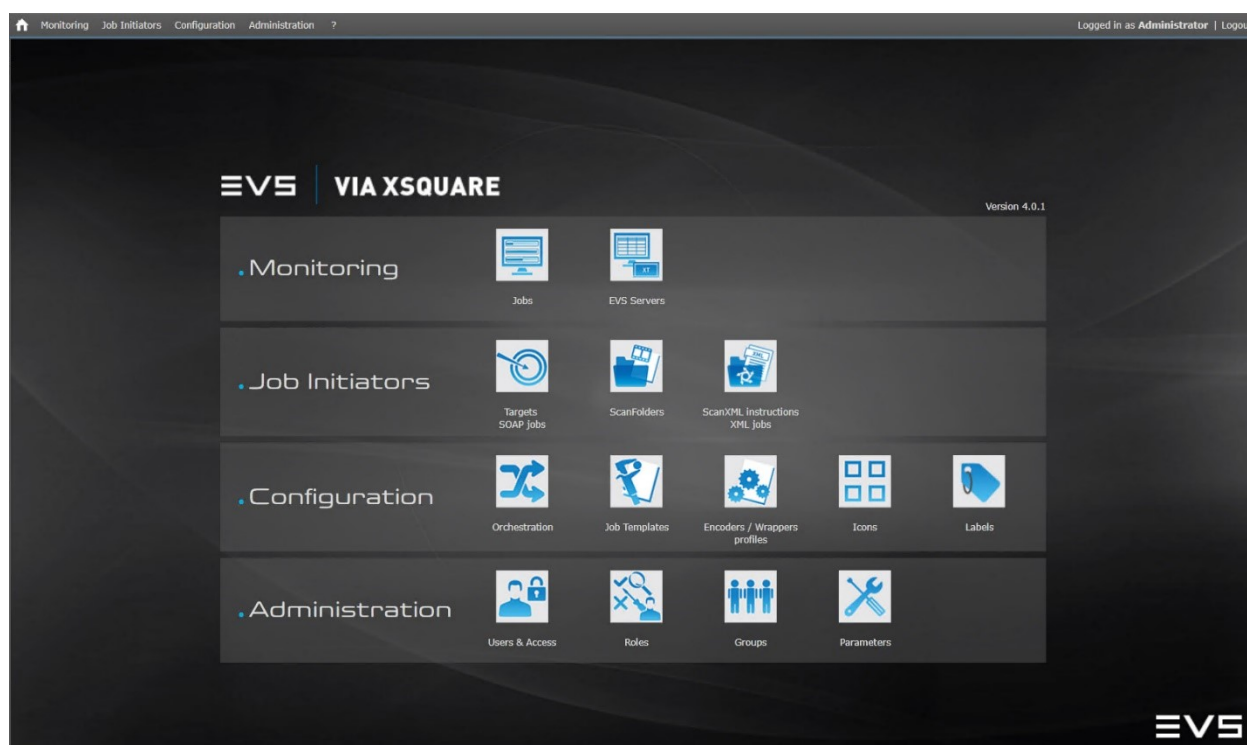




VIA Xsquare Suite 4.3.2

Release Note

June 2021 / 1.0



Corporate

Headquarters
+32 4 361 7000

North & Latin America

Headquarters
+1 973 575 7813

Asia & Pacific

Headquarters
+852 2914 2501

Other regional offices

Available at
www.evs.com/contact



Legal Notice

Please note that the present product is supplied by EVS Broadcast Equipment SA or any other relevant entity of the EVS Group ("EVS") and is subject to EVS Software License Agreement (available on

https://evs.com/sites/default/files/Software_License_Agreement.pdf or upon request) along with any applicable additional terms or policies.

By installing, copying, or otherwise using the present product, you agree to be bound by the above-mentioned terms.

