



ZEISS eXtended Data workflow with Transvideo StarliteHD-m monitor

Version02 (041218)

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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.

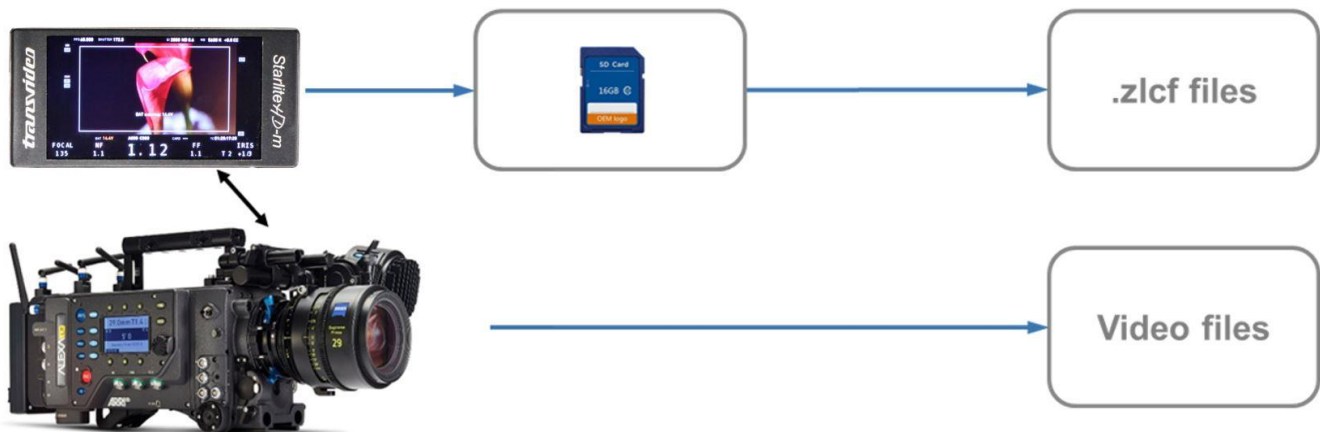
In this guide, you will learn how to record ZEISS eXtended Data on a Transvideo StarliteHD-m monitor, attached to a cinema camera, directly as ZEISS Lens Correction Files (zlcf) for each video clip.

Pre-requisites

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

- A ZEISS cinema lens featuring ZEISS eXtended Data (Supreme Prime or CP.3 XD).
- A supported camera.
- A Transvideo StarliteHD-m monitor.

Overview of the workflow



Using Transvideo StarliteHD-m monitor, the workflow is simple:

- Setting up camera and StarliteHD-m for ZEISS eXtended Data.
- Record video clips with the camera and ZEISS eXtended Data on the Transvideo StarliteHD-m.
- Copy ZEISS Lens Correction Files from SD card.
- Send ZEISS Lens Correction Files together with video clips to post-production.

Record ZEISS eXtended Data using StarliteHD-m

What does the Transvideo StarliteHD-m do?

The Transvideo StarliteHD-m is an electronic toolbox. This small monitor can provide the necessary tools, whatever the job or the requirement:

- for the focus puller (zoom, peaking, focus puller view)
- for the script assistant (record / playback, metadata view)
- for the user of stabilized equipment (virtual horizon)

The power of the StarliteHD-m resides in its ability to gather information from the different smart devices. Metadata are transmitted through the SDI signal, camera information through the Ethernet link and lens data through the serial link.

In combination with an appropriate camera and a ZEISS eXtended Data lens, it will record the distortion and vignetting data and will generate automatically ZEISS Lens Correction Files (zlcf) on the inserted SD-card. There is no need to use an additional software when using the StarliteHD-m.

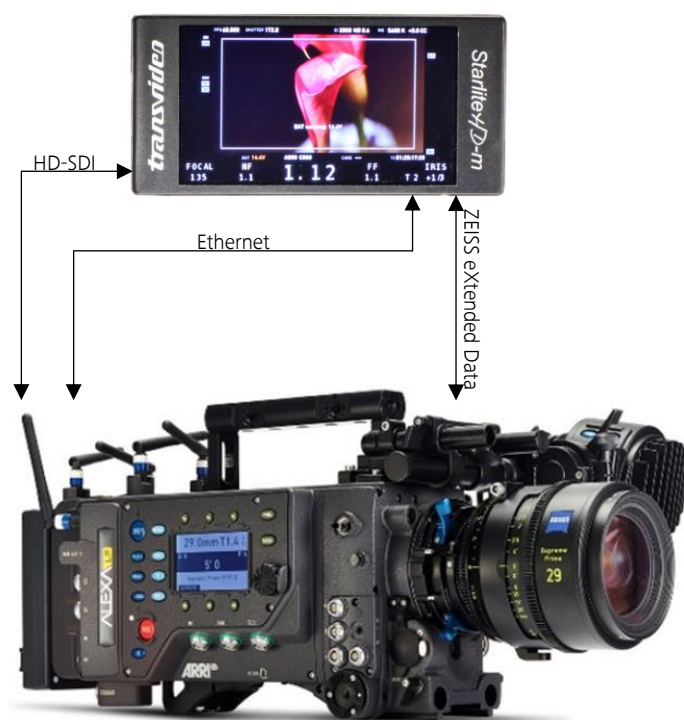
Detailed information about StarliteHD-m features and complete user guide: <https://www.transvideo.eu/StarliteHD-m>

