



# VEHICLE INFOTAINMENT FORENSICS IT'S MORE THAN JUST ACCIDENTS



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With new technologies developed for vehicle infotainment systems, such as GPS, satellite radio, Bluetooth, or Wi-Fi, digital forensic experts can access digital evidence from many of today's vehicles including location history, connected devices, and operating system data.

The data contained in the infotainment system falls into one of three primary categories, vehicle event data, navigation data, and user data.

## Vehicle Event Data

Vehicle event data includes evidence related to braking, gear shifts, wheel speed, and hard acceleration, and can also record Wi-Fi and Bluetooth connections or disconnections.

If it is critical in a case to determine if someone was impaired in some way, the vehicle event data around the time the person is believed to be impaired could be compared to the entirety of the vehicle event data to see if it is different. In other words, if they historically drive responsibly, but during the period of interest, these data points paint a picture of erratic and unusual driving, the data could be utilized with other evidence to bolster or refute the claim of impairment, even if that impairment does not lead to a vehicle accident.

## Navigation Data

The navigation data recoverable from an infotainment system includes saved locations, recent locations, and track points. This data allows an examiner to determine where that vehicle has been

historically, potentially going back to the car's genesis, resulting in potentially years of location data.

This data is exceptionally well utilized when conjoined with other forms of location evidence in the same case. Not only is the infotainment system in your car tracking where you go, but your mobile phone, digital camera, and Call detail records (CDRs) can record your location activity, geolocation coordinates, and the cell tower and sector utilized when a phone makes a call or SMS/MMS text message.

## User Data

User data is where it gets interesting. When you connect your phone to a vehicle, it syncs much of the data contained on your phone onto the internal storage of the car itself. The result is that an examiner can collect mobile phone data without even possessing the phone. User data, including messages, emails, social media content, call logs, and application data, are all recoverable from vehicles.

## Looking Forward

Hyper-connectivity is the future with connected vehicles, smart devices, wearable technology, and even entire smart cities. This type of future will mean that more data than ever will be collected concerning our habits, location, activities, health, and financial information. Infotainment systems are seen in almost every vehicle being produced today, and the widespread distribution of this technology and its rapid advancement creates an environment of both innovation and customer demand.



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