SAT AI AutoIngest —

Efficiently ingesting SONY XDCAM clips and metadata to your Avid environment

SAT AI AutoIngest is family of products designed to transfer file based media, with metadata, captured on SONY XDCAM devices to Avid Unity/ISIS or directly to an Avid editor's local storage.

Using NL Technology's SAT AI AutoIngest technology, users can move SONY Proxy and High Resolution MXF XDCAM media and its accompanying XML metadata from the XDCAM disk to Unity storage or a local editor's hard drive, creating Avid clips, without using an Avid editor to import. SAT AI AutoIngest is offered as a turnkey system, with all of the necessary components to connect directly to the Avid Unity/ISIS or as one of two software-only solutions to meet specific site requirements and budgets.

The transfer of the digital media and metadata can begin sooner and faster than ever before—even from a remote location. Begin sooner because there is no waiting for an edit suite and faster, because our multi-tasking architecture reads from the optical disc and transfers to Unity simultaneously. Once the transfers are complete the user can clear the media off the XDCAM device(s), thus allowing their reuse in the field or to be put on the self as a source master for archive. AutoIngest lets the user automatically transfer media as soon as the camera disc is inserted and mounted by the ingest computer, without intervention. Users also have the ability to assign and customize metadata before or after transfer. Clips can be tracked, sorted, and organized simultaneously during ingest. During the clip-based transfer, AutoIngest displays video clips with head frames, proxy video and all metadata provided by the SONY camera.

AutoIngest provides simple and fast ingest to an Avid Unity workgroup environment by automatically converting Sony XDCAM file based media and enhanced metadata to Avid compliant MXF media. The software can quickly assign useful clip names with the AutoIngest "Batch Edit" function or automatically use the photographer defined clip name (title1) entered in the XDCAM camera. Clip quality status, if set, is built into the metadata information sent to the Avid so that the editor can quickly find clips that the photographer has marked as important.

SAT AI AutoIngest provides the next level of flexibility, with the ability to store video assets to any catalog within the Avid Interplay or MediaManager environment. The Avid Web Services tools are used to perform the catalog and head frame check-in.

SAT AI AutoIngest not only improves the ingest process but it improves efficiencies at the editing station as well. Using a dedicated machine for ingest frees up editing resources for their intended purpose, editing. Faster transfer to the editing station gives editors more time to work and collaborate among peers. Ingested digital media arrives with complete metadata, allowing assets to be searched and shared as soon as they arrive. A simplified UI minimizes labor required to ingest.

SAT AI AutoIngest Configurations:

SAT AI AutoIngest Server

SAT AI AutoIngest Server is a high speed integrated hardware and software solution designed to transfer media directly to your Avid Unity ISIS shared storage. This network attached turnkey solution comes pre-configured with SAT AI AutoIngest software, Avid TransferManager™ server and Avid web services allowing seamless integration into your existing workgroup environment. This solution is ideal for users who do not currently have a TransferManager server or who want to bypass their existing TransferManager server and connect directly to their ISIS system. High speed network interfaces, high speed storage and direct connection to Avid Unity ISIS guarantee maximum ingest performance. Terabytes of hardware RAID 5 storage, redundant power supplies and redundant fans ensure your data is protected.

SAT AI AutoIngest

SAT AI AutoIngest is a software only solution designed to provide network attached ingest to your Avid Unity MediaNet or ISIS shared storage. SAT AI AutoIngest runs on an existing Windows XP workstation and connects to Avid Unity as part of a local workgroup through your existing TransferManager server.

SAT AI AutoIngest Solo

SAT AI AutoIngest Solo is a software only solution designed to ingest media directly into your editing workstation's media storage folders. SAT AI AutoIngest Solo runs locally on your stand alone Avid Editor and provides seamless integration with MediaComposer or NewsCutter bins without the need for Transfer Manager.

SAT AI AutoIngest Features:

Metadata Ingest
SAT AI AutoIngest ensures that ALL metadata generated by the Sony XDCAM camera or deck is transferred to the Avid environment and mapped to standard fields for use in the Avid bins. Metadata includes all MXF and XML data, good shot markers, enhanced metadata assigned optionally with the PDZ-1, as well as any customized metadata added with AutoIngest using the easy to use graphical interface. Custom metadata enables the assignment of meaningful clip names or new column based information that the photographer wants to add for the editor at ingest. As an example the "title1" field in the XDCAM camera is appended to the conical name "C00xx - <title 1 value>" for the clip name. This enhanced clip name is helpful in the Avid Editor for both descriptive identification as well as managing notes taken in the field. Without AutoIngest the only information available in the editor would be the conical name C00xx.