Setting up camera and StarliteHD-m for ZEISS eXtended Data

In order to record lens data and generate the according zlcf files, the StarliteHD-m must be connected to the lens and a compatible camera. The setup is very simple:

- Lens eXtended Data port is plugged to StarliteHD-m lens data port.
- Camera SDI-OUT is plugged to HD-SDI IN of the monitor.
- Depending on the camera model, the Ethernet port of the camera is plugged to the Ethernet port of the monitor.
- SD card must be inserted into the slot of the StarliteHD-m.

See Appendix for detailed step-by-step setup description with ARRI cameras.



Setup procedure

Prepare the camera and StarliteHD-m setup

- Connect StarliteHD-m power cable.
- Connect StarliteHD-m to the camera using HD-SDI cable.
- Connect Ethernet cable.
- Switch on the camera.
- Switch on the StarliteHD-m.

Attach the lens

Always attach the lens when the camera is switched on.

- Attach the lens to the camera.
- Connect the lens to the StarliteHD-m.

Note

When attached the lens to the camera and StarliteHD-m in the right order, eXtended Data lenses are detected automatically and lens data recording will happen when recording video clip - there is no need to use any other equipment. Whenever the lens is recognized by the StarliteHD-m, a ZEISS logo appears at the top left side of the monitors UI.

Exchange the lens

Do not switch off the camera or the StarliteHD-m.

- Disconnect the lens from the StarliteHD-m.
- Detach the lens from the camera.
- Attach the new lens to the camera.
- Connect the new lens to the StarliteHD-m.

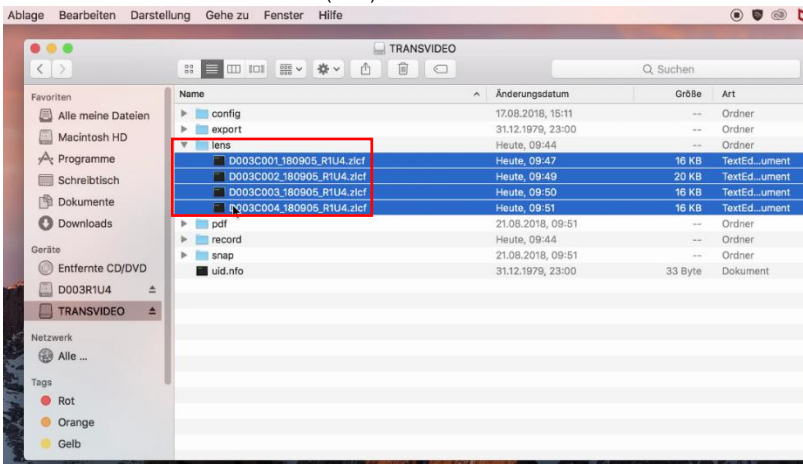
Warning

If you do not proceed in the order described above (eg. connect the lens to StarliteHD-m before attaching the lens), the lens might not be recognized by the StarliteHD-m or by the camera.

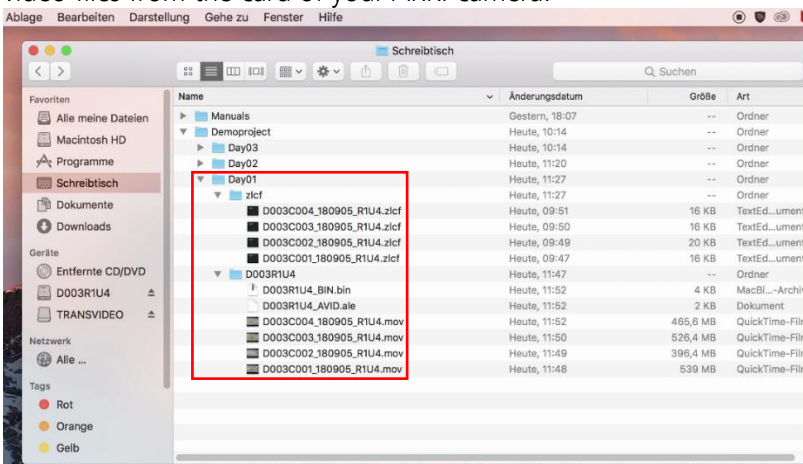
In this case, unplug the lens from the StarliteHD-m and plug it to the StarliteHD-m again.

