

## Release Version 1.6.9 (2015/2/2)

### Modules

Item		Version
<b>FW</b>	NT-4040/NT-4040R	NT-4040_1.6.9_0210_1713.bin
	NT-8040R/NT-8040RP	NT-8040R_1.6.9_0210_1718.bin
	Device pack	3.7
<b>Application (Windows)</b>	NUUO NuClient	Titan_NVR_1.6.8_AP_Windows.zip
<b>Application (Mac)</b>	NUUO NuClient	Titan_NVR_1.6.8_AP_MacOSX.zip

\*NUUO NuClient does not increase its version number.

### Enhancement:

1. Support A08 I/O Box. User can add A08 I/O Box in the TitanNVR server's "I/O Box Settings" tab of its web page.

## Release Version 1.6.8 (2014/9/15)

### Modules

Item		Version
<b>FW</b>	NT-4040/NT-4040R	NT-4040_1.6.8_0201_1439.bin
	NT-8040R/NT-8040RP	NT-8040R_1.6.8_0201_1450.bin
	Device pack	3.7
<b>Application (Windows)</b>	NUUO NuClient	Titan_NVR_1.6.8_AP_Windows.zip
<b>Application (Mac)</b>	NUUO NuClient	Titan_NVR_1.6.8_AP_MacOSX.zip

### Enhancement:

2. Add NuClient log mechanism to record NuClient information for trouble shooting (Supported on Windows application and IE/Windows firefox NuClient.)
3. [FAE] Fix Firefox plugin error issue in Windows
4. [FAE] Fix the issue that user can't play the recording data which backup to DVD.
5. Fixed the issue about speed control of smart FAN

### 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-ISM1063N: 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.

## Release Version 1.6.7 (2014/5/19)

### Modules

Item		Version
<b>FW</b>	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
<b>Application (Windows)</b>	NUUO NuClient	V1.6.5(no update)
<b>Application (Mac)</b>	NUUO NuClient	V1.6.5(no update)

### Enhancement:

6. Handle SSL heartbleed security issue.
7. Support IE 11

### Known issue:

#### [Titan Server]

7. Sometimes when only add WAN IP for Sub server, it's possible that NuClient can't connect because of routing table issue.
8. [Camera issue] CNB-ISM1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)
9. [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.
10. Please use English or Thai OS when use Thai client.
11. 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.
12. [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 is not supported.

## 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:

8. User needs to manually close UAC for offline license activation tool.
9. Offline license information export might be fail in the computer without internet connection.
10. When the network connection of is not stable, sometimes the NuClient cannot login and "Unknown error" message will popup.
11. Slow down the pan/ tilt speed of Sony SNC-ER580.
12. Under specific settings of event and event schedule, sometimes the action won't stop when event is stopped.
13. 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.
14. The web NuClient ActiveX plugin installation might be fail.
15. Sometimes NuClient will fail to open signature file after computer reboot.
16. When backup a lot of video in the same time, sometimes the backup will fail.
17. Axis M1054 audio might be distorted because of incorrect AAC audio decoder setting.
18. When export video through WAN environment on Mac OSX, sometimes the progress will run to 99% then fail.
19. 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.
20. [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:

- 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).
- [FAE] When logging in NuClient, it sometimes popup unknown error.
- [FAE] When the connection between Titan and license server is not stable, it might popup wrong error code.

### Known issue:

#### [Titan Server]

- Please manually close UAC for offline license activation tool.**
- When only add WAN IP for Sub server, it's possible that NuClient can't connect because of routing table issue.
- [Camera issue] CNB-ISM1063N: Audio Codec "G.711" voice not so clear, please use G.726 and PCM.(Camera issue, camera web also has same issue.)
- [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.
- Please use English or Thai OS when use Thai client.
- 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.
- [Limitation] Video frame size can't be greater than 1.75MB, or the system can't record.

#### [Titan Client]

- Not support G.726 24K audio codec for LG camera LW352, LW9226, LG\_LDW2010.
- 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](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. 7 / 53

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 relick 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/Immersion 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 repeatedly.
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-ISM1063N: 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 relick 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
<b>FW</b>	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.
<b>Application (Windows)</b>	NUUO NuClient	Titan_NVR_1.3.5_AP_Windows.zip
<b>Application (Mac)</b>	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.)

