# Imagine COMMUNICATIONS™

## Release Notes

# Nexio® 7.0.2 Software Release

**April 2014**

**175-100475-03 RevA**

## Publication Information

## Trademarks

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## Introduction

The NEXIO Server team is pleased to announce the release of software version 7.0.2 for NEXIO AMP and NEXIO Volt. Software version 7.0.2 is a supplemental release to NEXIO software versions 7.0 and 7.0.1.

The 7.0.2 installation includes all of the software from the 7.0 software release. ***You do not need to upgrade to 7.0 or 7.0.1 prior to installing 7.0.2.*** Please be sure to follow all of the important guidelines from the NEXIO 7.0 Installation Guide. If you are upgrading from a version prior to 7.0, you must take the NEXIO system down to perform the upgrade. However if your NEXIO system is already upgraded to 7.0 or 7.0.1, you can perform an incremental upgrade one NEXIO platform at a time.

The 7.0, 7.0.1, and 7.0.2 software releases apply to the following platforms without restrictions:

- NEXIO AMP Gen 5 & 6
- NEXIO Volt Gen 2
- NX1011 Platforms for NEXIO MIOH and MGX

In addition, the 7.0 upgrade and software version 7.0.2 are also available for the following platforms with the restrictions stated here:

- NEXIO AMP Gen 1 - 4 and NEXIO Volt Gen 1 - Support for all upgrades except NXOS, NEXIO FTP Client, and NEXIO Delay.
- NX1010 platforms for NEXIO MIOH and MGX - Support for all upgrades except NEXIO FTP Client.

Lastly, an LLM Upgrade is available for use with the most recent software releases of the Velocity, FCP Gateway, and Proxy Transcoder Gateway platforms.

### Windows Platform Requirements

The NEXIO 7.0, 7.0.1 and 7.0.2 software releases require the Windows 7 64-bit operating system for most client-based applications. For NEXIO platforms that still run on Windows XP (NX3601, NXVolt1401, NX1010 platforms), the 7.0 upgrade and 7.0.2 release will not include the software for NXOS, NEXIO FTP Client, and NEXIO Delay. Although it is possible to use these applications from the NEXIO 6.7.1 software release, any new features from the 7.0 or 7.0.2 releases will not be functional. In addition no fixes will be applied at the 6.7.1 level in the future.

To make full use of the NEXIO 7.0 and 7.0.2 features on NEXIO XP platforms, you can install NXOS, FTP Client and NEXIO Delay on remote Windows 7 64-bit workstations. These applications have the same feature set running remotely and will continue to be part of future NEXIO software releases.

All remote client computers using NXOS, FTP Client, and NEXIO Delay are required to run the Windows 7 64-bit operating system.

# Related Documentation

For more information about specific features, see the Installation Guides, User Manuals and other documents available as part of NEXIO 7.0 Software Release files in the **\Installs\Docs** folder.

Other documentation related to NEXIO servers can be viewed from the Harris Broadcast website at http://support.harrisbroadcast.com. After logging in, navigate to **Self Service > Review Documentation > Servers**.

# Software Versions

The following table lists the software and firmware versions available in the NEXIO 7.0.1 Installer.

| Software | Version |
|---|---|
| LLM - Farad | 6.07.100.340 |
| LLM - SBOD | 6.07.97.339 |
| FXP | 11.32.7.122 |
| MPEG | 2.0.8.104 |
| NXOS | 7.0.0.19 |
| PLRealtime | 7.0.0.18 |
| Delay | 7.0.0.18 |
| **Server Core** | |
| SE.dll | 1.0.2.93 |
| SE400.dll [3801] | 1.0.2.101 |
| SW.dll | 1.0.1.6 |
| MA200 FW | 1.6615 |
| MA400 FW | 2.2307 |

