# SIGNAKEY

# THE DIGITAL TRANSFORMATION OF CRIME SCENE INVESTIGATIONS

## THE FEATURES OF A SIGNAKEY

HIGHLY ENCRYPTED 2 D SYMBOLOGY

STANDARD SIGNAKEY

HAS 256 DATA SYMBOLS

Y > A Y < < A < + Y > Y < < A < A < A **> Y < A Y Y Y A > > A Y > A < Y A > Y Y <> > Y > + > > Y > Y > X 人 > > > Y Y A Y Y Y Y Y A A A A > イ人イ人イン人YY人> イ人Y人人イ インYイン人Y人 トイ人人Y人ン ++++++++++++++++++ Y > > > A Y A > > A A Y Y > Y Y > 人人Y<Y><> Y<Y人<>Y>> >>Y>X>X>X>X>X>>YXX** 

 $5.19 \times 10^{33}$ UNIQUE IDENTIFIERS

**ESA ESTIMATES** 10<sup>23</sup> STARS IN COSMOS



### WHAT MAKES A SIGNAKEY SPECIAL

- Highly encrypted 2-D code not in the public domain.
- Every Signakey is unambiguously unique.
- Easy to decode with IOS or Droid based Smartphones.
- App is free but must be registered to each device.
- User must be registered and approved by Agency.
- Highly secure, permissions based, fixed length blockchain.
- Signakey can be damaged or dirty but will still decode.

### PROGRESS TO DATE WITH STAKEHOLDERS

- Meetings with:
  - Medium and Small City Police Chiefs.
  - Defense Attorney.
  - County Prosecutor.
  - District Court Judge.
  - Prof MSU School of Criminal Justice.
  - MSP Forensic Lab Director.

# Consensus next steps: PILOT FOR S/M/L AGENCIES

# WHAT IS A SIGNAKEY TAMPER PROOF BAG

TAMPER EVIDENT SEAL WITH PULL-OFF STRIP TO ACTIVATE. ONCE CLOSED WORDS VOID APPEAR IF OPENED

SIGNAKEY FANGIBLE
ADHESIVE LABEL WITH
AGGRESSIVE ADHESIVE,
REMOVAL NOT POSSIBLE
WITHOUT TEARING THE BAG



STANDARD 13.5 X 9 INCH WATERPROOF 5 MIL POLY VENTED BAG. UNIT COST \$0.08

# TYPICAL TRANSPARENT EVIDENCE BAGS





9 x 6.5" Tamper Evident Bag with Signakey

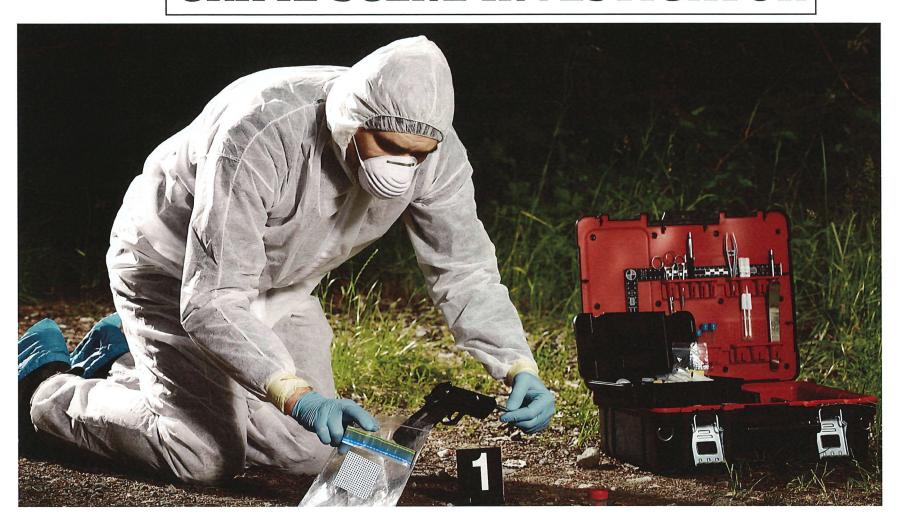


7 x 3.5" Tamper Evident Bag with Signakey



1.5 x 1.5 " Signakey on Tie Wraps for large items

# **CRIME SCENE INVESTIGATOR**



## **KEEP EXISTING PROCESSES – ADD TE BAG**

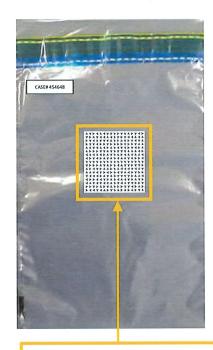
#### **DIGITAL CHAIN OF CUSTODY**

LOCATION (1

COLLECT SAMPLES IN NORMAL WAY, BUT IMMEDIATELY SCAN SIGNAKEY & PLACE IN TE BAG BEFORE MOVING



CAPTURES DATE/TIME, CSI ID, DEVICE #, PLUS EXACT GEOSPATIAL CORDINATES



USE SMARTPHONE WITH FREE APP TO SCAN SIGNAKEY LOCATION 2

CONFIRM TE SEAL IS INTACT, THEN SCAN SIGNAKEY IMMEDIATELY <u>IN</u> THE EVIDENCE ROOM



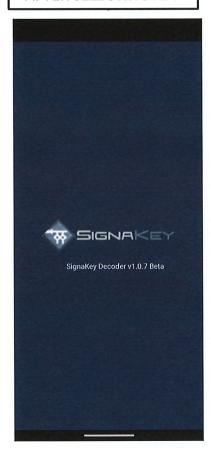
SCAN CAPTURES DATE/TIME, QUARTERMASTER ID, DEVICE #, AND EXACT GEOSPATIAL COORDINATES