EVS COMPLIANCE MATRIX	5
3 RD PARTY COMPLIANCE MATRIX	5
SOFTWARE INSTALLATION	6
VIA XSQUARE SUITE.....	6
FILE TRANSFER AGENT4C-NEXT	6
OPERATING SYSTEM COMPLIANCE	7
HARDWARE: WHERE CAN I INSTALL VIA XSQUARE AND XTACCESS?	9
LICENSES	10
NEW VIA XSQUARE FEATURES	11
MODIFICATION IN THE VIA XSQUARE API	11
BUGS FIXED	11
GENERAL VIA XSQUARE LIMITATIONS	11
ASSOCIATION TOOL	11
XSQUARE JOBS AND TEMPLATES	11
XSQUARE SCAN XML.....	12
XSQUARE SCANFOLDER	12
NEW XTACCESS FEATURES	14
GENERAL XTACCESS LIMITATIONS	14
NLE SETTINGS	14
TRANSCODING	15
BACKUP	16
RENDERING	16
MAC PRO OS 10.9 (MAVERICKS)	16
MISCELLANEOUS	17

List of documents

Release notes

- **VIA_Xsquare_ReleaseNote_v4.3.pdf** : Release note of Xsquare Suite
- **XTAccess_Codecs_v.4.3.pdf**: List of codecs & wrappers compatible with XTAccess for wrapping, decoding and encoding
- **Compatibility Matrix with NLEs_1.62.pdf** : Compatibility Matrix of Xsquare with Avid, Adobe and FCP

UserMan

- **Xsquare_installman_4.3.pdf** : document which explains how to install Xsquare
- **Xsquare_userman_4.3.pdf**: user manual for Xsquare, similar to the Xsquare online help available from the web interface

TechDoc

(These documents are only available on request. Please contact support@evs.com for more information)

- **How to migrate from XTAccess to Xsquare.pdf**: document which explains how to migrate from XTAccess to Xsquare.
- **How to Set up Xsquare Automatic Redundancy v1.20.pdf**: document which explains how to create a redundancy system with Xsquare.
- **How to create an Adobe Target.pdf**: document which explains how to create an Adobe target with IPD.
- **Avid Setup Guide v1-1.pdf**: Document which explains how configure Avid target through the Avid Webservices and the Avid ISIS client
- **EVS Active Directory Integration.pdf**: Document which explains how Xsquare and IPDDirector interact together with credentials coming from an Active D.

API

- **Xsquare API documentation**: this document is only available on request. Please contact Xsquare@evs.com for more information.

EVS COMPLIANCE MATRIX

Multicam

- Multicam 20.01
- Multicam 20.00
- Multicam 16.05
- Multicam 16.04
- Multicam 16.03
- Multicam 16.02
- Multicam 16.01
- Multicam 16.00
- Multicam 15.03

IPDirector

- IPD 7.92
- IPD 7.91
- IPD 7.90
- IPD 7.80
- IPD 7.70
- IPD 7.60
- IPD 7.50
- IPD 7.40
- IPD 7.30
- IPD 7.20

Misc

- VIA Xsquare 4.0 and above must be used with the SQL Toolkit 6.10.07 or upper (otherwise the re-indexation of the Xsquare DB 3.1 will fail)
- VIA Xsquare/XTAccess 4.0 and above are not compatible with the Xedio XTAccess Integration 4.91 and lower.

Please contact Xsquare@evs.com for more information.

3RD PARTY COMPLIANCE MATRIX

See "Compatibility Matrix with NLEs.pdf"

SOFTWARE INSTALLATION



Please read the following warnings before upgrading to VIA Xsquare 4.x:

- **It is essential to acquire the new VIA licenses in order to run the XTAcess 4.x servers** with VIA Xsquare 4.x. Please contact EVS Support to do so.
- **It is highly recommended to perform a DB backup of your Xsquare 3.X instance before upgrading** to VIA Xsquare 4.x. The automatic downgrade from VIA Xsquare 4.x to Xsquare 3.X is indeed not supported. You will be able to recover a 3.X setup only through a 4.x uninstall, followed by a 3.X install and the 3.X DB restore.

See Installation Manual for details of the installation procedure.

