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XDCAM Transfer Documentation
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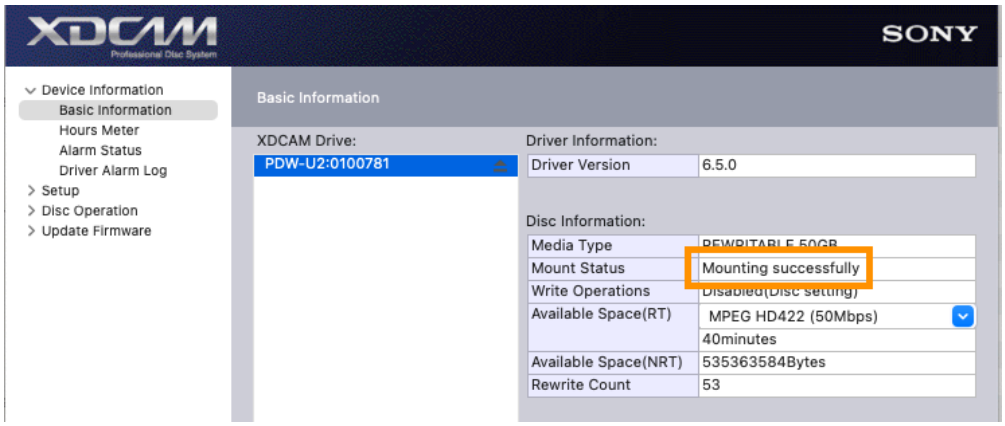
Case 1

Hardware : Transferring using **Mac Studio** and **SONY PDW-U2**
Software : Required **XDCAM Drive Utility Software** for operation with PDW-U2
Mount status : If XDCAM Drive Utility shows mount-status “successful”, can proceed with using Bash script to transfer files and proceed with user intervention processing. If mount is not successful, refer to **Case 2.**



Script -
https://github.com/rohansubrama/mm/blob/migratexdcam-rs/migratexdcam

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Migration & Processing

- Script “migratexdcam” is forked from mm repo and has been updated to add new functionality.
- Usage “./migratexdcam -c [directory/where/package/is/to/be/saved]”
- The script first interviews the operator asking -
    - MEDIAID
    - FORMATID
    - LABEL-INFO
    - NAME OF OP
    - Asks the operator to load the disk and press enter once the directory appears in the finder.
- If there are multiple decks, the operator can then select which deck to be used.

- All the above information and (date-time of processing + deck information) is stored in a capture.log file that will be created in the package-structure -
    - MEDIAID
        - metadata
        - objects
- Script proceeds with calculating a checksum of the .MXF files on the disk, using 'sha256sum'.
- Script migrates .MXF files and corresponding .XML metadata to the target directory and organizes according to package structure. It uses rsync.
- Script calculates checksum of transferred files and verifies the integrity of the files transferred.
- Script ejects disk.
- Files are renamed according to "FORMATID-basename"
- Script runs an ffmpeg decode check as additional security to ensure no corruption within the file.
- Script opens the target directory and asks the operator if the .MXF files need to be concatenated while re-wrapping to .mkv. Operator should delete all unwanted files if proceeding without concatenation. It uses ffmpeg to rewrap.
- Script asks the operator to review the newly created .mkv chapter and proceed with creating chapters in the program. It uses makemkvchapters.
- All logs are created locally on the desktop first and then transferred to the processing directory.

Processing with user intervention complete.

Batch processing transferred XDCAM packages.

- Using script - https://github.com/rohansubrama/mm/blob/migratexdcam-rs/batchprocessing to batch process the creation of derivatives, running makemetadata and running checksumpackage.
- Usage - "./batchprocessing.sh -c /directory/containing/transferred/packages/"
- Within each package, script
    - Removes any remaining .MXF files (just as insurance).
    - Runs 'removeDSStore' on each package.
    - Runs 'makeyoutube', 'makewindow', 'makebroadcast', 'makemetadata', 'checksumpackage' on each package.
    - All logs are created locally on the desktop first and then transferred to the processing directory.

Edge Cases

- **Multiple Decks:** If multiple decks are connected to the same processing computer, the script should recognize and allow the operator to select which

deck. In the case of multiple decks, it is advisable to keep a list of the Model Name with corresponding S/N handy for deck selection. The script sometimes makes an error with auto-identifying deck information and storing to capture.log
- **Existing Target Directory**: The script should inform operator and not proceed.
- **Existing derivatives, existing metadata/checksum**: The script will iterate over existing components, while informing the user.
- **Logs issue -** When multiple transfers are happening, the logs get combined. Each log refers to the active Media ID for easy identification.

Case 2

Hardware : Transferring using **Mac Pro 2009** and **SONY PDW-HD1500**
Software : Required **SONY XDCAM Transfer** for operation with PDW-U2
Mount status : Many disks that were having trouble mounting during testing with the PDW-U2, seemed to be working fine with PDW-HD1500. This legacy hardware, however requires the legacy software **SONY XDCAM Transfer** that is only compatible with Mac OS X Lion. No testable reason why the disks would be working with HD1500 and not U2. Forums online claim that legacy software **SONY XDCAM Transfer** has been more consistent in reading all XDCAMs, but no reasons have been cited.
Workflow : Transferring all disks using Case 1 is preferred since the processing time will be much faster in the newer Mac Studio. However, when Case 1 fails, Case 2 processing is advisable.

Transfer and Processing

- Trouble installing mediamicroservices and ffmpeg dependencies on Mac Pro 2009.
- Opted to use a paired down version of migration script. Locally saved script - ./xdcamver8.sh to be used to ONLY rsync transfer files from disk into a local directory with a standard package structure. Advisable to proceed with re-wrapping, chapter creation manually.
- File integrity is however checked to some extent by the XDCAM transfer software. Any errors in playback and the software alerts user.
- WARNING - don't read files and transfer at the same time.

- Operator can also transfer using the 'Export Clip to File' under 'Clip' submenu to transfer files. Script will make the process a little automatic for organizing into package structure.
- Case 2 is to be used only when there are disk-mounting errors in Case 1. Case 1 still has a more robust verification and file integrity check.