

# VSS Meeting Topics and Meeting Notes

*This page intends to contain the agenda for next VSS meeting (Tuesdays 16.00-17.00 CET) and notes from previous meeting. At the bottom is a template for the agenda. General agenda points like discussion on PRs and issues may be skipped if discussion on prioritized topics takes too long time.*

See [COVESA Common Meeting Schedule](#) for meeting link. The meeting is open to anyone.

## General Agenda

- Welcome and Compliance statement

*Welcome to the COVESA VSS Meeting!*

### **Antitrust**

*Before we begin, we would like to make clear that COVESA is committed to compliance with the antitrust laws in all of its activities, and that it expects all participants to similarly comply with the antitrust laws. We will not engage in--and members must refrain from--any discussion of, or understandings regarding competitively sensitive topics. If you have any doubts regarding whether a matter is appropriate for discussion, please consult with your antitrust counsel.*

### **Open and Royalty-Free**

*Further, COVESA aspires to be an open and royalty-free organization. The discussions and contributions made during this session are governed by the [COVESA Intellectual Property policy](#). If you are unfamiliar with that policy, please review it in detail prior to making any contribution that reads upon a patent.*

- Agenda discussion - anything that needs to be added?
- Prioritized Topics:
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Discussions VSS
- Discussions VSS-tools
- Prioritized topics for next meeting

## Meeting notes 2024-05-21

- Future of VSSo (Paul)
  - There has been proposals on modeling from Ford and BMW
  - Paul is happy to help if someone wants to drive it forward
  - Gunnar: The proposal from Swen - adding info on source of data items, has been discussed, adding metadata or ontology
  - Gunnar: Found some drafts on layers, we should put them somewhere

*VSS Layers was discussed in Cloud & Connected Services project, end of 2019 and beginning of 2020.*

*The VSS Layers draft was attached to the page.*

*Direct link: <https://wiki.covesa.global/download/attachments/12124613/VSS%20composable%20layers%20-%20draft%2020200114.pdf?api=v2>*

*Minutes from CCS are here, but there is a lot...*

<https://wiki.covesa.global/pages/viewpage.action?pageId=12124613>

- Protobuf Thesis worker? (Adnan)
  - Postponed
- VSS 4.2
  - Release Candidate exists [https://github.com/COVESA/vehicle\\_signal\\_specification/releases/tag/v4.2rc0](https://github.com/COVESA/vehicle_signal_specification/releases/tag/v4.2rc0)
  - With 2 weeks RC phase this means real release could come around May 31st or week after
  - Difference to master
    - Keeping Python 3.8 support (minor refactoring needed)
- Japanese OEM APIs
  - See slack - brought up by Sebastian. Does anyone have more insight in how they will collaborate?
  - <https://japannews.yomiuri.co.jp/business/companies/20240516-186332/>
  - <https://www.businesskorea.co.kr/news/articleView.html?idxno=217218>
  - Scott: new to AGL as well
  - Ulf: VISS would be a candidate
  - Stephen: Possibly Jasper
  - <https://asia.nikkei.com/Business/Automobiles/Toyota-Nissan-and-Honda-to-team-on-AI-and-chips-for-next-gen-cars>

## Meeting notes 2024-05-14

- VSS Release 4.2
- "GraphQL as VSS Language"-info
  - Adnan: The presentation from Swen Schisler could be good as a COVESA blog post
  - Paul: To check
  - References
    - [https://wiki.covesa.global/download/attachments/98271360/COVESA\\_Towards%20vehicle%20DATA%20specification\\_AMM\\_04.2024.pdf?version=1&modificationDate=1714758174348&api=v2](https://wiki.covesa.global/download/attachments/98271360/COVESA_Towards%20vehicle%20DATA%20specification_AMM_04.2024.pdf?version=1&modificationDate=1714758174348&api=v2)
    - COVESA All Member Meeting ~ April 16-18, 2024
    - Common Vehicle Interfaces Meeting Topics and Meeting Notes
    - <https://wiki.covesa.global/download/attachments/78839850/VSSandAbove.pdf?version=1&modificationDate=1714598414649&api=v2>



Daniel Alvarez 3 days ago  
Hello all #vss,

I would like to follow up on the proposal that @daniel wilms and I presented at the last AMM. Namely, evolving the current VSS into a DATA specification by adopting existing schema language like GraphQL Schemal Language.

In that sense, is anyone interested to contribute and support this idea? We have started to work on this and intend to commit those improvements soon, and materialize those changes and the required transition within this year. (edited)

## Meeting notes 2024-05-07

- Sivashankar Yoganathan- 10min presentations, 10 min talk. cca 07.5.2024
  - Michael O'Shea presented MOTER

**MOTER**

**Mission:** Enable smarter, data-driven decisions in the insurance industry

**Vision:** Unify automotive and insurance sectors, enhancing modern mobility

**Monetization:** Advanced data leads to profitable insights with tailored insurance products and services

Funded by: **MS&AD**  
Aioi Nissay Dowa USA

The slide features a background of interlocking puzzle pieces. In the center, a purple piece is labeled 'MOTER'. To its left, a grey piece is labeled 'AUTO MAKERS', and to its right, a grey piece is labeled 'INSURANCE CARRIERS'. Below the central 'MOTER' piece, another purple piece is also labeled 'MOTER'.


- With access to more data we can build better risk models
- Example: G value during braking, Tailgating (distance to vehicle in front of ego vehicle)

### Next Steps

- Promote insurance need awareness
- Work with COVESA to understand how to update VSS standard
- Develop POC and demonstrate the value

- 
- VSS 4.2 Release Planning
  - The branch [https://github.com/COVESA/vehicle\\_signal\\_specification/tree/4.X](https://github.com/COVESA/vehicle_signal_specification/tree/4.X) is updated, visible at [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/740](https://github.com/COVESA/vehicle_signal_specification/pull/740)
  - Proposed PRs to include before code freeze
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/739](https://github.com/COVESA/vehicle_signal_specification/pull/739)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/737](https://github.com/COVESA/vehicle_signal_specification/pull/737)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/731](https://github.com/COVESA/vehicle_signal_specification/pull/731)
    - <https://github.com/COVESA/vss-tools/pull/347>
    - <https://github.com/COVESA/vss-tools/pull/344>
- PP: OBD
  - OBD has data not represented elsewhere, potential to reintroduce specific signals later
  - Erik: Some diagnostic signals added at [https://github.com/COVESA/vehicle\\_signal\\_specification/blob/master/spec/Vehicle/Diagnostics.vspec](https://github.com/COVESA/vehicle_signal_specification/blob/master/spec/Vehicle/Diagnostics.vspec)
- PP: Seats instances
  - VSS moved from row/pos to row/driver-passenger
  - We are considering moving to VSS 4.1, will require a lot of work. May go to 4.2

- Erik: I may be able to create a 4.2rc0 soon
  - Erik: See discussion at [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/642](https://github.com/COVESA/vehicle_signal_specification/issues/642)
- Paul: VSSo topics: Handle here or not?
- "GraphQL as VSS Language"
  - [https://wiki.covesa.global/download/attachments/98271360/COVESA\\_Towards%20vehicle%20DATA%20specification\\_AMM\\_04.2024.pdf?version=1&modificationDate=1714758174348&api=v2](https://wiki.covesa.global/download/attachments/98271360/COVESA_Towards%20vehicle%20DATA%20specification_AMM_04.2024.pdf?version=1&modificationDate=1714758174348&api=v2)
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 **Daniel Alvarez** · 3 days ago  
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In that sense, is anyone interested to contribute and support this idea? We have started to work on this and intend to commit those improvements soon, and materialize those changes and the required transition within this year. (edited)

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## Meeting notes 2024-04-30

- VSS Release Planning
  - Pierre Pierre: Blackberry interested in picking up 4.1 - found some inconsistencies
    - Wiki out of date
      - Version Info outdated at
        - [https://github.com/COVESA/vehicle\\_signal\\_specification/wiki/ROADMAP](https://github.com/COVESA/vehicle_signal_specification/wiki/ROADMAP)
        - [https://github.com/COVESA/vehicle\\_signal\\_specification/wiki/Release-Instructions-and-Checklist](https://github.com/COVESA/vehicle_signal_specification/wiki/Release-Instructions-and-Checklist)
      - Add info on where to find release
    - Changelog- better to have latest version at top, not at bottom
    - AP: Erik to check on wiki write access
    - Release plan, wait with 5.0 until fall AMM, possibly 4.2 with backward compatible changes including node removal
    - PP Ok to use 4.1 for now, but deletion feature is interest, if available in with next 3 weeks then fine.
  - Any remaining open PRs to include (must have)?
  - AP: Erik to start cherry-picking to 4.X-branch, follow up on results.

## Meeting notes 2024-04-23

### VSS-Tools PRs

- 343 to **be merged**  
Python active support until 2026
- 344 has to be checked and reviewed
- 346 to review and merged
- 347 to be checked by Erik, how to automate version

### VSS-Tools Issues

Close issue 194 it is merged now.