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 relick 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	
<b>FW</b>	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
<b>Application (Windows)</b>	NUUO NuClient	Titan_NVR_1.3.4_AP_Windows.zip
<b>Application (Mac)</b>	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-ISM1063N: 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 relick 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	
<b>FW</b>	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
<b>Application (Windows)</b>	NUUO NuClient	Titan_NVR_1.3.3_AP_Windows.zip
<b>Application (Mac)</b>	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 relick 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
<b>FW</b>	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
<b>Application (Windows)</b>	NUUO NuClient	1.3.0.10
<b>Application (Mac)</b>	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

## [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 6<sup>th</sup> 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 system, 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
<b>FW</b>	NVR	1.02.02_0104.0104
	Camera Package	1.02.02_0104.0104
<b>Application (Windows)</b>	NUUO NuClient	1.2.2
<b>Application (Mac)</b>	NUUO NuClient	1.2.2

### Bug Fixed

#### [Titan Server]

1. Fix (DigitalWatchDog-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
<b>FW</b>	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<sup>1</sup>, 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. (DigitalWatchDog-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	QVGA~D1	0.1~10	QVGA~D1	0.1~10

<sup>1</sup> Preset

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	IP				
CNB	IGx2050F, IDC4050xx, IXC8050IR, IVC5050xx,IVP5055xx, IDP5055xx,IXP3055VR	QVGA~D1	0.1~10	QVGA~D1	0.1~10
<b>CORUM</b>		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
<b>Digital Watch Dog</b>		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
<b>Grandstream (D1/PAL/Video server)</b>	GXV-3501, GXV-3504, GXV-3601, GXV-3601LL, GXV-3611LL, GXV-3615,	176x112~35 2x288	0.1~5	176x112~35 2x288	0.1~5
<b>Grandstream (SXGA)</b>	GXV-3662HD	320x240	0.1~10	320x240	0.1~10
<b>Grandstream (UXGA)</b>	GXV-3601HD, GXV-3611HD	320x240	0.1~5	320x240	0.1~5
<b>Grandstream (5 megapixel)</b>	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 23 / 53

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Probe		QCIF~720p	0.1~10	QCIF~720p	0.1~10
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	CIF	6	CIF	2
<b>Samsung</b>	SNP-3301, SNP-3370	CIF	0.1~10	CIF	0.1~10
<b>Samsung</b>	SNV-3120, SNB-7000, SND-7080, SNV-5010, SNZ-5200	QCIF~FullHD	0.1~10	QCIF~FullHD	0.1~10
<b>Samsung</b>	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
Vidosec	IBF-211, IDA-210, IP-206M, IS-240	QVGA	5	QQVGA	5
Vidosec	ICS-13, ICS-20F, ID-20	CIF~Full HD	0.1 ~ 10	CIF~Full HD	0.1 ~ 10
<b>Vista Model C</b>	VK2-1080VRD, VK2-2MPVRD	QVGA~4CIF	5~15	QVGA~4CIF	2~15
<b>Vista Model A</b>	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



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Zavio (Mega)		CIF	7	CIF	2
<b>Zavio (2 Mega)</b>	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
<b>KCM5111</b>	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.										
<b>KCM5211</b>	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.										
<b>KCM5211E</b>	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.										
<b>KCM5311</b>	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.										
<b>KCM5311E</b>	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.										
<b>KCM7111</b>	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.										
<b>KCM7211</b>	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
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<b>AV1115</b>	65201	H.264 M-JPEG	1	1280x1024	-	1/1	-	Yes	-	Yes	
<b>AV1125</b>	Refer to AV1115	H.264 M-JPEG	1	1280x1024	-	1/1	-	Yes	-	Yes	Supported by design
<b>AV2115</b>	Refer to AV2125	H.264 M-JPEG	1	1920x1056	-	1/1	-	Yes	-	Yes	Supported by design
<b>AV2125</b>	65201	H.264 M-JPEG	1	1920x1056	-	1/1	-	Yes	-	Yes	
<b>AV3115</b>	65201	H.264 M-JPEG	1	2048x1536	-	1/1	-	Yes	-	Yes	
<b>AV3125</b>	Refer to AV3115	H.264 M-JPEG	1	2048x1536	-	1/1	-	Yes	-	Yes	Supported by design
<b>AV5115</b>	65201	H.264 M-JPEG	1	2560x1600	-	1/1	-	Yes	-	Yes	
<b>AV5125</b>	65201	H.264 M-JPEG	1	2560x1600	-	1/1	-	Yes	-	Yes	
<b>AV10115</b>	65201	H.264 M-JPEG	1	3648x2752	-	1/1	-	Yes	-	Yes	
<b>AV20185DN</b>	65170	H.264 M-JPEG	4	2560x1920	-	1/1	-	Yes	-	Yes	
<b>AV20365DN</b>	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
<b>231D+</b>		MPEG4 M-JPEG	1	704x576	-	4/4	Yes	Yes	Yes	Supported by design
<b>232D+</b>		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
<b>CS-190-IO / CS-190-IP / CS-190-IW</b>		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design

