



# ZEISS eXtended Data workflow with RED DSMC2 cameras

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## Introduction

ZEISS eXtended Data technology provides frame accurate lens characteristics (distortion and vignetting) for use in VFX. Lens characteristics can be recorded in the video clips and passed to the post-production – this replaces the standard grids and grey card workflow that is more time consuming and less accurate. The way to transfer the lens characteristics to the post-production is to generate a ZEISS Lens Correction File for each video clip and send them to the post-production / VFX along with the video material.

In this guide, you will learn how to record ZEISS eXtended Data on a RED DSCM2 camera and how to generate ZEISS Lens Correction Files (.zlcf) for each video clip.

### Note

The following guide is not a user manual, but an optional support from ZEISS to improve your user experience and to show you possible uses and combinations of our product and ZEISS eXtended Data technology. Please always observe the separate specific user manual for equipment from RED (<https://www.red.com/>) and software from Pomfort (<https://pomfort.com/>).

ZEISS is not the manufacturer of the RED cameras and Pomfort Silverstack. If you have any questions, please contact the manufacturer of your respective technical equipment, components and software.

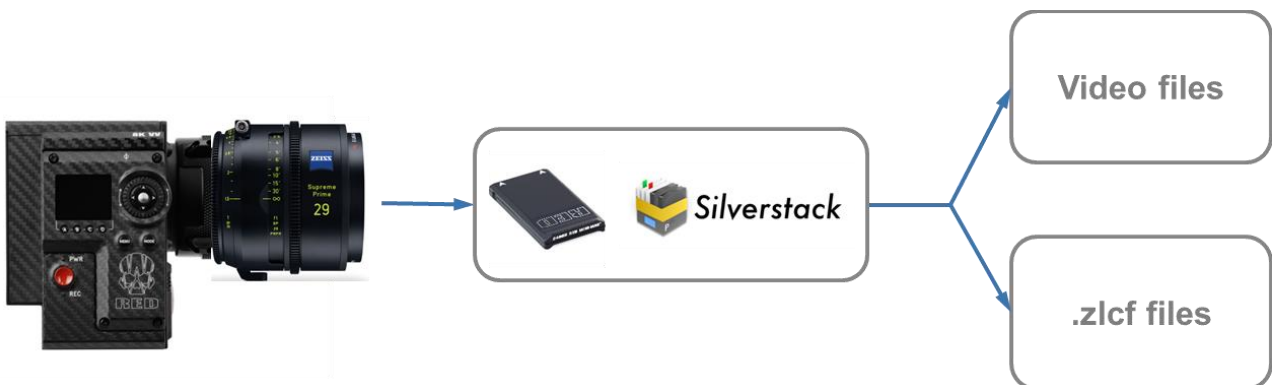
We do not claim to declare the use of third party equipment (third party means all companies except ZEISS), nor do we accept any liability for damage resulting from misuse contrary to the instructions of the respective manufacturer.

## Pre-requisites

In order to use this workflow, you will need the following equipment:

- A ZEISS cinema lens featuring ZEISS eXtended Data with PL mount (Supreme Prime or CP.3 XD).
- A RED DSMC2 camera featuring FW version 7.1 or higher.
- An Apple iMac, MacBook or MacBook Pro (is called Mac in the following pages) with Pomfort Silverstack.

## Overview of the workflow



Using RED DSMC2 cameras, the workflow is simple:

- Record the ZEISS eXtended Data automatically into R3D video clips.
- Generate ZEISS Lens Correction Files (.zlcf files) using Pomfort Silverstack.
- Send ZEISS Lens Correction Files together with the video clips to post-production.

## Record ZEISS eXtended Data automatically into R3D video clips

RED DSMC2 cameras can read ZEISS eXtended Data (distortion and vignetting) through lens mount and record them inside R3D video clips.