### Vspec PRs

- 731 stays open
  - PierPierB
    - Comments are documenting summary of the discussion.
    - euro ncap is quite interesting document and it would be great to use this as base for the alignment of this topic.
    - Stefan will check as well with Allianz
- 737
  - Resolution might be limited(Stefan)
  - What about orientation of screen?
  - What is the main usage and do we have any usecases? Are we missing anything on top.
- 659
  - Ppb new comment reference to euro cap

### Issue VSpec

- 735 related to issue spec to franca

### We had new visitors.

Sivashankar Yoganathan

AB: Do you have myb some use cases or requirements to share?

SY: We could do exchange and understand requirements.

SY: what is missing is frequency of the signals, but we can discuss more details

SY: possible exchange in two weeks,

AB: slot in the meeting for 15-20 min. 10min presentations, 10 min talk. cca **07.5.2024**

StefanS: Would be great to have this discussion

New people from MOTER that joined us

Mohair Yadav from Ford as well.

### ViSS status.

Ulf and Peter

- Ulf: ViSS is stabilised in covesa repo and everyone can use it

- Peter: demo went well as well on the side of Volvo

## Meeting notes 2024-04-18 (April 2024 AMM Working Session on Raw vs. Derived signals):

- The definition of derived signals is not as straightforward as the definition of raw signals
  - Distraction levels of 0% and 100% are clear but what does 66% or 34.5% distracted really mean?
  - Should distraction really be represented as a percentage? Or, perhaps an enum?
- Units are one way in which clarity can be achieved
  - Requires introspection (ability to ask the model) support in the API or equivalent
- Even if enums are used to "bucketize" or categorize the values, interpretation of what each bucket means is still important or not necessarily clear
  - For example, what is a crash and severity of crash can have different interpretations depending on culture, context, etc.
  - Same for aggressiveness
- How could we make available information on how a signal is derived?
  - Where it may be needed or useful
  - How can this be expressed to the user?
  - Does it need to be digital?
- Margins of error and calculations may vary in time
  - Remaining distance based on fuel consumption varies over time
  - Some signals from which a derived signal is generate may become unavailable or become available again
  - The rate of incoming signals may affect the derivation
  - How do we plan to represent this?
- Even an OEM may not know how some signals are derived
  - The Tier-1 may have their own way of doing the derivation and this is not available to the OEM
- What is a raw signal?
  - Is there such a beast?
  - Clearly there are some, but perhaps the great majority of signals are derived?
- Would adding all the information discussed above impact simplicity?
  - One main goal of VSS is simplicity
  - Perhaps less precise definitions of signal values is actually simpler
- Should we define the set of parameters to evaluate in order to decide if a derived signal should be added to the signal catalog?
  - Is portability of applications (where they can rely on a "standard" definition of a signal) a concern?
    - And therefore should the signal catalog only contain clearly defined signals as opposed to leaving definition to interpretation?
  - Options to consider:
    - Determine if the signal should be made part of the catalog or left for manufacturers to add using overlays
    - Require that signal definitions refer to a standard
    - Allow liberal interpretation, but mention in signal definition comments that interpretation is left to the implementation

## Meeting notes 2024-04-09:

- Crash detection/events - car immobilized
  - Stefan: Do we have anything?
  - Adnan: PRs welcome
  - Erik: Sometimes we create a temporary \*.md file and add it to PR for discussion.. PPB to put down initial thoughts in \*.md
- AMM
  - No regular VSS meeting next week
    - Erik has asked Paul to delete
  - VSS Deep Dive being prepared by Sebastian Schildt
- Head& Eye
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/731](https://github.com/COVESA/vehicle_signal_specification/pull/731)
  - Idea - use Occupant as top branch, like `Vehicle.Occupant.Row2.PassengerSide.MidEyeGaze.Azimuth`
  - PPB: Instance handling
- VSS-tools
  - A lot ...

## Meeting notes 2024-04-02:

- Head& Eye
  - PR updated, now using seat as base - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/731](https://github.com/COVESA/vehicle_signal_specification/pull/731)
    - or do we want occupant directly at top
    - identifier update
- Node removal - status update
  - <https://github.com/nwesem/vss-tools/pull/2>
  - Adnan: Soon official PR will created. Name of tag changed
  - Adnan: Could be presented at AMM
  - Erik: Agenda is quite full
  - Adnan: We can mention as part of coming releases
  - Erik: Could be good mentioning, as well as upcoming VSS 5.0
- DDSIDL and structs
  - <https://github.com/COVESA/vss-tools/pull/340>
- Pre-commit hooks
  - <https://github.com/COVESA/vss-tools/issues/341>
- -ot naming conflict
  - <https://github.com/COVESA/vss-tools/issues/339>
- AMM
  - Template at [https://drive.google.com/drive/folders/1yaf1-wp4\\_1kaAUDwNheY8AI53Wmyn8W](https://drive.google.com/drive/folders/1yaf1-wp4_1kaAUDwNheY8AI53Wmyn8W)
  - Revisit meeting schedule at some time- possibly together with DEG.
- Releases
  - Paul: what is the release plan
  - erik: Current plan is 5.0 after node removal merge, around AMM, possibly release 4.2 as well at that time

## Meeting notes 2024-03-25:

- Head& Eye
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/731](https://github.com/COVESA/vehicle_signal_specification/pull/731)
  - More time needed?
- Franca support
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/735](https://github.com/COVESA/vehicle_signal_specification/issues/735)
  - (Copy in <https://github.com/COVESA/vss-tools/issues/336>)
  - Anyone using/interested? If not - discontinue? (Move to obsolete?) Or just list "known limitations"
  - MoM:
    - PPB: if no one interested - possibly handle it as inactive PRs
    - Adnan: do not think anyone is using it
- "Inactive" PRs
  - Do we want to close them after a certain time of inactivity, if no-one seems to be interested in driving them forward?
  - MoM
    - PPB: Have no issue closing if there are no progress. Close things at least not touched in a year
    - Stefan: discuss in session, archive or take up
    - Ulf: A year
    - PPB: But not automatic, check last two
    - Adnan: Do it AMM, try to schedule time
- AMM
  - VSS Workshop (PPB) moved to Thursday - 45 minutes, start 8.45
  - Also [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/733](https://github.com/COVESA/vehicle_signal_specification/issues/733)?

## Meeting notes 2024-03-18:

- AOSP
  - Merge ok
- VSS vs. VSS-tools compatibility
  - Shall VSS-tools vX.y be required to support anything else than VSS X.Y?
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/734](https://github.com/COVESA/vehicle_signal_specification/issues/734)
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/discussions/732](https://github.com/COVESA/vehicle_signal_specification/discussions/732)
  - Adnan: Nice to support, but how big is the effort, not easy if requires too much work
  - Daniel: What about packing the same version of the tool.
  - Erik: Advantage for Eclipse Velocitas if the vss-tools "engine" can support also older versions.
  - Erik: Would be quite easy to at least check which old VSS versions that are supported for each release
  - Erik: Depends on if resources are available.
- Overlay and remove
  - Shall new keyword "state" be considered to be part of "std VSS syntax", i.e. described in VSS doc
    - Alternative is to consider it just as a VSS-tools-specific feature
  - <https://github.com/nwesem/vss-tools/pulls>
  - Adnan: Does not really understand the use of active/inactive
  - Daniel: Is it intended only for exporter, or also other function
  - Adnan: Inactive/active fills a different purpose, not needed for vss-tools for purpose of removing signals of tree
- Terminology:
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/733](https://github.com/COVESA/vehicle_signal_specification/issues/733)
- AMM
  - Topics for discussion:

- Raw vs. derived signals; does VSS need to define or state how signals are derived?
  - Is this useful to clients?
- For signals derived through ML; should confidence level, variance, precision, error, etc. be reported?
  - Is this useful to clients?
- How should model-generated derived signals such as "driver attentiveness" be represented (in the absence of a standard)?
  - Confidence percentage? Enum?
- To what level of specificity should VSS describe signals?
  - Leave semantics to OEMs (flexibility for OEMs but affects portability) or define them precisely?

## Meeting notes 2024-03-12:

- Adnan -overlay and remove node
  - See <https://github.com/nwesem/vss-tools/pull/2> - not ready for official VSS repo yet
  - Keyword "deleted"
  - Comments welcome
  - Pierre Pierre: Interested, will share some feedback. We have thought of a private "x-delete" but better if public/agreed
- AMM Planning
  - We should plan content for the VSS Working Session Wed 16.45-17.30. Here is one possible agenda, but it can be adapted as needed if there are other topics someone wants to bring up.

