panorama Playback time span, it won't shows "no video" because Panorama can't tell if there's no video.
9. We suggest user install web client on IE before you install on Firefox.

Remote Client PC Requirement

Remote Client System Minimum Requirement		
Model	**NT-4040**	**NT-4040R**
OS	Windows XP (32-bit) / Win7 (32 and 64-bit) / Mac OS X v10.6, 10.7	
CPU	Intel Core 2 Duo, 2.6GHz	
RAM	1GB	
LAN Transmission Speed	10/100/1000 Mbps (RJ45)	
WebClient	Internet Explorer 8 and later, Firefox 4.0-9.0 (Windows version)	
Mobile iViewer	iPhone, iPad, Android, BlackBerry	

Release Version 1.1.2 (2011/12/7)

Modules

Item		Version
FW	NVR	01.01.0000.0078
	Camera Package	01.01.0000.0078

New Feature
1. **Dual stream**
   - Dahua
   - Everfocus
   - Forenix
   - Samsung[3]
   - Sunell
   - UDP

Bug Fixed
1. Fixed the issue that motion detection function doesn't work on Sony 3rd and 4th generation cameras[4].
2. Fixed the issue that camera parameter of Panasonic i-pro series cameras "may" be reset to default as camera reconnects after camera disconnected a while and NVR was trying to reconnect it.
3. Fixed the parameter settings of Panasonic WV-SP102 and WV-SP105.
4. Fixed the issue that bit rate of Panasonic DG-SF334 cannot be modified.
5. Fixed the issue that system doesn't detect Eneo camera motion right as motion is triggering.
6. Vivotek IP71XX series cameras are compatible with iViewer.
7. Upgrade camera FW to XNET.A1-1.1.11.0706 to fix IVP4030VR/IDP4030VR main stream disconnection issue as querying dual stream.

New Camera Supported
18. Arecont: AV1325, AV2825, AV8185DN
19. Axis: M3113-R, M3113-VE, M3114-VE, M5013, M5014, M7001, P3304, P3304-V, P5512, P5512-E, P5522, P5522-E, Q6032, Q6034-E, Q6035, Q6035-E
20. CNB: IDC4050F, IDC4050IR, IDC4050VF, IDC4050VR, IGC2050F, IS1765x, ISMC1063x, ISS2965x, ISSM2063x, IVC5055VF, IVC5055VR, IXC2050IR
21. **Dahua**: HDB3300N, HDB3300P, HDBW3300N, HDBW3300P, HF3110N, HF3110P, HF3211P, HF3300N, HF3300N-W, HF3300P, HF3300P-W
22. **Everfocus**: EAN3200, EAN800A, EAN800AW, EAN850A, EAN900, EDN3240, EDN800, EDN850H, EHN3200, EPN3100, EPN3600, EQN2200, EQN2201, EVS200A, EVS200AW, EVS410, EZN3240, EZN850
23. **Forenix**: ACDV-3VM501, AEP-Q2018HW-IP, AEP-Q2026HW-IP, AEP-Q2036HW-IP, ASP-PTIR737-IP, ASP-PTIR737-LA-IP, ATCP-IRH5030C, ATCP-IRH5040C, ATCP-MH802, ATCP-MH802DN, ATCP-MH802DN/WI, ATCP-MH802WI, ATCP-VM501, AWB-H811, AWB-H814, B0100, B1100, C1100, C1100-W, C2100, D0100, D1100, D2100, GE-100-VS
24. Mobotix: M24, T24
25. Samsung: SNB-1000, SNB-5000, SND-1010, SND-5080/F, SNO-5080R, SNP-3120/V/VH, SNP-3430H, SNP-5200, SNP-5200H, SNV-5080, SNV-5080R, SPE-100
26. **Sunell**: SN-IPC54/11DN, SN-IPC54/12DN, SN-IPC54/20DN, SN-IPC54/50DN, SN-IPD54/11DN,

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[3] SNB-1000, SNB-5000, SND-1010, SND-5080/F, SNO-5080R, SNP-3120/V/VH, SNP-3430H, SNP-5200, SNP-5200H, SNV-5080, SNV-5080R, SPE-100

