Data Expert Group Update

COVESA AMM

2023-10-11
Data Expert Group Introduction

• A group discussing and coordinating COVESIA activities in the data area
  - Including: VSS, VSC, IFEX, Vehicle API
• Four pillars
  - Best Practices and Guidelines
  - Data Models & Ontologies
  - Data Architecture & Infrastructure
  - Interface Definition
• Most of the work performed in separate sub-groups/meetings
• Group work loosely coordinated by the co-leads:
  - Adnan Bekan, BMW
  - Erik Jägervall, Bosch
Regular Meetings related to Data Expert Group

- VSS Ontology (VSSo) – Tuesdays
- VSS – Tuesdays
- Common Vehicle Interfaces – Tuesdays
- Architecture and Infrastructure - Wednesdays
- Weekly Data Expert Group – Thursdays

- All welcome to join!
- All meetings visible in the COVESA Community Calendar
Best Practices and Guidelines

• Most activity related to COVESA repository governance using VSS as the example repository

• Proposal for changed file headers including SPDX headers
  – Currently being discussed at COVESA board levels

• Process for having multiple active branches in parallel developed
  – Rationale: You should not need to update to the next major release to get new signals
  – One branch for all changes intended for next major release
    ▪ May include backward incompatible changes
  – One or more branches for minor releases
    ▪ Must not include backward incompatible changes
  – All contributions shall typically be targeting the “master” branch only.
    ▪ Project maintainers will cherry-pick changes to maintenance branches as needed
Data Models and Ontologies

• Ongoing discussions on how and if VSS needs to be extended to simplify support in various deployments

• Example discussion areas
  – Definition/Representation of instances (like doors/seats)
  – Use of UUIDs as identifiers and mechanism to manage backward compatibility
  – Continue to have *.vspec files as source format, or choose something different

• VSS Ontology Project
  – Proposal for Developing an Official Guideline on Data Architecture Standardization: Integration and Communication of (Generated) Knowledge in a Knowledge Layer of a Data-Centric Architecture

• Related AMM Sessions
  – VSS Evolvement Workshop, Thursday
Data Architecture and Infrastructure

• Ongoing discussions about data centric architectures.
• Recent proposals:
  • Documentation of How-tos, Patterns and Architectures
  • Framework for a Knowledge layer
  • Central Data Service Playground

• Related AMM Sessions
  – Architecture & Infra. Working Session, Thursday 9-12:15
    ▪ VSS-based Data Middleware Tiered Sync - Proof of Concept
    ▪ Central Data Service Playground workshop
    ▪ How-to/Pattern/Architecture doc workshop
  – Various other sessions such as ‘Vehicle data server southbound architecture’
Interface Definition Pillar

• A lot of discussion on what COVES A shall do in the Vehicle API area
  − Define a protocol independent API for accessing VSS in OpenAPI or AsyncAPI?
  − Collaboration with AUTOSAR Cloud Working Group on how to represent or integrate VSS data in AUTOSAR
  − Use of IFEX as source format or intermediate format for converting between different IDLs
  − Definition of low level functional capabilities on what services can be built
• The term VSC (Vehicle Service Catalog) has been partially redefined
  − VSC now only refers to the deprecated service catalog
  − The syntax and related tooling is now called IFEX!
• Related AMM Sessions
  − The Hierarchical Information Model (HIM) and an Interface Using It, Wednesday
  − uServices, Thursday
  − Vehicle Common Interfaces, Thursday
COVESIA
Accelerating the future of connected vehicle