

EDIUS Broadcast & Sony XDCAM

Edit XDCAM efficiently with
Grass Valley EDIUS & Sony PDZ-1



EDIUS Broadcast and XDCAM

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INTRODUCTION

This document explains how to edit native XDCAM or XDCAM HD with Grass Valley EDIUS Broadcast and the software tools provided by Sony. In the examples described, you will require a local area network (100 Base T Ethernet or Gigabit Ethernet) to which is connected a Sony PDW-1500 XDCAM VTR, a PC laptop on which is installed the Sony PDZ-1 software and a PC workstation equipped with EDIUS Broadcast. Please bear in mind that the workflow described here should be only be considered as one example and could vary in many ways, for instance by using only one PC workstation on which all the software would be installed and directly connected to the PDW-1500 VTR, or by using several PC laptops (for news editing purposes for example) for browsing and logging video clips. This workflow applies to both XDCAM and XDCAM HD.

Equipment required:

- Sony PDZ-1 software (2.01 or later)
- Sony AutoMXF Transfer Manager software (1.04 or later)
- Grass Valley EDIUS Broadcast (4.1 or later)
- XDCAM or XDCAM HD VTR and supplied software

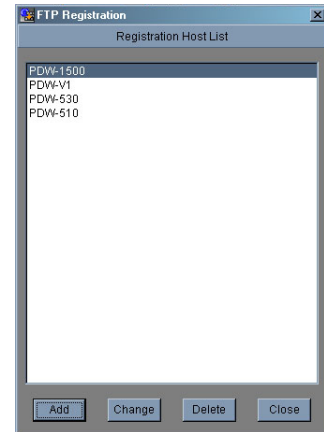
Special thanks to Guilhem Krier and AV2P in France for their help in preparing this 'How To' Guide.

1. COMPLETING A FULL XDCAM/XDCAM HD EDITING PROJECT

Browsing and selecting clips

In this workflow, browsing and selecting clips are performed primarily by the Sony PDZ-1 application. Alternatively, it could be done with XDSelect, which comes with EDIUS (see part 2).

Start by inserting an XDCAM disc in the XDCAM VTR connected to the network. In this example, we're only using one PDW-1500 XDCAM VTR, but it is also possible to use several VTRs, as each VTR is identified by its own network information (IP address). It is possible to select any VTR connected to the network. Launch the Sony PDZ-1 application from the PC laptop. If the PDZ-1 was not previously configured, first go to **Tools>FTP Registration** and enter the necessary information in order to connect to the XDCAM VTR that will be used. Then go to **Tools>Options>Workfolder** and enter the path to the Workfolder - this is the folder that will be used to store data like proxy files and MXF files plus any other data related to the project. Take care to enter the path of the folder that contains the Workfolder, not the path of the Workfolder itself, or another Workfolder will be created inside of the actual Workfolder.

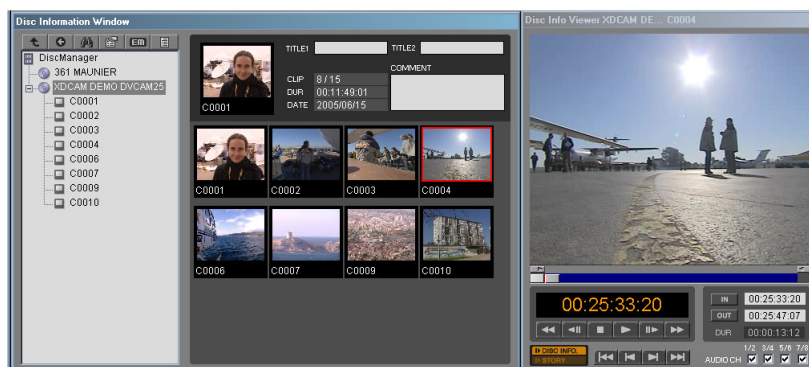


Then, to connect to the XDCAM disc, go to **File>Read File From ProDisc**. This will enable you to connect to the preferred XDCAM VTR. Once connected to the VTR, the Disc Information Window appears and you can access the video clips stored on the XDCAM disc. By default, all clips are selected, so you just have to select "Execute" to send all of the files to the Workfolder of the laptop.