[4] SNC-CM120, SNC-CS20, SNC-CS50, SNC-DF50, SNC-DF80, SNC-DF85, SNC-DM110, SNC-DM160, SNC-DS10, SNC-DS60, SNC-RX530, SNC-RX550, SNC-RX570, SNC-RZ50

SN-IPD54/12DN, SN-IPR54/50DN, SN-IPS54/60DN/Z18, SN-IPS54/60DN/Z36, SN-IPV54/11DN, SN-IPV54/12DN, SN-IPV54/50DN, SN-IPV54/50DR
27. **UDP**: IPE1100M, IPE3100, IPE3500, IPE3500M, IPE4100, IPE5500, IPE6500, IPE7500, NVC1000, NVC4000, NVC4000-R12, NVC4000-R40
28. Vivotek: FE8171V, IP8133W, IP8352, IP8362, VS8102 (New FW)

Remote Client PC Requirement

Remote PC Minimum Requirements		
CPU	Intel Core 2 Duo, 2.6GHz	
Display Card	OpenGL 2.0 and later	
OS Supported	Windows XP 32 bit	Windows 7 32/64 bit Mac OS X 10.6/10.7
RAM	1GB	2GB
User Interface	1. HTTP Web browser - Internet Explorer 8 and later and Firefox 7.0.1 2. NUUO client application program	

Appendix
Stream profile (updated)
- Original
- Low: under 300kbps; designed for mobile client single-view
- Minimum: under 100 kbps; designed for mobile client multi-view

Brand/Series	Low Profile		Minimum Profile	
	Resolution	Framerate	Resolution	Framerate
ACTi	CIF	3~6	CIF	1~2
Arecont	half	3	half	1
Axis	CIF	5	QCIF	5
Brickcom	CIF	10	CIF	4
CNB 1	CIF~SXGA	0.1~10	CIF~SXGA	0.1~10
CNB 2	QVGA~D1	0.1~10	QVGA~D1	0.1~10
CNB 3	QVGA~D1	0.1~10	QVGA~D1	0.1~10
Dahua	CIF	5	CIF	2
Dahua (HF3211P)	D1~1080p	0.1~10	D1~1080p	0.1~10
Dynacolor	QCIF~Full HD	0.1~10	QCIF~Full HD	0.1~10
Eneo 1	QCIF~Full D1	0.1~10	QCIF~Full D1	0.1~10
Eneo 2	QCIF~Half D1	0.1~10	QCIF~Half D1	0.1~10
Eneo 3	CIF~Full D1	0.1~10	CIF~Full D1	0.1~10
Eneo 4	CIF	5	CIF	2
Eneo 5	CIF	15	CIF	5
EverFocus (ONVIF)	QCIF~UXGA	0.1~6	QCIF~UXGA	0.1~6
EverFocus (Others)	QVGA	5	QVGA	1.5
Fine	CIF	1~3	CIF	0.1~1.5
Forenix	CIF	1~3	CIF	0.1~0.5
Grundig	QCIF~FullHD	0.1~10	QCIF~FullHD	0.1~10
Honeywell	640x368	15	640x368	5
Mobotix	CIF	3	QCIF	2
NetworkCamera	CIF	10	CIF	4
Panasonic BB/BL	CIF	4	QCIF	2
Panasonic i-pro 3 megapixel	VGA	1	VGA	0.5

Panasonic i-pro others	CIF	2	CIF	1
Pelco	CIF~D1	0.1~10	CIF~D1	0.1~10
Samsung	CIF	6	CIF	2
SANTEC (D1)	VGA	1~3	VGA	0.3~0.8
SANTEC (1.3 Mega)	VGA~D1	1~3	VGA~D1	0.3~0.8
SANTEC (3 Mega)	VGA~3M	1~3	VGA~3M	0.3~0.8
SANTEC (video server)	VGA~D1	1~3	VGA~D1	0.3~0.8
Sanyo HD1, HD3, HD4	CIF~VGA	3	CIF~VGA	1
Sanyo HD2	CIF~4 Mega	0.1~3	CIF~4 Mega	0.1~3
Sony	QCIF~Full HD	0.1~10	QCIF~Full HD	0.1~10
StarDot	CIF	3	CIF	1
Sunell	D1~QCIF	0.1~10	D1~QCIF	0.1~10
TRUEN	CIF~Full D1	0.1~10	CIF~Full D1	0.1~10
UDP	QVGA~VGA	0.1~10	QVAG~VGA	0.1~10
Videosec 1	QVGA	5	QQVGA	5
Videosec 2	CIF~Full HD	0.1 ~ 10	CIF~Full HD	0.1 ~ 10
Vivotek 7000v2/8000 (General)	CIF	5	CIF	2
Vivotek 7000v2/8000 (2 Mega)	CIF	3	QCIF	3
Vivotek 8000 (VS series)	QCIF~D1	0.1~10	QCIF~D1	0.1~10
Vivotek 8000 (IP8330/IP8332/IP8352)	CIF	3	CIF	1
Vivotek 8000 (IP8362)	CIF	5	CIF	3
Zavio	CIF	5	QCIF	3
Zavio (Mega)	CIF	7	CIF	2

