

# EV Camera Power-up

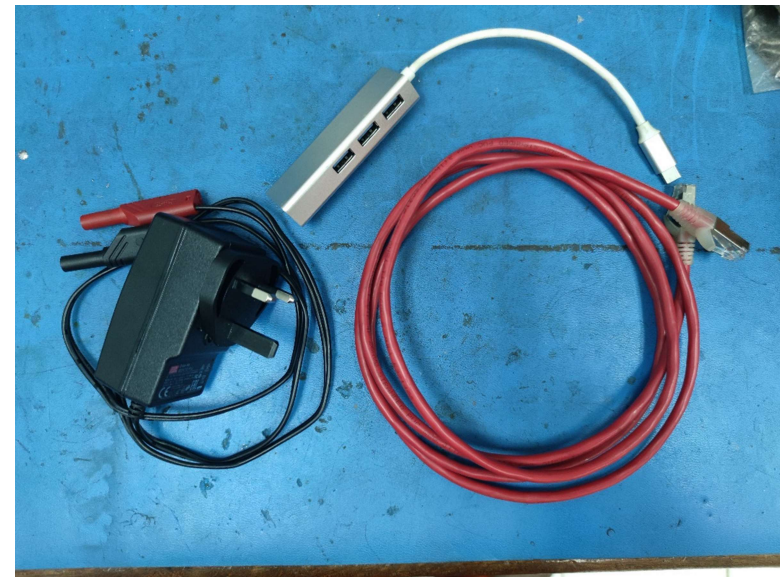
By Mathias Rauth

## INFORMATION

- Aim: EV Cam power up aims to give an overview on the sequence to power-up EV cam tool for memory mode.
- Tools and material/equipments needed prior to power-up

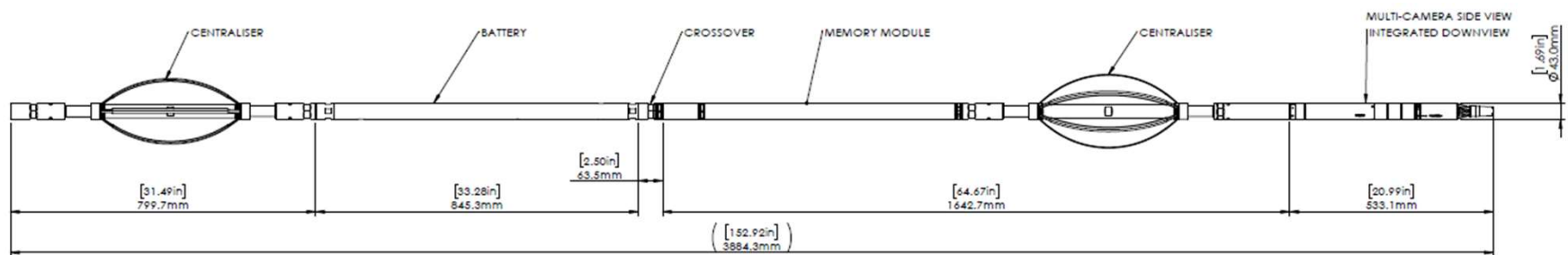
## Tools & material/equipment

- Power supply (for downloading & programming)
- Adapter & port adapter (for programming & downloading)
- Ethernet cable (for programming & downloading)
- Extension wire



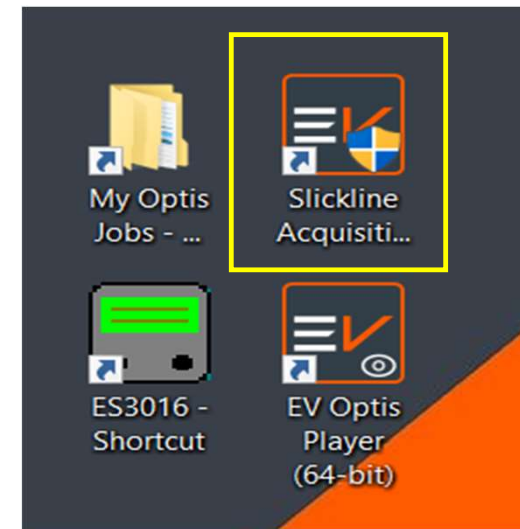
# Tool preparation

- 1<sup>st</sup> step : Deppasivate battery early to make-up time while preparing tool.
- 2<sup>nd</sup> step : Line up the tool