### Agenda

- 5 minutes – introduction to VSS maintainer team (i.e. Erik, Adnan, Sebastian) and general requirements if we should refactor VSS
- Recap & Way Forward (10 min each) – Quick recap of the topic and discuss if there is anyone that wants to drive the topic.
  - ~~VSS Type Representation and Reusable Properties~~
  - ~~Tree vs. Flat Structure~~
  - ~~Instance Handling~~
  - ~~Overlays~~
- ~~Other topics (10 min)~~

A potential abstract for the official agenda could be something like below, unless someone else has a better proposal:

*"At the last AMM we discussed several potential improvement areas for VSS like property support and refactored instance handling. In this session we will continue the discussion and align on VSS roadmap for 2024-2025"*

- Discussion
  - PPB: Value discussing various concepts (40 minutes)
    - A number of signals are "raw" signals, others derived. Sometimes it matters how they are derived
    - Driver attentiveness/sleepiness, what is meaning of 63% sleepiness, how to handle confidence
    - VIN - is static/attribute, what should we do we signals if value comes regularly but never change
  - Erik: Would be great if you present it PPB
  - Daniel: Aspects of having derived information, all participants of the driving env. Concentrate on model, rather than individual signals like VIN - have a session 4:00 PM - 4:45 PM Wed (Towards a Vehicle DATA Specification), but would like to have some time in working session as well
  - Paul: need agenda, slides does not be prepared
  - Paul: There might be remote participants
- AP: PPB to prepare slides
- AP: Erik to propose agenda/abstract
- VSS data (time series) discussion
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/discussions/729](https://github.com/COVESA/vehicle_signal_specification/discussions/729)
  - PPB: We hear often requests. We have simulator files with timestamps
  - Daniel: I have to call action
  - Erik: Please discuss
- VSS Release Planning
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/689](https://github.com/COVESA/vehicle_signal_specification/issues/689)
  - Erik: "5.0 Only" - only some minor signal rename and datatype changes, but they have been for quite a while
  - PPB: The delete functionality could be nice to have in 5.0 - a major capability
  - Erik: That would be ok, good to announce that 5.0 will include delete
  - Erik: working assumption - wait with 5.0 until delete-functionality

## Meeting notes 2024-03-05:

- Info - COVESA Spotlight on VSS featuring RemoteLabs March 14th 16.00 CET
  - See community calendar
  - Will likely be recorded
  - Erik: DEG 14th will likely be cancelled
- NOTE: Daylight changing in US next week, note that all COVESA meeting should be anchored in EU timezones
- Paul: AMM schedule is full/finalized, official site shall be up to date, check <https://www.eventleaf.com/e/AMMGothenburg2024> and report errors to Paul

## Meeting notes 2024-02-27:



- Introduction
- Info from maintainer (Erik)
  - Closed all issues issued <=2021 with no interaction in 2023 or 2024. I.e. >2 years old and >1 year of inactivity. Feel free to reopen if you consider topic still relevant.

## Meeting notes 2024-02-20:

- AMM VSS Topics - Topic proposals
  - VSS Working Session 9.45-11.30 Wednesday (DEG also have some time for working sessions)
    - Moved to afternoon 15.30-17.30 for allow for remote participation
  - Anything particular someone wants to bring up or present?
  - Suggestions:
    - Erik: Instance handling and "VSS Expanded Tree" - How do you want to handle instances? How do you handle instances today
      - Pause [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/718](https://github.com/COVESA/vehicle_signal_specification/pull/718) until then
    - VSS Format and Tooling (Erik)
- General AMM
  - Still possible to propose slots to Paul but filling up
- New and old PRs
- New issues
- Issue handling - general
  - What to do with issues where there has not been any progress in many months
    - Keep forever or decide on an auto-close policy?
      - Should be doable at least for suggestions/discussions
      - For limitations/defects - possibly manage elsewhere? Like in documentation for the related tool.
  - Example: Signal Accuracy - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/105](https://github.com/COVESA/vehicle_signal_specification/issues/105)
    - Possible improvement area, but no-one seems to be interesting actively driving it
  - Example: Emission standards - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/394](https://github.com/COVESA/vehicle_signal_specification/issues/394)
    - Possible improvement area, but no-one seems to be interesting actively driving it
  - Issues are of different types today, some maybe fit better as discussion, but also then we have a question on how long we want them to exist
    - Possible improvement areas
    - Actual limitations/error (which no-one intends to fix)
  - Proposed Handling (to be discussed):
    - Close issues after 6 months of inactivity
    - If we have agreed/decided something in the discussion - reflect that in VSS or VSS-tools documentation before closing the issues
    - If the issue concerns a known limitation/error, then document that in a file for known limitations in the repo
      - Example: Generator `vspec2something` cannot handle the signal name `ggg` as that is a reserved word in `something`.
  - MoM:
    - Daniel: think it is good to have something, so that issues are decreasing
    - No objection to closing inactive items
- Android tooling
  - <https://github.com/COVESA/vss-tools/issues/192>
  - Erik:
    - My assumption is that we want to keep the work but that no-one intends to create a real tool out of it in the next year(s)
    - Suggestions:
      - Create a better branch name and add a wiki page explaining purpose of the branch
      - Or integrate it into current as "prototype"
    - MoM (old): Think about it, discussion to be continued
    - MoM: No opinion

## Meeting notes 2024-02-13:

- Release Planning
  - See [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/689](https://github.com/COVESA/vehicle_signal_specification/issues/689)
  - See notes in issue
- Branch usage:
  - [Release Instruction](#) updated according to discussion.
  - Erik: Suggesting the following issues/PRs shall be closed at next meeting unless there are comments/remarks
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/646](https://github.com/COVESA/vehicle_signal_specification/issues/646)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/704](https://github.com/COVESA/vehicle_signal_specification/issues/704)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/707](https://github.com/COVESA/vehicle_signal_specification/pull/707)
  - Please review, items above will be closed before next meeting unless comments
  - AP Erik: Add note in those items
- Unit handling
  - Conclusion from last discussion is that we will do no more in VSS, it is primarily an API topic
  - Documentation added as suggested in [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/717](https://github.com/COVESA/vehicle_signal_specification/pull/717)
  - Then possibly close
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/discussions/680](https://github.com/COVESA/vehicle_signal_specification/discussions/680)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/690](https://github.com/COVESA/vehicle_signal_specification/issues/690)
  - Erik: suggesting merge discussion next week
- Wheel speed - and possibly a wider discussion on "overlapping signals"
  - Summary: Today we have individual wheel speed measured as km/h
  - Request for rad/s (possibly degrees/s would work as well)

- Q: Anyone objecting having both km/h and degrees/s, as they may support partially different usecases.
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/678](https://github.com/COVESA/vehicle_signal_specification/issues/678)
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/discussions/677](https://github.com/COVESA/vehicle_signal_specification/discussions/677)
  - MoM: No direct objection
- Instance handling (Left/Right vs Driver/Passenger)
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/718](https://github.com/COVESA/vehicle_signal_specification/pull/718)
- Android tooling
  - <https://github.com/COVESA/vss-tools/issues/192>
  - Erik:
    - My assumption is that we want to keep the work but that no-one intends to create a real tool out of it in the next year(s)
    - Suggestions:
      - Create a better branch name and add a wiki page explaining purpose of the branch
      - Or integrate it into current as "prototype"
    - MoM: Think about it, discussion to be continued
- Use of discussions instead of issues
  - Discussion started at [https://github.com/COVESA/vehicle\\_signal\\_specification/discussions/715](https://github.com/COVESA/vehicle_signal_specification/discussions/715)
  - Nick: Discussion could be used for more informal discussions, Q&A,
  - Erik: But if so not necessarily something to discuss at this meeting

## Meeting notes 2024-02-06:

- AMM Topics
  - Please send proposals to Paul - [AMM 202404 Technical Track Session Proposals](#)
  - AMM registration open at <https://www.eventleaf.com/e/AMMGothenburg2024> (not yet linked from global COVESA homepage)
  - Discussion of VSS topics, see [https://github.com/COVESA/vehicle\\_signal\\_specification/discussions/714](https://github.com/COVESA/vehicle_signal_specification/discussions/714)
- Use of discussions instead of issues
  - Discussion started at [https://github.com/COVESA/vehicle\\_signal\\_specification/discussions/715](https://github.com/COVESA/vehicle_signal_specification/discussions/715)
- Branch usage:
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/704](https://github.com/COVESA/vehicle_signal_specification/issues/704)
  - Recent comments:
    - From Stephen that we shall announce if we intend to remove a branch, use "deprecation"
  - AP: Erik to update wiki, to be announced/reviewed when finished, if ok issue can be closed
- Tarball
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/711](https://github.com/COVESA/vehicle_signal_specification/issues/711)
  - Sebastian: Is it worth the effort, how needed is it?
  - Erik: use case (downstream project) that needs it identified, so we know requirements.
  - AP: erik check with Scott if it actually needed if branches exist
- precondition
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/703](https://github.com/COVESA/vehicle_signal_specification/pull/703)
  - No more comments - merge decision
- digital keys
  - PR on hold, internal discussions.
- OBD deprecation:
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/701](https://github.com/COVESA/vehicle_signal_specification/pull/701)
  - no more comments, merge decision next week?
- New PR:
  - Engine fluid: [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/710](https://github.com/COVESA/vehicle_signal_specification/pull/710)

