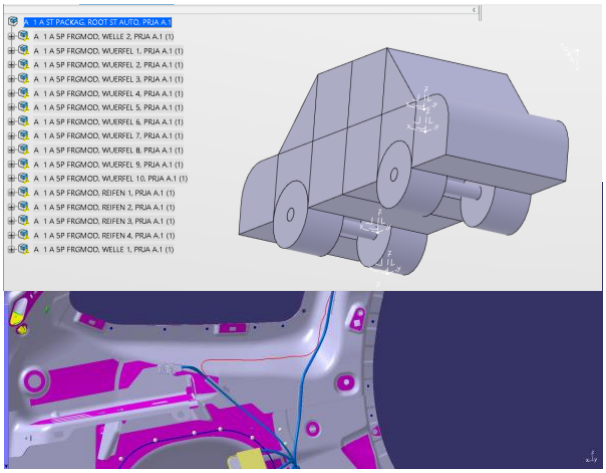
Use Case: Exchange of design Issues with redlining information (so-called Visual Issue Management, VIM)
Version: v1.0 February 2021
Status: Released
Mentor: PDM-IF

Use Case: Exchange of design issues with redlining information (so-called “Visual Issue Management” - VIM)

Aim

At a very first change management step (before a Change Request or a Change Order is defined), so-called ‘Issues’ shall be exchanged on parts/assemblies, explaining the Issue, as well as using redlining information. For a better semantic, the affected parts and geometry shall be referenced out of the AP242 XML file that describes the whole Issue and product structure, rather than being a screenshot, free text, a dedicated CAD model or being part of the part geometries.

Change path of antenna cable due to collision



ID	DC000002492
Name	DC000002492 Verlegung KBB DAB Antenne entlang Brüstung
Status	In clarification
Workflow Step	Issue genehmigen / Approve issue
User Specific Collection	
Primary collection	
Description	Kollision KBB mit Brüstung
Solution proposal	Abzweig KBB von KBB Gurtautomat und Verlauf entlang Brüstung Lochvorgabe -> Boris Korunov, EE-431 Bewertung Montage der Lösungsvarianten -> Bernhard Gruber, TU-524
Subconcept	Innenraum/Heck
Zone	Zone 4
Virtual Car	<car_project>_VS0_SALAVA
Project	<car_project>
Product Line	LU
Construction Phase	VS0
Department	
Module	
Solution Responsible	Korunov Boris, EE-431, Gruber Bernhard, TU-524, Raebiger Robert, EG-232, Luenemann Florian, EG-232, Lamina Tobias, EP-421
CC	,
Delivery Date	22.05.2020
Creation Date	15.05.2020
Creator	Matthias Off, FG-430
Provided in ZBS	
Provided in VC	
DiC Ablagestruktur	P1LP7Y0_ A_1_A_ST_PACKAG

Actors

- One OEM
- Supplier partners dealing with design engineering

Preconditions

OEM is able to produce a valid technical data package from different applications of its information system, which is essentially its CAD, PDM and Issue Management system. The content of the dataset exported is the Issue definition, the project/product scope, the involved people, the affected/new parts/assemblies (possibly part of a larger assembly), possibly some context geometry and finally redlining information attached to a saved view that defines which geometry is shown under which camera angle.

The supplier is able to consume the technical data package, by validating and importing the information inside its information system (CAD and possibly PDM and/or Issue Management system), and is able to produce back to the OEM the same kind of technical data package with its comments/proposal on the Issue.

Description

The information is extracted from multiples OEM's repositories (CAD, PDM, Issue Management system). The information is organized in directories and files, assembled in a zip file. The information is then checked, encrypted and sent to the suppliers.
The design supplier gets the information, that it has to decrypt, and imview the information using at least a CAD system and possibly a PDM and/or an Issue management system.

Out-of-scope of exchange:

- Workflow Management process (changes of the lifecycle state of the Issue)
- Change Management follow-up process (Change Request, Change Order)

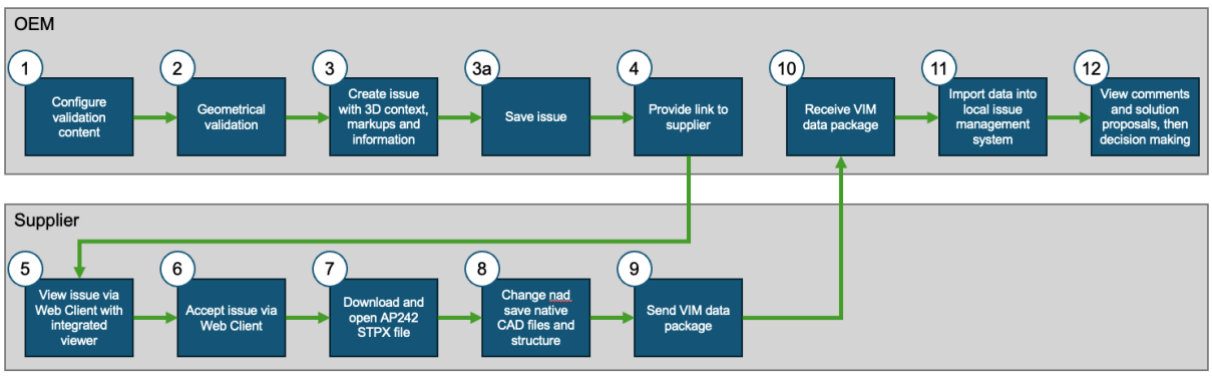
Alternatives

If no PDM system is involved, the affected/new parts can be simply represented by their 3D definitions. In this case, all 3D definitions shall have the same coordinate space (so-called 3D session).

Postconditions

The supplier is able to understand the Issue, to comment it and optionally to propose geometrical changes to the affected parts.

Diagram



Benefits

Enable a powerful Issue management across company boundaries. Ability to describe complex Issues in a semantically accurate way (without editing the 3D definition of the affected parts, nor to produce semantically poor redlining screenshots nor additional 3D definition files), relying on appropriate collaboration patterns (VDA 4965) with the associated recommended usage of AP242.