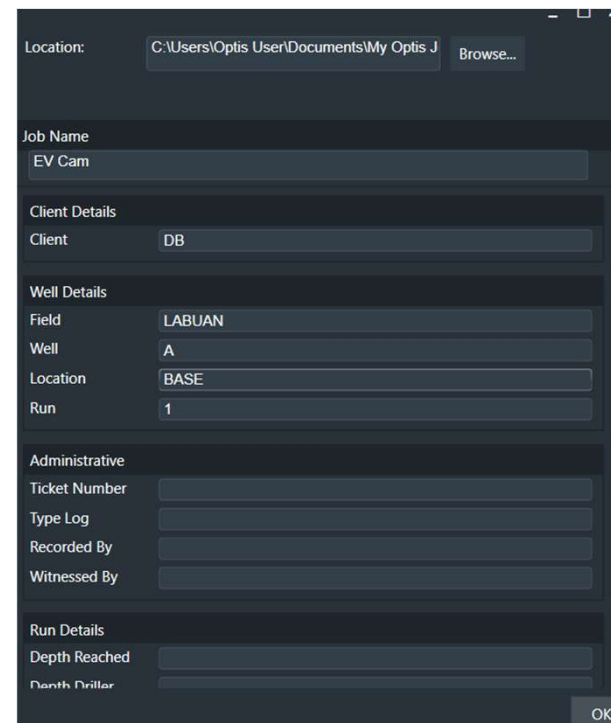
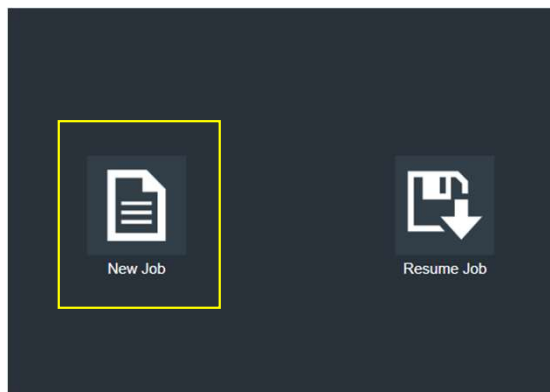
## Power up step

- 3<sup>rd</sup> step : Plug-in to connect and open slickline acquisition to prepare tool program.



## Power up step

- 4<sup>th</sup> step : Click on 'New job' to create file and fill up details of job and click 'Ok'.



A screenshot of the job details form. The form is dark-themed and contains the following fields:

- Location: C:\Users\Optis User\Documents\My Optis J (with a 'Browse...' button)
- Job Name: EV Cam
- Client Details: Client: DB
- Well Details: Field: LABUAN, Well: A, Location: BASE, Run: 1
- Administrative: Ticket Number, Type Log, Recorded By, Witnessed By
- Run Details: Depth Reached, Depth Driller

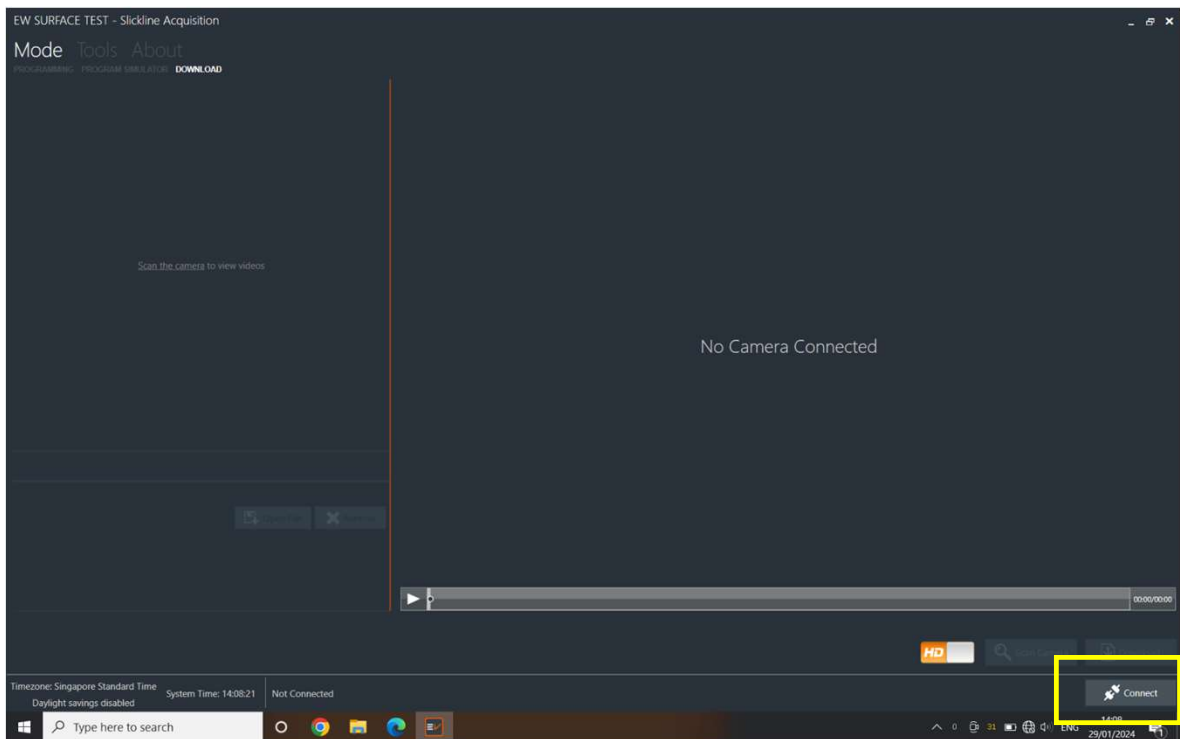
An 'OK' button is located at the bottom right of the form.

