

# Multimedia Authentication Testing

MAT (ver#4)

Analyst(s) name(s) \_\_\_\_\_ Testing date \_\_\_ / \_\_\_ / \_\_\_  
Tested file name \_\_\_\_\_  
Tested time range \_\_\_\_\_ Size \_\_\_\_\_ bytes  
MD5-SHA1 hash \_\_\_\_\_

File format *Open-Proprietary* in the \_\_\_\_\_ extension identified as \_\_\_\_\_ by file data  
Data streams \_\_\_\_\_% visual, \_\_\_\_\_% audio (\_\_\_\_\_ entirely silent), and \_\_\_\_\_% other data  
Metadata GPS \_\_\_\_\_ Hardware \_\_\_\_\_  
Date-times Created \_\_\_\_\_ Modified \_\_\_\_\_  
Auditing data \_\_\_\_\_

## Image or Video Stream Analysis (check if testing is applicable )

Stream details \_\_\_\_\_ resized. \_\_\_\_\_ interlaced. \_\_\_\_\_ color space. \_\_\_\_\_ x \_\_\_\_\_ resolution.  
\_\_\_\_\_ kb/s. \_\_\_\_\_ codec using \_\_\_\_\_ writing library  
Temporal analysis \_\_\_\_\_ fps speed \_\_\_\_\_ unnatural. \_\_\_\_\_ duplicate frames. \_\_\_\_\_ time skipping.  
Pass-Fail tests PRNU \_\_\_\_\_. Data cloning \_\_\_\_\_. PCA editing \_\_\_\_\_. DCT editing \_\_\_\_\_.  
JPEG editing \_\_\_\_\_. HSV-Lab histogram \_\_\_\_\_. Luminance gradient \_\_\_\_\_.  
Chromatic aberrations \_\_\_\_\_. Double compression \_\_\_\_\_. ELA-VELA \_\_\_\_\_.  
Thumbnail \_\_\_\_\_. Noise \_\_\_\_\_. Huffman table \_\_\_\_\_. JPEG dimples \_\_\_\_\_.

### Threshold tests\*

\* e.g. Temporal contrast, temporal diffusion, spatial predictability, temporal noise diversion, temporal histogram correlation, non-monotonous motion, etc.

## Audio Stream Analysis (check if testing is applicable )

Stream details \_\_\_\_\_ channels. \_\_\_\_\_ bit depth. \_\_\_\_\_ kb/s. \_\_\_\_\_ kHz sampling. \_\_\_\_\_ codec  
Spectral limits Perceptible up to about \_\_\_\_\_ kHz Noise ceiling up to about \_\_\_\_\_ kHz  
Simple analysis Resampling \_\_\_\_\_ detected Audio data cloning \_\_\_\_\_ detected  
Acute transitions Bias transition \_\_\_\_\_ detected Noise profile transition \_\_\_\_\_ detected  
Critical listening Speed inaccuracy \_\_\_\_\_ detected Stream de-synchronization \_\_\_\_\_ detected  
Amplitude tests \_\_\_\_\_ silence ( \_\_\_\_\_ absent noise ) \_\_\_\_\_ clipping ( \_\_\_\_\_ within 1 time span )  
Signal tracking \_\_\_\_\_ possible and found \_\_\_\_\_  
Subsonic impulse \_\_\_\_\_ possible and found \_\_\_\_\_

## Spot Testing (check if applicable ) Tested times are \_\_\_\_\_

Acute shifts in: Amplitude \_\_\_\_\_ detected. Content \_\_\_\_\_ detected. DC impulse \_\_\_\_\_ detected.  
Frequency \_\_\_\_\_ detected. Noise profile \_\_\_\_\_ detected. Speed \_\_\_\_\_ detected.

Additional tests, notes and observations:

(Reference relevant "Has", "Is" or "Fail" test results)

**OPINION:** To a *definitive-high-reasonable* degree of expert confidence, the tested content is found to be a *faithful-questionable-manipulated* representation of the facts as they occurred.

Answer with ("No", "Not", "Pass") or ("Has", "Is", "Fail"), else "No data", where applicable. Select appropriate italic option. Forensic Working Group: 2018