CNB 1: IGx10xx, ixP40xx ixP4000xx
CNB 2: INS2000/IBxxxx/Xpeed IP
CNB 3: IGx2050F, IDC4050xx, IXC8050IR, IVC5050xx,IVP5055xx, IDP5055xx,IXP3055VR
Eneo 1: GLS-1701/IR
Eneo 2: GLS-2104
Eneo 3: GLS-2301H
Eneo 4: NLC-1401, NLD-1401, NLS-1401
Eneo 5: NXC-1301M, NXC-1302M, NXC-1401M, NXC-1402M, NXD-1301M, NXD-1302M, NXD-1401M, NXD-1402M
EverFocus (ONVIF): EQN2200, EQN220
Samsung: SNB-1000, SNB-5000, SND-1010, SND-5080/F, SNO-5080R, SNP-3120/V/VH, SNP-3430H, SNP-5200, SNP-5200H, SNV-5080, SNV-5080R, SPE-100
Sanyo HD1: VCC-HD2500, VDC-HD3500
Sanyo HD2: VCC-HD2100, VCC-HD2300, VDC-HD3100, VDC-HD3300
Sanyo HD3: VCC-HD5400, VCC-HD5600
Sanyo HD4: VCC-HD4600
Videosec 1: IBF-211, IDA-210, IP-206M, IS-240
Videosec 2: ICS-13, ICS-20F, ID-20

New Camera Support

Arecont

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Camera Search Tool	Remarks
AV1325		H.264 M-JPEG	1	1280x1024	-	-	-	Yes	-	Yes	Supported by design
AV2825		H.264 M-JPEG	1	1920x1080	-	1/1	-	Yes	-	Yes	Supported by design
AV8185DN		H.264 M-JPEG	4	1600x1200	-	-	-	Yes	-	Yes	Supported by design

AXIS

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
M3113-R		H.264 M-JPEG	1	800x600	-	-	Yes	Yes	Yes	Supported by design
M3113-VE		H.264 M-JPEG	1	800x600	-	-	Yes	Yes	Yes	Supported by design
M3114-VE		H.264 M-JPEG	1	1280x800	-	-	Yes	Yes	Yes	Supported by design
M5013		H.264 M-JPEG	1	800x600	1-way	-	Yes	Yes	Yes	Supported by design
M5014		H.264 MPEG4	1	1280x720	1-way	2/2	Yes	Yes	Yes	Supported by design
M7001		H.264 M-JPEG	1	720x576	-	-	Yes	Yes	Yes	Supported by design
P3304		H.264 M-JPEG	1	1280x800	1-way	1/1	Yes	Yes	Yes	Supported by design
P3304-V		H.264 M-JPEG	1	1280x800	1-way	1/1	Yes	Yes	Yes	Supported by design
P5512		H.264 M-JPEG	1	704x480	1-way	4/4	Yes	Yes	Yes	Supported by design
P5512-E		H.264 M-JPEG	1	704x480	1-way	4/4	Yes	Yes	Yes	Supported by design
P5522		H.264 M-JPEG	1	720x480	1-way	4/4	Yes	Yes	Yes	Supported by design
P5522-E		H.264 M-JPEG	1	720x480	1-way	4/4	Yes	Yes	Yes	Supported by design
Q6032		H.264 M-JPEG	1	752x480	1-way	4/4	Yes	Yes	Yes	Supported by design