## Power up step

- 5<sup>th</sup> step : Switch on power supply and wait for tool communication with laptop, click 'connect'.

Note :

- Once connected and indicator 'primed' is displayed in the interface

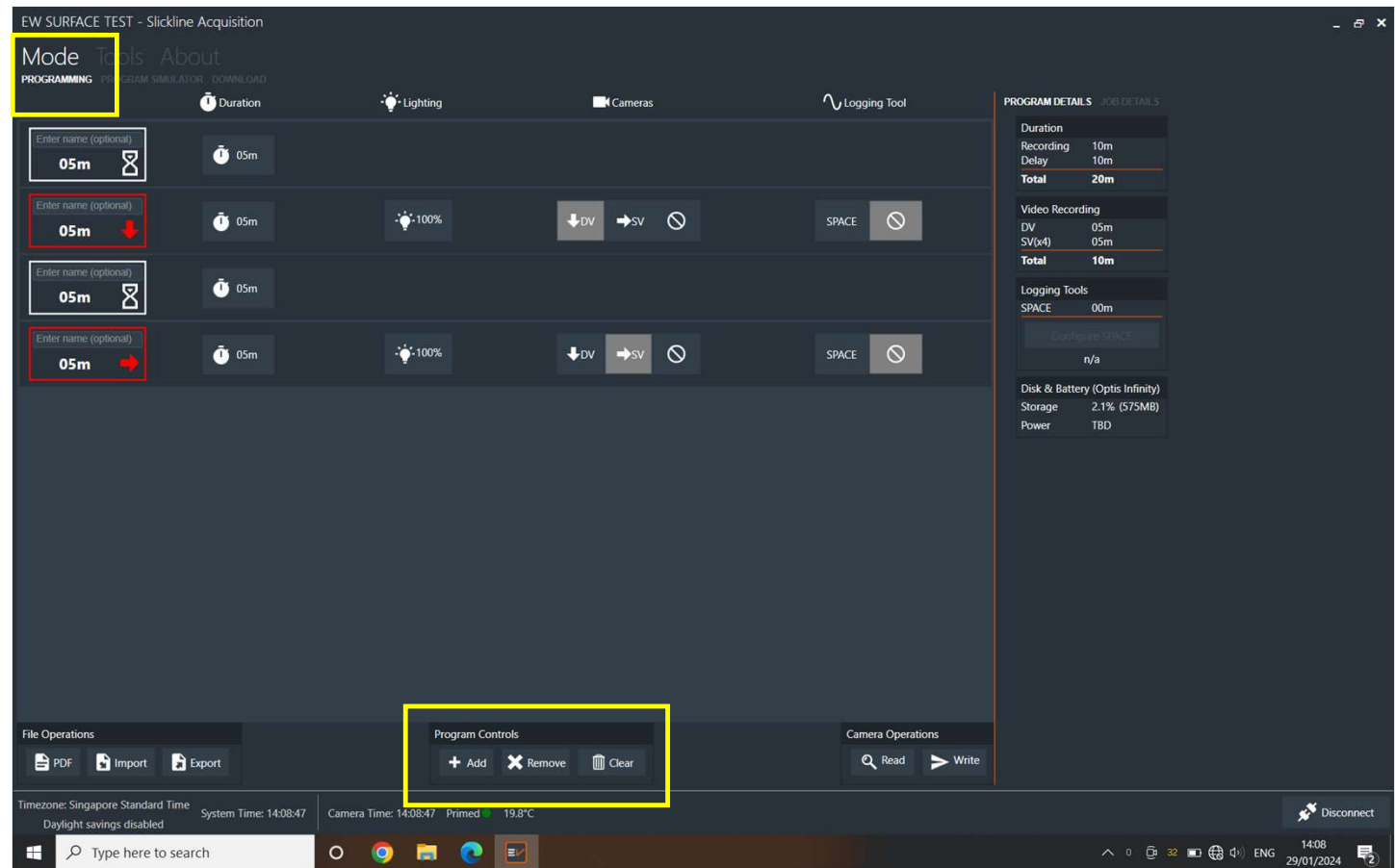


# Power up step

- 6<sup>th</sup> step : Go to 'Programming' on top left then click 'Add' at program control at below to add timing sequence.

