

Common Format, Shared Vision: Advancing NII Interoperability with UFF 3.0

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What is Unified File Format?

- > UFF is a file format used to store data produced and utilised by NII scanners:

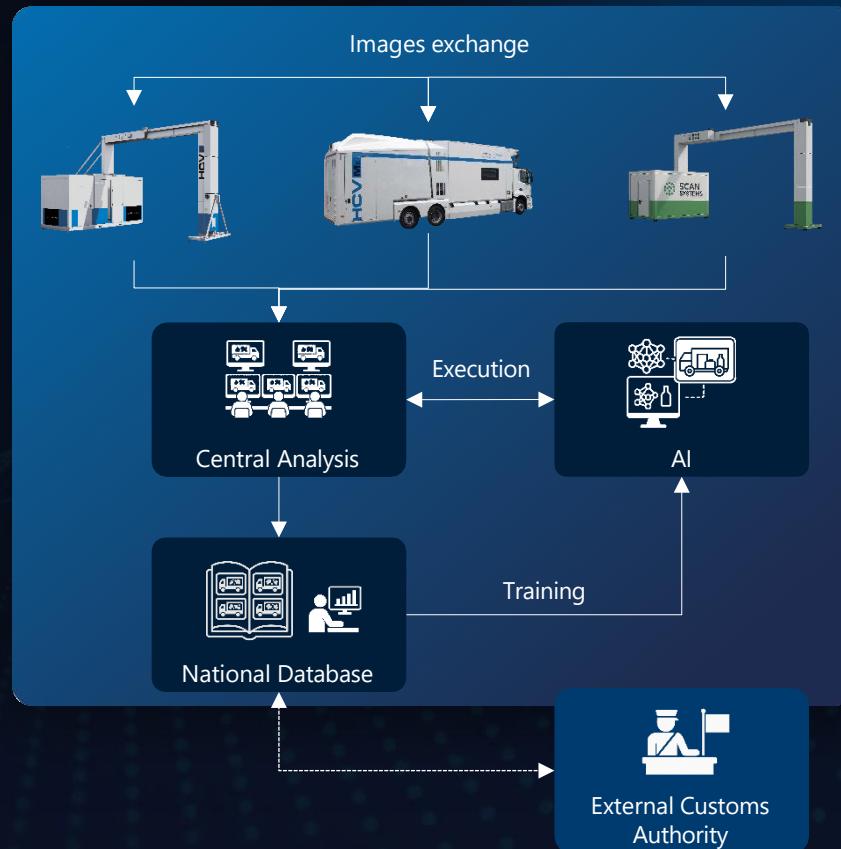
Physical inspection THREAT RECOGNITION
MANIFEST ANALYSIS RFID TAG
X-RAY RPM V E R D I C T
IMAGES QR code customs declaration
MATERIAL DISCRIMINATION



- > UFF is designed to enable interoperability among NII system providers, as well as algorithm developers, customs information systems, and digital solution providers, ensuring seamless manipulation and exchange of this data.

UFF use cases

- > Exchange images within Customs administration
- > Analyze NII images from multiple NII providers at a central location
- > Store NII images in a single database at the national level
- > Facilitate the development of automatic threat recognition algorithms
- > Exchange images between Customs administrations



Implementing use cases without and with UFF

Tasks to be completed by Customs and NII suppliers	No UFF	UFF	UFF & UFF API
Agree on the data to be exchanged	😐	😐	😐
Agree on the data format to be used	😢	😊	😊
Agree on the method of data exchange	😐	😐	😊
Modify the NII scanner/platform to import/export the data in the defined format	😢	😐	😊
Modify Customs Information System, Algorithm... to allow processing of the data	😐	😢 / 😐 First time Subsequent	😢 / 😊 First time Subsequent

In the long run, UFF simplifies and reduces the cost of implementation.

Smiths Detection involvement in the TEG-NII

- > Co-chaired TEG-NII from 2016 to 2020
- > Actively contributed to defining:
 - UFF 2.0 and completed the pilot phase
 - UFF 3.0
 - UFF API (draft) and working on the proof of concept
 - Future UFF extensions, including maintenance data and an improved event system



UFF: Powering Interoperability and Operational Freedom

UFF is the backbone of the New Smiths Detection Digital Platform

- > Data collection → Connect any UFF-compliant scanner
- > AI processing → Deploy any UFF-based algorithm
- > Data exchange → Interoperate with any UFF system:



Operational Benefits for Customs:



Choose the best scanner for your operation, regardless of provider.



Select algorithms that perfectly match your needs.



Integrate seamlessly into your existing ecosystem.

UFF enables Customs to combine interoperability with budget-conscious, tailored solutions.

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Thank you!

Meet us at
Smiths Detection booth P3