

Titan NVR v1.7.0 Compatibility List

Document History

| FW version | Date | Change List |
|------------|------------|---|
| V1.0.0 | 2011/09/30 | Initial |
| V1.0.0 | 2011/10/14 | Add "interface" information on HDD list |
| V1.1.0 | 2011/10/27 | New browser support |
| V1.2.0 | 2011/01/20 | Add compatible iSCSI model; New HDD support |
| V1.3.0 | 2012/04/26 | Add compatible iSCSI model |
| V1.3.3 | 2012/6/11 | Add compatible DAS model; Remove green disk; Add AP support list |
| V1.5.0 | 2012/11/20 | Add Seagate HD support Add iSCSI support model—EMC and Qsan Modify DAS support list |
| V1.5.1 | 2013/1/21 | Support Windows 8 (32 bit and 64 bit) Support IE 10 (32 bit) Support AXIS Joystick T8311 |
| V1.6.0 | 2013/7/4 | Support 4T HDD Add Seagate Constellation ES.3 HDD support Add Toshiba MG03ACAxxx HDD support Add WD RE4 HDD support Support EMC new iSCSI model, up to 375T |
| V1.6.7 | 2014/5/19 | Update support list to 2014 Q1 version |
| V1.6.8 | 2014/9/16 | Update support list to 2014 Q2 version |
| V1.6.8 | 2014/11/14 | Add Seagate SV35, Surveillance + SRS support |
| V1.6.9 | 2015/2/3 | Add 4 supported hard drive (See (*)) |
| V1.7.0 | 2016/4/12 | Add compatible hard drives: Seagate: ST6000VN001; ST6000VX001; S4000NC001; ST8000VX0002; ST8000NM0055 Toshiba: MC04ACA400E; WD: WD60PURX |
| V1.7.0 | 2016/8/30 | Seagate rebranding update for Surveillance and SkyHawk |

Compatibility list included versions in this build are:

| NT-4040/NT-4040R | | |
|------------------|--------|-----------------------------|
| Initial | V1.0.0 | NT-4040_1.0.0_0065_0065.bin |
| 2011/10/31 | V1.1.0 | NT-4040_1.1.0_0069_0069.bin |
| 2012/01/20 | V1.2.0 | NT-4040_1.2.0_0088_0088.bin |
| 2012/5/3 | V1.3.0 | NT-4040_1.3.0_0117.bin |
| 2012/6/1 | V1.3.3 | NT-4040_1.3.3_0127_1415.bin |
| 2012/11/26 | V1.5.0 | NT-4040_1.5.0.0148_1601.bin |
| 2013/01/21 | V1.5.1 | NT-4040_1.5.1_0155_1900.bin |
| 2013/07/04 | V1.6.0 | NT-4040_1.6.0_0169_1223.bin |
| 2014/09/16 | V1.6.8 | NT-4040_1.6.8_0201_1439.bin |

| NT-8040R | | |
|------------|--------|------------------------------|
| Initial | V1.3.0 | NT-8040R_1.3.0_0117.bin |
| 2012/6/1 | V1.3.3 | NT-8040R_1.3.3.0127_1418.bin |
| 2012/11/26 | V1.5.0 | NT-8040R_1.5.0_0148_1604.bin |
| 2013/01/21 | V1.5.1 | NT-8040R_1.5.1_155_1903.bin |
| 2013/07/04 | V1.6.0 | NT-8040R_1.6.0_0169_1230.bin |
| 2014/09/16 | V1.6.8 | NT-8040R_1.6.8_0201_1450.bin |

1. Hard Drives

There are a several product segments in hard drive industry such as Enterprise grade, Surveillance grade, Green series and the other consumer desktop hard drives. NUUO recommends system designers to choose Enterprise grade or Surveillance grade drives to ensure high storage stability and performance. 24 x 7 operational capabilities are also important because your surveillance system is running around the clock.

Enterprise grade drives are recommended when the configuration of RAID (Redundant Array of Independent Disks) is required. Furthermore, to avoid vibration issue, please consider the maximum HDD number per storage system for system vibration tolerance, for example, if there are more than 5 HDDs in this storage system, please choose Enterprise grade drives or any HDD that has built-in RV Sensor. Enterprise grade drives are also highly recommended for rackmount storage system or any industrial environments where are always full of vibrations.