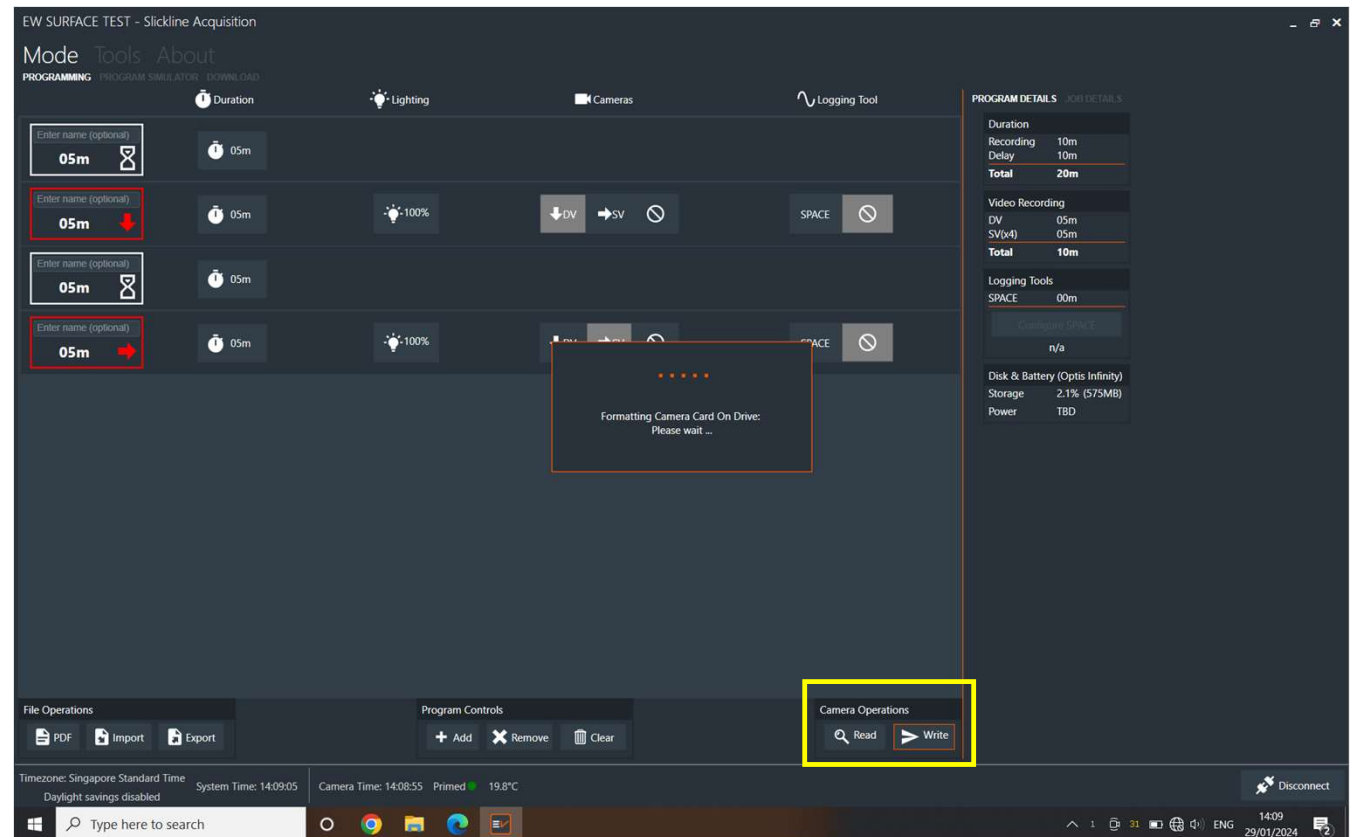
## Note:

- 1<sup>st</sup> sequence always 'Delay'
- DV and SV cannot record at simultaneously.



## Power up step

- 7<sup>th</sup> step : Click 'Write' at the bottom to write as per timing sequence to EV Cam tool.

