On Collaboration - A Third-Party Perspective

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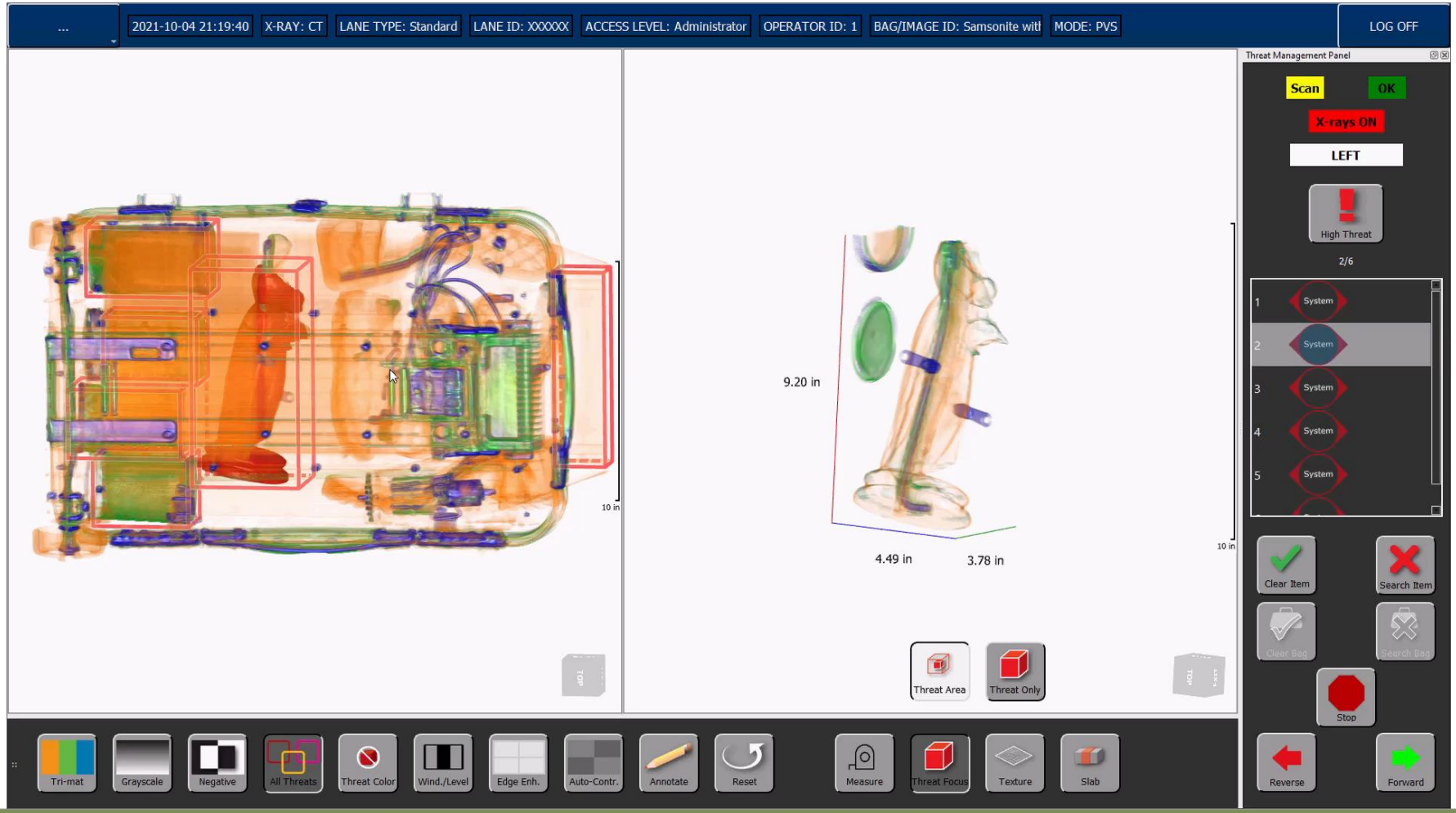
October 6, 2021

“So What?” and “Who Cares?”

- **TSS develops and licenses:**
  1. CT Image Viewing Station software (“Common Workstation”)
  2. Automated Threat Recognition (ATR) software (“Common ATR”) for CT explosives detection
     - For checked baggage, checkpoint screening, customs and air cargo screening
- **What does collaboration mean to TSS and how do we collaborate?**
  1. We make our Common Workstation software available for development and non-commercial use (for free!)
     - To foster research and innovation
     - To support and enable open architecture, interoperability and move towards standardized user interfaces
  2. Our Common ATR software is available to support CT screening systems (new and existing)
     - Aims to “improve the breed” through competition, provide options for OEMs and ATR operators
- **How is collaboration different than contracting to perform a task? What are the benefits?**
  - TSS supports government, regulator, airport, OEM and 3rd party development with free to use software
  - Free and “off-the-shelf” licensed software lower the cost of development through shared NRE
  - Collaboration often leads to contracts for custom software (not a condition for collaboration) and to licensing revenue
- **How can more collaboration take place?**
  - Email or call TSS!
  - Support open architecture including DICOS, expand from purely vendor locked systems