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<b>CS-265-IO / CS-265-IP / CS-265-IW</b>		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design
<b>CS-285-IP / CS-285-IW</b>		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design
<b>CS-325-IO / CS-325-IP</b>		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design
<b>CS-385-IO / CS-385-IP / CS-390-IO / CS-390-IP</b>		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	-	Supported by design
<b>CS-410-IP / CS-410-IW / CS-415-IP / CS-415-IW</b>		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
<b>MPA20M</b>	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
<b>GXV-3501</b>	0.0.4.25	H264 M-JPEG	1	704x480	1-way	1/1	Yes	Yes	-	
<b>GXV-3504</b>	0.0.4.25	H264 M-JPEG	4	704x480	1-way	4/4	Yes	Yes	-	
<b>GXV-3601</b>	0.0.4.25	H264 M-JPEG	1	704x480	1-way	1/1	Yes	Yes	-	
<b>GXV-3601HD</b>	0.0.4.25	H264 M-JPEG	1	1600x1200	1-way	1/1	Yes	Yes	-	
<b>GXV-3601LL</b>	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.

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<b>GXV-3611HD</b>	0.0.4.25	H264 M-JPEG	1	1600x1200	1-way	1/1	Yes	Yes	-	
<b>GXV-3611LL</b>	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.									
<b>GXV-3615</b>	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.									
<b>GXV-3651FHD</b>	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.									
<b>GXV-3662HD</b>	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
<b>FCS-3031</b>	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
<b>WV-SC384</b>	Refer to WV-SC385	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	Yes	Yes	-	Supported by design
<b>WV-SF132</b>	Refer to WV-SW155/M	H.264 M-JPEG	1	1280x960	1-way	-	-	Yes	-	Supported by design

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<b>WV-SF135</b>	Refer to WV-SW155/M	H.264 M-JPEG	1	1280x960	1-way	-	-	Yes	-	Supported by design
<b>WV-SF342</b>	Refer to WV-SF332	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	Yes	Yes	-	Supported by design
<b>WV-SF346</b>	Refer to WV-SF336	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	Yes	Yes	-	Supported by design
<b>WV-SW152/M</b>	Refer to WV-SW155/M	H.264 M-JPEG	1	1280x960	1-way	-	-	Yes	-	Supported by design
<b>WV-SW155/M</b>	1.03	H.264 M-JPEG	1	1280x960	1-way	-	-	Yes	-	
<b>WV-SW352</b>	Refer to WV-SW352	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	-	Yes	-	Supported by design
<b>WV-SW355</b>	1.41	H.264 MPEG4 M-JPEG	1	1280x960	1-way	-	-	Yes	-	

## Probe



Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	ONVIF Search	Remarks
<b>PMI-H2000</b>	v1.0.0_20120106	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



Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
<b>SNB-7000</b>	Refer to SNB-7080	H.264 M-JPEG	1	2048x1536	1-way	1/1	-	Yes	-	Supported by design
<b>SND-7080</b>	v1.10_110819	H.264 M-JPEG	1	2048x1536	1-way	1/1	-	Yes	-	
<b>SNP-3301</b>	v1.21_110310	H.264 MPEG4 M-JPEG	1	704x480	1-way	4/2	Yes	Yes	-	
<b>SNP-3370</b>	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.