AutoIngest's powerful metadata tools allow batch level or individual clip level metadata modifications. Edit existing metadata or add new metadata 1 clip at a time or across multiple clips simultaneously. The metadata template tool allows new metadata fields to be pre-defined and automatically added to every clip associated with a particular device defined in the device list.

AutoIngest also reads the contents of the optional Discmeta file that can be created on the XDCAM media and converts relevant information, for example Disk Titles, to clip based metadata that is associated with the clips sent to Avid.

In addition, AutoIngest reads all of the essence shot mark data for each clip, including the additional SubEM comments that can be created with the PDZ-1, and converts them to Avid locators, with extended comment data. The appending of the SubEM comments is a feature not available with the Avid import tool. AutoIngest allows the assignment of Avid locator colors prior to ingest.

Proxy Workflow
SAT AI AutoIngest fully supports the Sony / Avid proxy workflow, in that AutoIngest can transfer the Proxy clips to the Avid Unity environment and allow the user to edit and conform to the high resolution video later. Users have the option to ingest Proxy media only, high resolution media only or both Proxy and high resolution media. When both high resolution and Proxy media are selected for ingest, the user can define the order the media is ingested by selecting **Proxy First** or **Proxy Last**. Selecting Proxy First allows quick access to the proxy content so the editing process can begin before the high resolution content has been transferred.

AutoIngest further enhances the Proxy workflow by automatically substituting the lower quality proxy 8 Khz audio with the high-resolution 48 Khz audio. In a traditional avid workflow the low quality audio would be up converted to high resolution audio providing larger files with no added quality. Using the AutoIngest approach, the native high quality 48KHz audio is provided with no storage penalty. This feature allows users to accurately edit to sound bites, while using proxy video.

Automatic Sequence Creation
SAT AI AutoIngest supports the creation and check in of Avid Sequences for enhanced clip viewing on the Avid Editors. Sequences can be generated automatically or manually and are applied to Proxy and high resolution clips. By creating and importing sequences to the Avid large numbers of clips can be grouped as a single unified clip on the Avid timeline. Users can then scrub through multiple clips within the sequence for easy clip browsing.

Audio Conversion
In addition to matching high quality audio with proxy video, AutoIngest allows users to specify the desired bit width of the ingested audio in order to best match the downstream audio workflow. AutoIngest performs the audio width conversion at the time of Ingest and provides the option to convert 16 bit captured audio to 24 bit ingest audio and vice versa. This is an optional conversion selected by the user prior to ingest and allows greater flexibility and compatibility for media used downstream during playout. Performing this conversion during the Ingest process eliminates the need to have an Avid editing system perform this conversion later.

Direct Ingest from XDCAM Cart
AutoIngest also provides the only solution for direct ingest from the Sony XDCAM Cart Library into the Avid environment. A browser allows the selection of a specific disk from the library for ingest into the Avid. In addition, AutoIngest provides a batch mode operation for selecting a group of disks to be ingested with no user interaction required. For example, a set of 20 XDCAM disks can be loaded into the XDCAM Cart Library and AutoIngest will detect the new disks and automatically begin an overnight ingest to Avid Unity with no operator interactions required.

Archiving
The Archive feature in AutoIngest provides the ability to send media and metadata to a generic FTP server including media contained in MXF files and metadata contained in AAF or XML files. The destination paths for the media and metadata files can be different.

The archive function is done in a separate process (the Archive Engine) from the main AutoIngest application such that slow archive links will not affect AutoIngest operation. The AutoIngest user interface simply queues an archive task to be performed on a selected clip to the Archive Engine. Once queued, the user can then move on to other ingest operations. For a specific clip AutoIngest stores the media locally as Avid compatible MXF files, queues an archive operation and then ingest into Avid Unity (if selected). Like the ingest process, the archive function can be set up for automatic or manual operation.

