MINISTRY OF COMMUNICATIONS
AND MULTIMEDIA MALAYSIA

CyberSecurity MALAYSIA

GUIDELINES TO FORENSICALLY EXTRACT DATA FROM DASHCAM

Dashcam is a digital video recorder located inside a vehicle to continuously record the view through windscreen. It provides objective evidence when an incident occurs either the vehicle moves or stops.

The audio/video footage produced by dashcams The audio/video footage produced by dashcams is important evidence of an incident. It is used to understand how an incident happened and identify other vehicles or persons involved in the incident to file an insurance claim. Data from dashcam should be extracted forensically to secure its integrity.

WHAT TO DO

1. Identify dashcam's brand, model, and serial number.
2. Document offset time.
3. Select and download required video footage.
4. Calculate hash value.
5. Organize files into a folder.
6. Package evidence.
7. Submit package to the authority or insurance company.

1

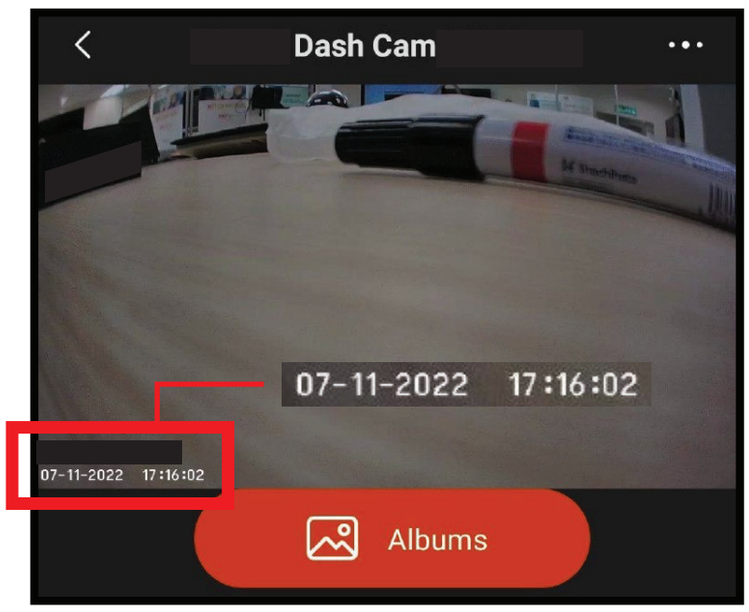
IDENTIFY DASHCAM'S BRAND, MODEL AND SERIAL NUMBER

Gather this information at the dashcam "Settings" menu or on the dashcam itself. Once identified, take a photo or screenshot of the brand, model, and serial number.

2

DOCUMENT OFFSET TIME

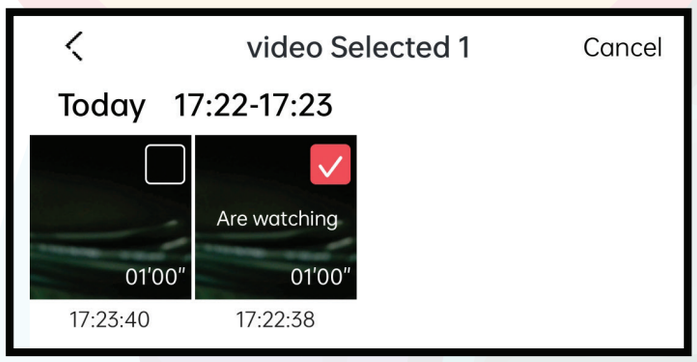
Document the difference between dashcam's time and current timestamp. To do this, take a photo of the date and time displayed on the dashcam together with current date and time displayed on https://mst.sirim.my

