75F-574 FREEAK - Forensic Rapid Evidence Extraction Analysis Kit - Rick Mislan - IDRI

# F.R.E.E.A.K.

# FORENSIC RAPID EVIDENCE EXTRACTION ANALYSIS KIT

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#### **Current Situation:**

Given the remarkable number of advancements in the technology of personal communications over the last several decades, analysis of information derived from communication instruments, particularly cellular telephones, has become an integral component of crime scene investigations.

#### In the U.S. alone:

180 Million Cellphone Users 500 Different Cellphones Available, 30 Different Cellphone Manufacturers At Least 4 Cellphone Service Providers

While acquisition and analysis of this personal communication device information can provide critical evidence and productive leads for follow up investigations, such analyses must be accomplished efficiently and effectively, since time is always of the essence at a crime scene.

Given such variance in communication and computing platforms of these personal communication devices, there are currently at least a dozen distinct forensic toolkits available for extraction of digital cellular phone evidence. Some products focus specifically on one manufacturer, some focus on specific features, and others focus on specific components, such as the GSM SIM cards.



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The crime scene first responder is, therefore, currently limited in acquiring and analyzing time-sensitive personal communication devices for information as they arrive at crime scenes, usually being forced to secure the device and send it back to a forensic lab, where the evidence loses most of its time value.

As a consequence, there is a critical need to expand the technological capabilities of existing forensic tool kits such that they will be able to quickly extract relevant evidentiary information from any personal communications device, independent of manufacturer, data processing system, or type of instrument.

### Solution through Innovation:

First technological intervention providing first responders with an easily-usable tool for in-field Fast Forensics Triage of personal communications devices such as cellular phones.

Truly functional handheld forensics tool that will combine the utility of previous forensic instrumentation, state-of-the-art technical information and imagery, and an intelligent guidance system providing for the immediate acquisition and analysis of evidentiary information from personal communication devices.

Significant benefit to law enforcement and military justice officials, as well as those involved in homeland defense, in protecting society against law breakers and those who would desire to disrupt society.

### **Objectives:**

**Objective #1:** Establish a hierarchical knowledgebase of all information regarding the various personal communication devices, their technical specifications and images, and the forensically-sound techniques for acquiring and analyzing these devices.

**Objective #2:** Develop the guidance system application for the information from Objective #1 to facilitate the first responders' immediate acquisition and

#### analysis of personal communication devices.

**Objective #3:** Develop a link analysis backbone system to provide for an intelligent decision making system based on the recovered information found on these personal communication devices.