The Archive Engine uses a separate user interface to show status for an archive operation. Note that the Archive status display on the AutoIngest user Interface is only used to indicate that a clip has successfully been sent to the Archive Engine – NOT THAT IT IS DONE ARCHIVING. For detailed status of the actual archiving process, the Archiver main form can be brought up via the “Show” button on any devices Archive tab or by double clicking the AutoIngest icon in the system tray or by right-clicking the icon and selecting Open.

SAT AI AutoIngest Workflow:

Transferring file based media from your XDCAM optical device to Avid could not be easier using AutoIngest. Start by capturing media with your Sony XDCAM device. Optionally, you can perform additional metadata enhancements to clips and assign additional shot locators using the Sony PDZ-1 Browsing software. To begin the ingest process bring the XDCAM optical media to an XDCAM deck connected to your AutoIngest system via FTP or to a PDW-U1 attached directly to your AutoIngest system. AutoIngest detects the presence of new XDCAM media and immediately scans for new clips. If configured for automatic operation, AutoIngest begins transferring all file based media from the optical storage directly to your Avid workgroup or stand alone editor, creating and checking in fully compliant Avid MXF. Manual operation of AutoIngest allows the user to batch rename clips and add, modify or delete metadata prior to transfer. As each clip is created, all metadata assigned at capture and with the PDZ-1 is transferred to the Avid with the media providing a rich set of descriptive information for the editors. AutoIngest can be configured to bring in Proxy media first to allow editing to begin sooner. AutoIngest replaces the proxy audio with the high quality high resolution audio material. High resolution media is automatically linked to the proxy clips at the time of transfer to complete the Proxy workflow. AutoIngest also stores a copy of the XDCAM media and metadata in Avid compliant format to the local hard drive. This serves as a temporary archive so the XDCAM optical device can be safely returned to the field for reuse or placed in storage for long term archive. Media from the local storage can be re-ingested to the workgroup at any time in the future if required.

SAT AI AutoIngest Workflow with a SONY XDCAM Device

Acquire **Ingest** **Store** **Collaborate**

Because the media is transferred with all its metadata, editors are able to work with the data as soon as it is ingested, allowing immediate collaboration and enhanced creativity.

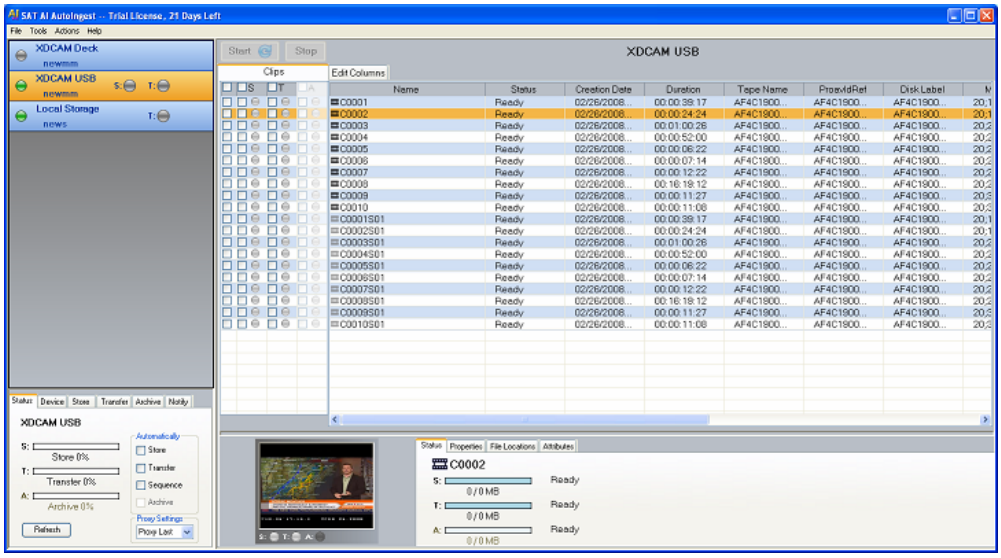
SAT AI AutoIngest User Interface:

The SAT AI AutoIngest User Interface has four areas:

- Device List Area: identify media storage/adapter devices
- Device Details Area: media device setup, configuration and status
- Clip List Area: view and edit Clip Metadata
- Clip Detail Area: view Clip properties from Clip List area and view thumbnail of the clip (if one exists)