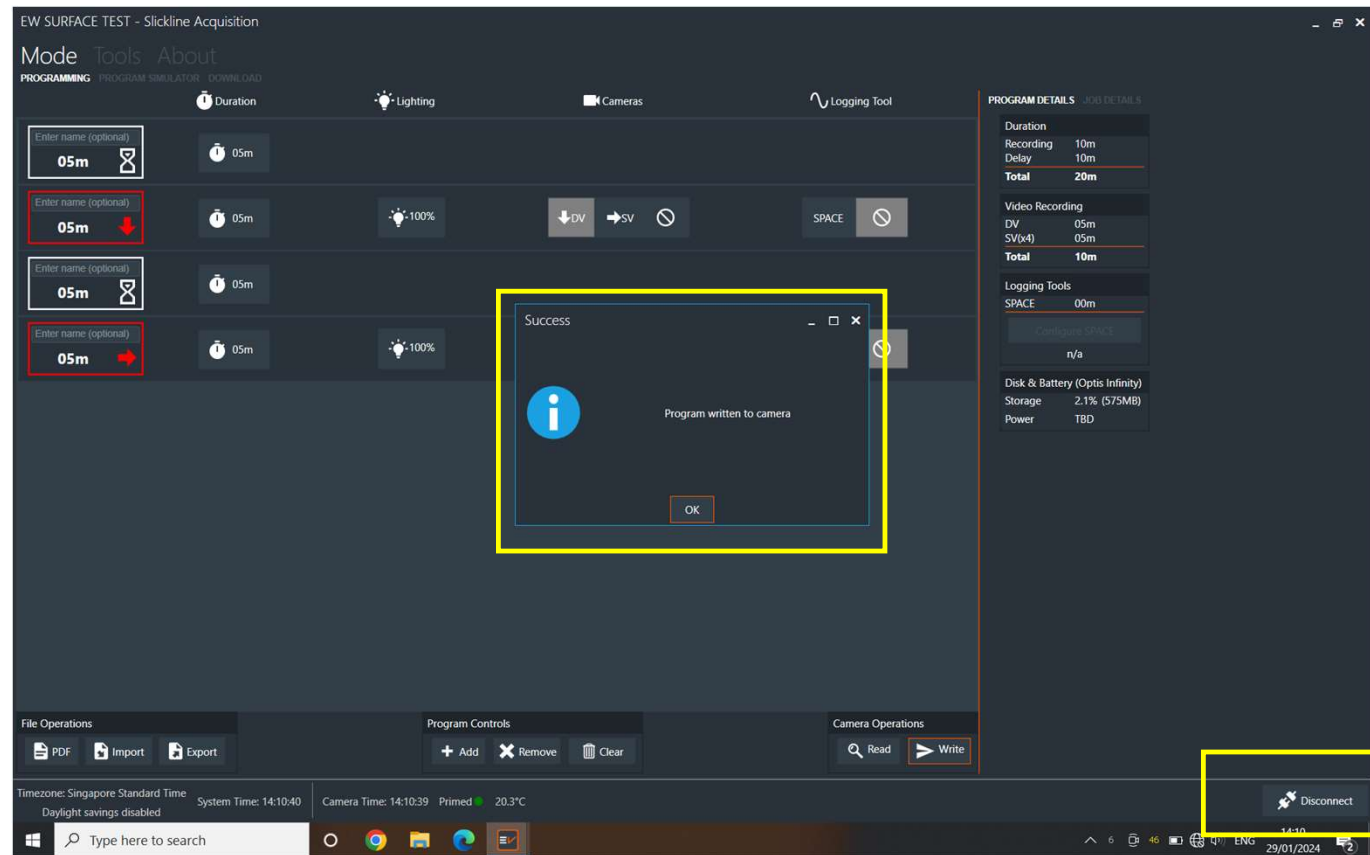


## Power up step

- 8<sup>th</sup> step : Once program written to camera, click 'ok' and then click 'Disconnect'

Note :

- Once program written to camera, must connect tool to battery within 30mins. IF not repeat write program to tool.



## Power up step

- 9<sup>th</sup> step : Connect battery and wait for each timing sequence activated(Delay,DV & SV)

### Note :

- Line up for write programming and also for downloading
- Line up to power up with battery.