Copy ZEISS Lens Correction Files from SD card

ZEISS Lens Correction Files (zlcF) are stored in the **lens** folder on the SD-card.



For using the zlcF files in the ZEISS plug-in for postproduction, please save those zlcF files and the corresponding video files from the card of your ARRI camera.



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

Appendix A – Cables needed for different cameras

To recover the lens data, you need the following set of cables:

- HD-SDI BNC cable
Basic lens information provided by Cooke /i, LDS (Arri)
Camera information from RDD18 (Sony) or ARRI protocol.
- Lens Reader™
Cooke /i3, /i², /i and ZEISS eXtended basic and advanced metadata.
- Ethernet cable
More information gathered to the metadata file.
- TC in
Gather's precise Time Code (LTC type) from the camera.

Depending on which camera do you use, you need different cables. The following table shows which cables are needed for specific camera setup.

More information can be found on Transvideo web site <https://www.transvideo.eu/StarliteHD-m>.

Brand	Model	Cables Part Numbers			
		SDI	Ethernet cable*	Lens cable	TC cable*
ARRI	Alexa Mini Alexa SXT / LF	906TS0144	Arri K2.72021.0 or 906TS0215	906TS0214	906TS0216
ARRI	Amira	906TS0144	Standard RJ45 cable	906TS0214	906TS0217
RED	Epic / Scarlet – DSMC2	906TS0144	906TS0225 906TS0226	906TS0214	906TS0216
Sony	Venice	906TS0144	906TS0225	906TS0214	906TS0222
Sony	F65	906TS0144	TBD	906TS0214	-
Sony	F3 / F5 / F55	906TS0144	-	906TS0214	906TS0217
BlackMagic	Ursa Mini /Mini Pro	906TS0144	-	906TS0214	906TS0217
Canon	ME200SH EOS C300 EOS C700	906TS0144	-	906TS0214	906TS0217

* Availability of Ethernet and Timecode output may vary depending on cameras.

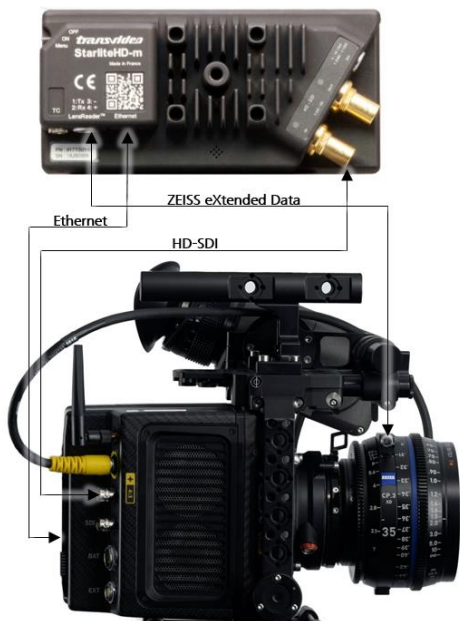
Appendix B – Setup for Alexa SXT / LF / 65 or ARRI Alexa Mini ¹

Equipment

- Alexa SXT / LF / 65 or ARRI Alexa Mini
- ZEISS Lens with eXtended Data (CP.3 XD or Supreme Prime)
- Transvideo StarliteHD-m
- Ethernet cable (906TS0215)
- Lens data cable (906TS0214)
- HD-SDI BNC cable (906TS0144)
- Power cable for the Transvideo StarliteHD-m

Connection plan

Camera / Lens		Cable		Transvideo StarliteHD-m
MON-OUT	←	906TS0144	→	HD-SDI-IN
Lens eXtended Data socket	←	906TS0214	→	Lens data port
Ethernet connector	←	906TS0215	→	Ethernet port
DC out	←	Power cable	→	POWER IN



Connection plan with Alexa Mini



Connection plan with Alexa SXT, LF and 65

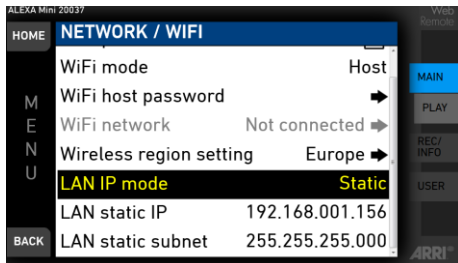
¹ At the present time, ARRI Alexa Mini and Amira provide complete functionality. Complete functionality with ARRI Alexa SXT, LF and 65 will coming soon.