| Software | Version |
|---|---|
| MA410 FW | 2.2307 |
| MA.sys | 0.6.0.1059 |
| MA.sys (Win7) | 0.7.0.1059 |
| Mapmem.sys | 1.0.1.1 |
| Mapmemdll.dll | 1.0.1.9 |
| LLMDisk1.sys | 1.64.0.12 |
| LLMServicesproxy.dll | 1.0.0.3 |
| Network.dll (98) | 6.07.98.1987 |
| Network.dll (100) | 6.07.100.2000 |
| ExternalGraphicsHandler | 1.0.0.5 |
| NxSeFirmwareUpdater | 1.3.2.8 |
| **Software Codecs** | |
| Dec_Avc.dll | 8.0.0.3 |
| Dec_Avc_10b.dll | 8.0.0.3 |
| Dec_mp2v.dll | 8.0.0.1 |
| Dec_mp2v_10b.dll | 8.0.0.1 |
| DNxHDCodec.dll | 1.2.0.10 |
| Enc_Avc.dll | 8.0.0.13 |
| Enc_Avc_10b.dll | 8.0.0.13 |
| MCdv_prohd.dll | 1.0.0.1008 |
| MCdv_proHD_10b.dll | 1.0.0.1008 |
| MCmpgdec.dll | 0.0.8.15 |
| MCmpgdec_10b.dll | 0.0.8.15 |
| MCmpgvout.dll | 0.0.7.46 |
| MCmpgvout_10b.dll | 0.0.7.46 |
| MCh264dec.dll | 0.0.0.7 |
| MCh264dec_10b.dll | 0.0.0.7 |
| MCmpgaout.dll | 1.2.0.0 |
| MCmpgadec.dll | 7.2.0.0 |
| MCaacaenc.dll | n/a |
| MC_enc_aac.dll | 8.7.0.1 |
| Audiodecoderlib.dll | 7.0.0.2 |
| **Utilities** | |
| NEXIO Config | 7.0.0.27 |
| NEXIO Monitor | 7.0.0.8 |
| NXSnapshot | 2.0.1.1 |

| Software | Version |
|---|---|
| NXWolf (NEXIO Startup) | 1.3.0.20 |
| RAIDTools | 1.5.33 |
| TLPlayback | 7.0.0.1 |
| FWCheck | 1.0.1.6 |
| OSSNMP.dll | 7.0.0.6 |
| NXSNMP.dll | 7.0.0.6 |
| VRMGR.dll | 7.0.0.6 |
| VRXyratexAgent.dll | 7.0.0.6 |
| VRSnmpTrap | 7.0.0.6 |
| Diagnostic Logging | 1.235.0.153 |
| IMMonitor | 7.0.0.4 |
| **FTP** | |
| FTP Server | 7.0.3.26 |
| FTP Client | 7.0.1.19 |
| FTA | 1.3.1.6 |
| DTA Handler | 7.0.3.26 |
| GXFConverter.dll | 2.0.0.31 |
| MP4Converter.dll | 2.0.0.31 |
| MPEG50Converter.dll | 2.0.0.31 |
| MPEGConverter.dll | 2.0.0.31 |
| MXFConverter.dll | 2.0.0.31 |
| SCCConverter.dll | 2.0.0.31 |
| TEConverter.dll | 2.0.0.31 |
| DTADll.dll | 7.0.0.23 |
| MOG Component | 4.4.18 |
| P2Server | 1.0.29 |
| **Other** | |
| RM.exe (SLK) | 1.22.0 |
| NEXIOSetup | 1.0.3.1 |
| ChannelView (Xena) | 3.829.2.39 |
| PRXEncoder | 6.0.0.7 |
| Farad Storage Manager | 1.0.0.7 |

# Version 7.0.2 Changes from 7.0.1

This section contains changes that are included in the 7.0.2 release that were not included in the 7.0.1 release.

## 7.0.2 Fixes

### Server Core

- Previously in certain cases, a Selenio Dolby-E decoder could not properly decode the compressed audio from a NEXIO channel when playing an up-converted SD clip. This issue has been fixed.

- Version 7.0.2 corrected a problem with the FTP transfer of SD h.264 subclips when transferred from one NEXIO system to another. The preroll of the long GOP h.264 clips needed to be increased in order for the transferred subclip to play correctly.

- Changes were applied that made several reliability fixes related to LLM protocol control. Addressed an issue with VDCP record commands not always returning correct status on MIOH-based systems. Fixed a problem where the channel playout occasionally stopped unexpectedly.

- Corrected an installer issue with PRX Encoder so that the first AB4 port would function correctly after an upgrade.

# Version 7.0.1 Changes from 7.0

This section contains changes that are included in the 7.0.1 release that were not included in the 7.0 release.

## 7.0.1 Key Features

- A new **Playback Server** field has been added to the **Identify Protection** pop-up in NXOS. Now when a user tries to delete a clip that is loaded into a codec with AutoClipProtect enabled, the **Playback Server** field shows the user which NEXIO Device is using the clip.