Green series hard drives should never be used with NUUO recorders to avoid data lost due to long wake up time from a sleeping drive. Consumer desktop series hard drives should be avoided with NUUO recorders because it's suitable for 8x5 environments only. It's different from your surveillance needs.

Enterprise

| Vendor | Family | Model | Capacity | Interface | Firmware |
|------------|--------------------|----------------------|------------|------------|------------|
| Seagate | Constellation ES.3 | ST6000NM0024 (*) (!) | 6TB | SATA 6Gb/s | SN02 |
| | | ST4000NM0033 | 4TB | SATA 6Gb/s | 0001 |
| | | ST3000NM0033 | 3TB | SATA 6Gb/s | 0001 |
| | | ST2000NM0033 | 2TB | SATA 6Gb/s | 0001 |
| | | ST1000NM0033 | 1TB | SATA 6Gb/s | 0001 |
| | Constellation ES | ST3500514NS | 500GB | SATA 3Gb/s | SN12 |
| | | ST31000524NS | 1TB | SATA 3Gb/s | SN12 |
| | Constellation CS | ST4000NC000 | 4TB | SATA 6Gb/s | CE02 |
| | | ST3000NC000 | 3TB | SATA 6Gb/s | CE02 |
| | | ST2000NC000 | 2TB | SATA 6Gb/s | CE02 |
| | | ST1000NC000 | 1TB | SATA 6Gb/s | CE02 |
| | Enterprise | ST8000NM0055(*)(!) | 8TB | SATA 6Gb/s | PN01 |
| | WD | RE | WD4000FYYZ | 4TB | SATA 6Gb/s |
| WD3000FYYZ | | | 3TB | SATA 6Gb/s | 01.0 |
| WD2003FYYS | | | 2TB | SATA 3Gb/s | 01.0 |
| WD1003FBYX | | | 1TB | SATA 3Gb/s | 01.0 |
| WD5003ABYX | | | 500GB | SATA 3Gb/s | 01.0 |
| SE | | WD4000F9YZ | 4TB | SATA 6Gb/s | 01.0 |
| | | WD3000F9YZ | 3TB | SATA 6Gb/s | 01.0 |
| | | WD2000F9YZ | 2TB | SATA 6Gb/s | 01.0 |
| Toshiba | MD03ACAxxx | MD03ACA400V (*) | 4TB | SATA 6Gb/s | FL1V |
| | MG04ACAxxx | MG04ACA500E (*) | 5TB | SATA 6Gb/s | FP3B |
| | MG03ACAxxx | MG03ACA300 | 3TB | SATA 6Gb/s | FL1A |
| | | MG03ACA200 | 2TB | SATA 6Gb/s | FL1A |
| | | MG03ACA100 | 1TB | SATA 6Gb/s | FLOA |

Video Surveillance

| Vendor | Family | Model | Capacity | Interface | Firmware |
|----------|--------------------|-----------------------|-----------------|------------|------------|
| Seagate | Surveillance + SRS | ST4000VX000 | 4TB | SATA 6Gb/s | CV13 |
| | SV35 + SRS | ST3000VX004 | 3TB | SATA 6Gb/s | CV26 |
| | | ST2000VX004 | 2TB | SATA 6Gb/s | CV26 |
| | | ST1000VX002 | 1TB | SATA 6Gb/s | CV26 |
| | | Video | ST4000VM000 (*) | 4TB | SATA 6Gb/s |
| | Surveillance | ST4000VX000 | 4TB | SATA 6Gb/s | CV13 |
| | | ST8000VX0002 (*) (!!) | 8TB | SATA 6Gb/s | CV11 |
| | SkyHawk | ST4000VX007 | 4TB | SATA 6Gb/s | CV11 |
| | | ST8000VX0022 | 8TB | SATA 6Gb/s | AV01 |
| | SV35 | ST3000VX000 | 3TB | SATA 6Gb/s | CV12/CV26 |
| | | ST2000VX002 | 2TB | SATA 6Gb/s | CV12/CV26 |
| | | ST1000VX000 | 1TB | SATA 6Gb/s | CV12/CV26 |
| | | ST31000526SV | 1TB | SATA 6Gb/s | CV12 |
| | | ST3500411SV | 500 GB | SATA 6Gb/s | CV12 |
| | WD | Purple | WD40PURX | 4TB | SATA 6Gb/s |
| WD30PURX | | | 3TB | SATA 6Gb/s | 80.0 |
| WD20PURX | | | 2TB | SATA 6Gb/s | 80.0 |
| WD10PURX | | | 1TB | SATA 6Gb/s | 01.01A01 |