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Q6034-E		H.264 M-JPEG	1	1280x720	1-way	2/2	Yes	Yes	Yes	Supported by design
Q6035		H.264 M-JPEG	1	1280x720	1-way	4/4	Yes	Yes	Yes	Supported by design
Q6035-E		H.264 M-JPEG	1	1280x720	1-way	-	Yes	Yes	Yes	Supported by design

CNB

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
IDC4050F	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
IDC4050IR	XNET.M1-1.10.11.0822	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
IDC4050VF	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
IDC4050VR	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
Note:	Camera issue: image may be broken apparently under high parameter settings.									
IGC2050F	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
IS1765x	Refer to ISMC1063x	H.264 MPEG4 M-JPEG	1	704x480(N) 704x576(P)	1-way	1/1	Yes	-	Yes	Supported by design
ISMC1063x	XNET.A1-1.01.11.0125	H.264 MPEG4 M-JPEG	1	704x480(N) 704x576(P)	1-way	4/0	Yes	Yes	Yes	
ISS2965x	Refer to ISMC1063x	H.264 MPEG4 M-JPEG	1	704x480(N) 704x576(P)	1-way	4/0	Yes	-	Yes	Supported by design
ISSM2063x	Refer to ISMC1063x	H.264 MPEG4 M-JPEG	1	704x480(N) 704x576(P)	1-way	4/0	Yes	-	Yes	Supported by design
IVC5055VF	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
IVC5055VR	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
IXC2050IR	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design

Dahua

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
HDB3300N		H.264 M-JPEG	1	2048×1536	1-way	2/1	Yes	Yes	-	Supported by design
HDB3300P		H.264 M-JPEG	1	2048×1536	1-way	2/1	Yes	Yes	-	Supported by design
HDBW3300N	V2.000 , Update 2011.10.22	H.264 M-JPEG	1	2048×1536	1-way	2/1	Yes	Yes	-	
HDBW3300P		H.264 M-JPEG	1	2048×1536	1-way	2/1	Yes	Yes	-	Supported by design
HF3110N		H.264 M-JPEG	1	1280x960	1-way	1/1	Yes	Yes	-	Supported by design
HF3110P	V2.000 , Update 2011.10.22	H.264 M-JPEG	1	1280x960	1-way	1/1	Yes	Yes	-	
HF3211P	V2.000 , Update 2011.10.22	H.264 M-JPEG	1	1920x1080	1-way	2/1	Yes	Yes	-	
HF3300N	V2.000 , Update 2011.10.22	H.264 M-JPEG	1	2048×1536	1-way	1/1	Yes	Yes	-	
HF3300N-W		H.264 M-JPEG	1	2048×1536	1-way	1/1	Yes	Yes	-	Supported by design
HF3300P		H.264 M-JPEG	1	2048×1536	1-way	1/1	Yes	Yes	-	Supported by design
HF3300P-W		H.264 M-JPEG	1	2048×1536	1-way	1/1	Yes	Yes	-	Supported by design
Note:	HP3300 series: there may be image noise of dual stream, which can be observed from the camera web as well.									
Note:	Setting preset point doesn't work properly.									
Note:	PTZ is only supported by external RS-485 device.									

Everfocus

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
EAN3200	1.0.14	H.264 MJPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
EAN800A	1.2.5	H.264 MPEG4 MJPEG	1	704x576	1-way	1/1	-	Yes	Yes	
EAN800AW	1.2.5	H.264 MPEG4 MJPEG	1	704x576	1-way	1/1	-	Yes	Yes	Supported by design
EAN850A	1.2.5	H.264 MPEG4 MJPEG	1	704x576	1-way	1/1	-	Yes	Yes	
EAN900	1.2.5	H.264 MPEG4 MJPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	