- A new control named **Display file extensions** has been added to the NEXIO Config **FTP Settings** tab. When enabled, existing clips will display the .lxf file extension within the FTP root directory.

## 7.0.1 Fixes

### Server Core

- Previously, errors occurred when the CIFS LLM installer was deployed. Updated database files were added and now the CIFS LLM installer works correctly.

- Previously with MPEG 1 Layer 1 audio, a clip cued to a specific spot might not play the audio correctly. This issue has been fixed.

- A fix was made to prevent FXP failures in the rare condition when a NX3801 platform encounters a memory slowdown.

### SNMP Agents

- Previously, several voltage readings were missed in Navigator after a restart of the SNMP agents. Now all voltage readings are immediately available.

- Previously, FAN errors displayed on NX3801 Gen 6 devices after NEXIO software releases 6.7 through 7.0 were applied. This issue has now been fixed. Service Alert 304 was published to address this issue.

### FTP File Interchange

- Existing user account privileges are now correctly enforced when logging onto a remote NEXIO server domain.

- Previously in certain situations, an ID recorded on the server and then transferred off as an MXF file would have AAC audio instead of PCM audio when the ID was re-imported onto the server. This issue has been fixed.

■ Previously, SD LXF clips with no video information in the extended fields would not import properly using the LXF Converter. This issue has been fixed.

### NEXIO Config

■ The NetDiskServer Buffer value has been increased.

■ Previously, NEXIO Config would not correctly set the value for NetDiskServerClients, which could cause an MIOH-based system to not function correctly. This issue has been fixed.

### NXOS/NEXIO Remote

■ Corrected a problem in the NXOS playlist where the software would log the start of the first clip in a series 6 frames too early. This made it look like the clip played longer than it should have.

■ Fixed a problem in the NXOS Channel Control window where it failed to properly set the Audio Track Router Input Port Mask when set up for Auto-Input Detection. That problem has been fixed and the interface now allows you to set the audio input port masks for all possible video resolutions.

■ The Audio Track Routing tab in the MediaBase was enhanced to support RefMOV.

■ The NewsFlash checkbox was removed from the NXOS account creation options.

# Version 7.0.

## 7.0 Key Features

The NEXIO 7.0 software release includes the following new features.

### NEXIO Farad SAN Improvements

A major effort has gone into researching and developing new methods to enhance the high availability of the NEXIO Farad SAN infrastructure. Root causes for the following availability issues have been discovered and fixed.

■ **Cascading lockup of all nodes in the system:** Fixed by implementation of Atomic SAN messaging, eliminating memory corruption in nodes due to an incomplete SAN update.

■ **LLM launch cycle might take hours on heavily loaded system:** Fixed by optimizing the time required for a starting node to synchronize with the working nodes.

■ **System-wide inability to restart any node due to "broken disk" indication.** Fixed by Atomic SAN and Brokered Fat messaging.

- **Play-only Mode:** If a node loses synchronization with the SAN messaging it will not make any changes to the disk until the LLM is re-launched. This is necessary to protect against loss of stored content. Occurrences have been reduced by FAT brokering.

- **Brokered FAT:** In medium to large system configurations where NEXIO servers and editors act as client connections to storage through NEXIO MIOH gateways, we have made significant changes in the handling of global operations so as to prevent both directory/FAT corruption and the occasional play-only condition. The client servers no longer directly perform these global operations related to the FAT. As a result, we have improved robustness with overloaded network connections and other infrastructure concerns. This also eliminates the requirement to use ECC parity memory in end user provided client nodes, such as that hosting the NXA1000VESX on SAN editing software.

- **Atomic SAN Operations:** Protection against corruptions of the FAT due to incomplete SAN update messages. Incomplete SAN messages occur due to node lockup or infrastructure congestion. The new logic now queues SAN update messages in each receiving node until the complete message is received, then it is applied atomically to ensure the update is successful.