VIA XSQUARE SUITE

VIA Xsquare is shipped within a package called "VIA Xsquare Suite", including EVS applications and third-parties software.

EVS software included in the VIA Xsquare Suite	Version
Notification Center	4.3.2.8
Authentication Service	4.3.2.6
Xsquare Workflow Gateway	4.3.2.6
Xsquare Workflow Host	4.3.2.7
VIA Xsquare	4.3.2.9
Common SNMP Agent	101.0.14.0
XTAccess	4.3.135
AssociationTool	4.3.2.5
FileTransfer Agent4CNext	1.1.2

Other software included in the VIA Xsquare suite	Version
Bonjour Service	3.0.0.10
SQL Server 2016	13.0.1601.5
Silverlight (64 bits)	5.1.50918.0
VC Redist 2010 SP1 (64 bits)	10.0.40219.1
VC Redist 2015 SP3 (64 bits)	14.0.24215.1

FILE TRANSFER AGENT4C-NEXT

The File Transfer Agent 4 C-Next requires the manual installation of the .net 4.7 framework.

OPERATING SYSTEM COMPLIANCE

VIA Xsquare 4.x is compatible with:

- **Windows 10 64 Bits (minimum version 1607) – default OS**
- Windows Server 2016 x64

VIA Xsquare 4.x is not compatible with:

- OS 32 bits version (Windows 7 and Windows 10 32 bits included)
- Other Windows Versions (XP, Vista, 8, server 2003, server 2012, etc...)

WINDOWS FIREWALL

The installer opens these ports on Windows firewall:

On VIA Xsquare device (opened by VIA Xsquare setup):

- 8998 : Internal Xsquare ScanXML service
- 8999 : Internal Xsquare ScanFolder service
- 9001 : NC observer
- 9002 : Xsquare Job Service
- 9003 : Xsquare Config Service
- 9004 : Xsquare Configuration Proxy Service
- 9005: XTA config (opened by the XTA setup)
- 9006: XTA monitoring (opened by the XTA setup)
- 9010 : Authentication service
- 9012: Xsquare Listener Addin
- 9015: Xsquare Workflow Host Service (opened by the Xsquare Workflow setup)
- 9016: Xsquare Workflow Gateway Service (opened by the Xsquare Gateway setup)
- 9017: ServicesMonitoringTool
- 48888 : NotificationCenter (opened by the NotificationCenter setup)
- 48889: Notification Center Client
- 50000 : TCP for the LinX connection management
- 50001 (Inbound/Outbound) --> for discovery (TCP)
- 50002 (Outbound) --> LinX events (TCP)
- 50106 (Outbound) --> LinX DB management (TCP)
- 50107 (Outbound) --> LinX Management (TCP)
- 50100 - 50107 LinX PhysicalChannels (UDP)

We recommend adding directly the Xsquare service in the Windows firewall

On XTAccess device:

- 9000 : For XTAccess
- 9005 : XTA config

Note: it is not possible to modify those port numbers.

BROADCAST ROUTING

Your router must support packet broadcast and multicast routing on these ports:

- 5353: for the Apple Bonjour Protocol
- 50000 to 50002: for the LinX Protocol
- 50100 to 50108: for the LinX Protocol

HARDWARE: WHERE CAN I INSTALL VIA XSQUARE AND XTACCESS?

The **minimum** system requirement for XTAccess and VIA Xsquare is:

- Server hardware (not workstation)
- CPU Intel i7
- 8GB RAM (64GB Ram is recommended)
- GigE board
- VGA 1024x768
- At least 2GB free on the hard disk

For system-critical applications (Real-time XTAccess stream, VIA Xsquare on redundant system, etc): It is recommended to use EVS hardware such as XTAccess, PMA or PMZ.