Note:	Fix stream 1 as recording stream and fix stream 2 for mobile client used.									
EDN3240	1.0.14	H.264 MJPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
EDN800	1.2.5	H.264 MPEG4 MJPEG	1	704x576	1-way	1/1	-	Yes	Yes	
EDN850H	1.2.5	H.264 MPEG4 MJPEG	1	704x576	1-way	1/1	-	Yes	Yes	
EHN3200	1.0.14	H.264 MJPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
EPN3100	1.2.14	H.264 MPEG4 MJPEG	1	704x576	1-way	4/2	Yes	Yes	Yes	Supported by design
EPN3600	1.2.14	H.264 MPEG4 MJPEG	1	704x576	1-way	4/2	Yes	Yes	Yes	
EQN2200	1.0.27	H.264 MJPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
EQN2201	1.0.27	H.264 MJPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
EVS200A	1.2.8	H.264 MPEG4 MJPEG	2	704x576	1-way	2/2	Yes	Yes	Yes	
EVS200AW	1.2.8	H.264 MPEG4 MJPEG	2	704x576	1-way	2/2	Yes	Yes	Yes	Supported by design
EDN3240	1.0.14	H.264 MJPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
Note:	EVS200A/EVS200AW: Fix stream 1 as recording stream and fix stream 2 for mobile client used. PTZ is only supported by external RS-485 device.									
EVS410	1.0.14	H.264 MJPEG	4	704x480	1-way	4/1	Yes	Yes	Yes	
Note:	PTZ is only supported by external RS-485 device.									
EZN3240	1.0.14	H.264 MJPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
EZN850	1.2.5	H.264 MPEG4 MJPEG	1	704x576	1-way	1/1	Yes	Yes	Yes	
Note:	PTZ: support focus only.									

Forenix

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
ACDV-3VM501		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design

AEP-Q2018HW-IP		H.264 M-JPEG	1	720x480	-	-	Yes	Yes	Yes	Supported by design
AEP-Q2026HW-IP		H.264 M-JPEG	1	720x480	-	-	Yes	Yes	Yes	Supported by design
AEP-Q2036HW-IP		H.264 M-JPEG	1	720x480	-	-	Yes	Yes	Yes	Supported by design
ASP-PTIR737-IP		H.264 M-JPEG	1	720x576	-	-	Yes	Yes	Yes	Supported by design
ASP-PTIR737-LA-IP		H.264 M-JPEG	1	720x576	-	-	Yes	Yes	Yes	Supported by design
ATCP-IRH5030C		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
ATCP-IRH5040C		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
ATCP-MH802		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
ATCP-MH802DN		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
ATCP-MH802DN/WI		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
ATCP-MH802WI		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
ATCP-VM501		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
AWB-H811		H.264 M-JPEG	1	720x480	-	2/2	Yes	Yes	Yes	Supported by design
AWB-H814		H.264 M-JPEG	1	720x576	-	4/4	-	Yes	Yes	Supported by design
B0100		H.264 M-JPEG MPEG4	1	1280x800	1-way	1/0	-	Yes	Yes	Supported by design
B1100		H.264 M-JPEG MPEG4	1	1280x800	1-way	1/0	-	Yes	Yes	Supported by design
C1100		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
C1100-W		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
C2100		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
D0100		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
D1100		H.264 M-JPEG MPEG4	1	1280x800	1-way	1/0	-	Yes	Yes	Supported by design

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
D2100		H.264 M-JPEG MPEG4	1	1280x800	1-way	1/0	-	Yes	Yes	Supported by design
GE-100-VS		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design

Mobotix

MOBOTIX

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
M24	MX-V4.0.4.19	M-JPEG	1	2048x1536	1-way	-	-	Yes	-	
T24	MX-V4.0.4.19	M-JPEG	1	2048x1536	1-way	7/3	-	Yes	-	

Samsung

SAMSUNG ELECTRONICS

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
SNB-1000	v1.07_110407	H.264 MPEG4 M-JPEG	1	640x480	1-way	1/1	-	Yes	-	
Note:	This is POE camera, but the device is unstable without AC power connection. We suggest connecting with AC power.									
Note:	I/O and MD is unstable, which is a known issue reported by Samsung. They won't do any change since the camera is discontinued.									
SNB-5000	v1.33_110218	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	
SND-1010	v1.07_110407	H.264 MPEG4 M-JPEG	1	640x480	-	1/1	-	Yes	-	
Note:	This is POE camera, but the device is unstable without AC power connection. We suggest connecting with AC power.									
Note:	I/O and MD is unstable, which is a known issue reported by Samsung. They won't do any change since the camera is discontinued.									
SND-5080/F	v2.00_110608	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	
SNO-5080R	v1.00_110514	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	
SNP-3120/V/ VH	v1.24_110816	H.264 MPEG4 M-JPEG	1	704x480	1-way	2/2	Yes	Yes	-	
Note:	It takes a while to stop after users click stop patrol button.									
SNP-3430H	v1.10_110818	H.264 MPEG4 M-JPEG	1	704x480	1-way	8/4	Yes	Yes	-	