Device List

Device Details

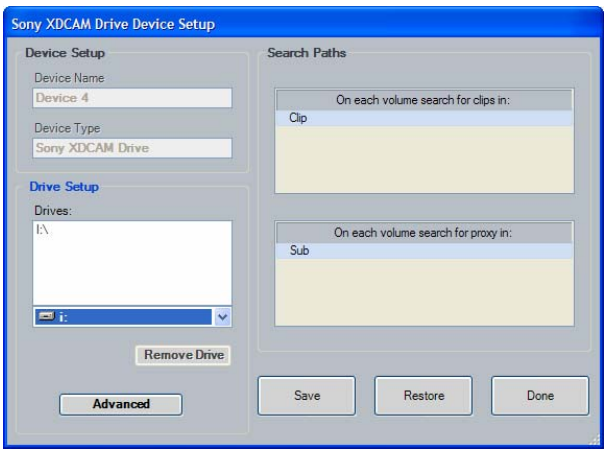


Clip List

Clip Details

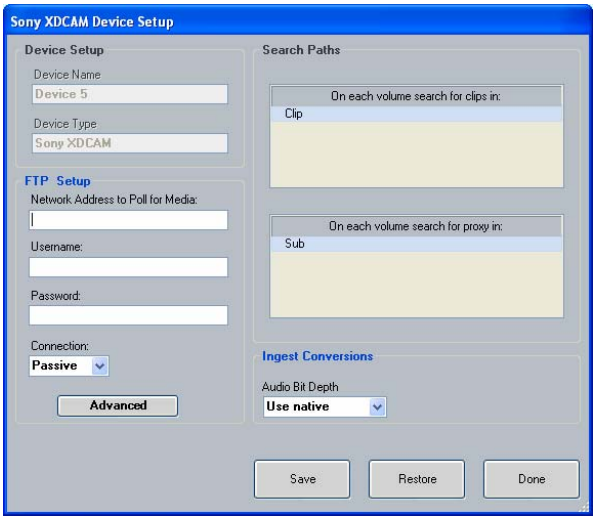
The SONY XDCAM Professional Disc Drive Device Setup

Below is an example of the Device Setup Dialog Box that is used to configure operation with an XDCAM USB Disc Drive Unit or other devices which use drive letters for physical units. Multiple drive units can be assigned to a single AutoIngest device.



Add the drive letters to the Drives list by choosing them (one at a time) in the drop down menu list under the **Drive Setup** list.

The SONY XDCAM Professional Deck Device Setup
When using a Sony XDCAM Deck as a network device [FTP device], you must specify the network address, the User Name and the Password for the device.



SAT AI creates media compatible with the following applications:
Avid Interplay™
Avid MediaManager™
Avid Nearchive™
Avid Unity™
Avid ISIS™
Avid Editors that support MXF media files
MediaComposer®
NewsCutter®
Symphony Nitris®

Supported SONY Equipment
SONY XDCAM Cameras and Decks in FTP mode, via Ethernet connection
PDW-F330 / F350
PDW-F30, PDW-F70/F7, PDW-1500 with the Network board
SONY XDCAM PDW-U1 USB Professional Disc Drive Unit
SONY XDCAM CART Library System

SAT AI AutoIngest ISIS Server – Turnkey System
Includes:
SAT AI AutoIngest software
Avid TransferManager Server Software & license
Avid WebServices Software
Avid ISIS Client Software
XEON Quad Core Processor
4 TB Raid 5 removable storage
2 GB High Performance Memory
Quad Gigabit Ethernet
2 U Rack mount chassis
Redundant Power Supplies and Cooling

SAT AI AutoIngest
Includes:
SAT AI AutoIngest software
Avid TransferManager Server Software & license
Avid WebServices Software
Requires:
Customer Supplied Windows XP workstation
- 2 GHz CPU or greater
- 1 GB RAM
- 25 GB free disk Space (minimum)
- 1024 x 768 (or larger) screen resolution
- USB 2.0 (for connection to PDW-1 XDCAM adaptor)
- 1Gbps Ethernet

To download a 21 day-trial version of SAT AI AutoIngest software, go to www.nltek.com. The 21 days will start when you install the software.
For more information email: info@nltek.com
For support email: support@nltek.com