**Note:** ZEISS eXtended Data are not recorded inside other file formats than R3D (ProRes, QuickTime, ...).

Use the following steps to check that your eXtended Data lens is recognized by the camera:

- Attach the lens to the camera.
- Go to **MENU** → **Settings** → **Setup** → **Lens**
- Ensure that following options are selected:
  - **Enable Power to Lens**
  - **Auto-Detect PL Lenses**
- Switch to 'Info' or 'Metadata' tab: lens info should be visible.



Record video clips. Ensure that recording file format is R3D.

## Generate ZEISS Lens Correction Files using Pomfort Silverstack

What is Pomfort Silverstack?

Silverstack is a Mac software, developed by Pomfort GmbH, for on-set data management in all kinds of professional film productions. A broad set of features including copying, playback and reporting enables the user to backup, preview and prepare movie data right on the film set.

Silverstack XT or Silverstack Lab allows you to read out the corresponding ZEISS eXtended Data from each RED R3D clip and generate ZEISS Lens Correction Files (zlcF) for each clip.

Prepare Pomfort Silverstack

- Download Silverstack from Pomfort website and follow installation instructions (<http://pomfort.com/silverstack/download/>).
- Choose a license and install it using instructions from Pomfort web site.

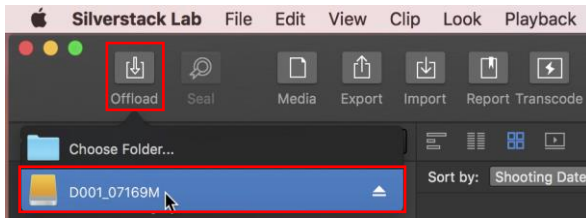
Load video clips in the Silverstack library

Register all your video clips into the Silverstack 'library'. In order to do so, you may either offload the clips or add them into the Library.

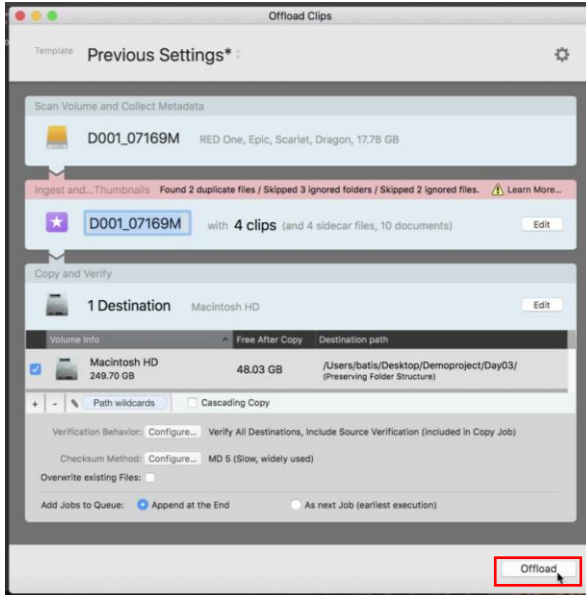
**Please note**

If you use **Add to Library...**, the clips are not saved on your Mac. You must save your clips on the Mac using the **Offload** function in Silverstack (Option 1) or in another way.

- Option 1: Offload video clips
  - Offload → choose your media (RED MINI-MAG)



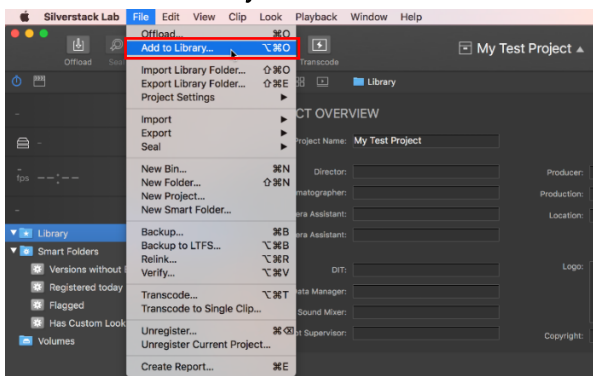
- Choose a destination path where the video clips will be saved then **Offload**.



