A. Purpose:

To outline the steps taken to ensure that primary forensic software used for the analysis of digital media is functioning properly. The initial determination of suitability needs to be done by conducting a validation. After the initial validation, any software updates may be checked using a performance check. GL-22 should be used as guidance to determine what is needed for a validation or performance check.

B. Responsibility:

Forensic examiners

C. Definitions/Abbreviations:

Refer to CC SOP-26 - Definitions and Abbreviations.

D. Procedure:

1. Install the forensic software according to the manufacturer's guidelines to a verified performance checked forensic computer (Refer to CC-SOP-19).

2. Obtain the controlled media image files and associated guidelines from the shared directory- i.e. DCFL Control Standard or other. Using the approved validation plan or performance check, this control media will be used to conduct the necessary check.

3. Prepare a " QC Worksheet - Software (QR-CC-23)" record by filling in the date and examiner fields.

4. Initiate a QC case using the software and load the media image files.

5. If applicable, perform a hash of the controlled media images using the software being performance checked. Record the information in the appropriate fields on the worksheet.

6. Follow the control standard guidelines and verify the artifacts listed are present and located at the given offsets. Conduct the necessary processing of the images using the software to verify the elements listed in the guidelines. Record the results in the Notes section of "QC Worksheet - Software (QR-CC-23)", including errors or deviations from expected results.

7. Complete the record by filling in the appropriate information and hash values.

8. If completed successfully (i.e. YES=Pass), the software has been successfully performance checked.

9. In the event that the software fails the performance check or validation, redo the process in an attempt to rule out any processing errors.

10. If a second attempt fails, drawing upon your training, knowledge and experience, as well as, consulting with co-workers and technical support, attempt to isolate the issue and/or define the functional limitations of the software. Record any limitations in the Notes section of "QC Worksheet - Software (QR-CC-23)".

11. If the issue cannot be resolved and there are no defined functional limitations, the software cannot be used for case examination.

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12. Retain a copy of the filled out " QC Worksheet - Software (QR-CC-23)" for your records. The records may also be archived electronically in the designated examiner folder located in the "iso directory" of the unit server.

13. Whenever new software is purchased, a validation plan should be conducted to determine the suitability for casework. If a previously validated software has an update, a quality control performance check needs to be conducted prior to the updated software being used. If the previously validated software has a major software update, a validation should be considered depending on the effect of the major update relates to casework.

E. References:

1. Manuals and guides for applicable forensic software.

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