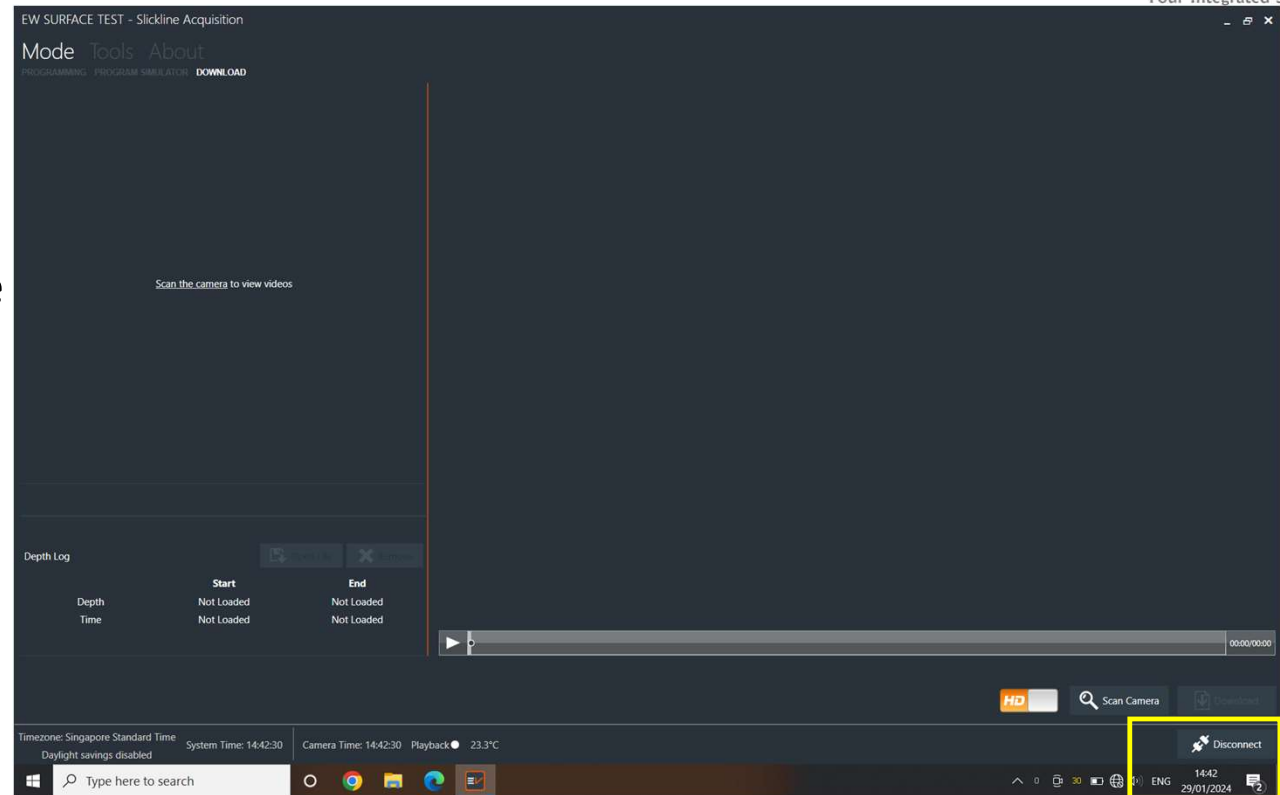


### Note :

- Take measurement distance 6" for DV and 3" for SV to the sample object
- During camera DV and SV activation, rotate and tilt to test inclination & orientation sensor

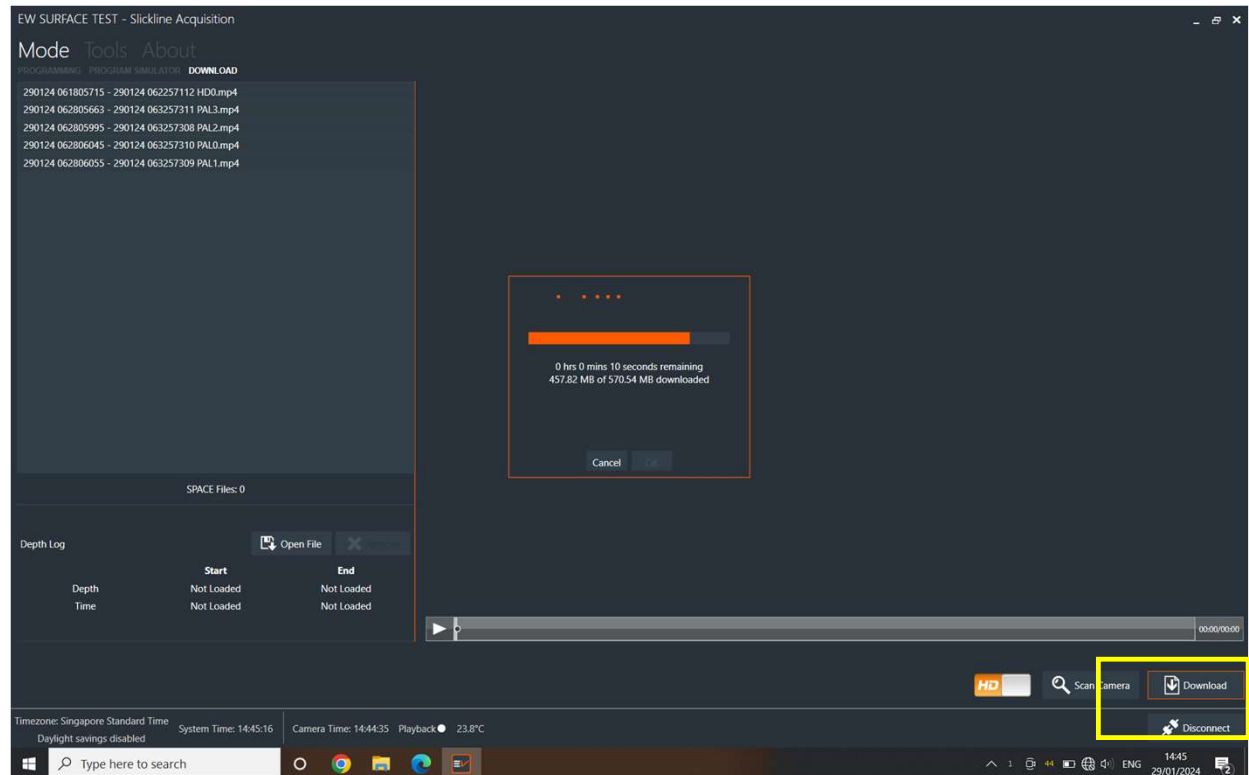
## Power up step

- 10<sup>th</sup> step : Once all sequence is done. Remove battery and line up tool as per programming line up. Plug in and connect tool.
- 'Acquisition'>'Resume job'>'Connect'> 'Scan camera'