- All clips are then listed in the 'Library' (left panel) and saved under the destination path which you have chosen.

- Option 2: Add video clips to Silverstack library

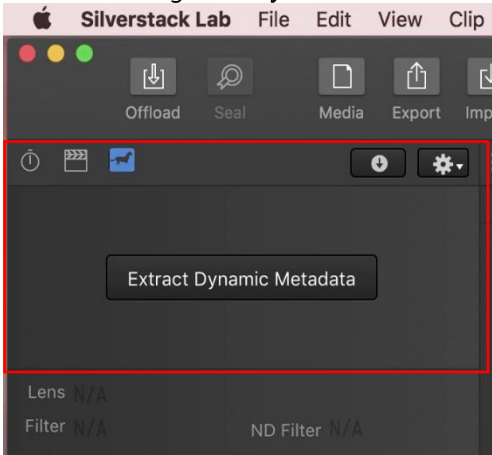
- File → Add to Library...



- Choose your media (RED MINI-MAG).
  - All clips are then listed in the 'Library' (left panel).

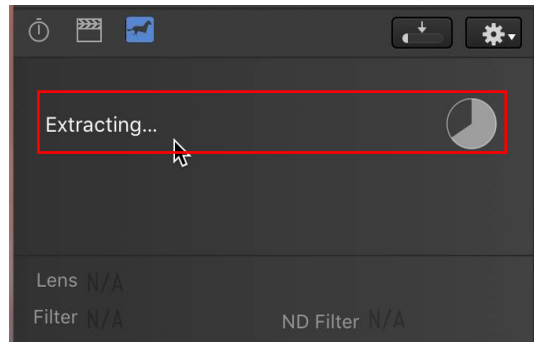
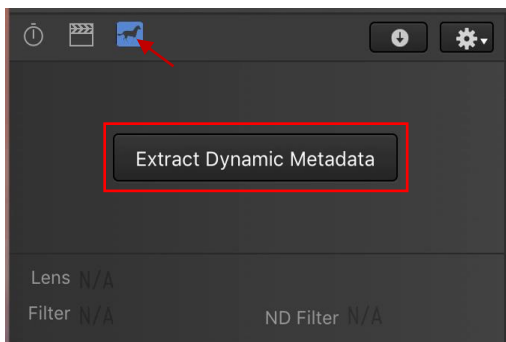
## Extract ZEISS eXtended Data from RED R3D video clips

ZEISS eXtended Data are dynamic metadata that are recorded for each frame of the video clip. These data are extracted using the "Dynamic Metadata" panel on the upper left corner of Silverstack UI.



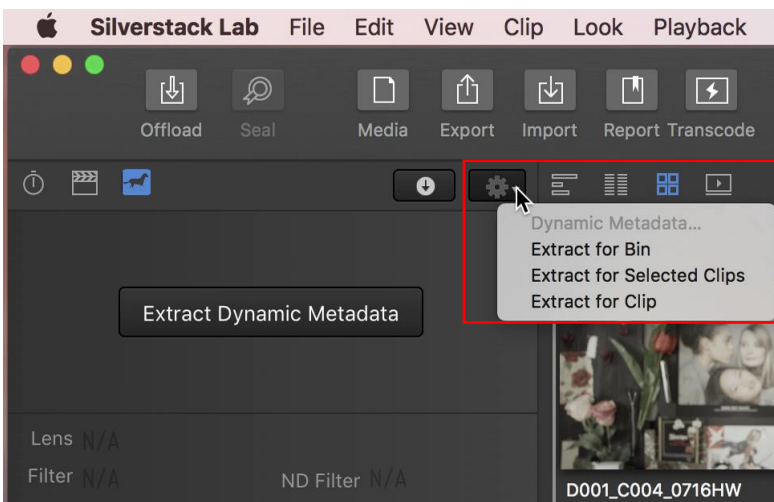
### Extract ZEISS eXtended Data out of one single video clip:

- Select the third icon, displaying a horse, in the left sidebar above the library.
- Select the clip for which you want extract the data.
- Press the **Extract Dynamic Metadata** button in the middle of the dynamic metadata panel. The extraction process can be monitored.