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<b>SNV-3120</b>	v1.24_110816	H.264 MPEG4 M-JPEG	1	704x480	1-way	1/1	Yes	-	-	
Note:	PTZ: support zoom and focus.									
<b>SNV-5010</b>	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.									
<b>SNV-7080</b>	Refer to SND-7080	H.264 M-JPEG	1	2048x1536	1-way	1/1	-	Yes	-	Supported by design
<b>SNV-7080R</b>	Refer to SND-7080	H.264 M-JPEG	1	2048x1536	1-way	1/1	-	Yes	-	Supported by design
<b>SNZ-5200</b>	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
<b>SNC-3302</b>	Refer to SNC-4302	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
<b>SNC-3342</b>		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
<b>SNC-4302</b>	1.0.0.9	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
<b>SNC-5312IR</b>	Refer to SNC-4302	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
<b>SNC-6302</b>	Refer to SNC-4302	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
<b>SNC-6312IRH</b>	Refer to SNC-4302	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
<b>SNC-6332</b>		H.264 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
<b>SVS-3001</b>		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
<b>SNC-DH110T /B / SNC-DH110T /W</b>	Refer to SNC-DH110	H.264 MPEG4 M-JPEG	1	1280x960	-	-	-	Yes	-	Yes	Supported by design

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<b>SNC-DH220</b>	1.50.00	H.264 MPEG4 M-JPEG	1	1920x1440	1-way	1/1	Yes	Yes	-	Yes	
<b>SNC-DH220T</b>	Refer to SNC-DH220	H.264 MPEG4 M-JPEG	1	1920x1440	1-way	1/1	Yes	Yes	-	Yes	Supported by design
<b>SNC-EP520</b>	1.40.00	H.264 MPEG4 M-JPEG	1	720x480	1-way	2/1	Yes	Yes	-	Yes	
<b>SNC-EP521</b>	1.42.00	H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	-	Yes	
<b>SNC-EP550</b>	Refer to SNC-ER550	H.264 MPEG4 M-JPEG	1	1280x720	1-way	2/1	Yes	Yes	-	Yes	Supported by design
<b>SNC-EP580</b>	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.

<b>SNC-ER520</b>	1.42.00	H.264 MPEG4 M-JPEG	1	720x480	1-way	2/1	Yes	Yes	-	Yes	
<b>SNC-ER521</b>	1.42.00	H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	-	Yes	
<b>SNC-ER550</b>	1.40.00	H.264 MPEG4 M-JPEG	1	1280x720	1-way	2/1	Yes	Yes	-	Yes	
<b>SNC-ER580</b>	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
<b>VK2-1080VRD</b>	2.2.64	H.264 M-JPEG	1	1920x1080	1-way	2/0	-	Yes	Yes	
<b>VK2-2MPVRD</b>	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.									
<b>VK2-540VRD</b>	2.1.8-release	H.264 MPEG4	1	704x576	1-way	1/0	-	Yes	Yes	
<b>VK2-600PTZ</b>	2.1.8-release	H.264 MPEG4	1	704x576	1-way	1/0	Yes	Yes	Yes	

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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.									
<b>VK2-VGAVFD</b>	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
<b>FD8133V</b>	Refer to FD8134	H.264 MPEG4 M-JPEG	1	1280x800	-	1/0	-	Yes	Yes	Supported by design
<b>FD8134V</b>	Refer to FD8134	H.264 MPEG4 M-JPEG	1	1280x800	-	1/0	-	Yes	Yes	Supported by design
<b>FD8162</b>	Refer to FD8362	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	Yes	Yes	Yes	Supported by design
<b>FD8361L</b>	Refer to FD8361	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design
<b>FD8362</b>	0100f	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	Yes	Yes	Yes	
<b>FD8362E</b>	Refer to FD8362	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	Yes	Yes	Yes	Supported by design
<b>IP8151P</b>	Refer to IP8151	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	Yes	Yes	Yes	Supported by design
<b>IP8162</b>	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.									
<b>IP8162P</b>	Refer to IP8162	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	Supported by design
<b>IP8331</b>	0100c	H.264 MPEG4 M-JPEG	1	640x480	-	1/0	-	Yes	Yes	
<b>MD7530</b>	0100d	MPEG4 M-JPEG	1	640x480	1-way	1/0	-	Yes	Yes	
<b>MD7560X</b>	Refer to MD7560	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/0	-	Yes	Yes	Supported by design
<b>MD8562</b>	0100c	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	1/0	-	Yes	Yes	