## Meeting notes 2024-01-30:

- Overlay issues (vss-tools issue 193-195)
  - How to remove/rename nodes, detecting duplicates
  - BMW assigned a person to look at it, proposal possibly end of february
  - Pierre Pierre: I have some ideas for node removal
  - Adnan: Please comment in <https://github.com/COVESA/vss-tools/issues/194>
  - Pierre Pierre: Has added comments
- Branch Usage
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/704](https://github.com/COVESA/vehicle_signal_specification/issues/704)
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/707](https://github.com/COVESA/vehicle_signal_specification/pull/707)
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/646](https://github.com/COVESA/vehicle_signal_specification/issues/646)
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/wiki/Release-Instructions-and-Checklist](https://github.com/COVESA/vehicle_signal_specification/wiki/Release-Instructions-and-Checklist)
  - Summary: Release branches are strongly preferred by some downstream projects, access by tag is not sufficient
  - Erik: Proposed (revised) branch/tag-handling presented in 707. Proposal - review until next meeting. Decision to accept/reject proposal at next meeting. If accepted changes shall be reflected wiki
  - Possibly add file archive: [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/711](https://github.com/COVESA/vehicle_signal_specification/issues/711) (handle as separate issue)
- NEW: Static UID improvement - <https://github.com/COVESA/vss-tools/pull/326>
  - Erik: Minor improvement, rebase/squash needed. Anyone wants to keep it open until next meeting, or ok to merge if rebased/squashed
  - Decision: Merge when maintainer happy
- Datatype checks - <https://github.com/COVESA/vss-tools/pull/325>
  - Erik: No comments received, ok to merge?
  - MoM: Merge
- Tool restructure - <https://github.com/COVESA/vss-tools/pull/311>
  - Erik: Merge decision? To be merged after 326 to avoid conflicts, if any
  - MoM: Ok to merge, after the static id PR has been merged
- NEW: Github actions update -



- <https://github.com/COVESA/vss-tools/pull/327>
  - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/709](https://github.com/COVESA/vehicle_signal_specification/pull/709)
  - Erik: Trivial - may be merged soon
- Battery precondition - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/703](https://github.com/COVESA/vehicle_signal_specification/pull/703)
  - Erik: Time updated - merge decision at next meeting unless outstanding comments
- Digital key - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/702](https://github.com/COVESA/vehicle_signal_specification/pull/702)
  - Erik: Time updated - merge decision at next meeting unless outstanding comments
  - Adnan: Have communicated internally, waiting for reply
  - Erik: Check status next week, if needed postpone merge decision until BMW review finished

## Meeting notes 2024-01-23:

- Tool restructuring <https://github.com/COVESA/vss-tools/pull/311>
- Datatype check <https://github.com/COVESA/vss-tools/pull/325>
- VSS PRs
  - text (iso) representation for time
  - obd - deprecate first
- Multi unit support [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/690](https://github.com/COVESA/vehicle_signal_specification/issues/690)

## Meeting notes 2024-01-16:

- VSS 4.1 Released
- AMM April 16-18 Gothenburg, Sweden
  - Technical Sessions Planning in progress
- CES - big interest in VSS
- Digital Key
  - Ted
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/702](https://github.com/COVESA/vehicle_signal_specification/pull/702)
    - Big interest with commercial vehicles
    - Important not to compete with CCC, complement rather than compete
    - We need to be careful not to infringe on CCC license
- Overlay problem
  - Adnan:
    - Overlay (to redefine/overwrite attribute or add attributes) is case sensitive, could result in two signals.
    - How to prevent it?
    - Alt 1: Do a case insensitive merge (keep orig name)
    - Alt 2: Give warning if diff just by case somewhere (and error if in strict mode?)
    - If warning - handle it like they are the same
    - Will possibly create PR
- New VSS PRs
- VSS-style issue (enforce style, allowed values)

## Meeting notes 2023-12-19:

- VSS 4.1
  - pre-release available at [https://github.com/COVESA/vehicle\\_signal\\_specification/releases/tag/v4.1](https://github.com/COVESA/vehicle_signal_specification/releases/tag/v4.1)
  - Adnan: Something that needs to be fixed
  - Erik: Pre-release yanked, awaiting fix from Adnan
- Screen mirroring - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/699](https://github.com/COVESA/vehicle_signal_specification/pull/699)
- Issue690
  - BMW use processing w overlays, what makes sense in VSS is to create separate file with conversion factors, which could be used for conversion. Repetition in vss-tree would be too much to handle.
  - When we are all back present the proposal from Erik
  - Daniel: We could use examples for different APIs
  - Erik: AP to present possible solution Jan 16th
- FMS/ACEA
  - [Presentation](#)
- Meeting Jan 9th cancelled due to CES
- Next official meeting Jan 16th - create issues or bring up topic on slack if needed
- Catena:
  - [Paul Boyes](#) - when will you send out invitation?

## Meeting notes 2023-12-12:

- Catena-x topic.
  - Adnan: We had some discussions about VSS and Catena.
  - Achim: Proposal on how to harmonize activities.
  - Achim: Find alignment among companies that are willing to contribute.
  - Achim: We should be prepared for the catena extension and make alignment there. Next step: Ford, Bosch, BMW to find alignment regarding vehicle domain.
- [Paul Boyes](#) will setup a meeting.

- Overview VSS-Tools, VSS.
- Issue 690 - continued discussion.
  - Nick prepared overview on how to handle units.
  - Adnan presented high-level approach he uses at BMW.
  - Erik to present solution proposal. We need more input.
- Meeting pause for christmas/new year? 26th and 2nd of January we will take a break.

## Meeting notes 2023-12-05:

- FMS/ACEA meeting
  - Ongoing discussion how/if VSS can be used
  - FMS - Fleet Management System standard, created by European association of vehicle manufacturers (ACEA)
  - <https://www.fms-standard.com/>
  - <https://github.com/eclipse-sdv-blueprints/fleet-management>
  - <https://github.com/eclipse-sdv-blueprints/fleet-management/blob/main/spec/mapping-fms4-to-vss.md>
- Catena-X (Achim)
  - <https://catena-x.net/en/benefits>
  - European initiative to originally exchange manufacturing data (quality, availability, ...), increased scope to "Digital Twin", behavior and field quality
  - Currently focusing on European market
  - <https://projects.eclipse.org/projects/automotive.tractusx>
  - <https://eclipse-tractusx.github.io/> - went public some weeks ago.
  - Partial overlap Catena-X and VSS data
  - "Endurance Estimator" API
  - First decision - do we in COVESA want to interact? If so proposal to Catena-X to join COVESA
  - Sebastian: Catena are aware of VSS
  - Achim: We can convert a VSS ontology to a Catena aspect model.
  - Sebastian: Can we "convert them" to VSS or uServices
  - **Erik: Shall we let Data Expert Group analyze and identify alternatives on how to continue.**
  - Paul: Discuss possibly January
  - Achim: Not all data relevant for VSS, but where we overlap they could use VSS
  - Ted: What about ASAM (<https://www.asam.net/standards/detail/sovd/>)
  - Achim: No semantics in ASAM
  - Adnan: Will check internally
- VSS 4.1 Status
  - Release Candidate at [https://github.com/COVESA/vehicle\\_signal\\_specification/releases/tag/v4.1rc0](https://github.com/COVESA/vehicle_signal_specification/releases/tag/v4.1rc0)
  - Unless anything critical reported before Dec 15th and not fixed, 4.1 will be released, likely Dec 15th or 18th
- New PRs/Issues
  - **Issue 690** - continue discussion next week
  - Notifications - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/694](https://github.com/COVESA/vehicle_signal_specification/issues/694)
  - Left/Right vs Driver/Passenger - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/695](https://github.com/COVESA/vehicle_signal_specification/pull/695)

## Meeting notes 2023-11-28:

- Prioritized Topics
  - VSS 4.1
    - Static Id: <https://github.com/COVESA/vss-tools/pull/305>
    - Quantities: <https://github.com/COVESA/vss-tools/pull/312>
    - Proposal: Will be merged Friday unless any comments
    - Creation of beta release Friday or Monday
  - Tool restructuring - "abstract tool"
  - Ford Ontology - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/685](https://github.com/COVESA/vehicle_signal_specification/pull/685)
    - Proposal for documentation as "VSS extension"

## Meeting notes 2023-11-21:

- Prioritized Topics
  - Release Preparation
    - Static id PR status - no news
  - Unit discussion
    - Ready to merge?
      - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/669](https://github.com/COVESA/vehicle_signal_specification/pull/669)
      - <https://github.com/COVESA/vss-tools/pull/307>
  - Umang PRs
  - Support for multiple units - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/690](https://github.com/COVESA/vehicle_signal_specification/issues/690)
  - ~~Ford Ontology PR~~ - Postponed due to lack of time
  - Other PRs

## Meeting notes 2023-11-14:

- Prioritized Topics

- Release Preparation
  - Static id PR status - no news
- 5.0?
  - Pierre: We can add "5.0" signals as overlays, so we can use torque as overlay.
  - Decision: Keep 5.0 on hold, open up to release 5.0 in April/May (or earlier if needed)

## Meeting notes 2023-11-07:

- Prioritized Topics
  - Release Preparation
    - Decision needed - shall we only release 4.1 and not 5.0?
      - Potential rationale: The only "major changes" we have is unit/datatype/semantic change of 5-10 signals. Historically not sufficient for a "major" release, or?
      - Working assumption: We do not release 5.0 now as no requests, plan for spring instead
      - AP: Erik to check with [Pierre Pierre Blais](#) if Blackberry sees a value in a major release now
      - If your organization wants a 5.0 before Christmas, please let us now
      - AP: Erik to update 4.X branches (cherry pick)
  - Timeframe static id change
    - Adnan: working on hash support in addition to sequential id, compared 64 bit sv 32 bit hash.
    - Adnan: For hashing path, type, unit and datatype is used
    - Erik: we could create new pr from niclas fork if needed

## Meeting notes 2023-10-31:

- Prioritized Topics
  - Static UID - draft PR at <https://github.com/COVESA/vss-tools/pull/305>
    - New script `vspecID.py`
    - Give vspec files as both input and output
    - You can specify prefix with "gen-layer-ID-offset", first 64 reserved for COVESA. With id layer 4 bytes, otherwise 3 bytes
    - Adds a staticUID string, like '0x02345678'
    - "--validate-static-uid <old.vspec>" gives option to keep/replace if changed, if compatible (like name check)
    - You maintain static id files yourself
    - Once you have the generated `.vspec/` .yaml, then with overlay you can run all other tools, like vspec2json
    - Erik: Can be included in minor release, as it does not affect UUID
    - Pierre: The Blackberry model serves the same purpose, different approach
    - Pierre: How to manage addressing by old name, if name is changed.