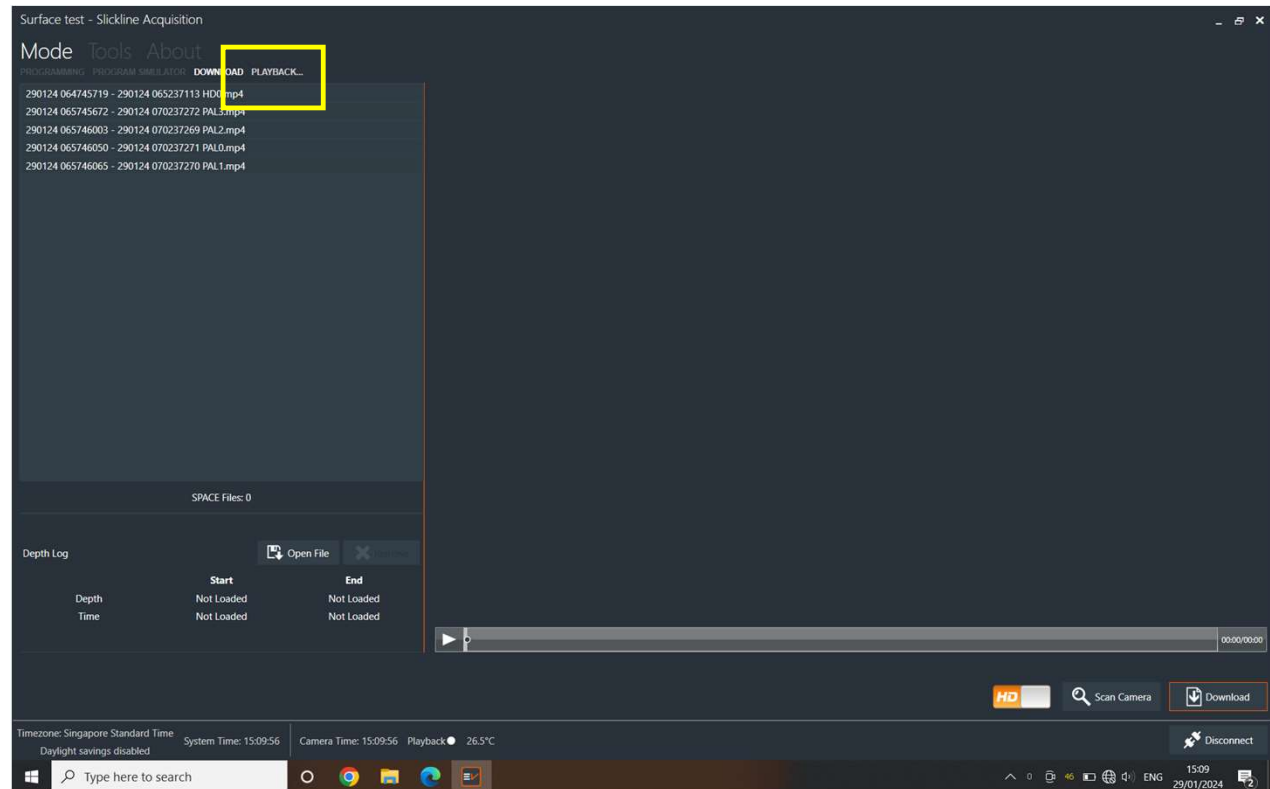
## Power up step

- 11<sup>th</sup> step : Once done scan camera, click 'download' to retrieve data.



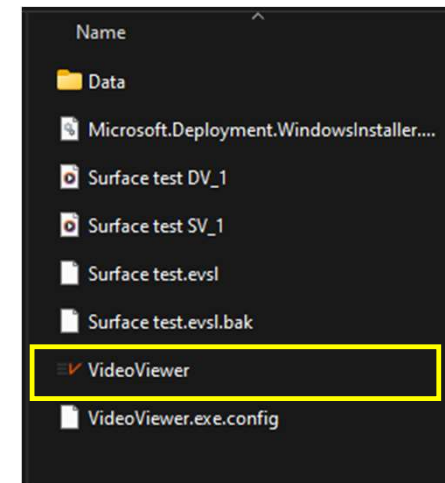
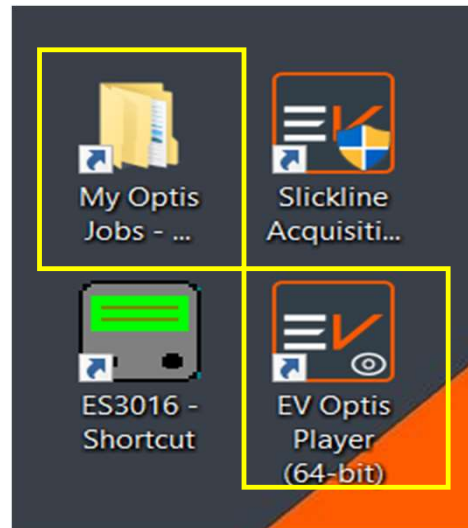
## Power up step

- 12<sup>th</sup> step : After finish download, click playback to view data or recording.