Note:	This is POE camera, but the device is unstable without AC power connection. We suggest connecting with AC power.
Note:	There is a camera FW issue that we cannot get VBR/CBR info to show quality or bit rate correctly. Please upgrade to FW 1.11_111103 to fix it.
Note:	Voice cracks in the video exported with ASF format, while the audio of video file is correctly recorded actually. Please choose to export with AVI format.
Note:	Not support Area Zoom due to protocol limitation.
Note:	The speed selections of PTZ and focus in LiveView is not synchronized with camera web due to protocol limitation.

SNP-5200		H.264 MPEG4 M-JPEG	1	1280x1024	1-way	4/2	-	Yes	-	Supported by design
SNP-5200H	v1.02_110603	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	4/2	-	Yes	-	

Note:	SNP-5200/5200H: voice cracks in the video exported with ASF format, while the audio of video file is correctly recorded actually. Please choose to export with AVI format.
Note:	SNP-5200/5200H: not support Area Zoom due to protocol limitation.
Note:	SNP-5200/5200H: the speed selections of PTZ and focus in LiveView is not synchronized with camera web due to protocol limitation.

SNV-5080		H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	Supported by design
SNV-5080R	v1.00_110421	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	

Note:	It's likely failed to query camera parameter in high resolution configuration. It happens on SNO-5080R most. When encountering this issue, please go to camera web.

SPE-100	v1.19_110317	H.264 MPEG4 M-JPEG	1	704x480	1-way	1/1	Yes	Yes	-	

Note:	SPE-100 PTZ is abnormal, which PTZ may not be stopped after operating. This is camera FW bug, we can observe the same phenomenon on camera web.
Note:	All cameras: it's likely failed to query camera parameter in high resolution configuration. It happens on SNO-5080R most. When encountering this issue, please go to camera web.
Note:	All cameras: if configuring fixed frame rate on camera web, parameter selection on NVR web page won't be synchronized.

Sunell

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
SN-IPC54/11 DN		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
SN-IPC54/12 DN		H.264 M-JPEG	1	1920x1080	1-way	-	-	Yes	-	Supported by design

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Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
SN-IPC54/20 DN	1.6_build0440 11_061	H.264 M-JPEG	1	704x576	1-way	-	-	Yes	-	
SN-IPC54/50 DN		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
SN-IPD54/11 DN		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
SN-IPD54/12 DN		H.264 M-JPEG	1	1920x1080	1-way	-	-	Yes	-	Supported by design
SN-IPR54/50 DN		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
SN-IPS54/60 DN/Z18		H.264 M-JPEG	1	704x576	1-way	-	-	Yes	-	Supported by design
SN-IPS54/60 DN/Z36		H.264 M-JPEG	1	704x576	1-way	-	-	Yes	-	Supported by design
SN-IPV54/11 DN		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
SN-IPV54/12 DN		H.264 M-JPEG	1	1920x1080	1-way	-	-	Yes	-	Supported by design
SN-IPV54/50 DN		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
SN-IPV54/50 DR		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design

Note: Do not support I/O due to camera FW limitation.

UDP

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
IPE1100M		H.264 MPEG4 M-JPEG	1	720x582	1-way	1/1	-	Yes	Yes	Supported by design
IPE3100		H.264 MPEG4 M-JPEG	1	768x576	1-way	1/1	-	Yes	Yes	Supported by design
IPE3500		H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
IPE3500M	1.6.7	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	
IPE4100	1.6.6	H.264 MPEG4 M-JPEG	1	720x576	1-way	4/2	Yes	Yes	Yes	
IPE5500		H.264 MPEG4 M-JPEG	1	752x582	1-way	1/1	-	Yes	Yes	Supported by design