VIA XSQUARE SUITE STANDALONE

- XTAccess and VIA Xsquare can run on the same computer, but if XTAccess performs transcoding jobs, VIA Xsquare may be slower than expected. If VIA Xsquare is used to manage more than 4 XTAccess devices (Orchestrator), we strongly recommend using a specific computer to run VIA Xsquare (EVS App Server or as a dedicated VIA Xsquare Virtual Machine running on Customer HW or EVS PMZ.).
- If you want to use VIA Xsquare with redundancy system for the DB: you will have to use the EVS DB hardware (the DB can be shared with IPD - see below), or you can use EVS DB Virtual Machines.

VIA XSQUARE SUITE ON IPDIRECTOR HARDWARE OR IPDIRECTOR DB

- VIA Xsquare/XTAccess and IPDirector can be installed on the same computer. In this case, we recommend using XTAccess to process maximum 2 jobs without transcoding at the same time, possibly with thumbnails.
- As VIA Xsquare uses the same redundancy mechanism as IPDirector SQL Databases, it is possible to install VIA Xsquare on the same DB as the IPD DB. But please first contact the EVS Support to check if the DB will be powerful enough.
- If VIA Xsquare has to process more than 1 job every 2 seconds: we strongly recommend using the new EVS DB hardware with more than 4 GB of memory, or you can use EVS DB Virtual Machines.

INTEL NETWORK BOARD DRIVER

If you are using a network board with the Intel chipset 82574 on your XTAccess/VIA Xsquare Hardware (this is the default network board chipset on EVS XTAccess hardware): we recommend upgrading the Intel driver to the version 18.1 or above.

LICENSES

VIA XSQUARE

- No license is needed to run VIA Xsquare

XTACCESS AGENT

To perform basic tasks (grab, delete, move and copy jobs and create metadata), no VIA License is necessary. Destination Licenses are needed for rewrapping and transfers between XS- and XT-VIA servers. For all other jobs (transcoding, miscellaneous video processing, EDL rendering and SDR/HDR static conversion), Advanced Licenses are also required on the XTAccess servers, in addition to the Destination licenses.

No VIA licenses are required to run following type of job:

- Grab, delete, move, copy, create metadata

Destination licenses are needed to run transfer to/from XS/XT-VIA jobs.

- One Destination license is needed per job destination
- Rewrap & file transfers with EVS XT/XS Servers
 - Including Growing file & Edit-while-growing capabilities.
 - Native Clip transfer to/from EVS Servers,
 - Native Multi dest./format export.

Advanced option licenses are needed for transcoding

- One Advanced option + one destination license is needed per job destination
- Clip transfer with transcoding to/from EVS Servers
 - Multi dest./format export with transcoding
 - SDR/HDR & HDR/HDR Cross-Conversion based on Static 3D LUT
 - Playlist/Highlight export as
 - Flattened/rendered asset
 - for archive or web publishing, IPDirector publish add-on required
 - EDL+ clips for AVID edit
 - MXF Opatom + AAF & Interplay checkin
 - Adobe Premiere EDL
 - Logo burn option on clip/playlist transfer

NEW VIA XSQUARE FEATURES

VIA Xsquare 4.3 includes the following new feature :
(see [New XTAccess features](#) section for detailed information):

- **Filebased qualitative deinterlacer filter 1080i to 1080p**
- **AS10 PAD file encoding**

MODIFICATION IN THE VIA XSQUARE API

- /

BUGS FIXED

- /

GENERAL VIA XSQUARE LIMITATIONS

ASSOCIATION TOOL

- The 4.x Association Tool will only display 4.x orchestrators and processors. Please upgrade your XTAccess processors to XTAccess 4.x to add/view them in the Association tool
- To be able to associate XTAccess to VIA Xsquare: they must be on the same VLAN.
- XTAccess and Xsquare hostname must follow the DNS naming convention and contain only the ASCII letters 'a' through 'z' (in a case-insensitive manner), the digits '0' through '9', and the hyphen ('-')
- The Apple Bonjour protocol (used to discover the XTAccess and Xsquare) must be started before Xsquare and XTAccess
- Xsquare could have some difficulty to discover all the XTAccess if there are two network boards activated in two different VLAN on Xsquare computer.

