



OSAC RESEARCH NEEDS ASSESSMENT FORM

Title of research need:

Keyword(s):

Submitting subcommittee(s): **Date Approved:**

(If SAC review identifies additional subcommittees, add them to the box above.)

Background Information:

1. Description of research need:

Development of a tool or technique to allow the deduplication of digital forensics artifacts that are produced from different tools or from different sources. Often, multiple tools are used to extract data from a single device due to the varying capabilities of each tool. The results may be 90% the same, but due to the different ways in which the artifacts are presented, deduplicating the results is difficult. Additionally, it might be possible to obtain artifacts from different sources (e.g. a cell phone and a computer) that represent the same event or item (e.g. an email message). The presentation format may be different enough that deduplication is difficult. The problem is exacerbated by volume as each tool or source may produce thousands of artifacts.

2. Key bibliographic references relating to this research need:

N/A

3a. In what ways would the research results improve current laboratory capabilities?

Effective deduplication techniques can improve the efficiency of search and analysis functions that are currently performed manually.

3b. In what ways would the research results improve understanding of the scientific basis for the subcommittee(s)?

The ability to accurately identify and describe each unique item represented by forensic artifacts, regardless of tool or source, would be improved.

3c. In what ways would the research results improve services to the criminal justice system?

Less time would be spent in manual deduplication when it is necessary to use multiple tools or techniques to complete a forensic examination. Reporting could be made more concise.

4. Status assessment (I, II, III, or IV):

	Major gap in current knowledge	Minor gap in current knowledge
No or limited current research is being conducted	I	III
Existing current research is being conducted	II	IV

This research need has been identified by one or more subcommittees of OSAC and is being provided as an informational resource to the community.

Approvals:

Subcommittee	Approval date: <input type="text" value="12/12/2018"/>
<i>(Approval is by majority vote of subcommittee. Once approved, forward to SAC.)</i>	

SAC		
1. Does the SAC agree with the research need?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
2. Does the SAC agree with the status assessment?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
If no, what is the status assessment of the SAC:	<input type="text"/>	
Approval date:	<input type="text" value="12/12/2018"/>	
<i>(Approval is by majority vote of SAC. Once approved, forward to NIST for posting.)</i>		