- **Graceful LLM Shutdowns:** In some heavily loaded NEXIO systems, we needed to build in extra protections for the storage system when there is a need to shut down the LLM application on any node. Two particular situations have been addressed.
  - ❑ **First.** Added checks during the manual exit of the LLM on any node to make sure all write activity to the storage has been completed before allowing the application to close. This slight delay in the typically rare need to close the LLM on a server helps prevent corruption of the storage.
  - ❑ **Second.** Users of Velocity edit stations may repeatedly restart the host computers due to unstable third party plug-ins. We have added protections during such shutdowns to prevent the broken disk condition which could result. Note that the protection is in place for graceful OS restarts only. If the host station is reset by front panel button or by power cycle, some data could still be lost, however the new Brokered FAT feature will protect against the occurrence of a broken disk condition.

- **Flood Protection for Network Messaging:** We are now doing a better job of handling complex workflows in Client/Server systems using the NEXIO MIOH gateways where the network communication between client and server can get overloaded. We have now built in throttles for each client platform delivering system update messages to its network server so as to prevent a possible multi-node play-only condition. This typically could happen in a large Velocity system during a massive deletion of editing projects, timelines, and their hidden reference subclips. The protection results in a slight delay of the deleting process, but provides stability for the other network clients sharing the network server resource.

- **Partial Directory Save:** A more optimized directory management system has been put in place, providing a more efficient method of writing directory updates to storage. We have implemented a method to update only those allocation units that need to be updated, thus reducing the write cycles and the wear and tear on the drives.

- **Save Directory Delay:** The time delta between directory updates can now be selected to further decrease the write cycles on the disks holding the directories. The default setting is 10 minutes. This also sets the maximum amount of material that could be lost if every node in the system simultaneously suffers a power outage. It is not recommended to set this value below 10 minutes, unless the system is operating temporarily in an environment where a total power outage is likely. Do not set below two minutes.

## Server Core

■ **FILM Rate Support:** The NEXIO server system now supports the FILM video standard, including frame rates for 24 and 23.98. Mixed standard media is now supported on the NEXIO SAN, however each NEXIO platform must be configured to support just one of those standards at any one time.

■ **AAC Audio Decoding:** NEXIO servers now support software decoding of AAC audio tracks.

■ **Audio Track Routing:** We have enhanced the already existing audio track router interface (licensed option) to make it more flexible in systems with mixed HD and SD content. It is now possible to apply a single audio track profile across any number of selected clips in the MediaBase. In addition, the NEXIO system allows the preset definition of numerous Audio Track Profiles. These can be applied on-the-fly to clips as they are being loaded into a channel.

■ Added a new registry-enabled option to allow a controller to automatically play beyond the specified out point of a loaded clip. Requires the new LLM\Control registry setting of **VdcpPostRoll**, a DWord value set in number of frames, where 20 frames is the maximum value.

■ When **SaveDisk** is enabled in the debug options, the LLM will periodically save media disk information to the OS drive for backup. During this time the LLM cannot be closed. A pop-up will now display whenever the LLM is creating the backup information.

■ A new automatic rebuild option has been added for use with intrinsic mirrored storage.

## FTP File Interchange

■ **Auto-FTP During Recording:** NEXIO servers now provide automated transfers of any newly initiated recordings. We already had the technology to deliver media outside of the NEXIO storage even before the recording is completed. But now you can automate the transfer to external storage or another NEXIO system without any user intervention.

■ **Import of MOV Reference Files:** NEXIO servers now support the import of certain types of MOV files where the source media content is broken out into separate discreet files. The NEXIO FTP Server is able to piece together the content into one logical file as a Media ID on the NEXIO storage system.

■ **Drag and Drop to NEXIO FTP Server:** No FTP Client user interface is needed if you have external files that need to immediately ingest into a NEXIO FTP Server. We now support the import of files being dropped directly into the FTP Server application interface. This new functionality works with all supported file formats including MXF, GXF, and MP4.

■ **New Look and Feel to NEXIO FTP Client:** The user interface has been improved to more closely match the look and feel of other NEXIO applications. User improvements have also been made to simplify the local FTP Server connection process and better manage multiple FTP sites. In addition, the ability to apply user-defined metadata to imported files has been significantly enhanced.

- **New User and Administrator Manuals.** Documentation for all NEXIO FTP applications and services has been completely re-written and published in a new format. Please see the NEXIO FTP Applications Portfolio HBC part number 175-100478-00 included with this software release.

- The duration value is now updated before a clip can be purged that previously failed to import for the full expected duration. Now, if a clip starts but does not finish importing onto a NEXIO platform and that clip is protected from deletion at the destination, the clip will show a truncated duration rather than the full original duration.