# **AGENCY EVIDENCE ROOM**



# **SCREENSHOT OF APP START-UP**

SPLASH SCREEN 1<sup>ST</sup> USE AFTER SELECTING APP



AUTO CREDENTIALS SCREEN AFTER 5 SECS



AFTER LOGIN SUCCESS, CREDENTIALS SAVED

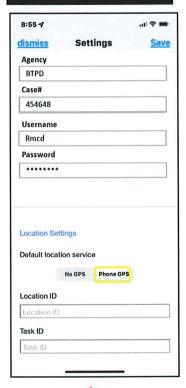


# SCREENSHOT OF 1st DATA CAPTURE

#### Open APP - Go To **Settings for Profile**



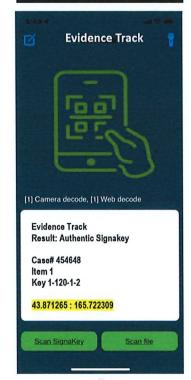
#### **Enter Credentials Enable Phone GPS**



#### **Center Object and App** will Scan Signakey



#### **Results Summary after Scanning Signakey**











## **ANALYSIS OF AN ACTUAL DATA CAPTURE**

# HOLD BAG & PRESS SCAN SIGNAKEY



# CENTER SIGNAKEY & APP WILL SCAN



#### **INVESTIGATOR STEPS:**

- 1. LOCATE THE EVIDENCE.
- 2. STAND OVER EVIDENCE.
- 3. PHOTO EVIDENCE & TENT.

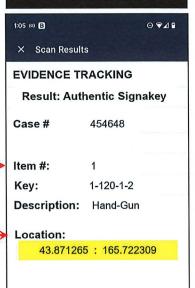
Corresponds to Placard #

#### **Geospatial Coordinates**

- 4. SCAN SIGNAKEY ON BAG.
- 5. BAG THE EVIDENCE.
- 6. SEAL THE BAG.
- 7. ENTER REQUIRED DATA

REPEAT UNTIL ALL EVIDENCE HAS BEEN COLLECTED

# RESULTS SUMMARY AFTER DECODE

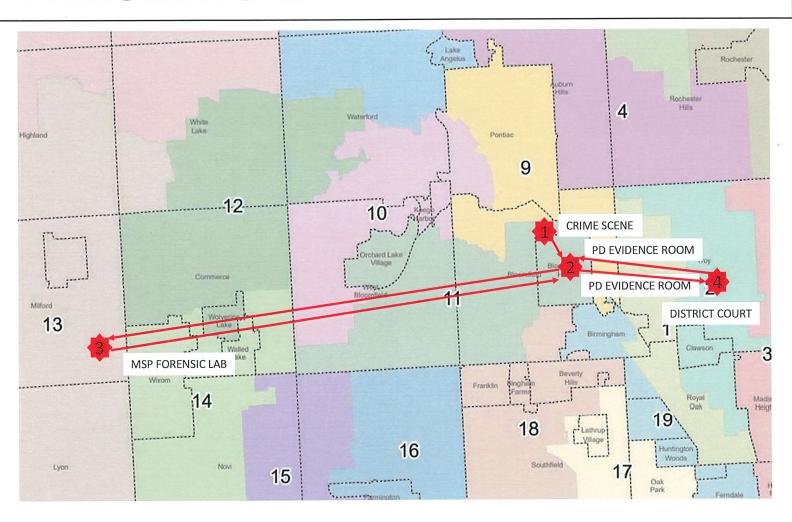


### THE EVIDENCE DATA TO MINE

#### CASE NUMBER AND INVESTIGATING OFFICER ID:

- > HOW MANY TOTAL ITEMS WERE COLLECTED
- >WHEN WERE THEY COLLECTED AND BY WHO
- >WHERE ARE THEY NOW
- >WHO LOGGED THEM IN AND WHEN
- > HOW MANY REQUIRE FORENSIC ANALYSIS
- >WHEN DID THEY GO AND WHO SENT THEM
- >WHEN DID LAB GET THEM AND WHO RECEIVED THEM
- >WHEN SHOULD THEY COME BACK
- >WHEN DID THEY COME BACK AND WHO RECEIVED THEM
- ➤ IS ALL THE EVIDENCE READY FOR THE PROSECUTOR

# TRACKING EVIDENCE LOCATION



### FULL TRACE HISTORY SINGLE ITEM