## Meeting notes 2023-10-24:

- Prioritized Topics:
  - Summer time alignment
    - Ends Oct 29 Europe
    - Historically COVESA meetings often anchored in European time zone
    - Currently conflict - VSS anchored in european, but CVI anchored after
    - Suggestion - keep european time for VSS next week, move CVI
    - AP [Erik Jaegervall](#) to sync with [Paul Boyes](#)
    - AP: Send out reminder on slack
  - Copyright
    - AP: [Erik Jaegervall](#) to follow up with [Paul Boyes](#)
    - Conclusion: Go with proposal
    - AP: Erik update PR for next meeting, then please review
  - (U)UID:
    - Draft at [https://github.com/adobekan/vss-tools/tree/static\\_id\\_generator](https://github.com/adobekan/vss-tools/tree/static_id_generator), official PR to come
    - Idea is that everyone can maintain there own static id file, no "official" version maintained
    - 10-15 minute demo next week
    - Can keep multiple leaf name with same id.
  - General info from Paul
    - Please put company name in zoom "user name" - make it easier to understand who you are talking to

## Meeting notes 2023-10-17:

- Prioritized Topics:
  - AMM recap
    - VSS discussion points
      - Erik showed some slides
      - AP: Erik to summarize response/comments (See [VSS\\_workshop\\_comments.pdf](#))
      - AP: erik to create issues for topics that seems to have traction, so that we can make decision
      - Adnan: Daniel Alvarez wanted to create proposal related to model/ontology, align with proposal from Alan
      - Erik: Shall we possibly do a similar presentation online "evolvment workshop" in January?
      - Paul: Seems good
      - AP: Paul to propose date/time for a session in late January

- JSON schema

## Meeting notes 2023-10-03:

- Prioritized Topics:
  - VSS session AMM Thursday
    - Intention to discuss Ford/Blackberry proposals as well as other recurring topics
    - AP: Check with Paul - join the two sessions
    - Will someone from Ford (Alan?) and Blackberry (Pierre?) participate?
      - Ford possibly remote
      - Pierre will leave at lunch Thursday

## Meeting notes 2023-09-26:

- Prioritized Topics:
  - Presentations
    - Blackberry: [COVESA Spotlight Sessions](#)
    - Ford: [Data Models and Ontologies#ProposalsandPresentations](#)
    - Erik & Adnan to follow up with Paul on how to continue discussion
    - Session (VSS evolution) at AMM for brainstorming/discussion
  - No regular meeting October 10th (AMM)

## Meeting notes 2023-09-19:

- Prioritized Topics:
  - Tero from Profillence introduced him self.
  - COVESA Spotlight - BlackBerry IVY, next after this meeting, they will show how they use VSS
  - 4.1-planning - UUID, any timeplan
    - Adnan: Draft PR in about 3 weeks,
    - Erik: Great if draft ready before AMM
    - Adnan: Concerning instances, have id for "top" definition (class) rather than individual instances
  - Struct support and DDSIDL
    - <https://github.com/COVESA/vss-tools/pull/262>
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/576/files](https://github.com/COVESA/vehicle_signal_specification/pull/576/files)
    - Adding more metadata as propes in 576 has some similarities to what proposed by Ford. No further work has been performed on this PR
    - Krishna:
      - Would like to go back to our original idea of supporting VSS as is and continue with 262.
      - Will rebase 262
      - Should likely be possible to close around 1 month from now
    - Erik: That works well with 4.1 plans, feature freeze some time after AMM...

## Meeting notes 2023-09-12:

- Prioritized Topics:
  - Short discussion on Ford presentation on "their VSS representation"
    - "Changing VSS to ontology"
    - Potential implications: Use a new VSS source format, generate "old VSS format" from it?
    - Gunnar: need for discussion on how to bridge the gap between their representation and current VSS
    - Daniel: adopting some steps is possible, keep alignment to existing VSS Yaml important. Some proposals presented are aligned with ideas/proposal from ontology team
  - Major/Minor
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/634](https://github.com/COVESA/vehicle_signal_specification/issues/634)
    - See [https://github.com/COVESA/vehicle\\_signal\\_specification/wiki/VSS-Version-Governance-\(Major-Minor\)](https://github.com/COVESA/vehicle_signal_specification/wiki/VSS-Version-Governance-(Major-Minor))
    - Topics:
      - Deprecation
      - How long to maintain "minor releases" (Suggestion 1 year, but at least 6 months after next major)
  - 4.1 release - any "must haves"?
    - Bosch suggestion: <https://github.com/COVESA/vss-tools/pull/293>
    - Daniel: The UUID replacement, Adnan is working on it, maybe, ...
  - Instance handling issue for discussion:
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/642](https://github.com/COVESA/vehicle_signal_specification/issues/642)

## Meeting notes 2023-09-05

- Prioritized Topics:
  - Anything new?

- AMM:
  - If you have presentations for the AMM give them Paul
  - [AMM Planning October 10-12 2023 - Technical Session and Workshop Proposals](#)
  - [Technical Track - Working Internal planning page for COVESA AMM October 2023](#) (no longer up to date)
  - [Internal planning page for COVESA AMM October 2023](#) (Limited access)
  - Please review, please suggest to Paul, or bring up in next DEG meeting or bring it up in Slack, agenda deadline sept 12th
- Paul:
  - COVESA wants technical representation at ETAS dev summit late September
    - <https://www.etas.com/en/company/etas-developer-summit-2023-on-september-28.php>
- Release planning
  - Need for any more release 2023
    - Sebastian: Good to have a minor release this year. Major before spring AMM.
    - Paul: Cadence is good/important. AMM suggested by board.
    - Erik: Plan release for AMM, but postpone if any bigger things is in pipeline.
  - Major/Minor in parallel ([https://github.com/COVESA/vehicle\\_signal\\_specification/pull/637](https://github.com/COVESA/vehicle_signal_specification/pull/637), [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/634](https://github.com/COVESA/vehicle_signal_specification/issues/634)), is there a need?

## Meeting notes 2023-08-15

- Agenda discussion - anything that needs to be added?
- Prioritized Topics:
  - Anything VSS related things we/you want to do at AMM
    - BlackBerry looking into having a demo and presentation
    - COX automotive will attend
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
  - <https://github.com/COVESA/vss-tools/pull/296>
  - Could be a bridge into the JSON schema/ OpenAPI ecosystem
  - [Data Expert Group Workshops - Interface Pillar Alignment](#) (Meeting right after VSS )
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting
  - Erik and Adnan on holiday next two weeks, should we cancel one? We might discuss in Slack. Make the decision early enough so it can be cancelled via Shared Calendar by [Paul Boyes](#)

## Meeting notes 2023-08-08

- General Topics
  - COX automotive automatic mapping of data source
    - Ulf: no active work at the moment. Trend is existing but we would have to push the activity.
    - Adnan: Volvo is working on this topic and they have presented work on last AMM in Porto.
    - V.Raiker (Ford) - Interest for a WS on the next AMM
    - [Paul Boyes](#) Could you please create wiki page where we can collect requirements for automatic mappings and as well existing activities.
- PR Status
  - No new PR or issues.