- The ability to import .LXF clips created by 3rd party applications has been enhanced in this release.

- The ability to drag-and-drop XML files onto the FTP Server GUI for import into NEXIO has been implemented.

- Import and export of NEXIO MediaBase metadata in XML (UTF-16) format has been implemented.
  - ❏ Metadata values from existing clips can now be exported as XML data via FTP file export.
    - For Example, a get NNN.xml will export all metadata from an existing clip named NNN on NEXIO.
  - ❏ Metadata can be modified or added to an existing clip via FTP XML file import.
    - For Example, a put NNN.xml will import user specified metadata onto an existing clip named NNN on NEXIO.
- Pinnacle files encoded with Dolby audio will now import and play to air with the audio playing out on the expected tracks.

- ISO639 (language tag) metadata is now preserved during import for .MPG, .GXF and .MXF clips.

## NEXIO Config

The following is a list of new controls that can be accessed through the NEXIO Config application GUI.

### Video Settings Tab

- SMPTE defaults were added to the time code insertion setting for VITC1/VITC2/LTC output.

- Vertical and horizontal timing controls were added to the Video Settings tab. Settings can now be applied to each channel.

- A new compatibility mode is now available for Blu-ray. When Blu-ray mode is selected, a Blu-Ray option will display in the format selection list. When selected, it will also affect MPEG 420, XDCAM HD, and XDCAM EX when the bit rate is 40Mb/s or less.

- Auto-input detection is now enabled by default. Record settings for existing, non-AID, resolution and frame rates will be migrated. Settings for differing resolution and frame rates must be updated manually.

<u>**Network Settings Tab**</u>

- The NEXIO LAN can now be configured to the local host address. You can use this when connected to an MIOH, when using internal storage, or when using a stand-alone server with external storage.

<u>**FTP Settings Tab**</u>

- A new M4V virtual folder can now be enabled and disabled for FTP settings

# NXOS

- The user interface has been improved to allow for a more common usability among NEXIO applications. For more information, please see the NXOS User Guide, HBC part number 175-100407-00 included with this software release.

- In NEXIO Playlist, an option was added to the Settings to enable or disable the auto-lock playlist feature on startup of a playlist. The new setting is in the **Client Settings** tab under **Other Settings**.

- In each Channel Control window, a channel can now be locked to local-only use, preventing external automation software from controlling the channel. Using the same drop-down control, you can also unlock a channel that has been locked by another process (such as NEXIO Delay or Playlist).

- NXOS now allows the user to create audio profiles of audio tag information. Using this feature of audio track routing, audio tags can be quickly assigned to multiple clips.

- The MediaBase tree view now includes the following new filters:
  - **Modified Today** displays any media that has been modified during the current day
  - **By Record Date** displays media recorded based on certain recent time frames
  - **By Kill Date** displays all media that is either expired or not expired.

- The **General** tab of the **ID Properties** window now contains additional metadata information about each ID.

- A new **System Setup** setting was added in the **Options** tab to define the **Maximum Record Duration** of a clip recorded in NXOS.

- The **Channel Control** window now contains a position bar which can be used to scrub through a clip in its entirety.

- A message now displays if you try to create a new ID in NXOS that includes characters considered invalid by the operating system.

- A new channel locking mechanism is now available in the NXOS Channel Control Windows. A drop-down box allows users to select Unlocked, Local, or Locked to determine which other controllers besides NXOS can make use of a channel.
  - **Unlocked** allows all controllers to use it.
  - **Local** allows only applications running locally on the NXOS to use it.
  - **Locked** locks out any control of the channel.

- The ability to instantly start a record using NXOS has been added. For those users who do not have time to create a new clip name and duration, we have added the ability to start a crash record right away with the name of the clip and other parameters pre-defined.

## PRX Encoder

- Added support for Magellan Diagnostic Logging.

- Added a new option to overwrite any existing proxy files in cases where a new recording with the same name is created. The default setting auto-appends an incrementing number to the file name. To enable the overwrite logic, select the appropriate check box using the menu item for **Tools > Encoder Settings**.

# 7.0 Fixes

The NEXIO 7.0 software release includes the following fixes.

## Server Core

- Previously, an FXP exception on one channel might affect other channels on the same server. The LLM now has enhanced ability to maintain unaffected channels without errors.