Setting up your ARRI camera

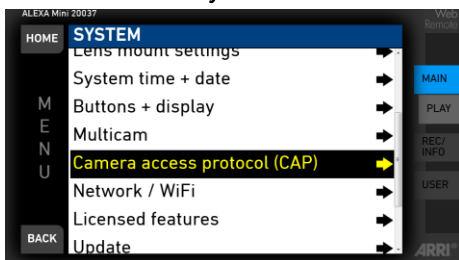
For connecting the Transvideo StarliteHD-m with your ARRI camera, it is necessary to choose the right CAP setup in your camera.

The following picture show the CAP setup for an ARRI Alexa Mini.

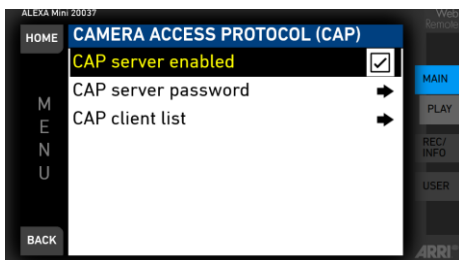
- Go to **Menu** → **System** → **Network / WiFi**
 - LAN IP mode should be set to **Static**.
 - LAN static IP address should be in the **192.168.001.xxx** range.



- Go to **Menu** → **System** → **Camera access protocol (CAP)**



- Choose **CAP server enabled**

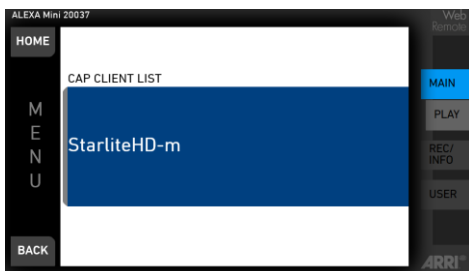


- Go to **CAP server password** → Fill in a password you want use. → **Done**



- Go back to the **Camera access protocol (CAP)** tab. → **CAP client list**

If the StarliteHD-m is connected successfully, the product's name appears in the client's list of the camera.



If you do not see the StarliteHD-m in the client's list, please check if you have done setting up the StarliteHD-m according to the **Appendix C - Setting up Transvideo StarliteHD-m**.

Verify that lens is recognized by camera

ARRI Alexa Mini

On the camera's viewfinder:

- Press the **M** button
- Choose **Info** → Use the selection wheel and got to **Lens info**

If your camera does see your lens, you should see the lens information in the display.



ARRI Alexa SXT / LF / 65

- Press the **WRS** button
- Choose **Lens Data**

If your camera does see your lens, you should see the lens information in the display.



Appendix C - Setting up Transvideo StarliteHD-m

For recording ZEISS Lens Correction Files (zlcF) on the Transvideo StarliteHD-m, you have to save a config file on the SD-card from the StarliteHD-m.

For getting the config file, please go to the Transvideo web site: <https://www.transvideo.eu/form/starlitehd-m-configuration-file>.

- Login to your account.
- Filling in the right camera manufacturer, the camera IP and camera CAP server password depending on your camera setup.
- Generate your product configuration file.

Please save this configuration file on the top of the directory of the SD-card in a folder named **config**.

It is also necessary, that the recording on the StarliteHD-m is triggered by HD-SDI record information.

- Choose the menu settings of the StarliteHD-m.
- Go to **Tools** → **Auto REC** should be **ON**.

Verify that lens is recognized by StarliteHD-m

If the StarliteHD-m is on and is connected to the lens, you can see a ZEISS-icon at the display of the StarliteHD-m monitor. If you do not see icons at the display, please tap on it.

Verify that StarliteHD-m gets timecode from the camera

For recording zlcF files on the Transvideo StarliteHD-m, it is important, that the monitor gets timecode over the cameras SDI output. For getting sure if timecode is present on the monitor, please check the metadata page.

- Choose the menu settings of the StarliteHD-m. → Choose **Smart Corners** → select the **Metadata View** ("Meta 3G SDI Datas") → choose one of the corners and assign it. → Go out of the menu settings.
- Tap on the corner of the StarliteHD-m display where you have assigned the Metadata View. There you will see the timecode information.

This step is necessary before you will start a record. Without TC, the file will be empty as no measurement will be triggered.

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