## Meeting notes 2023-08-01

- Presentation of VSS and Spread by Daniel Wilms
  - Presentation coming
- Adnan: [Pull request](#) on example shown in latest interface workshop

## Meeting notes 2023-07-18 (Draft)

- DEG Interface Pillar Meeting July 25th
  - Draft agenda: [Data Expert Group Workshops - Interface Pillar Alignment](#)
  - **This means VSS meeting will likely be cancelled next week**
- Id elements
- Next meeting: Daniel Wilms to present representation of VSS using GraphQL

## Meeting notes 2023-07-11

- Notes taken in issues/PRs

## Meeting notes 2023-06-27

- Ulf presented the updated HIM repo ([https://github.com/COVESA/hierarchical\\_information\\_model](https://github.com/COVESA/hierarchical_information_model))
  - AP: Erik to check if doc can be generated

## Meeting notes 2023-06-20

- No prioritized topics
- Please check [Defining the COVESA data modeling strategy and its associated artifacts](#) as it tries cover also other domains. Add comments /question in wiki
- Syntax checking (related to [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/599](https://github.com/COVESA/vehicle_signal_specification/issues/599))

Meeting notes:

- Daniel: See <https://wiki.covesa.global/display/WIK4/Defining+the+COVESA+data+modeling+strategy+and+its+associated+artifacts>, would be better to have a standard format like RDF as source format.
- Erik: So let tools use on RDF directly and generate other format from that?
- Daniel: yes, still have \*.vspec as experts but generated to RDF - let RDF be official format.
- Fulup: Do not think people will parse from RDF directly, vspec->RDF->json seems complicated
- Ulf: Keep Yaml/vspec as single source of truth. It should be possible to generate RDF
- Erik: Is a vspec2rdf tool all we need (short time)
- Daniel: vspec2ttl already partially do it
- Paul: Important to not slow down VSS progress
- Fulup: Would love to have a tool that let my select which parts and get a normalized output with normalized quotes
- Pierre: Isn't RDF more restrictive in its syntax than YAML, which would make conversion from YAML to RDF somewhat difficult?
- We would likely have to put some restrictions into what can be represented in YAML so that it can be converted to RDF.
- Paul: A session with data guys would be helpful. RDF is well established
- Erik: Maybe would be good to agree on a long-term roadmap for VSS source format and tooling, what do we want the source format and tooling to look like in 5 years
- Paul: Will arrange a more in-depth session

## Meeting notes 2023-06-13

- Welcome and Compliance statement

*Welcome to the COVESA VSS Meeting!*

### **Antitrust**

*Before we begin, we would like to make clear that COVESA is committed to compliance with the antitrust laws in all of its activities, and that it expects all participants to similarly comply with the antitrust laws. We will not engage in--and members must refrain from--any discussion of, or understandings regarding competitively sensitive topics. If you have any doubts regarding whether a matter is appropriate for discussion, please consult with your antitrust counsel.*

### **Open and Royalty-Free**

*Further, COVESA aspires to be an open and royalty-free organization. The discussions and contributions made during this session are governed by the [CO VESA Intellectual Property policy](#). If you are unfamiliar with that policy, please review it in detail prior to making any contribution that reads upon a patent.*

- Agenda discussion - anything that needs to be added?
- Prioritized Topics:
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting notes 2023-06-06

- Welcome and Compliance statement

*Welcome to the COVESA VSS Meeting!*

### **Antitrust**

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- Agenda discussion - anything that needs to be added?
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting
- Gunnar: introduction of IFEX and VSS.
- Link to VSSo proposal [Defining the COVESA data modeling strategy and its associated artifacts](#)

## Meeting notes 2023-05-22

- Welcome and Compliance statement

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- Agenda discussion - anything that needs to be added?
- Prioritized topics
  - DCO Github app (rather than action)
    - See <https://github.com/COVESA/vss-tools/pull/290> as example
  - "Service APIs"/functions call still of interest. Questions: How would it fit with the VSSo proposal/The "HIM" proposal. Adnan maybe to provide some information how they handle it internally

1. *Decide on name for the evolved data model.*
2. *Create a new COVESA Github repo based on the new name.*
3. *Decide on a directory structure that can accommodate rule set definitions for multiple domains and multiple information types.*
4. *Create a rudimentary README on the top level giving a high level description of the new data model.*
5. *Move the VSS "rules definition" (the documentation) from the VSS repo to an appropriate directory on this new repo.*
6. *Create a rule set for services that that meets the requirements from the "passenger car domain" (VSS).*
7. *On the VSS repo, create an initial service tree based on the rule set from the bullet above. Continue to evolve it in parallel with the existing VSS tree.*
8. *Analyze the impact on VSS-Tools that the above has, take action on the insights from that.*
9. *Try to influence the W3C automotive group to evolve VISSv2 to support the new data model.*
10. *If successful on the above bullet, create a new COVESA project that will develop a POC containing a technology stack based on the evolved W3C interface and COVESA data model.*

- Discussion:
  - Ulf presented the proposal above
  - Erik: Will be discussed in DEG group, VSC relationship to be sorted out.
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting notes 2023-05-23

*(Erik will not join)*

- Welcome and Compliance statement

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- Agenda discussion - anything that needs to be added?
- Prioritized topics
  - Release 4.0 Status
    - V4.0 released [https://github.com/COVESA/vehicle\\_signal\\_specification/releases/tag/v4.0](https://github.com/COVESA/vehicle_signal_specification/releases/tag/v4.0)
    - Topics addressed during RC-phase. If someone wants an alternative solution as long term solution they are welcome to create a PR
      - d added as prefix to string literals that could be numbers, like '33'. Just using \_33 is not supported by all code generators working on DDS IDL.
      - Type checker for structs updated to support arrays of struct
      - Error now given if type root is not a branch (as some tools like vspec2protobuf can not handle struct as root)
    - Daniel to introduce what has been done in VSSo: [Defining the COVESA data modeling strategy and its associated artifacts](#)
      - Please read if interested, (you may post comments on the Wiki page)
      - Daniel will be back in 3 weeks to personally answer question 😊
  - "Service APIs"/functions call still of interest. Questions: How would it fit with the VSSo proposal/The "HIM" proposal. Adnan maybe to provide some information how they handle it internally
- Decision on old open PRs
- Open Pull Requests VSS
  - Time Remaining Signals: [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/610](https://github.com/COVESA/vehicle_signal_specification/pull/610)
    - Signals are useful
    - Discussion about naming, see PR comments
  - Traction Battery [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/601](https://github.com/COVESA/vehicle_signal_specification/pull/601)
    - Charging.Mode refactored - please review
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting notes 2023-05-16

- Welcome and Compliance statement

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- Agenda discussion - anything that needs to be added?
- Prioritized topics
  - Release 4.0 Status
    - RC2 created
      - For DDSIDL we now add a d as prefix for string numeric literals, i.e. '33' d33
      - Pypi packaging: <https://github.com/COVESA/vss-tools/pull/281>
        - Sebastian: Check if we can add README (for Project description)
        - Paul: There are other repos using VSS in the name
        - AP: Paul to create pypi account. Erik to add Paul as owners. Paul to check if Steve Crumb wants/have an account.
    - Need for decision: OK to release?
      - Decision: Release
      - Decision: Delete RC releases, keep RC tags (Erik update wiki for release instructions)
  - Decision on old open PRs
- Open Pull Requests VSS
  - Traction Battery [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/601](https://github.com/COVESA/vehicle_signal_specification/pull/601)
    - Continued internal discussion at Bosch needed for Charging.Mode signal.
- Open Pull Requests VSS-Tools
- Issues VSS
  - Virtual signals: [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/595](https://github.com/COVESA/vehicle_signal_specification/issues/595)

- Maritime data (Fulup): [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/607](https://github.com/COVESA/vehicle_signal_specification/issues/607)
- Issues VSS-Tools
- Prioritized topics for next meeting
  - Daniel to introduce what has been done in VSSo (wiki page)

## Meeting notes 2023-05-09

- Welcome and Compliance statement

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- Agenda discussion - anything that needs to be added?
- Prioritized topics
  - Release 4.0 Status
    - RC exists
    - One regression DDSIDL: <https://github.com/COVESA/vss-tools/pull/277>
    - Also some minor fixes (broken links)
    - Name of dev-version
      - Preferred "4.1-dev" (and not develop)
      - AP: Erik to change and document!
  - Pypi packaging: <https://github.com/COVESA/vss-tools/pull/273>
    - Interest? <https://test.pypi.org/project/vss-tools/>
  - Traction Battery [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/601](https://github.com/COVESA/vehicle_signal_specification/pull/601)
  - Virtual signals: [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/595](https://github.com/COVESA/vehicle_signal_specification/issues/595)
  - API definition:
    - Achim: presents
    - Not only data API, but also service
    - Needs to create API publishing format
    - Decision: Is data expert group right host?
    - Paul: DEG is right place - we can use VSC slot?
- Decision on old open PRs
- Open Pull Requests VSS
  - Please review, minor ones will be merged next week unless there are remarks
- Open Pull Requests VSS-Tools
  - Please review, minor ones will be merged next week unless there are remarks
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting notes 2023-05-02

- Welcome and Compliance statement

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- Agenda discussion - anything that needs to be added?
- Prioritized topics
  - Release 4.0 Planning
    - Agree on what needs to be in - which PRs/features
      - Struct overlay and documentation.
        - Overlay part fixed, minor doc update remaining.
      - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/540](https://github.com/COVESA/vehicle_signal_specification/pull/540)