- Previously in some cases, when 2 SD clips were cued back-to-back in the same channel configured for 1080i output, an interlace problem would occur where both clips appeared together in the video output. This issue has been fixed.

- Previously in some cases, low-res recordings would fail due to bad input even though the high-res recording continued to record. This issue has been fixed.

## FTP File Interchange

- Previously, when importing a .MOV or .LXF clip encoded with VBI data that exceeded the AV duration of the clip, any import of the clip was rejected as invalid. Now the extra VBI data at the end of the clip will be truncated allowing it to import and play correctly.

- Previously, problems occurred when .MPEG clips imported onto a NEXIO system had .SCC captions added to them after import. This issue has been fixed.

## NXOS/NEXIO Remote

- An issue was fixed where NEXIO Remote, NEXIO PlayList, and Delay would not operate properly if a host server's channel configuration was changed.

- NEXIO PlayList will now automatically scroll the window when the user tries to insert a clip into a section of the playlist that is not in view.

- Previously, a clip could be deleted even if the clip was already cued in NEXO PlayList. This issue has been fixed.

- NXOS now supports servers configured for one bi-directional channel.

- The **By Media Type** filter in the MediaBase Tree will now only show categories for which there are visible clips on the SAN.

- Previously, the **ID ProcAmps** window could not locate the correct position of a clip if its frame rate was 59.94 or 50. This issue has been fixed.

- Previously in some cases, the NEXIO Playlist would stop on the first item in the list if it contained a mixture of drop-frame and non-drop NTSC clips. This issue has been fixed.

- Previously, an issue existed in the **Picons** tab of the **ID Properties** window where the picons would not display correctly for DVCPRO HD content. This issue has been resolved.

- Previously, user accounts could get locked from re-use due to an unexpected crash. Administrators now have the ability to unlock user loging in the User Management function.

- Functionality has been re-enabled that allows the front of a clip to be trimmed while it is still in the record mode.

- Previously, NXOS running on a NX3601 would allow 1080p clips to be loaded in a channel even though that platform does not support higher resolution clips. This issue has been fixed.

- Fixed a problem where sometimes on start up NXOS would not have control over all the channels on a server. Instead one or more channels may say they are "Not Disconnected."

- Previously in some cases, on start up, NXOS would not have control over all the channels on a server. Instead, one or more channels would say they are **Not Disconnected**. This issue has been fixed.

- An issue was fixed where newly digitized clips were not appearing as they should in the Tapebase display.

- Previously, subclips always took the **Agency** metadata of their parent clips, even in cases where the **Use agency from parent clip when creating subclips** setting was disabled. This issue has been resolved.

## NEXIO Delay

- Previously, the Record button indicator would still be lit even after Delay had lost its connection to the LLM. This issue has been fixed.

- Previously, in the Delay remote browser, a server IP/Host name would remain in the recently selected drop-down list even in cases where the IP/Host name was invalid. Now invalid server IP/Host names do not appear.

- Previously, no warning was given in cases where a Timed Record was started for an ID that already existed. Now a warning displays.

- Previously, the Delay would lock up when the user right-clicked and deleted an item from the search results list. This issue has been fixed.

# Known Issues

The NEXIO 7.0 and 7.0.1 software releases both include the following known issues.

## Server Core

■ In an MIOH type system using Farad storage, if a controller is using a key word such as LOOP to trigger a sliding recording, the LLM registry that defines this key word must be set for any MIOH platform through which the NEXIO client communicates.

■ It is not possible to load a Media ID into the NEXIO Playlist.

■ Repeatedly changing the input video resolution to a NEXIO channel that is configured for auto-input resolution detection can sometimes cause the channel to fail due to an FXP error. The failure occurs after hundreds of resolution changes to the same channel input.

■ In some cases the video server will insert VPID data in the ancillary data that is not accurate. For half rate video such as 1080i@29.97 and 720p@29.97, the 4th byte of the VPID reports 0x03, which is a reserved rate. And Byte 2, Bit 6 should be set to 1, not 0, when a 1080p clip is loaded in a 1080i channel.

■ Certain types of AVC-Intra clips recorded on  NEXIO video servers are not playable on third party devices when exported from the NEXIO SAN. The clips play fine on the NEXIO system.

## FTP File Interchange

■ Support for MCC v2 was not implemented for the PAL video standard.