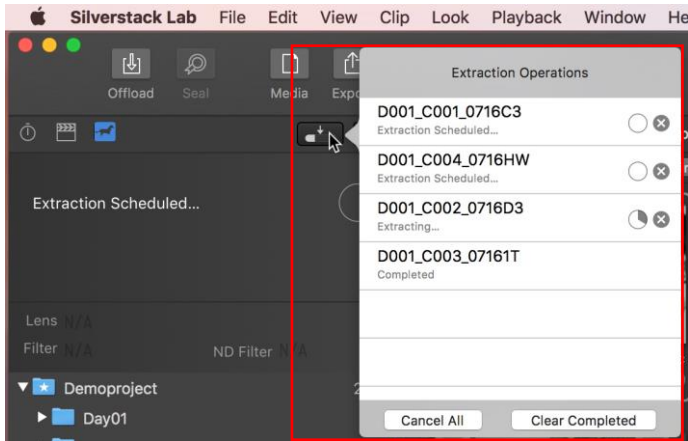


### Extract ZEISS eXtended Data out of multiple video clips:

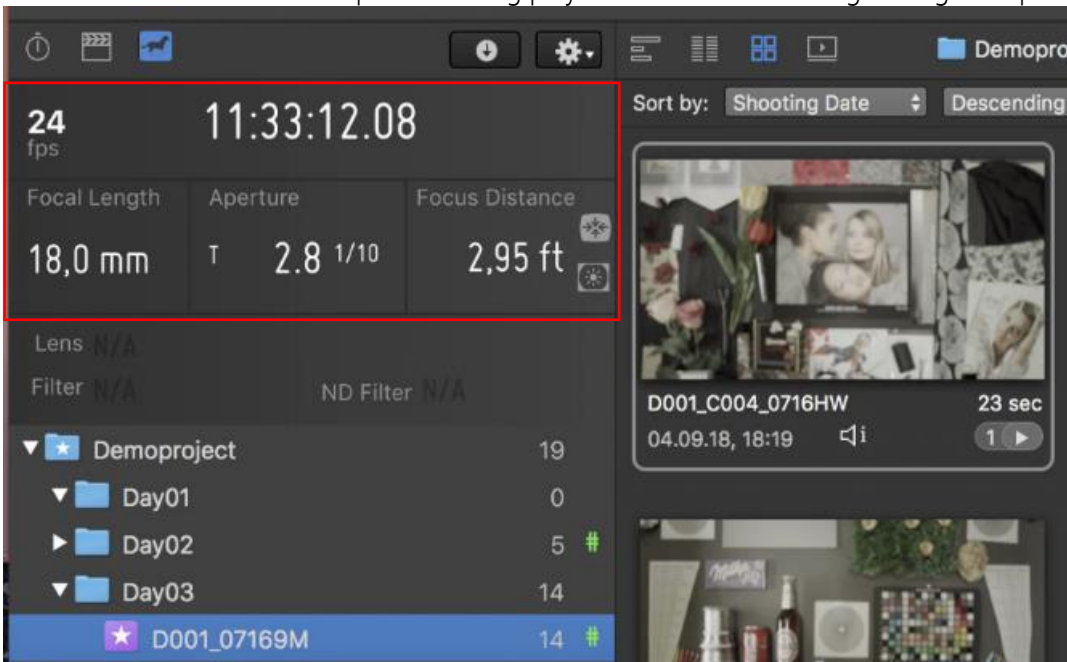
You can also start the extraction of dynamic metadata for multiple clips by selecting an entry from the gear menu in the toolbar:



- There you can choose “Extract for...” the Bin you have selected, for **Selected Clips** or you can also choose to extract the metadata for only one **Clip**.
- The extraction process for all clips can be monitored in the popover that reveals the current extraction state for every started clip.