Please note that you are only sending the *proxy* files for now, not the "full" MXF files. Proxy files are a low-resolution version of the MXF clips, designed for fast transfer, browsing, and rough editing, as opposed to *essence* files, which are the full-quality versions of the clips that you will use for editing and finishing the project. Keep in mind that each clip stored on a XDCAM disc has **TWO** video files associated with it: *proxy* and *essence*.



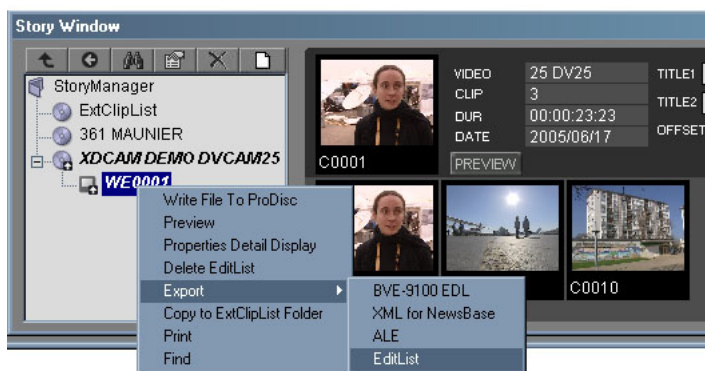
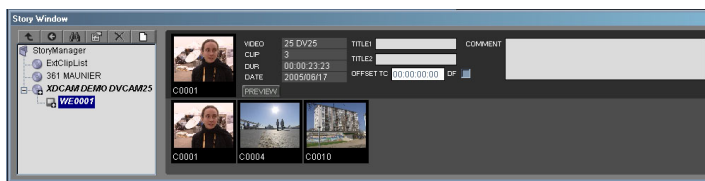
Now your proxy files are stored in the Workfolder of the PC laptop. The transfer of these files is very quick because proxy files are comparatively small, and the transfer speed can be significantly increased by using a fast network connection. The clips, once transferred, will be available in the Disc Information Window and can be previewed easily in the **Disc Info Viewer** by a simple click on the clip.



Rough Cut and EDL Export

In the Story Window, right-click on **ExtClipList** in the Story Manager folder and choose **Create ExtClipList**. An Ext project is then created, into which you will put clips from the Disc Information Window. You should also rename it by right-clicking on the Ext project and choosing **Rename ExtClipList**.

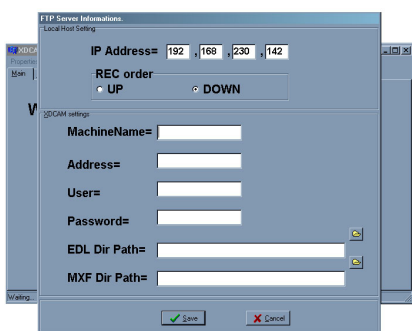
To select the clips to be added to the project, simply click on the clip in the **Disc Information Window** in order to preview it in the **Disc Info Viewer**. Then add an in-point and an out-point to the clip, and drag and drop it onto the timeline in the Story Window. Just keep on adding clips to the timeline until you have a first rough cut. Note that once placed on the timeline, clips can be freely moved around, and you can preview the rough cut at any time by hitting the **Preview** button in the Story Window. When you are happy with the rough cut,



right-click on the Ext project in use and choose **Export>EditList**. Choose a name for the EDL file and save it in a specific “EDL” folder, either locally in the laptop, or on any of the PCs connected to the network.

Retrieving Essence files

You now have the EDL file corresponding to the rough cut you just made, which uses proxy files. You must now retrieve the “full quality” clips corresponding to the proxy files in order to edit and finish the project. This task is automatically performed by the Sony software, **AutoMXF Transfer Manager**, which retrieves essence files based on previously exported EDLs. Launch **AutoMXF Transfer Manager**. This software is designed to run in the background. You can use this application on the PC laptop used to make the rough cut, on a PC workstation used for finishing, or from any other computer on the network. Start by clicking on the **Properties Tab** to enter the information needed to connect to the XDCAM VTRs (IP address). Enter the **EDL Dir Path** - this is very important as it will tell AutoMXF Transfer Manager where to retrieve the EDL files from.