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Note:	The frame rate of main stream decrease to the half if watching dual stream video, which is the limitation of camera HW.									
<b>PZ81x1</b>	0100e	H.264 MPEG4 M-JPEG	1	720x480	1-way	3/2	Yes	Yes	Yes	
<b>PZ81x1W</b>	Refer to PZ81x1	H.264 MPEG4 M-JPEG	1	720x480	1-way	3/2	Yes	Yes	Yes	Supported by design
<b>SD8362E</b>	0102b	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	3/2	Yes	Yes	Yes	
<b>SD83x1E</b>	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.									
<b>SD83x2E</b>	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.									
<b>SD83x3E</b>	0100g	H.264 MPEG4 M-JPEG	1	720x480	1-way	3/2	Yes	Yes	Yes	
<b>VS8401</b>	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
<b>D5110</b>	Refer to D5111	H.264 MPEG4 M-JPEG	1	1280x1024	-	2/2	Yes	Yes	Yes	Supported by design
<b>D5111</b>	MG.1.6.03P7_app7	H.264 MPEG4 M-JPEG	1	1280x1024	-	2/2	Yes	Yes	Yes	
<b>F7110</b>	MG.1.6.03P3_r1072	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	2/2	Yes	Yes	Yes	
<b>F7115</b>	Refer to F7110	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	2/2	Yes	Yes	Yes	Supported by design
<b>F7210</b>	M2.1.5.08	H.264 MPEG4 M-JPEG	1	1920x1080	1-way	2/2	Yes	Yes	Yes	

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### Modules

Item		Version
<b>FW</b>	NVR	01.02.0000.0090
	Camera Package	01.02.0000.0090
<b>Application (Windows)</b>	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
<b>Application (Mac)</b>	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
<b>Document</b>	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.<sup>2</sup>
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.

<sup>1</sup> 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
<b>FD-130Ae</b>	Refer to VD-130Ap	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	
<b>FD-130Ap</b>	Refer to VD-130Ap	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	
<b>VD-130Ae</b>	Refer to VD-130Ap	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	
<b>VD-130Ap</b>		H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	Yes	Supported by design

#### LevelOne

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Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
<b>FCS-0030</b>	Refer to WCS-0030	H.264 MPEG4 M-JPEG	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
<b>FCS-0031</b>	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.									
<b>FCS-0040</b>	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.									
<b>FCS-1121</b>	1.0.0.33	H.264 MPEG4 M-JPEG	1	1280x800	1-way	1/1	-	Yes	Yes	
<b>FCS-1131</b>	L20101222NS	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
<b>FCS-1141</b>	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.									
<b>FCS-1151</b>	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.									
<b>FCS-3061</b>	1.0.0.34	H.264 MPEG4 M-JPEG	1	1280x800	1-way	1/1	-	Yes	Yes	
<b>FCS-3071</b>	L20101222NS	H.264 M-JPEG	1	1920x1080	1-way	-	-	Yes	Yes	
<b>FCS-3081</b>	L20101222NS	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
<b>FCS-3091</b>	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.									
<b>FCS-4041</b>	LE20111116N SA	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.									
<b>FCS-5041</b>	1.0.0.46	H.264 MPEG4 M-JPEG	1	1280x800	1-way	1/1	-	Yes	Yes	

<b>FCS-5051</b>	L20101222NS	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
<b>FCS-6010</b>	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.									
<b>WCS-0030</b>	1.0.0.35	H.264 MPEG4 M-JPEG	1	1280x800	1-way	-	-	Yes	Yes	
<b>WCS-0040</b>	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-ISM1063N 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<sup>3</sup>
- Sunell
- UDP

### Bug Fixed

1. Fixed the issue that motion detection function doesn't work on Sony 3<sup>rd</sup> and 4<sup>th</sup> generation cameras<sup>4</sup>.
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,

<sup>3</sup> 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

<sup>4</sup> 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-IPD54/11DN, 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		
<b>CPU</b>	Intel Core 2 Duo, 2.6GHz	
<b>Display Card</b>	OpenGL 2.0 and later	
<b>OS Supported</b>	Windows XP 32 bit	Windows 7 32/64 bit Mac OS X 10.6/10.7
<b>RAM</b>	1GB	2GB
<b>User Interface</b>	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	VGA	1	VGA	0.5

megapixel				
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
Vidosec 1	QVGA	5	QQVGA	5
Vidosec 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/IP 8352)	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

Vidosec 1: IBF-211, IDA-210, IP-206M, IS-240

Vidosec 2: ICS-13, ICS-20F, ID-20



## New Camera Support

<b>Arecont</b>											
											
Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Camera Search Tool	Remarks
<b>AV1325</b>		H.264 M-JPEG	1	1280x1024	-	-	-	Yes	-	Yes	Supported by design
<b>AV2825</b>		H.264 M-JPEG	1	1920x1080	-	1/1	-	Yes	-	Yes	Supported by design
<b>AV8185DN</b>		H.264 M-JPEG	4	1600x1200	-	-	-	Yes	-	Yes	Supported by design
<b>AXIS</b>											
											
Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks	
<b>M3113-R</b>		H.264 M-JPEG	1	800x600	-	-	Yes	Yes	Yes	Supported by design	
<b>M3113-VE</b>		H.264 M-JPEG	1	800x600	-	-	Yes	Yes	Yes	Supported by design	
<b>M3114-VE</b>		H.264 M-JPEG	1	1280x800	-	-	Yes	Yes	Yes	Supported by design	
<b>M5013</b>		H.264 M-JPEG	1	800x600	1-way	-	Yes	Yes	Yes	Supported by design	
<b>M5014</b>		H.264 MPEG4	1	1280x720	1-way	2/2	Yes	Yes	Yes	Supported by design	
<b>M7001</b>		H.264 M-JPEG	1	720x576	-	-	Yes	Yes	Yes	Supported by design	
<b>P3304</b>		H.264 M-JPEG	1	1280x800	1-way	1/1	Yes	Yes	Yes	Supported by design	
<b>P3304-V</b>		H.264 M-JPEG	1	1280x800	1-way	1/1	Yes	Yes	Yes	Supported by design	
<b>P5512</b>		H.264 M-JPEG	1	704x480	1-way	4/4	Yes	Yes	Yes	Supported by design	
<b>P5512-E</b>		H.264 M-JPEG	1	704x480	1-way	4/4	Yes	Yes	Yes	Supported by design	
<b>P5522</b>		H.264 M-JPEG	1	720x480	1-way	4/4	Yes	Yes	Yes	Supported by design	
<b>P5522-E</b>		H.264 M-JPEG	1	720x480	1-way	4/4	Yes	Yes	Yes	Supported by design	

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<b>Q6032</b>		H.264 M-JPEG	1	752x480	1-way	4/4	Yes	Yes	Yes	Supported by design
<b>Q6034-E</b>		H.264 M-JPEG	1	1280x720	1-way	2/2	Yes	Yes	Yes	Supported by design
<b>Q6035</b>		H.264 M-JPEG	1	1280x720	1-way	4/4	Yes	Yes	Yes	Supported by design
<b>Q6035-E</b>		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
<b>IDC4050F</b>	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
<b>IDC4050IR</b>	XNET.M1-1.10 .11.0822	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	Yes	Yes	
<b>IDC4050VF</b>	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
<b>IDC4050VR</b>	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.

<b>IGC2050F</b>	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
<b>IS1765x</b>	Refer to ISMC1063x	H.264 MPEG4 M-JPEG	1	704x480(N) 704x576(P)	1-way	1/1	Yes	-	Yes	Supported by design
<b>ISMC1063x</b>	XNET.A1-1.01. 11.0125	H.264 MPEG4 M-JPEG	1	704x480(N) 704x576(P)	1-way	4/0	Yes	Yes	Yes	
<b>ISS2965x</b>	Refer to ISMC1063x	H.264 MPEG4 M-JPEG	1	704x480(N) 704x576(P)	1-way	4/0	Yes	-	Yes	Supported by design
<b>ISSM2063x</b>	Refer to ISMC1063x	H.264 MPEG4 M-JPEG	1	704x480(N) 704x576(P)	1-way	4/0	Yes	-	Yes	Supported by design
<b>IVC5055VF</b>	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
<b>IVC5055VR</b>	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design
<b>IXC2050IR</b>	Refer to IDC4050IR	H.264 M-JPEG	1	1920x1080	1-way	1/1	-	-	Yes	Supported by design