XSQUARE JOBS AND TEMPLATES

- By Target clusters are ignored when orchestrating child jobs of Workflows
- If the UpdateMetadata (ClipName) is sent after the Transform/Referencing job, this change will not be updated in the VIA Xsquare Monitoring
- The Audio Mixdown feature is limited to 16 audio channels. In addition, UI issues appears when the number of tracks is greater than 15 (depending on screen resolution).
- When setting the HD1080P option in existing profiles, the TargetRes parameter of theses encoding profiles must be set to "HD1080p" to force the backup to 1080P format.

- The "auto" setting should allow XTAccess to select the nearest supported resolution to the source, but the XTA-3250 defect prevents correct detection.
- When configuring the C-Next post-processing in a template, the Avid Checkin UI has invisible options. These should not be used together in the same template
- On Job Initiators page UI, the C-Next profile options are not displayed on multidest receivers until the first save
- It is impossible to create more than one NLE referencing per destination;
- The EVS Server PC LAN network board must be connected to the Network to use the auto codec detection mechanism;
- To use the auto codec detection: it is necessary to have XTAccess Xsecure licenses;
- The auto codec detection will be run every 30 seconds on the network;
- The compulsory and keep partial parameters are not available for the EDL+Clips job. The EDL+Clips job will always use compulsory = true and keep partial = false. So if the EDL+Clip job is canceled or fails: XTAccess will delete all the files created;
- The retry of the job is done with the information of the original job. If the user changes the template used in the job: the new template will not be used in the retry job except if Xsquare has rebooted between the original job and the retry.

XSQUARE SCAN XML

- This Xsquare job initiator is deprecated. We strongly recommend using Xsquare Soap jobs instead of XML jobs

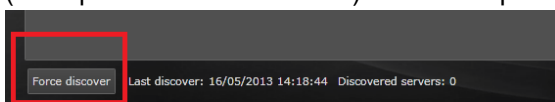
XSQUARE SCANFOLDER

- The scan folder source must be a shared folder on the network (UNC Path) and the Scan Folder service must have Read/Write access on it.
- If you want to be sure that the local XTAccess of the source watch folder will execute the job, you will have to create a Removable cluster
- It is impossible to access different UNC path from the same computer with different Windows User. The Xsquare computer can access another computer with only one user.
- The move job if the scanfolder job is failed will not work if the source file is still growing
- When creating a ScanFolder for Graphical Sequence via SOAP API (XsquareProxyService), specifying its Enabled parameter to TRUE, the ScanFolder is created but not started. The workaround is to start the ScanFolder after creation, either via a SOAP StartScan request or manually via the UI.

GENERAL LIMITATION AND INSTALLATION

- When changing the PC LAN IP address of an XT, the Xsquare targets using the "same as dest" codec configuration stop working with that XT server. The workaround is to restart the Xsquare services.
- On XT3 / XS3 servers equipped with H3X controller board, a maximum of 6 concurrent XTAccess jobs should not be exceeded (in and/or out)

- The Xsquare Suite Setup light installer will no longer stop the installation if the VCREDIST prerequisite is not present on the machine. Please check the VCREDIST version before using the installer light. Running Xsquare without the VCREDIST requirement may result in inconsistent Xsquare and XTAccess behaviour. The workaround is to install the adequate VCREDIST version and restart the Xsquare service.
- The .net 4.6.1 and 4.7 framework installers might require an internet connection to download and install a certificate. See [following Microsoft link](#) to learn how to work around this issue.
- Xsquare will not install on Microsoft SQL Server 2017.
- The FileTransfer Agent4C-Next will not install if the .net 4.7 framework is not available on the machine. Please refer to the installation section for more information.
- The Xsquare Suite installation can fail in Standalone mode when the SNMP service is stopped. Known workaround: Install in advanced mode, or start the SNMP service manually
- Xsquare will use the first network board in the list to discover the XT. So the XT vlan must be plugin on the first Network board of Xsquare
- Xsquare could take up to 5 minutes to detect a new EVS server on the network. So we recommend forcing manually Xsquare to discover the EVS servers after each modification (example: EVS Server reboot) on the setup.



