Reference Guide for Video Standard Settings

1.0   Purpose – The purpose of this reference guide is to aid in applying the correct settings during a forensic video analysis examination.

2.0   Scope - This reference guide describes the various standard settings to be used by personnel of the State Crime Laboratory when conducting a forensic video analysis examination.

3.0   Definitions – N/A

4.0   Equipment, Materials and Reagents – N/A

5.0   Procedure

5.1   Standards and Controls for AVID Platform

5.1.1   Analog Video Digitization

- *Video and Audio Channels*: Set according to video/audio content
- *Color/B&W*: Set according to video content
- *Resolution*: 2:1 / 1:1
- *Video Connection*: S-Video
- *Audio Connection*: RCA

5.1.2   Digital Video Capture

5.1.2.1 Pre-processing Preferences

- *Target Sample Rate:* A frame rate value greater than the video being played. A frame rate of 30 frames per second (FPS) is a good starting value.

5.1.2.2 Post-processing Preferences

- *File Type*: QuickTime
- *Resizing*: None
- *Compression*: Uncompressed

5.1.3   Digital Video Import

- *Resolution*: 1:1
- *Image Size Adjustment:* Do not resize smaller images
- *Color*: Computer RGB (0-255)
- *Alpha*: Ignore
- *Field Order*: Automatically non-interlaced for progressive (digital) projects

5.1.4   Deinterlace

- *% Speed*: 50 %
- *Style*: VTR-Style

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5.1.5   Single Camera Automatic Demultiplex

- *Camera Mode*: Auto Detect
- *Tolerance*: Adjusted based on results (35 is generally a good starting point)
- *Bounding Box*: Placed around a stationary, high contrast area contained in the camera angle of interest.

5.1.6   Export To Demultiplex

- *File Type*: QuickTime Reference
- *Flatten Video Tracks*: On
- *Aspect Ratio*: Native
- *Color*: 601

5.1.7   Speed Adjustment

- *Style*: Both Fields

5.1.8   Demultiplex Camera Angle Export

- *File Type*: QuickTime or AVI
- *Compression*: Uncompressed

5.1.9   Import From Demultiplex

- *Aspect Ratio*: 601 – Non-Square
- *Color*: 601
- *Field Order*: Even – Lower Field First
- *Alpha*: Ignore

5.1.10   Magnification

- *Bounding Box Width*: 50
- *Bounding Box Height*: 50
- *View*: 90 % Full
- *Filter*: Catrom / Sinc

5.1.11   Frame Averaging

- *Frames To Average*: Varies with the number of frames
- *Sharpen*: Varies with image content and quality

5.1.12   Image Export

- *File Format*: TIFF
- *Image Width*: 648
- *Image Height*: 486
- *Color*: RGB
- *Field Order*: Single Field

5.1.12.1 Images exported should contain square pixels. Therefore, the image width should be 1.3333 times the image height in order to maintain the proper aspect ratio. If the image width is not 486 (standard NTSC), adjust the image width accordingly during export.

5.2   Standards and Controls for StarWitness Platform

5.2.1   Analog Video Digitization:

- *Multiplexed/Single or Quad*: Set according to video content
- *Number of Cameras*: Set according to video content (only available if multiplexed)
- *Video Source*: S-Video
- *Audio Source*: Set according to audio content
- *Color Mode*: Set according to video content
- *Video System*: NTSC

5.2.2   Digital Video Capture:

- *Frames Per Second*: A frame rate value greater than the video being played. A frame rate of '30' frames per second is a good starting value.
- *Capture Audio*: Set according to video/audio content
- *Audio Device*: Set according to video/audio content

5.2.3   Deinterlace:

- *Upper Field/Lower Field/Interlace Both*: Set according to video content

5.2.4   Frame Average:

- *Frames*: 'All' or by according to the number of frames

5.2.5   Video Clip Export

- *File Format*: Uncompressed AVI

5.2.6   Image Export

- *File Format*: BMP

5.2.7   Resizing – Enlarged video or images should maintain their original aspect ratio. Therefore, enlarged video or images should be proportional to the height and width of the original video or images. A height and width that are double (2x) of the original dimensions are good starting values.

5.2.8   Image Processing – Images should contain square pixels. Therefore, the image width should be 1.3333 times the image height in order to maintain the proper aspect ratio. If the image height is not 486 (standard NTSC), adjust the image width accordingly.

5.3   Calibrations – N/A

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5.4 Maintenance – N/A

5.5 Sampling - N/A

5.6 Calculations - N/A

5.7 Uncertainty of Measurement – N/A

6.0 Limitations – N/A

7.0 Safety - N/A

8.0 References

- Ocean Systems Training Manual – Introduction to Forensic Video Analysis
- StarWitness Analyst Product Guides

9.0 Records - N/A

10.0 Attachments - N/A

Revision History		
Effective Date	Version Number	Reason
09/17/2012	1	Original Document
03/08/2013	2	5.1.2, 5.1.3, 5.1.12 - Updated settings for these critera
10/31/2013	3	Added issuing authority to header

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