Common Workstation Software

- **Provides class leading CT image rendering, a GUI and imaging tools for security imaging**
  - The Common Workstation configuration developed for TSA to Common GUI guidelines is shown below



Common Workstation (CW) Software Key Features

- **Supports standalone CT screening systems, Automated Screening Lanes (ASLs) and integrated / networked screening systems, for both Primary and Secondary Screening**
- **Implemented in proprietary and open architecture systems**
  - Interfaces and supports TSA's Open Platform Software Library (OPSL) and Threat Recognition System (TRS) architecture
  - Integrated into OEM systems as a Volume Rendering Engine and API or with a full Graphical User Interface
- **Natively DICOS**
  - Supports DICOS (and DICOM) and some OEM proprietary formats
  - DICOS standard provides interoperability of:
    - Image and Threat Detection Report data between CT systems and the CW
    - Allows 3rd party developers to provide Automated Threat Recognition (ATR)
- **Compliant with TSA's checkpoint Common GUI requirements:**
  - Common Graphical User Interface (CGUI) Design Guide
  - Functional Requirements for Checkpoint Property Screening Systems (CPSS)
- **Full detailed logging of screener actions**
  - e.g., imaging modes used, tools, views and adjudications etc.

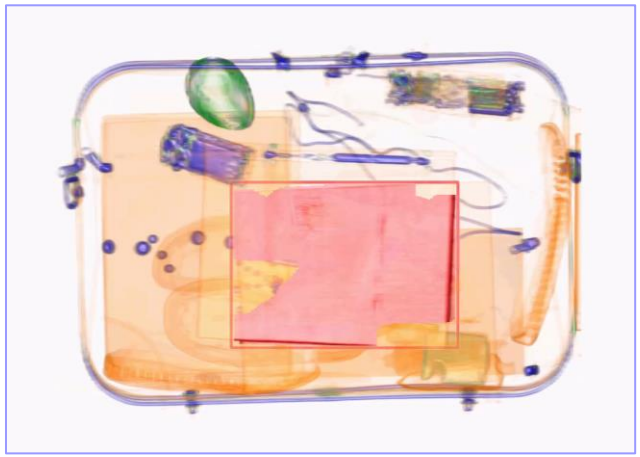
Common Workstation (CW) Collaboration

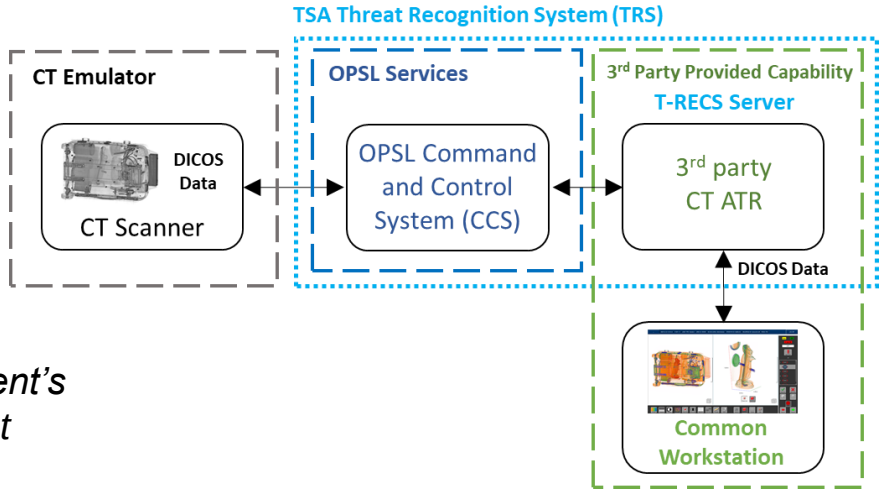
- ***Collaboration example 1:*** CW used in TSA's Checkpoint Automation Program (CPAM) to collect and manually annotate CT images from airports for the Passenger Baggage Object Database (PBOD) by Sandia National Laboratories & Amir Neeman Consulting

- ***Collaboration example 2:*** CW used by a 3rd party ATR developer, Capture LLC, to showcase Prohibited Item and HME ATR performance (CT images & TDRs) to DHS Science and Technology and TSA sponsors

- ***Collaboration example 3:*** CW demonstrated with TSA and Stratovan Corp. integrated with OPSL and Threat Recognition System (TRS) hardware, including the running of ATR and display of TDRs through OPSL

- ***Collaboration example 4:*** Program underway with Heathrow Airport Ltd, the UK Government, TSA and Stratovan Corp. to demonstrate an updated CW, OPSL and TRS hardware running 3rd party ATR for both security and the detection of other items of interest.





Funding for this work has been provided by UK Government's Future Aviation Security Solutions (FASS) program, a joint Department for Transport and Home Office initiative