Enter the **MXF Dir Path**, which sets where the essence files will be copied to, from the XDCAM discs. For better performance, use a folder on the editing station or a folder on the media server if you have one on the network. *Please note that each path entered must end with “\” in order to work.* The folder chosen for EDLs will effectively be treated as a Watch Folder by AutoMXF Transfer Manager, which means that the application will detect any EDL placed in that folder and retrieve the essence files associated with this EDL automatically (and immediately). The option **Rec Order** offers two choices - Up or Down - which define the order in which the video clips retrieved from the EDLs will be placed on the timeline in EDIUS.

By exporting EDLs to the watch folder of AutoMXF Transfer Manager, you’ll automatically be prompted to insert the XDCAM discs related to that particular EDL. Even if several discs were used to produce a particular EDL, AutoMXF Transfer Manager is able to retrieve all the required clips on each disc in one pass. While transferring the essence clips, AutoMXF Transfer Manager creates a new directory inside the folder previously chosen as **MXF Dir**. Please note that the essence files that are copied to the PC are “trimmed” using the in and out points specified when logging the clips with the PDZ-1. This saves disk space by only keeping the data needed, and preserves in and out points while importing the rough cut to the EDIUS timeline. Also note that the essence clips copied to the PC are renamed and exported sequentially, just as they occur in the EDL - you can import them into EDIUS and get your rough cut directly.

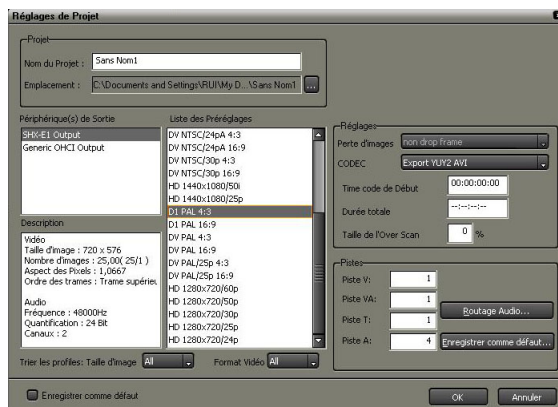
Editing and Finishing with EDIUS

You now have folders containing the full-quality, sequentially-named video clips. Launch EDIUS. When prompted with the splash screen, select “New Project” and choose the template “DV NTSC”, for example, if you are using XDCAM discs (IMX or DVCAM codecs) or choose an HD template such as “HDV1080i” if you are using XDCAM HD discs (HDV codec).

Select which hardware to use: either a standard IEEE 1394 Firewire board (Generic OHCI), or the Canopus board installed (when editing with EDIUS NX, SP, SD or HD). When using a standard Firewire board, note that you can only get a video preview through Firewire when using an “SD” template, such as DV.

In order to preview HD projects (templates such as “Full HD” or “HDV”), you need additional hardware such as EDIUS NX, EDIUS SP, EDIUS SD or EDIUS HD. Once EDIUS’ interface is fully loaded, right-click in the left area of the Bin and choose **Open Folder**.

Now choose the folder containing the essence files in the MXF Dir. The folder appears in the Bin; just drag and drop it to a video track on the timeline, and the rough cut will appear. You can now start editing with all the tools provided by EDIUS. You can of course access each MXF file independently, or import other MXF files to add to your rough cut. You can also mix MXF files from XDCAM discs and MXF files from XDCAM HD discs, as EDIUS accepts a variety of clips and codecs on the same timeline. You can also mix HDV files and Canopus HQ files with your MXF files.

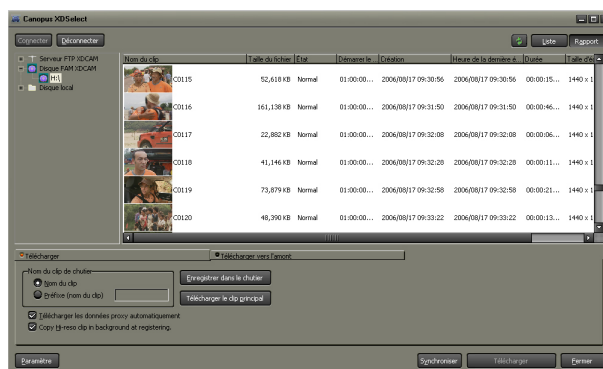


2. USING XDSELECT AND EDITING WITH PROXY FILES

XDSelect is a tool that comes with EDIUS and allows connection via Firewire or Ethernet to any XDCAM or XDCAM HD unit to retrieve proxy and essence files. XDSelect is not designed for rough editing like Sony PDZ-1, but allows transfer of MXF files very quickly to the hard drive in order to edit them with EDIUS. It also permits synchronization of an XDCAM unit with a specified folder on your hard drive, so that any file on the XDCAM disc which is not already present in that folder will be automatically transferred. You can learn more about using XDSelect in the “EDIUS Broadcast” user manual. XDSelect can be accessed directly through EDIUS’ interface (via the **capture** tab) or through Windows **Start menu** (via the Canopus folder).