- [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/546](https://github.com/COVESA/vehicle_signal_specification/pull/546)
- [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/577](https://github.com/COVESA/vehicle_signal_specification/pull/577)
- [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/574](https://github.com/COVESA/vehicle_signal_specification/issues/574)
  - Still relevant?
- Proposal from meeting before AMM
  - Feature Freeze May 2nd (just after AMM)
  - Pre-release/Release-candidate to be released first week of May
    - To be done by Erik
  - Actual release two weeks later
  - Any fixes (PRs) needed for VSS 4.0 after release candidate must be directed to specific branch (release/4.0)
    - Erik to describe release candidate workflow
- New Issue 586.
- Best practices - VSS design principles
  - Stephen
    - Would be good to have design principles that we can refer to, like doing X is aligned with principle Y
    - I will ask Felix and Daniel to get input, like on "what is a branch" from a data science view
    - I will drive it.
  - Daniel: I can support
  - Nick: Would be a good idea, a lot of collective opinions is not documented
    - Including how we express what language to use (american vs english), date formats, ...
  - Erik: Where to handle calls/meetings, in this or in other. This meeting is often quite busy.
  - Where/how to be synched on slack
  - Announced in this meeting.
  - Daniel: One ontology work that is ongoing is to come up with keywords, calls 30 minutes before this one, I can share link
- Fulup presented <https://github.com/eclipse/kuksa.val.feeders/issues/94>
  - Concerns "security tags" in VSS - an area where COVESA might do something
- Decision on old open PRs
- Open Pull Requests VSS
  - Please review, minor ones will be merged next week unless there are remarks
- Open Pull Requests VSS-Tools
  - Please review, minor ones will be merged next week unless there are remarks
- Issues VSS
  - Please check [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/567](https://github.com/COVESA/vehicle_signal_specification/issues/567)
- Issues VSS-Tools
- Prioritized topics for next meeting
  - VSS 4.0 release planning
    - Remaining features
    - Date for release and release candidate

## Meeting Notes 2023-04-18

- Welcome and Compliance statement

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- Agenda discussion - anything that needs to be added?
- Prioritized topics
  - Structs Status
    - IDL: <https://github.com/COVESA/vss-tools/pull/262>
      - Related: [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/576/files](https://github.com/COVESA/vehicle_signal_specification/pull/576/files)
      - Discussion:
        - Sebastian: Proposal is a bit different, new concept, nothing prevents merging PR from Krishna so old style converter support structs, or wait with both
        - Neil: Do we want to restruct existing signals in catalog
        - Krishna: Not yet
        - Sebastian - but do we want hints, if tools are "perfect"?
        - Adnan: Could be an idea to collect starting points for struct candidates (after 4.0)
        - Ulf: A signal represent a datapoint, captured at a specific time, similar approach for structs, all properties within the struct are all captured at the same point in them. fits well to GPS, but not for example door/window signals as they are not captured at same point in time.
      - Decision: Do not add IDL for 4.0
    - For VSS 4.0 - status (to be confirmed):
      - Done: Protobuf, JSON, CSV, Yaml
      - Ongoing: DDSIDL
      - Not done: Overlays, Multi -vt, Franca, Binary, Ttl (contrib), Graphql
      - Needs revisit: Documentation (to indicate status)

- Discussion:
  - Sebastian: What is our long term approach - will struct support in long run be added to Franca, Binary, Ttl (contrib), Graphql
  - Krishna: Needs expertise support
  - Ulf: Binary will come a few weeks after AMM
  - Pierre: What if we later detect if we need to change syntax of structs to support e.g. Graphql
  - Krishna: Seems to be acceptance of releasing VSS 4.0 with limitations, but fast resolving of remaining topics wanted
  - Erik: Ok to relase VSS 4.0, plan remaining tools/limitations to VSS 4.1
  - Daniel: Could possibly contribute to TTL, dependency to VSSo, refactoring discussion in progress
  - Neil: Have we an idea what signals should be put in struct
  - Stephen: Not intending to refactor existing tree. Best practices document needed.
  - Erik: What we have said so far - structs shall be restrictively used in standard catalog, possible candidate Position (lat /lon)
  - Daniel: Not clear to me when to use struct vs aggregate. Risk using aggregate on branches if there is no rule-set to branches. There should simple rule-set for branches in general. No clear criteria used as of today.
  - Erik: branches as of today is mostly to get unique names
  - Krishna: Overlays and doc can be fixed for relase, but can we release withou strucs
- Release 4.0 Planning
  - Agree on what needs to be in - which PRs/features
    - Struct overlay and documentation.
      - Krishna has not bandwith to overlay. Erik may have time, Neil as well.
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/540](https://github.com/COVESA/vehicle_signal_specification/pull/540)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/546](https://github.com/COVESA/vehicle_signal_specification/pull/546)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/577](https://github.com/COVESA/vehicle_signal_specification/pull/577)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/574](https://github.com/COVESA/vehicle_signal_specification/issues/574)
  - Proposal
    - Feature Freeze April 27th (just after AMM)
    - Pre-release/Release-candidate to be released first week of May
      - To be done by Erik
    - Actual release two weeks later
    - Any fixes (PRs) needed for VSS 4.0 after release candidate must be directed to specific branch (release/4.0)
      - Erik to describe release candidate workflow
- Screen off PR - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/577](https://github.com/COVESA/vehicle_signal_specification/pull/577)
  - How to represent "off time" - duration or absolute time?
    - Duration in seconds
- Decision on old open PRs
- Open Pull Requests VSS
  - Please review, minor ones will be merged next week unless there are remarks
- Open Pull Requests VSS-Tools
  - Please review, minor ones will be merged next week unless there are remarks
- Issues VSS
  - Please check [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/567](https://github.com/COVESA/vehicle_signal_specification/issues/567)
- Issues VSS-Tools
- Prioritized topics for next meeting
  - VSS 4.0 release planning
    - Remaining features
    - Date for release and release candidate

## Agenda 2023-04-11

- Welcome and Compliance statement

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- Agenda discussion - anything that needs to be added?
- Prioritized topics
  - Structs Status
  - Display Idle Time - see [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/567](https://github.com/COVESA/vehicle_signal_specification/issues/567)
  - List DTCs in VSS
    - Currently there are signals for DTCs in OBD branch, but just a list of strings
    - Question: Shall we model "all" DTCs in the model?
    - Sebastian: Currently no ongoing work to model DTCs in VSS
    - V Raikar: Should signals corresponding to DTCs be represented in tree?
    - Erik: We have some signals representing errors today, but they are just boolean
    - Erik: A more specific proposal/idea would be interesting to discuss in this meeting.
- Decision on old open PRs

- Open Pull Requests VSS
  - Please review, minor ones will be merged next week unless there are remarks
- Open Pull Requests VSS-Tools
  - Please review, minor ones will be merged next week unless there are remarks
- Issues VSS
  - Please check [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/567](https://github.com/COVESA/vehicle_signal_specification/issues/567)
- Issues VSS-Tools
- Prioritized topics for next meeting
  - VSS 4.0 release planning
    - Remaining features
    - Date for release and release candidate

## Meeting Notes 2023-04-04

- Compliance statement

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- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Structs Status
    - Textual Update - Use "ComplexDataTypes"
    - ProtoBuf - convention one file per message
    - DDSIDL - is extension style valid
  - UUID update (postponed from next meeting)
    - Adnan:
      - Idea use UUID to define signal/property, not location
      - For binary exchange we need to share schema in advance. Can we use small UUIDs. One byte to identify vendor /overlay, other two bytes for every specific leaf. Stored in a unique way.
    - Krishna: We need to optimize transfer, assign unique identifier based on VSS. Shall it be left to implementer?
    - Erik: Should be possible to support multiple UUID-technologies in vss-tools
    - Sebastian: Canonical UUIDs with clear formula so they are reproducible are great
    - Nick: Have you considered ASN.1?
  - EV-charging repository: [https://github.com/COVESA/ev\\_charging](https://github.com/COVESA/ev_charging)
- Decision on old open PRs
- Open Pull Requests VSS
  - Please review, minor ones will be merged next week unless there are remarks
- Open Pull Requests VSS-Tools
  - Please review, minor ones will be merged next week unless there are remarks
- Issues VSS
  - Please check [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/567](https://github.com/COVESA/vehicle_signal_specification/issues/567)
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting Notes 2023-03-28

- Compliance statement

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- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics



- Consolidating structs
      - Initial exporters - approach currently to get two files, ones for signals and one for types
      - Two files may not make sense for all exporters
      - Two files pro - matches input
      - One file pros - consolidated view, self sufficient,
      - Krishna wants input - what do we want.
      - Ulf: Value in one file, but configurable (where applicable) best
      - Sebastian: We do not need to do the same for all exporters. Better to have discussion tool by tool.
      - JSON:
        - Krishna: One usage imported into other tool, would be easier with single tool.
        - Sebastian: One file better
        - Could be user option.
        - Krishna: Will make output argument optional. if not present single file will be generated.
    - UUID update (postpone to next meeting)
    - Jeremy Vaysettes (Michelin)
  - Decision on old open PRs
  - Open Pull Requests VSS
  - Open Pull Requests VSS-Tools
  - Issues VSS
  - Issues VSS-Tools
  - Prioritized topics for next meeting

## Meeting notes 2023-03-21

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Albert Kos: Gaia-X - (<http://www.gaiax4ageda.de/>) interesting to get surrounding objects into VSS. Possible to setup a meeting?
    - Sebastian: [Paul Boyes](#) could organize meeting if needed
    - Ulf: No meeting necessarily needed, you could issue/PR.
    - Albert to start by creating issues (in 3 weeks)
  - VSS-Tools - Line endings JSON?
    - Result - no line breaks
  - Tool limitations
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting notes 2023-03-14

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Intro to VSS - 16.00 CET Tomorrow
  - VSS-Tools - Line endings JSON?
    - Result - no line breaks
  - Issue 526
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting notes 2023-03-07