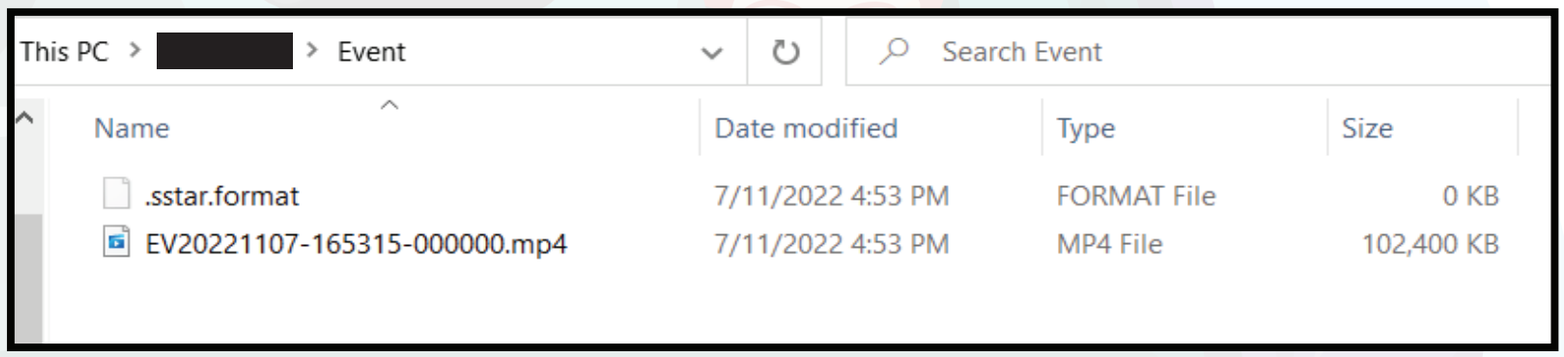


3

SELECT AND DOWNLOAD REQUIRED VIDEO FOOTAGE

Connect dashcam to the application installed on your device (mobile phone or tablet). Select the video footage. Download the video into your device.





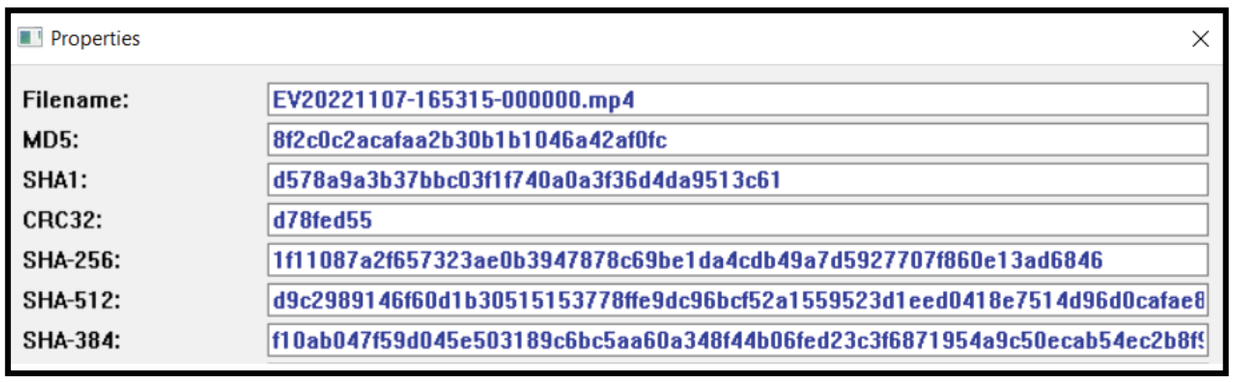
Note:

If the dashcam does not have an application, remove the memory card. Connect the memory card to your computer, select the video footage, and copy it into your computer.

4

CALCULATE HASH VALUE

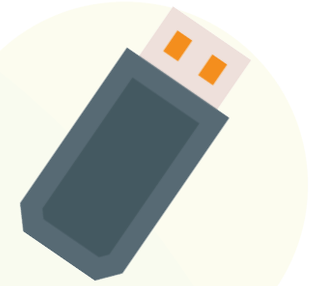
Hash value is a mathematical algorithm to prove a file is not tampered. The common hash value algorithm is SHA-1 or SHA-256. You can use applications such as HashMyFiles (for computer), Hash Droid (for Android) or iHasher (for iOS) to calculate the SHA-1 or SHA-256 value.



In this step, calculate the SHA-1 or SHA-256 hash value of the video footage using the hash application.