## Dahua



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Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
<b>HDB3300N</b>		H.264 M-JPEG	1	2048×1536	1-way	2/1	Yes	Yes	-	Supported by design
<b>HDB3300P</b>		H.264 M-JPEG	1	2048×1536	1-way	2/1	Yes	Yes	-	Supported by design
<b>HDBW3300N</b>	V2.000 , Update 2011.10.22	H.264 M-JPEG	1	2048×1536	1-way	2/1	Yes	Yes	-	
<b>HDBW3300P</b>		H.264 M-JPEG	1	2048×1536	1-way	2/1	Yes	Yes	-	Supported by design
<b>HF3110N</b>		H.264 M-JPEG	1	1280×960	1-way	1/1	Yes	Yes	-	Supported by design
<b>HF3110P</b>	V2.000 , Update 2011.10.22	H.264 M-JPEG	1	1280×960	1-way	1/1	Yes	Yes	-	
<b>HF3211P</b>	V2.000 , Update 2011.10.22	H.264 M-JPEG	1	1920×1080	1-way	2/1	Yes	Yes	-	
<b>HF3300N</b>	V2.000 , Update 2011.10.22	H.264 M-JPEG	1	2048×1536	1-way	1/1	Yes	Yes	-	
<b>HF3300N-W</b>		H.264 M-JPEG	1	2048×1536	1-way	1/1	Yes	Yes	-	Supported by design
<b>HF3300P</b>		H.264 M-JPEG	1	2048×1536	1-way	1/1	Yes	Yes	-	Supported by design
<b>HF3300P-W</b>		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	1920×1080	1-way	1/1	-	Yes	Yes	
EAN800A	1.2.5	H.264 MPEG4 MJPEG	1	704×576	1-way	1/1	-	Yes	Yes	
EAN800AW	1.2.5	H.264 MPEG4 MJPEG	1	704×576	1-way	1/1	-	Yes	Yes	Supported by design

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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
<b>ACDV-3VM501</b>		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
<b>AEP-Q2018HW-IP</b>		H.264 M-JPEG	1	720x480	-	-	Yes	Yes	Yes	Supported by design
<b>AEP-Q2026HW-IP</b>		H.264 M-JPEG	1	720x480	-	-	Yes	Yes	Yes	Supported by design
<b>AEP-Q2036HW-IP</b>		H.264 M-JPEG	1	720x480	-	-	Yes	Yes	Yes	Supported by design
<b>ASP-PTIR737-IP</b>		H.264 M-JPEG	1	720x576	-	-	Yes	Yes	Yes	Supported by design
<b>ASP-PTIR737-LA-IP</b>		H.264 M-JPEG	1	720x576	-	-	Yes	Yes	Yes	Supported by design
<b>ATCP-IRH503 OC</b>		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
<b>ATCP-IRH504 OC</b>		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
<b>ATCP-MH802</b>		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
<b>ATCP-MH802DN</b>		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
<b>ATCP-MH802DN/WI</b>		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
<b>ATCP-MH802WI</b>		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
<b>ATCP-VM501</b>		H.264 M-JPEG	1	1600x1200	-	1/1	-	Yes	Yes	Supported by design
<b>AWB-H811</b>		H.264 M-JPEG	1	720x480	-	2/2	Yes	Yes	Yes	Supported by design
<b>AWB-H814</b>		H.264 M-JPEG	1	720x576	-	4/4	-	Yes	Yes	Supported by design
<b>B0100</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	1/0	-	Yes	Yes	Supported by design
<b>B1100</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	1/0	-	Yes	Yes	Supported by design
<b>C1100</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
<b>C1100-W</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
<b>C2100</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design

# Titan NVR Release Note



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<b>D0100</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design
<b>D1100</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	1/0	-	Yes	Yes	Supported by design
<b>D2100</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	1/0	-	Yes	Yes	Supported by design
<b>GE-100-VS</b>		H.264 M-JPEG MPEG4	1	1280x800	1-way	-	-	Yes	Yes	Supported by design

## Motorix




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

## Samsung



Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
<b>SNB-1000</b>	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.									
<b>SNB-5000</b>	v1.33_110218	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	
<b>SND-1010</b>	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.									
<b>SND-5080/F</b>	v2.00_110608	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	
<b>SNO-5080R</b>	v1.00_110514	H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	
<b>SNP-3120/V/VH</b>	v1.24_110816	H.264 MPEG4 M-JPEG	1	704x480	1-way	2/2	Yes	Yes	-	

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Note:	It takes a while to stop after users click stop patrol button.									
<b>SNP-3430H</b>	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.									
<b>SNP-5200</b>		H.264 MPEG4 M-JPEG	1	1280x1024	1-way	4/2	-	Yes	-	Supported by design
<b>SNP-5200H</b>	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.									
<b>SNV-5080</b>		H.264 MPEG4 M-JPEG	1	1280x1024	1-way	1/1	-	Yes	-	Supported by design
<b>SNV-5080R</b>	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.									
<b>SPE-100</b>	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.									
<b>Sunell</b>										
										