After a successful extraction the dynamic metadata panel reveals the extracted dynamic lens and camera metadata. The metadata can now be inspected during playback or while scrubbing through a clip.

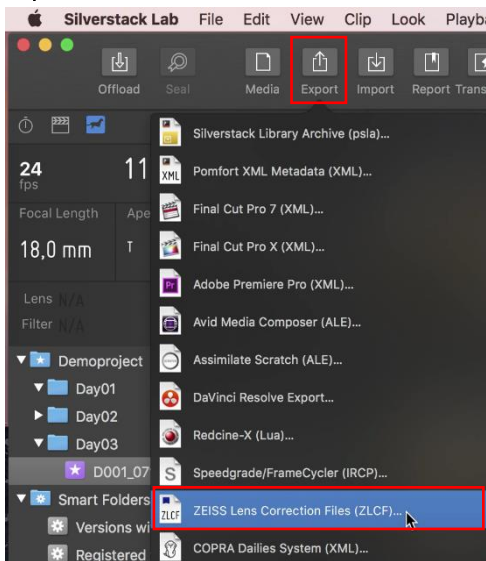


# Generate ZEISS Lens Correction Files using Pomfort Silverstack

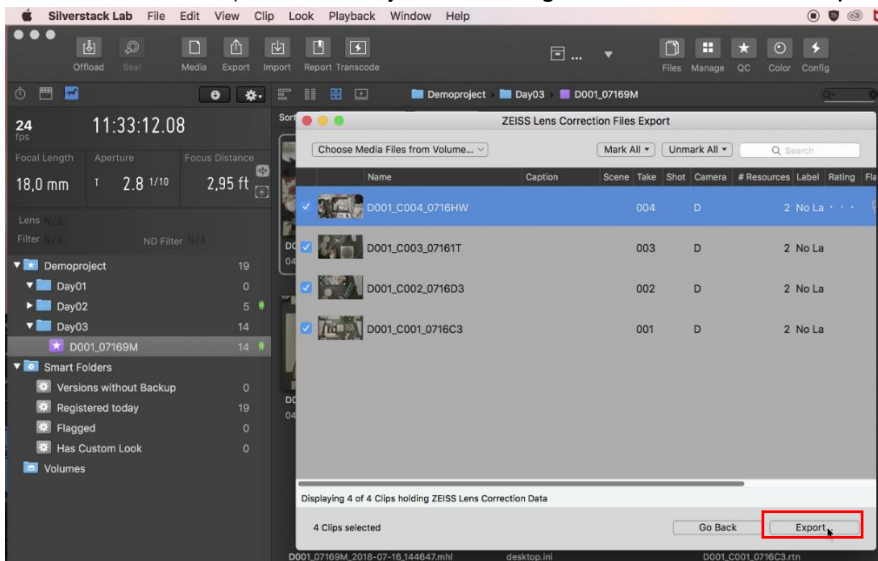
Now that ZEISS eXtended Data have been extracted from video clips, ZEISS Lens Correction Files (zlcfc) can be generated.

For this, use the Export function:

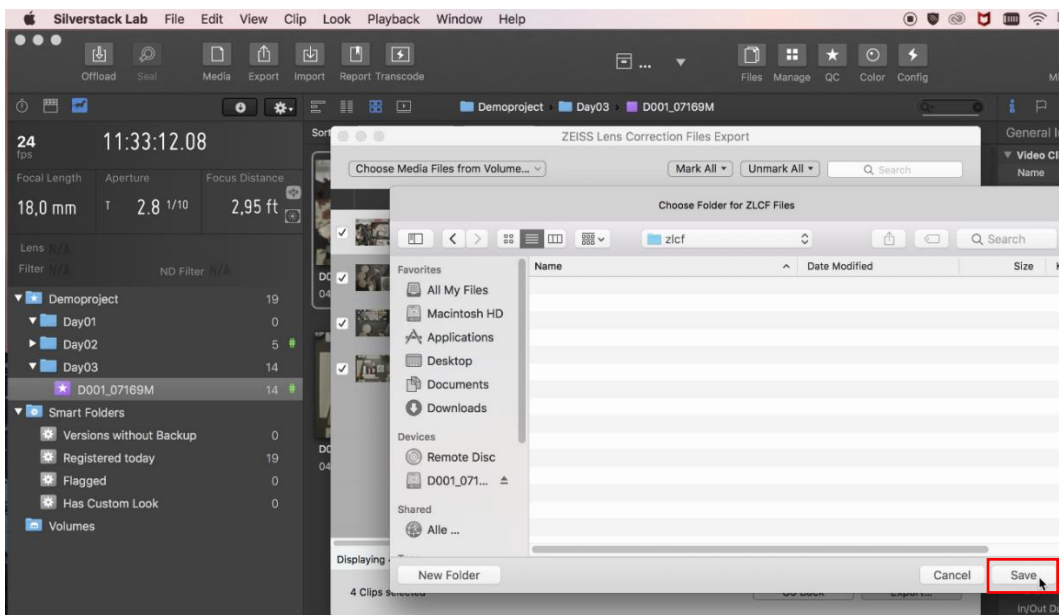
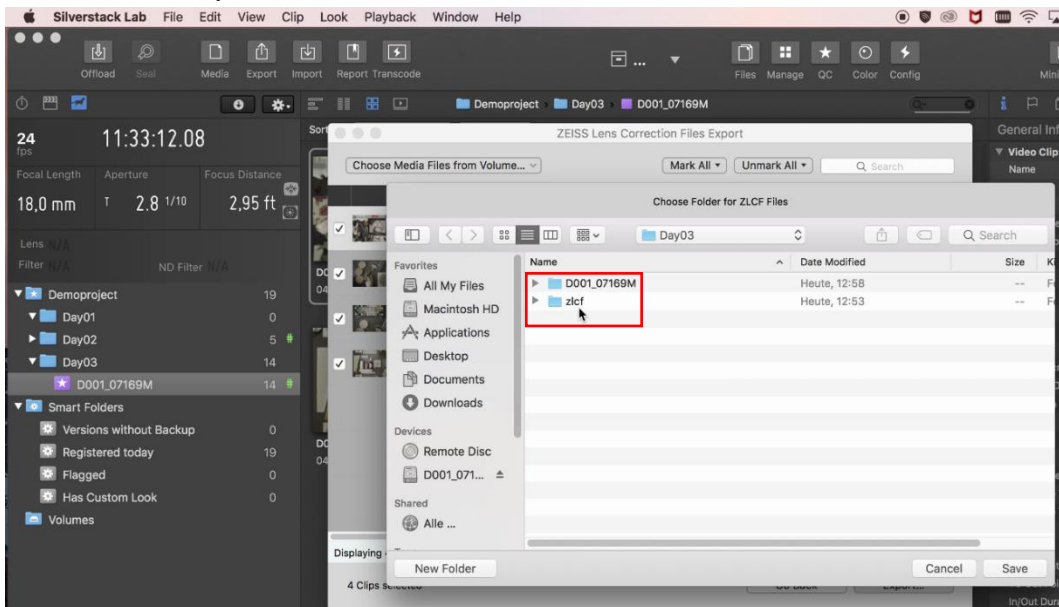
- **Export → ZEISS Lens Correction Files (zlcfc)**



- Choose all video clips for which you want to generate a zlcfc file. → **Export**



- Choose a directory in which the zlcf files will be saved. → Save



### Tip

If your VFX department uses Nuke, it is helpful to keep the directory with zlcf files in a folder near to the directory in which video clips are saved.

Send the ZEISS Lens Correction Files together with the video clips to your post-production.



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