## Power up step

- Final step : To view previous data or downloaded data, open 'My Optis Job' folder > 'VideoViewer' or open 'EV Optis Player'.



# Checklist

- Sample checklist for benchtest/surface test

Date of Test	20/11/2023
Performed By	Mathias
Air Temperature	Ambient Temp.
Tool Position	Horizontal

Before starting test ensure that the correct software/firmware's have been installed					
Asset Number	Description	ID No. / Serial No.	Programming Required?	Software/Firmware Description	Firmware/Software Part No. + Rev.
EVMEM24-A	Memory Module	080	No	S-Line MK3 Firmware	
EVMCSV-A	MCSV	049		MCSV Camera Firmware	65-00094
EVCAMIDV-A	MCSV Integrated HD DV	010		MCSV Integrated HD DV Firmware	65-00095
EVMCUMK2EL-C	MCU	Case 6	No	Depth Decoder Interface	
EVLTCU-G	Laptop	039	No	See Active Comms	
EVBHSL-E	MK3 Battery Housing	093	No	Asset which is to be sent with kit	
EVCNTB24K-A	24-Way Centraliser	080	No	Asset which is to be sent with kit	
EVXO1B24P-A	Crossover	085	No	Asset which is to be sent with kit	
	Test Plug		No	Asset which is to be sent with kit	

MK3 with MCSV Ops Readiness Program							
Period Type	Memory Temp (°C)	Memory Current	Lux Test (post temp cycle, ensure that camera is at room temperature):	Knock Test	Focus/Image Test	Snapshot Taken	Acceptable
3 delay							
2 DV record 31%			> 1612 lux @ 31%	Lux			Yes
3 delay							
2 DV record 66%			> 3375 lux @ 66%	Lux			Yes
3 delay							
2 DV record 100%			> 3900 lux @ 100%	Lux			Yes
3 delay							
2 MCSV record 31%			Not currently recordable	NA			Yes
3 delay							
2 MCSV record 66%			Not currently recordable	NA			Yes
3 delay							
2 MCSV record 100%			Not currently recordable	NA			Yes

# Checklist

- Sample checklist for benchtest/surface test

Focus checks are to be carried out using the Live view from the Slick-Line Acquisition Software



Snap shot DV

## Examples of expected minimum picture quality

Ensure the following:

- Correct date is displayed on snap shot
- The correct time is displayed
- The time difference between snap shots is correct/suitable
- The correct temperature is displayed
- Correct camera information is displayed



Snap Shot SV1

Snap Shot SV2

Snap Shot SV3

Snap Shot SV4

# Checklist

- Sample checklist for benchtest/surface test

Logged Data Viewer for the Program above	Acceptable
All 3 temperature sensors functioning @ ambient	Yes
Orientation working– horizontal	Yes
Orientation working – under movement	Yes
Gyroscope working – under movement	Yes
LED levels programmed to different levels, and confirmation of functionality at each level	Yes
Check that all LED's are functioning (i.e. not blown etc..)	Yes
Firmware version – (Check in OMS)	Yes
Video file downloaded OK – after ambient record	Yes
Log file downloaded OK – after ambient record	Yes
Visual check – circlip fitted in place on front viewport	Yes
Visual check – back end fully tightened to housing	Yes
Visual Check – IDV/MCSV Sapphires are clean and no damage/cracks	Yes
Visual check – All connectors on all assets look good/ pins checked	Yes
Visual check – dust cap fitted	Yes
Ensure runtime is good (use simulator)	Yes
Camera memory cleared	Yes
Surfactant applied	Yes

Battery and EVBHSL Test:	Acceptable
Use de-passivation box <u>EVLDPSL-B</u> (for 36.7 Volts batteries) or <u>EVLDPSL-A</u> (if dual 19.5 Volts batteries are to be used) to ensure the batteries are de-passivated	Yes
Test system with associated battery housing(s) for 15 min	Yes
During 15 min test conduct vibration testing by tapping gently using a with a rubber mallet– ensuring that the voltage/current <u>does not</u> fluctuate during test	Yes

MCU Test:	Acceptable
Latest software version installed (control panel/programs/programs + features)	Yes
Can the MCU connect and program the camera correctly	Yes
Data can be downloaded	Yes
Data can be played back	Yes
MCU works with Depth Encoder	Yes
PAT test completed, including label on top plate	Yes
Serial number labels are all correct including Laptop asset code and number	Yes
Visual check – all fixings for the top plate are in place and tight	Yes
Visual check – all dust caps fitted to side panel	Yes

## Things to consider prior to run EV cam on field

- Well condition (gas/oil) + SITHP
- Power source for program and download
- Grease check
- Program timing
- Estimated downloading time 1/3 total program time
- Internet connectivity for data sharing

# Thank you !

Questions and Answering Session

Prepared by,



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Date : 4/1/2024

Verified by,

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Designation : Field Service Manager  
Date :

Verified by,

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Name : Mohd Zahir Bin Abdul Manan  
Designation : Operation Manager  
Date :