- The Xsquare installation could take time (20 minutes) and ask for reboot if SQL Server and the .NET frameworks are not already installed on the computer.
- The SQL Express installer could ask to close the Xsquare suite setup. In this case you can ignore the error and continue the installation
- If you create several XTAccess with the same ghost: it is necessary to remove this registry key (HKEY_CURRENT_USER\Software\EVS Broadcast Equipment\XTAccess\XTAccessUUID) in the original ghost. This Key is created automatically at the first boot of XTAccess and must be unique.
- The web interface (based on Silverlight) is only compatible with Microsoft Internet Explorer
- It is not possible to downgrade Xsquare versions below 3.9.6.136. If you want to downgrade newer versions, please note that the Xsquare DB will be cleaned.
- Unable to start Xsquare Service after upgrading Xsquare Suite from 3.8.15 to 3.12 or above. Known workaround: Start with a clean database.

NEW XTACCESS FEATURES

XDCAM MXF AS-10 FORMAT

AS-10 is an application specification created and maintained by the Advance Media Workflow Association ("AMWA"), which was formed by a significant number of broadcasters and manufacturers with the intent of making MXF workflows easy to implement.

A new encoder profile is available for this specific file format.

QUALITATIVE DEINTERLACER FILTER

A new deinterlacing filter has been introduced to provide interlaced to progressive conversions with a higher quality.

A new parameter is available in the encoder profile to select the deinterlacing filter mode. Filter is automatically applied if the source is interlaced and target resolution is progressive.

GENERAL XTACCESS LIMITATIONS

NLE SETTINGS

- General :
 - Export PL/TL: EVS recommends opening the FCP EDL (XML) or Avid EDL (AAF) only when all the child backups are done. Otherwise the NLE (Apple FCP or Avid Media Composer) will not update the growing media in their timelines.
 - The EVS metadata present in the EDL exported from a PL/TL are the metadata of the original clip and not the metadata of the backed up file which could be different (new Varld, new duration, new In point, etc)
- Adobe NLE :
 - To be able to see the EVS metadata in Adobe premiere through the XMP file : It is necessary to copy the EVS schema in this folder
 - Windows C:\Users\nomutilisateur\AppData\Roaming\Adobe\XMP\Custom File Info Panels\4.0\custom
 - Mac {Home Directory}/Library/Application Support/Adobe/XMP/Custom File Info Panels/4.0/custom/
 - You can contact support@evs.com to ask the EVS schema for Adobe
 - The XMP metadata file doesn't support complex XML structure. So some EVS metadata are not available in the XMP metadata file
- FCP NLE :
 - The delay between the EVS XT server Live and first picture available in FinalCutPro 7 is +/- 15 seconds (tests done in DVCPRO HD NTSC and IMX NTSC)
 - The Matrix of metadata for FCP is only working for the clips metadata, not for the EDL.

- Avid NLE :

- It can happen that some long streams sent to Avid are failing instantly in XTAccess. In this case it is necessary to change the Avid AMT buffer size. Before 3.8 version, it was configurable from Xsquare. Now with the version 3.8+: it is only possible to change that manually in the Windows registry setting.

Possible value

- 512 KB -> 524288
- 1MB -> 1048576 (recommended value in case of issue)
- 2MB -> 2097152
- 4 MB -> 4194304
- 8MB -> 8388608
- 16MB -> 16777216

[HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Avid
Technology\GenericHelper\MXF]

"BufferSize"="1048576"

