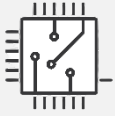


Standard Guide for Forensic Audio Laboratory Setup and Maintenance



WHAT IS AN AAFS STANDARD FACTSHEET?

The AAFS produces clear, concise, and easy to understand factsheets to summarize the contents of technical and professional forensic science standards on the OSAC Registry. They are not intended to provide an interpretation for any portion of a published standard.

WHAT IS THE PURPOSE OF THIS STANDARD?

Audio forensics encompasses several examinations including enhancement, authentication, and signal analysis.

This standard provides guidance for the creation of a laboratory space for conducting forensic audio examinations and for the configuration, verification, and maintenance of systems within that space.

Control over the listening environment and optimization of equipment and software are key elements to ensure that audio examinations are performed under ideal conditions. This document identifies possible sources of acoustic and electrical interference and provides guidance for minimizing their negative effects in a forensic audio examination.

WHY IS THIS STANDARD IMPORTANT? WHAT ARE ITS BENEFITS?

This standard identifies the primary factors for optimally setting up an audio forensic laboratory space and discusses ways to mitigate possible sources of interference with audio signals.

It also addresses issues related to equipment and software verification and maintenance.

By following the guidance in this standard, forensic examiners will be able to conduct examinations in controlled environments and with properly managed tools, thereby providing greater confidence in their results.



HOW IS THIS STANDARD USED AND WHAT ARE THE KEY ELEMENTS?

Forensic laboratories may use this standard to help establish a laboratory space for conducting forensic audio examinations and to improve or maintain an existing laboratory space.

Laboratory acoustics (e.g., sound sources within the room), temperature/humidity factors, and electromagnetic interference (e.g., transmitting devices) all have the potential to negatively affect a forensic examiner's ability to conduct a forensic audio examination.

Elimination or minimization of sounds (i.e., signals) that are not part of the recording being examined, is critical in a forensic examination. The standard also includes considerations for the setup and testing of equipment, whether part of a permanent or temporary system.

This standard may also help to inform or improve upon existing laboratory policies regarding the configuration and verification of equipment and software utilized in forensic audio examinations. Optimizing audio playback and verifying signal path are crucial to establishing a consistent workflow which leads to accurate and reproducible results.

Finally, maintenance of hardware and computer system components are addressed in this document. A laboratory may document periodic efforts to ensure that tools used to play back, and process evidentiary audio recordings are properly maintained.