With version 4.1, EDIUS Broadcast allows you to import and edit proxy files directly. To do so, right-click in the left area of the Bin and choose **Open Folder** or **Open File** and click on the proxy files you want to open. Proxy files appear in the Bin and can be freely edited. As a proxy file is a low resolution file, it should only be used for rough cuts, not finishing.

The complete workflow described above applies to a situation where proxy browsing with in/out points, EDL export, transfer from several XDCAM discs and retrieving of partial MXF files are needed. It is also possible to use XDSelect to simply browse and transfer files. Also, a Firewire connection can be used instead of an Ethernet connection, which can be more complex to set up. When launching XDSelect, first connect to the XDCAM unit. When using Firewire, the connection is direct (Windows should detect and mount the unit). When using an Ethernet connection, you need to set up the unit first so that it is detected (by entering the IP address). As soon as a disc is inserted in the XDCAM unit, thumbnails of the clips will appear in XDSelect.



There are a number of different ways to use XDSelect:

1. **Add to bin** - the proxy of the selected clip is added to EDIUS’ bin and a “P” appears on the clip to identify it as a proxy. An “X” will appear instead of the “P” if the “transfer proxy data automatically” option is not enabled, as the preview is not available.
2. **Transfer main clip** - the high resolution (essence) file is transferred to the hard drive and to a specified folder
3. **Transfer proxy data automatically** - as soon as a disc is inserted, XDSelect transfers all proxy files to the hard drive in the specified folder. This option is extremely useful, as the transfer is fast and the preview of the clip will be available in EDIUS’ bin instantly.
4. **Copy high-res clip in background** - as soon as a proxy is added to EDIUS’ bin, its essence file is transferred to the hard drive in the background. This allows transfer of high resolution files while browsing and selecting of the clips, saving valuable time.

When proxies are transferred to EDIUS’ bin, you can wait for the background copy to finish, or start editing with EDIUS right away. If you need to work with proxy files only, just disable the “copy high-res clip in background” option so that only proxy files are transferred to the hard drive.



3. EXPORTING XDCAM AND XDCAM HD FILES (MXF)

Once editing is finished, there are two options: *export to tape* or *export to an MXF file*.

To export the timeline to an MXF file from within EDIUS, click on the “**export**” red button and choose “**print to file**”. If the project is set to HD (templates “HDV” or “HD” for example), choose XDCAM HD. If the project is set to SD (templates “DV” or “D1” for example), choose XDCAM DV or XDCAM IMX. If you want to export an HD project to an XDCAM DV or XDCAM IMX file, you have to change the setting of the project to SD first. Then you will be asked to name the file to export, and select the bitrate (if applicable). If you enable the “**upload to XDCAM**” option, the file you export will also be sent to the XDCAM disc. This can also be performed with XDSelect via the “**upload**” tab.

To export the timeline to tape, click on the “**export**” red button and choose “**print to tape**”. The export then works as normal. You can use any output of your system (ranging from DV to SDI or HD-SDI depending on your hardware) to export your timeline and remote the VTR. This means you can freely use your MXF files imported from your XDCAM discs to perform a print to tape to standard VTRs like Digital Betacam, DVCAM and so on without restrictions.

Note: XDCAM and XDCAM HD units use Firewire in two distinct modes, FAM and i-Link. When the Firewire connection is set to FAM, the XDCAM unit is seen as a hard drive by the PC and you can perform data transfers as with computer files. This allows transfers to be made easily and faster than real-time, and does not require a network setup like an Ethernet connection. When using the i-Link mode, the XDCAM unit is used as a standard DVCAM or HDV VTR. Please refer to the manual of your XDCAM VTR or camcorder to learn how to switch between Firewire modes.