Standards for Technology in Automotive Retail

BOD Architecture Refactoring
STAR 6

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Meeting Objectives

• Clarify background and drivers for the proposed STAR BOD refactoring initiative, as a follow-up to the communication sent to members on October 3, 2018.

• Address questions, comments and concerns from members.

• Kick off the 15 day voting period to approve the refactoring initiative according to STAR bylaws:
  • >50% of members voting
  • >75% of votes in support
Background

- Globalization and JSON identified by members as prioritized objectives for STAR in the 2017 General Session and 2017 STAR Usage Survey.

- Two workgroups were formed in May 2017. Recommendation from both these workgroups was to first perform a refactoring (upgrade to OAGIS 10 and harmonization of STAR objects and components across BODs) prior to adapting BODs to better meet requirements from global users and developing JSON STAR schemas.

- In December 2017 STAR’s SC commissioned a STAR 6 Refactoring Workgroup tasked to detail scope and approach for a refactoring initiative. CDK, Ford, General Motors, Motive Retail and Volvo Group participated in this effort.

- A high level proposal for refactoring was presented to and supported by the STAR General Session in March 2018.

- This proposal has now been further detailed and anchored and is ready to be presented to members for approval.
What is being proposed?

- Start an initiative to refactor and clean-up current STAR XML BODs (STAR 5 based on OAGIS 9), branching off into STAR 6 based on OAGIS 10, following the process outlined in this presentation.

- For STAR, under an extended transition period, to continue maintain the current STAR 5 branch with extensions and updates, following a similar approach as for the transition from STAR 4 to STAR 5 in 2006 (when both branches were supported for 5 years).
  - Length of the transition period to be proposed by the STAR SC, based on input from members, and ratified by a member vote no sooner than 3 years following completion of the refactoring.
Secure future relevance of STAR as an industry B2B standard by:

1. Ensuring alignment with the latest major OAGIS release:
   - Improved support for Mobile/Cloud/REST API/JSON expansions of STAR.
   - Compliance with updated UN/CEFACT 3.0 definitions (incl. low level components, type definitions and code lists).
Why?

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2. Cleaning up and harmonizing BODs to make STAR faster to implement and easier to use:
   - Consistency in naming and design rules (eg. OAGIS verb usage and language handling)
   - Increased reusability of components between BODs, eg.
     - naming of nouns (eg. prices in order, shipment and invoice)
     - consistent usage of proprietary elements vs. more general structures (name value pairs).
   - Removal of ambiguous and/or deprecated content, based on current members usage of existing BODs.
Why? Example...

Parts invoice price matching with prices, tax, charges named and structured differently in the different BODs through out the Parts Management Process

STAR BODs:
- Parts Activity
- Parts Delivery Details
- Parts Disposition
- Parts Inventory
- Parts Invoice
- Parts Locator
- Part Master
- Parts Order
- Parts Pick List
- Parts Price List
- Parts Return
- Parts Shipment
Example of inconsistencies - Prices

- **PartMaster**
  - PartMasterPricing element – PartMasterPricingType
  - CoreChargeAmount element – udt:AmountType

- **PartsPriceList**
  - Price element – PriceABEIType
  - Tax element - TaxType

- **PartsInventory**
  - UnitPriceAmount element - udt:AmountType
  - CorePriceAmount element - udt:AmountType
  - AveragePriceCost element - udt:AmountType

- **Parts Order**
  - PartsOrderHeader
    - SubtotalAmount element - udt:AmountType
    - EstimatedFreightCostAmount element - udt:AmountType
    - HandlingAmount element - udt:AmountType
    - TotalAmountLessTax element - udt:AmountType
    - Price element – PriceABEIType
  - PartsOrderLine
    - Price element – PriceABEIType

- **PartsShipment**
  - PartsShipmentHeader
    - AccessoriesDiscountAmount element - udt:AmountType
    - OtherDiscountAmount element - udt:AmountType
    - TotalDiscountAmount element - udt:AmountType
    - Tax element – TaxType
    - Total Amount element - udt:AmountType
    - TotalFreightChargeAmount element - udt:AmountType
    - TotalHandlingAmount element - udt:AmountType
  - PartsShipmentLine
    - Price element - PriceABEIType
    - Tax element - TaxType
    - ExtendedCoreAmount element - udt:AmountType
    - CoreUnitAmount element - udt:AmountType
    - FreightChargeAmount element - udt:AmountType
    - HandlingAmount element - udt:AmountType
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Example of inconsistencies - Prices

- **PartsInvoice**
  
  PartsInvoiceHeader
  
  - stockOrderNetAmount element - udt:AmountType
  - StockAdjustmentValueAmount element - udt:AmountType
  - TotalPartsAmount element - udt:AmountType
  - TotalAccessoriesAmount element - udt:AmountType
  - TotalOtherAmount element - udt:AmountType
  - SubtotalBeforeDiscountAmount element - udt:AmountType
  - PartsDiscountAmount element - udt:AmountType
  - OtherDiscountAmount element - udt:AmountType
  - TotalDiscountAmount element - udt:AmountType
  - TotalIncludingDiscountAmount element - udt:AmountType
  - ExtendedAmount element - udt:AmountType
  - Allowance element – AllowanceType
  - TotalMiscellaneousExpense element - udt:AmountType
  - Charges element – ChargesType
  - Tax element – TaxType
  - Price element - PriceABEIType
Why?

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3. Incentivizing former members to re-engage with STAR.
How? Refactoring Process

• Refactoring to be performed by a core Refactoring Workgroup, supported by the STAR Enterprise Data Architect, in two steps:
  1. Identify and refactor common components (e.g. Vehicle)
  2. Refactor BODs based on the following priority:
     • Requests from members for refactoring a specific BOD
     • Refactor more commonly used BODs before less used BODs
   • All members are invited to participate in the Refactoring Workgroup (target profile data/information architects with experience working with STAR implementations),

• Refactored BODs will be made available for members to review to identify gaps in relation to their implementations and provide feedback to the Refactoring Workgroup.

• Refactoring guiding principles:
  • Consistency in naming and design rules
  • Common components across BODs for common objects
  • Consistency in usage of proprietary elements vs. general structures
  • Removal of ambiguous and deprecated content
  • Leading to no backwards compatibility between STAR 6 and STAR 5
How? Review Process

Approval process for refactored common components and BODs:

1. Signoff of all members in the Refactoring Workgroup (incl. STAR Enterprise Data Architect)
   - Common components will be signed off in group, BODs individually.

2. A request for review will be sent to all current STAR members, who will have **60 days** to provide comments on the refactored group of common components or BOD.
   - If needed, the STAR Enterprise Data Architect will reach out to the member for clarification in case of unclear comments.
   - The STAR Enterprise Data Architect will provide recommendations to the Refactoring Workgroup based on comments provided by members.

3. After **60 days** the Refactoring Workgroup will consider all comments from members and release a final draft version of the common component and/or refactored BOD to all members.

4. The refactored BOD will be included in next upcoming yearly release of STAR on the following 4\textsuperscript{th} of July.

5. Once published, the same change request process for STAR 5 BODs will apply to STAR 6 BODs for members.
Next Steps

• STAR to distribute a voting package to all members following this meeting.

• Members invited to participate on two levels:
  1) Provide direct support by participating in the Refactoring Workgroup (target profile data/information architects with experience working with STAR implementations).
  2) Review refactored components or BODs and provide feedback to the Refactoring Workgroup.
Questions, comments or concerns?

If later, please submit to Paco Escobar at pescobar@starstandard.org

Questions and answers will be posted on the refactoring Q&A section of the STAR web site