Device Name	Tested Firmware	Video Format	Video Ch	Max Resolution	Audio	I/O Ch	PTZ	On-Edge Motion	UPnP	Remarks
<b>SN-IPC54/11 DN</b>		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
<b>SN-IPC54/12 DN</b>		H.264 M-JPEG	1	1920x1080	1-way	-	-	Yes	-	Supported by design
<b>SN-IPC54/20 DN</b>	1.6_build0440 11_061	H.264 M-JPEG	1	704x576	1-way	-	-	Yes	-	
<b>SN-IPC54/50 DN</b>		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
<b>SN-IPD54/11 DN</b>		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
<b>SN-IPD54/12 DN</b>		H.264 M-JPEG	1	1920x1080	1-way	-	-	Yes	-	Supported by design
<b>SN-IPR54/50 DN</b>		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
<b>SN-IPS54/60 DN/Z18</b>		H.264 M-JPEG	1	704x576	1-way	-	-	Yes	-	Supported by design
<b>SN-IPS54/60 DN/Z36</b>		H.264 M-JPEG	1	704x576	1-way	-	-	Yes	-	Supported by design
<b>SN-IPV54/11 DN</b>		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
<b>SN-IPV54/12 DN</b>		H.264 M-JPEG	1	1920x1080	1-way	-	-	Yes	-	Supported by design
<b>SN-IPV54/50 DN</b>		H.264 M-JPEG	1	1280x720	1-way	-	-	Yes	-	Supported by design
<b>SN-IPV54/50 DR</b>		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
<b>IPE1100M</b>		H.264 MPEG4 M-JPEG	1	720x582	1-way	1/1	-	Yes	Yes	Supported by design
<b>IPE3100</b>		H.264 MPEG4 M-JPEG	1	768x576	1-way	1/1	-	Yes	Yes	Supported by design
<b>IPE3500</b>		H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	Supported by design



# Titan NVR Release Note



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<b>IPE3500M</b>	1.6.7	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	
<b>IPE4100</b>	1.6.6	H.264 MPEG4 M-JPEG	1	720x576	1-way	4/2	Yes	Yes	Yes	
<b>IPE5500</b>		H.264 MPEG4 M-JPEG	1	752x582	1-way	1/1	-	Yes	Yes	Supported by design
<b>IPE6500</b>		H.264 MPEG4 M-JPEG	1	752x582	1-way	1/1	-	Yes	Yes	Supported by design
<b>IPE7500</b>		H.264 MPEG4 M-JPEG	1	752x582	1-way	1/1	-	Yes	Yes	Supported by design
<b>NVC1000</b>	1.6.7	H.264 MPEG4 M-JPEG	1	720x576	1-way	2/2	Yes	Yes	Yes	
<b>NVC4000</b>	1.6.7	H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	Yes	
<b>NVC4000-R12</b>		H.264 MPEG4 M-JPEG	1	720x576	1-way	2/1	Yes	Yes	Yes	Supported by design
<b>NVC4000-R40</b>		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
<b>FE8171V</b>	0100d	H.264 MPEG4 M-JPEG	1	1600x1200	1-way	1/1	-	Yes	Yes	
Note:	De-wrap function is not integrated in this version.									
<b>IP8133W</b>	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.									
<b>IP8352</b>	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.									
<b>IP8362</b>	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	
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## Release Version 1.1.0 (2011/11/1)

### Modules

Item	Version	
<b>FW</b>	NVR	01.01.0000.0069
	Camera Package	01.01.0000.0069
<b>Application (Windows)</b>	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
<b>Application (Mac)</b>	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
<b>Document</b>	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		
<b>CPU</b>	Intel Core 2 Duo, 2.6GHz	
<b>Display Card</b>	OpenGL 2.0 and later	
<b>OS Supported</b>	Windows XP 32 bit	Windows 7 32/64 bit Mac OS X 10.6/10.7
<b>RAM</b>	1GB	2GB
<b>User Interface</b>	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
<b>FW</b>	NVR	01.00.0000.0065
	Camera Package	01.00.0000.0065
<b>Application</b>	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
<b>Document</b>	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.<sup>5</sup> 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

<sup>5</sup> Maximum connections of Playback is 128, which is defaulted and can't be modified

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.
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.<sup>6</sup>

## [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<sup>7</sup> 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.

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<sup>6</sup> User may not encounter this issue if the on-board graphic card supports OpenGL 2.0 and later

<sup>7</sup> FPS stands for frame per second

## 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](mailto:service@nuuo.com).



Camera Package  
Potential Risk

## Remote Client PC Requirement

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