- It is impossible to update a backup of train in Avid XDCAM OPATOM and Avid H264 proxy in these situations (no problem with the others codecs/wrappers) :
 - If the initial duration was < 2h and the update > 2h
 - If the initial duration was >2h and the update > that the initial duration
- The delay between the EVS XT server Live and first picture available in MediaComposer is +- 20 seconds for the video and +- 30 seconds for the audio (tests done in DVCPRO HD NTSC and IMX NTSC)
- When browsing a growing EWC media, sometimes Media Composer displays "FILE_OTHER" instead of the video. The file must be refreshed by double clicking on the clip in Media Composer bin.
- Message "PMM_INSUFFICIENT_MEDIA" in Media Composer when a media is updated and stretched: the duration is longer than the original one. It is not possible to increase the duration of a media sent to Avid. Note: reducing the duration of the media is OK (see limitation below anyway).
- When updating the duration of the media in Interplay with a shorter duration, the new short out is correctly updated but you need to delete the clip from the Media Composer bin and re-import the media from Interplay in order to place the short out anchor in the right location in the viewer. Limitation of Avid Media Composer
- #35613: It is only possible to use the <General_Infos> and <Clips_Infos> XML tags in the Avid Tape.
- It is impossible to display the Closed Captioning on a growing file in the Media Composer

TRANSCODING

- XTAccess doesn't support job which starts with a bottom field. In the job the TC In must always be a Top field

- #23834: it is necessary to configure the target resolution to 720P/1080P to do rendering of playlist in progressive mode.
- #35675: IMX 30, IMX 40 and IMX 50 are considered as different codec for XTAccess. So the smartrendering is not working between these IMX Bitrates.
- Growing MPEG Dash files created by XTAccess 3.9+ cannot be read by Software Player < 3.9

BACKUP

- Growing clips without out point are not supported
- If the backup paths are not exactly the same (for example: C:\Video\Toto.mxf is different than \\Xstore60170\Video\Toto.mxf) the XTAccess auto incrementation "(1) (2) (3) etc .." of the filename is not working. We recommend to use %GUID in the file name format string in IPD to be sure that there will never be two times the same file created simultaneously by XTAccess
- #31464: XTAccess doesn't create FCP.XML file in case of backup of 3D clips
- XTAccess doesn't reference OPAAtom files in Avid Interplay in case of backup of 3D clips
- #37057: %TCINDATE and %TCOUTDATE FileNameFormatString option don't work for the rewrap jobs.

RENDERING

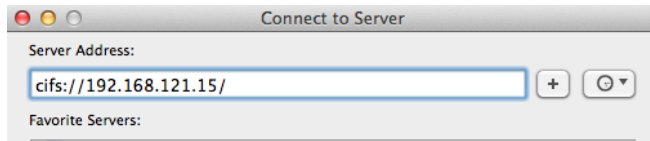
- #36164: XTAccess can use a lot of memory to decode QT files due to the QT structure
- #38861: XTAccess will not render the audio of one element SLSM "All Frames" in an EDL
- #39025: The EDL rendering in DNxHD with a no video element as first element is not working

MAC PRO OS 10.9 (MAVERICKS)

- Issues were reported while transferring media to/from Mac OS X Mavericks (typically, "Encoder DLL Error"). This version of Mac OS X supports the SMB2 file transfer protocol that was introduced by Microsoft in Windows Vista in 2006, and later improved on Windows 7. It was reported that Apple SMB2 support was not fully compliant with the Microsoft implementation and we can reasonably expect Apple patches to solve this situation.
- In the meantime, it's it strongly recommended to disable SMB2 on the client machine, and force using SMB by running the following commands and then restarting Windows:

```
sc.exe config lanmanworkstation depend= bowser/mrxsmb10/lsi
sc.exe config mrxsmb20 start= disabled
```

- You can also use CIFS connection to avoid trouble with SMB2



MISCELLANEOUS

- Unicode & ASCII extended: Transfer of Unicode metadata to Avid Transfer Manager is not supported.
- In case of backup of trains, <XT_Creation_Time> tags are based on XTAccess workstation date and time, not on XT date and time.
- Progress current TC in IPD is not available for the Copy XT to XT and with the Avid transfer. The progress bar is available.
- In Hi-Lo mode: you need to use %VCodec or %GUID to do the difference between the two backed up clips and XML
- %K1,%K2, etc take the XT keyword with maximum 12 characters and not the IPD Keyword with 64 characters