IPE6500		H.264 MPEG4 M-JPEG	1	752x582	1-way	1/1	-	Yes	Yes	Supported by design
IPE7500		H.264 MPEG4 M-JPEG	1	752x582	1-way	1/1	-	Yes	Yes	Supported by design
NVC1000	1.6.7	H.264 MPEG4 M-JPEG	1	720x576	1-way	2/2	Yes	Yes	Yes	
NVC4000	1.6.7	H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	Yes	
NVC4000-R12		H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	Yes	Supported by design
NVC4000-R40		H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	Yes	Supported by design
Note:	UDP cameras are likely disconnected if configuring camera parameter frequently. This is the known issue from camera vendor. When encountering this issue, please reboot the camera.									
Note:	UDP cameras are likely disconnected if setting up highest quality. This is the known issue from camera vendor. When encountering this issue, please reboot the camera, and do not set up this configuration.									

Vivotek

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
FE8171V	0100d	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	
Note:	De-wrap function is not integrated in this version.									
IP8133W	0100c	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	Supported by design
Note:	Due to the parameter limitation of stream 1, we take stream 2 as main stream for recording and liveview.									
IP8352	0100g	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	Supported by design
Note:	I/O status is abnormal, which input and output cannot be triggered at the same time. Vivotek will fix the bug in next release, please upgrade to new camera FW then.									
IP8362	0100d	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/0	-	Yes	Yes	Supported by design
VS8102	0202c2	H.264 MPEG4 M-JPEG	1	720x576	1-way	1/1	-	Yes	Yes	

Release Version 1.1.0 (2011/11/1)

Modules

Item		Version
FW	NVR	01.01.0000.0069
	Camera Package	01.01.0000.0069
Application (Windows)	NUUO Install Wizard	1.0.0.20
	NUUO NuClient	1.0.0.14
	NUUO Backup Player	1.0.0.14
	NUUO Offline License Tool	1.0.1.37
	NUUO Verification Tool	1.0.0.3
Application (Mac)	NUUO Install Wizard	1.0.0.20
	NUUO NuClient	1.1.0.9
	NUUO Backup Player	1.1.0.9
	NUUO Offline License Tool	N/A
	NUUO Verification Tool	1.0.0.3
Document	Titan Server User Manual	1.1.0
	NuClient User Manual	1.1.0
	Titan Quick Start Guide	1.1.0

New Feature
1. New OS support: Mac OS X 10.6/10.7
2. New browser support
   - Windows Firefox 7.0.1
   - Mac Safari 5.1 (7534.48.3) for configuration only
3. Verification Tool

Known Issue
[Titan Server]
5. The color of 5 megapixel video image is not correctly displayed on Local Display. This is the limitation of server graphic card.
6. The word of input field it's not grayed out apparently, while the function is disabled as design, which might be Safari's bug.

[Client_Mac version]
1. Only .mov format is supported in video exportation, which is the current limitation of NuClient.
2. Not support magic mouse on some special operations (i.e. multi-touch function), which may cause error.
3. Cannot play exported high definition video (over 720p) properly by QuickTime player 10.1 with Mac OS X 10.7, while the same video plays well on QuickTime 10.0 with Mac OS X 10.6. This may be a limitation of QuickTime.

Note: The version is mainly on Mac support, issues of Client (Windows) in v1.0.0 aren't fixed yet.

Remote Client PC Requirement

Remote PC Minimum Requirements	
CPU	Intel Core 2 Duo, 2.6GHz
Display Card	OpenGL 2.0 and later

OS Supported	Windows XP 32 bit	Windows 7 32/64 bit Mac OS X 10.6/10.7
RAM	1GB	2GB
User Interface	3. HTTP Web browser - Internet Explorer 8 and later and Firefox 7.0.1 4. NUUO client application program	

Release Version 1.0.0 (2011/9)

Modules

Item		Version
FW	NVR	01.00.0000.0065
	Camera Package	01.00.0000.0065
Application	NUUO Install Wizard	1.0.0.20
	NUUO NuClient	1.0.0.14
	NUUO Backup Player	1.0.0.14
	NUUO Offline License Tool	1.0.1.37
Document	Titan Server User Manual	1.0.0
	NuClient User Manual	1.0.0
	Titan Quick Start Guide	1.0.0

Known Issue

[Titan Server]
1. Video on Local Display may hang 0.3 second every 2 seconds. There is no this issue on LiveView and Playback.
2. Users can name the I/O devices with more than 64 characters in web client, but only 64 characters will be saved. We suggest users not keying in more than 64 characters.
3. There is no popup message as the maximum user connections of Live View and Playback has been reached. We suggest users setting maximum connections of Live View as 256 in server.[5] If users have trouble of logging in, please reduce the concurrent connections.