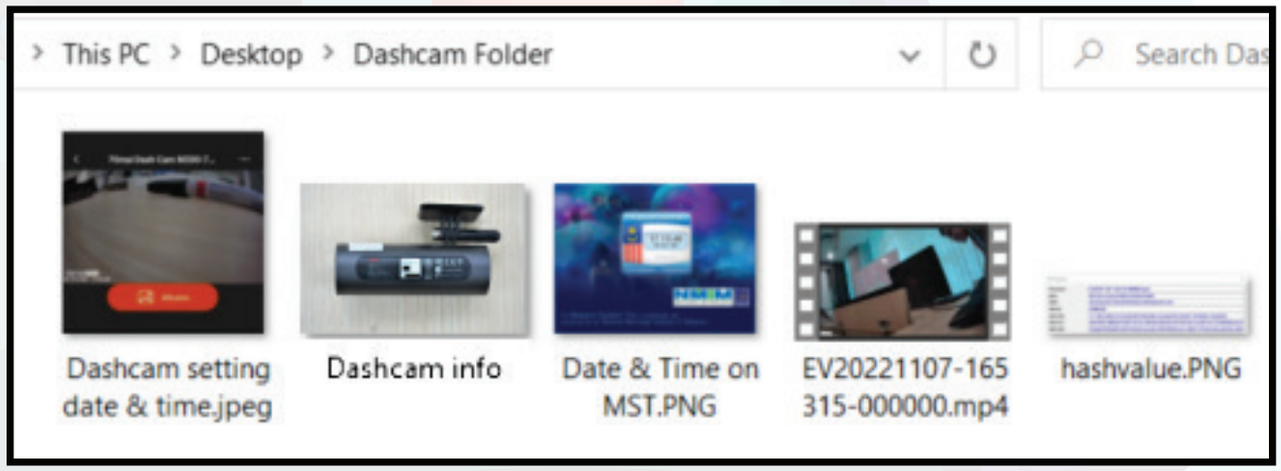
5

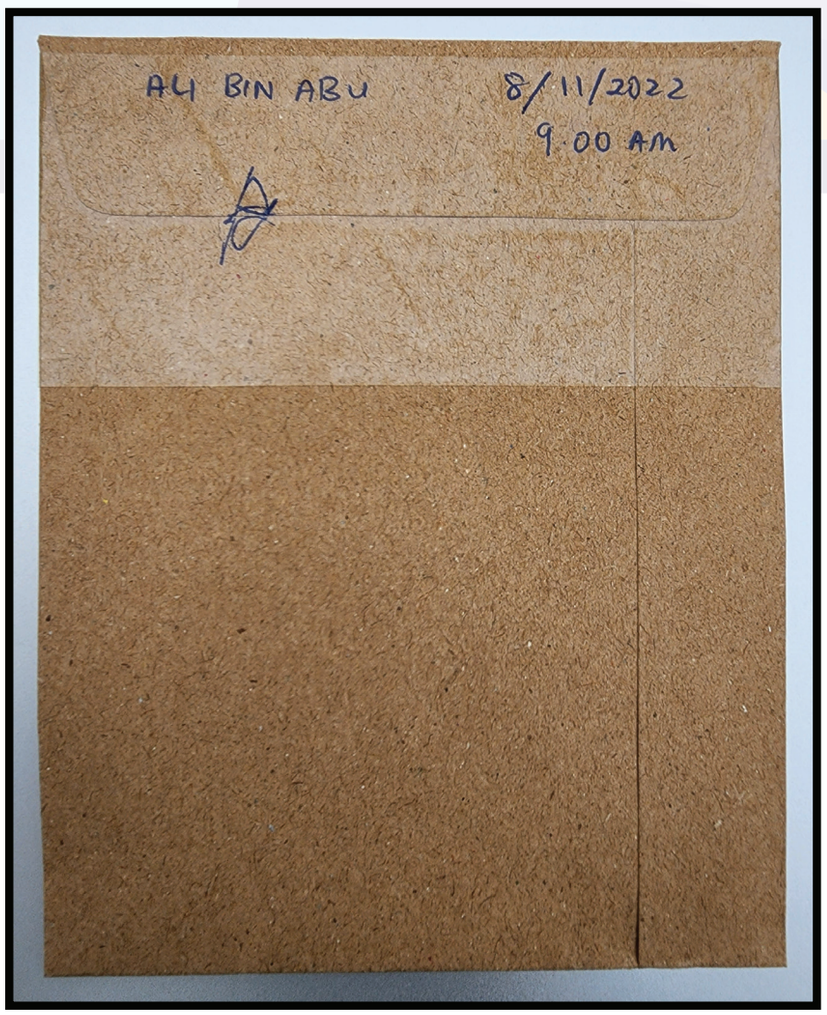
ORGANIZE FILES INTO A FOLDER



Save the video footage, photos, and files into a folder. This folder should consist of the following files:

a. Video footage;
b. Photos of dashcam settings (brand, model, serial number, and date & time);
c. Photos of date & time displayed on https://mst.sirim.my website;
d. Video footage hash value.



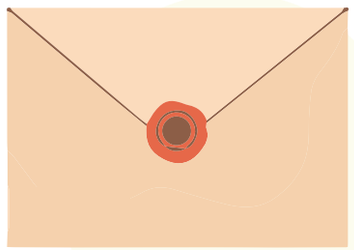


6

PACKAGE THE EVIDENCE

Save the folder into media storage (USB Flash Drive, CD or DVD). Package this media storage into an envelope and seal the envelope.

Write down your name, current date and time, and your signature on the envelope flap, as shown in the picture.



7

SUBMIT PACKAGE TO THE AUTHORITY OR INSURANCE COMPANY

You may now submit the package to the authority or insurance company for reporting purposes.

IMPORTANT!

- Do not edit the file as this will tamper the evidence!
- Do not transfer the video using other mediums, such as WhatsApp and Telegram, as it will compress the original file and tamper with the evidence.

Note:

1. Some dashcams do not have a model or serial number.
2. Some dashcams do not have screens to view settings. In this case, connect the dashcam to its application to view the brand, model and serial number.
3. Consult with a digital evidence expert to clarify any of the steps above.

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CyberSecurity Malaysia
200601006881 (726630-U)
Level 7, Tower 1, Menara Cyber Axis, Jalan Impact
63000 Cyberjaya, Selangor Darul Ehsan, Malaysia

Tel: +603 8800 7999 | Fax: +603 8008 7000 | Email: info@cybersecurity.my
Customer Service Hotline: 1 300 88 2999

www.cybersecurity.my

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