(*) Newly tested compatible hard drive models

(!) Only compatible to NT-4040 and NT-4040R

(!!) Only compatible to CT-8000R

** The maximum volume size of each volume is 16TB

*** Some listed devices may go EOL, so we cannot promise the market availability.

2. iSCSI Support

| Brand | Model | Infrastructure | HDD | Capacity* |
|---------|----------------------------------|----------------|--------------|-----------|
| EMC | IOMEGA px12-350r | SAN | SATA | 36 TB |
| EMC | IOMEGA px12-450r | SAN | SATA | 48 TB |
| EMC | VNX 5300 | SAN | Nearline SAS | 375 TB |
| HP | P2000 G3 MSA | SAN | SAS | 36 TB |
| HP | P2000 G3 MSA | SAN | SATA | 36 TB |
| Qsan | P600Q-DS316 | SAN | SATA | 48 TB |
| Proware | EN-3166JS6H-NQX | SAN | SATA | 48 TB |

* Capacity is the volume size of each iSCSI model, not the supported volume size of Titan NVR.

** Titan NVR supports up to 6 iSCSI targets. Each iSCSI target has size limitation of 16 TB. The total size for iSCSI is 96 TB (16 TB x 6 targets)

3. DAS Support

| Brand | Model | Host Interface | HDD | Capacity |
|---------|-----------------------------|----------------|------|----------|
| Proware | EP-D501-C3A | eSATA | SATA | 15 TB |
| Axis | FIT500 | eSATA | SATA | 15 TB |

4. Joystick Support

| Vendor | Model |
|----------|----------|
| Axis | 295 |
| Axis | T8311 |
| Logitech | Attack 3 |

Note: NUUO supports all the models of joysticks that are compatible with Windows.

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 | Toggle single camera view Toggle full-screen |
| PTZ control | Digital / Optical switch Zoom in Zoom out Go to preset # |

5. UPnP Router (auto port-forwarding)

| Vendor | Model |
|--------|---------|
| D-Link | DIR-300 |

Note: This is the model we tested for auto port-forwarding function. Basically, all router possess UPnP function should be compatible.

6. Web Browser support

| OS \ Browser | IE 8 32bit | IE 9 32bit | IE 10 32 bit | Firefox 9-12 | Firefox 18 |
|----------------------|---------------|---------------|-----------------|--------------|---------------|
| Windows XP-SP3 32bit | PASS | N/A | N/A | PASS | PASS |
| Windows 7 32/64bit | PASS | PASS | N/A | PASS | PASS |
| Windows 8 32/64bit | N/A | N/A | PASS | PASS | PASS |
| Mac OS X 10.6 | N/A | N/A | N/A | N/A | N/A |
| Mac OS X 10.7 | N/A | N/A | N/A | N/A | N/A |
| Mac OS X 10.8 | N/A | N/A | N/A | N/A | N/A |

7. OS supported for NuClient AP

| OS \ Application | Backup Player | Install Wizard | NuClient | Offline Tool | Verification Tool | Uninstall Toolkit |
|------------------------|------------------|-------------------|----------|--------------|-------------------|----------------------|
| Windows XP | PASS | PASS | PASS | PASS | PASS | PASS |
| Windows 7 32/64-bit | PASS | PASS | PASS | PASS | PASS | PASS |
| Windows 8 32/64-bit | PASS | PASS | PASS | PASS* | PASS | PASS |
| MAC OS X 10.6 | PASS | PASS | PASS | N/A | PASS | N/A |
| MAC OS X 10.7 | PASS | PASS | PASS | N/A | PASS | N/A |
| MAC OS X 10.8 | PASS | PASS | PASS | N/A | PASS | N/A |

* Please close UAC when operating Offline tool for license activation and transfer.

8. UPS Support

| Vendor | Model |
|--------|-------------------------------------|
| APC | APC Smart-UPS XL 3000VA (SUA3000XL) |
| APC | APC Smart-UPS 1500VA |