[Web Client]
1. For VIVOTEK PZ7131 camera, users can save more than 16 preset points in web client; however, users can only add up to 16 preset points in Client AP.
2. When clicking on the snapshot icon on view panel of web client, view panel may flash a lot before image pops up. It happens in view under image fusion, but it has no impact on function. The factor of this issue is IE browser, so there is no solution currently.
3. As web client minimizes to system tray, users can still hear camera audio, which isn't synchronized with the behavior of client AP.
4. Full screen is only supported in Client AP, but not in web client.
5. Do not support 64bit IE.

[NuClient]
1. If the network of slaves is not stable, please don't configure more than 5 slaves to a master.
2. AP may crash under long-time live viewing if receiving audio from some certain cameras, especially megapixel cameras.
3. Drag the scroll bar back to make the image complete, or you cannot use camera content tool bar.

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[5] Maximum connections of Playback is 128, which is defaulted and can't be modified

4. If the graphic card you use is ATI 4350, the image is disappeared when doing digital PTZ.
5. If the version of ATI HD4800 driver is in the year of 2010, it's likely that time line is not updated as dragging camera to grid.
6. Videos cannot be displayed on the Client PC with on-board graphic card. Do not support on-board graphic card.**⁶**

[NuClient: Playback]
1. When playing back to the timeline without recording videos, the image will stay on the final frame of last video clip until playing to a new one.
2. In Playback mode, switch to single layout by double clicking a camera, and drag a camera to the grid, you may discover the timeline of this channel disappeared. Users can switch to other layouts when encountering this issue.
3. Some specific cameras, such as Arecont AV 2100, have floating FPS**⁷** problem which may lead to temporarily repeating video images when playing back.
4. Frame may stay still for a while as searching in Motion Search, which will be improved in coming version.
5. It's impossible to search any DI event log in Playback if the selected source type is "all", which implies that the only way to search DI event is selecting source type as "DI".
6. It's likely that system cannot query any event if there are too many events searched. When encounter this issue, try not to select event name as "all".
7. When playing back videos with both ImmerVision and non-ImmerVision mode recording, there may be no ImmerVision function icon displayed on camera content toolbar, which will become normal as refreshing the view by switching LiveView/Playback or switching views and play again.
8. As megapixel ImmerVision Camera switches to Perimeter Mode, the system may hang in a short period. This is the restraint of ImmerVision and there is no impact on function. If it does matter to users, please try to lower the resolution to avoid this problem.
9. The keying function doesn't work on cue in/out time of selected video period on Backup Tool through Playback page, but it works on Backup Tool through LiveView. Recommend to select time by timeline bar or adjust it by mouse wheel.

[Other Application]
1. In Backup Player, video cannot be updated to the correct time when doing skip forward/backward under the condition of video pause. There is no this issue on NuClient.

Notice
1. Supported languages in this version includes English, Japanese, Traditional Chinese, Spanish, French, Italian, Russian, Korean, Português (Brasil) and Finnish.

Potential Risk
The following cameras are supported by design, which implies that they may contain potential error; if you encounter some problems, please contact our Support Team: service@nuuo.com.

Camera Package
Potential Risk

Remote Client PC Requirement

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⁶ User may not encounter this issue if the on-board graphic card supports OpenGL 2.0 and later
⁷ FPS stands for frame per second

Remote PC Minimum Requirements		
CPU	Intel Core 2 Duo, 2.6GHz	
Display Card	nVidia or ATI with 1GB memory (OpenGL 2.0 and later)	
OS Supported	Windows XP 32 bit	Windows 7 32/64 bit
RAM	1GB	2GB
User Interface	5. HTTP Web browser - Internet Explorer 8 and later 6. NUUO client application program	