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - AMM topics.
    - Schedule is starting to form. Contact is PaulB.
    - Working sessions will be on 26th and 27th. Focus on Data, VSS.
    - Current proposals [AMM Planning April 25-27 2023 - Technical Session and Workshop Proposals](#)
  - PRs for AMM VSS Workshop
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/555](https://github.com/COVESA/vehicle_signal_specification/pull/555)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/526](https://github.com/COVESA/vehicle_signal_specification/pull/526)
- Decision on old open PRs

- PR [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/526](https://github.com/COVESA/vehicle_signal_specification/pull/526) We will wait for the input. Take connectivity as topic for VSS workshop.
  - Nick will add additional documentation about connectivity into the PR 526.
- Open Pull Requests VSS
  - PR
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting notes 2023-02-28

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - INFO: VSS 3.1 released
  - Wanted features for VSS 4.0 end of April (before AMM?)
    - Structs support, but what more?
    - Moving documentation to new repo?
      - Meeting notes -seems reasonable
  - AMM - what sessions are needed/wanted. What do we want to cover in the workshops
    - Ulf: Slot/presentation on how evolving VSS ("multiple trees")
      - Erik: Related to charging station tree discussion, we need to discuss governance of new catalogs, like where and how shall charging station tree be stored and maintained
    - Sebastian: CAN Feeder - dbc mapping
    - Sebastian: Security approaches - KUKSA tokens changes and comparison to VISS
    - Adnan: VSSo and Taxonomy - see [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/548](https://github.com/COVESA/vehicle_signal_specification/issues/548)
  - Open PRs - quite a lot
  - VSS structure
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/548](https://github.com/COVESA/vehicle_signal_specification/issues/548)
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting notes 2023-02-21

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Renew meeting invitation
  - Release planning VSS 3.1 (late February)
    - Remaining PRs/Features needed before we can release VSS 3.1
      - Suggestions:
        - <https://github.com/COVESA/vss-tools/pull/218>
        - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/535](https://github.com/COVESA/vehicle_signal_specification/pull/535)
        - Basic struct documentation/placeholder?
          - Erik to add "simple" doc for VSS 3.1, krishna to continue extending for VSS 4.0
      - AP: Erik to check with Paul on how to communicate that we have released VSS 3.1
        - Compare with [Reminiscing and Release of VSS Version 3.0](#)
      - AP: Erik: to prepare release
    - PRs that better shall wait until after VSS3.1
      - All other
  - Renault Meeting
  - VSPEC restructure — [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/527](https://github.com/COVESA/vehicle_signal_specification/issues/527)
    - ~~If agreed — best implemented and merged just after VSS 3.1 release — would cause conflicts to most other open PRs~~
    - ~~Preferably "quick review process" to minimize time when there are conflicts~~
  - Moving documentation to new repository ([https://github.com/COVESA/vehicle\\_signal\\_specification/issues/543](https://github.com/COVESA/vehicle_signal_specification/issues/543))
    - ~~Possible candidate for VSS 4.0?~~
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

**w3cauto**

## Meeting notes 2023-02-14

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?

- Prioritized topics
  - Struct support
    - Status report
    - Exporters - how do we expect them to handle struct data
      - Struct information generated in same file or other file
      - Likely straightforward to implement support in vspec2json, vspec2csv, vspec2yaml
      - Volunteers for vspec2binary, vspec2ddsidl, vspec2franca, vspec2graphql?
        - And contrib tools: vspec2protobuf, vspec2ttl
        - Daniel Alvarez will likely look at the vspec2ttl
        - Ulf feel responsibility for binary tool.
        - Sebastian can check with those who developed vspec2ddsidl
    - AP: Erik to update or create issue to track what is needed for the major release in April
  - Workshop this week
    - Agenda at [Data Expert Group - Workshop 2023 - Q1](#)
    - All welcome
    - Attendees: erik, Ulf, Daniel (partially, 14-16 CET), Adnan, Sebastian (partially, +0.25)
    - AP: Paul to cancel related COVESA meetings during the same timeslots.
  - "Extra day" at AMM for deeper discussions, possibly Friday after AMM, possibly half-day
  - New Pull requests
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting
  - Planning for minor release (around end of February, possibly the week Feb 27th - March 3rd)
    - What to include and what not to include:
      - Possibly wait with left/right - driver/passenger conversion until major, as breaking backward compatibility

## Meeting Notes 2023-02-07

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- PRs up for decision
  - Power Optimize: [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/528](https://github.com/COVESA/vehicle_signal_specification/pull/528)
  - Steering angle: [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/530](https://github.com/COVESA/vehicle_signal_specification/pull/530)
- Prioritized topics
  - Daniel issue
  - Connectivity PRs - Cole Gerdemann to present
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/526](https://github.com/COVESA/vehicle_signal_specification/pull/526)
    - <https://github.com/COVESA/vss-tools/pull/207>
  - VSS-Tools struct support
    - Status update from Krishna
    - Align on merge model - small PRs require quick reviews.
      - OK if merge if reviewed by at least one maintainer (Erik/Adnan/Sebastian)
        - Meeting notes. Agreed
      - Wait with merging non-related PRs? (To minimize rebase effort)
        - Notes: Likely not need for struct work
  - VSS file restructuring
    - Erik to present draft - see [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/527](https://github.com/COVESA/vehicle_signal_specification/issues/527)
  - COVESA data expert group Workshop 2 halfdays, Feb 15th+16th, everyone free to participate, see COVESA calendar
    - If interested join data Expert Group slack channel or mailing list.
- Walk through Pull Requests and Issues VSS
- Walk through Pull Requests and Issues VSS-Tools
- Topics on hold
- Older issues VSS & VSS-tools
- Prioritized topics for next meeting

## Meeting 2023-01-31

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Decision on old open PRs
  - Overlay support for expanded instances - <https://github.com/COVESA/vss-tools/pull/203>
  - Mypy
    - <https://github.com/COVESA/vss-tools/pull/210>
    - <https://github.com/COVESA/vss-tools/pull/209> (if signoff added)
    - <https://github.com/COVESA/vss-tools/pull/212>
  - Cleanup - <https://github.com/COVESA/vss-tools/pull/211>
- Prioritized topics
  - Connectivity PRs - Cole Gerdemann to present (postponed)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/526](https://github.com/COVESA/vehicle_signal_specification/pull/526)
    - <https://github.com/COVESA/vss-tools/pull/207>

- Discussion: Why using left/right instead of passenger/driver for example for door
    - Adnan : Possibly to create a pull request
- Walk through Pull Requests and Issues VSS
- Walk through Pull Requests and Issues VSS-Tools
- Topics on hold
- Older issues VSS & VSS-tools
- Prioritized topics for next meeting

## Meeting 2023-01-24

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Old Pull Requests (where there is no "ongoing" discussion or recent changes - merge decision pending)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/521](https://github.com/COVESA/vehicle_signal_specification/pull/521)
    - [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/509](https://github.com/COVESA/vehicle_signal_specification/pull/509)
    - <https://github.com/COVESA/vss-tools/pull/204>
    - <https://github.com/COVESA/vss-tools/pull/205>
    - <https://github.com/COVESA/vss-tools/pull/206>
  - Struct Proposal

Work Package for Struct Proposal:

Details of the proposal in [PR 511]([https://github.com/COVESA/vehicle\\_signal\\_specification/pull/511/](https://github.com/COVESA/vehicle_signal_specification/pull/511/))

### A. Minor release with experimental struct support

1. vss-tools can take in a types spec file and process sensor tree and the type tree together. struct/type support will be marked as an experimental feature.

- Syntactic check of struct definition
- Semantic check of type references in sensors
- Demonstrate working using the JSON exporter

2. Add disclaimer/warning when customer is using experimental feature

3. Warning in exporters that structs are not yet supported

4. Warning in overlays that structs are not yet supported

5. Experimental feature documentation

Effort: 3 weeks

### B. Exporters release

1. Add support for struct types in other text-based available exporters in vss-tools - CSV, YAML

Effort: 1 week

### C. Major release

1. Overlay support

2. Documentation update

3. Add support for non-text exporters as needed - protobuf, DDSIDL, etc.

4. Add guidance around when and how to use struct types

Effort: 4 weeks

#### ▪ Notes:

- Krishna can contribute to A, unsure about B and C
- Target: End of February for minor release
- Possible Target: Major release late April
- Paul: AMM likely in Porto, Portugal, 25-27th April

#### ◦ Introduction of new issues/PRs (very short)

- Time units/datatypes - introduction [https://github.com/COVESA/vehicle\\_signal\\_specification/issues/525](https://github.com/COVESA/vehicle_signal_specification/issues/525)
- Power Optimize - Introduction of Bosch proposal [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/528](https://github.com/COVESA/vehicle_signal_specification/pull/528)
  - Potential replacement for [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/520](https://github.com/COVESA/vehicle_signal_specification/pull/520)
- Connectivity PR - Introduction as preparation for next week discussion
  - Units: <https://github.com/COVESA/vss-tools/pull/207>
  - Signals: [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/526](https://github.com/COVESA/vehicle_signal_specification/pull/526)
- Cleanup - <https://github.com/COVESA/vss-tools/pull/211>
- Mypy (3 PRs)

- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Paul Boyes: COVESA Workshop planned for February 15th-16th (online, two halfdays, 5 - 9am PT 1400-1700 CET 6:30-10:30pm IST 10pm - 2am JST)
  - Action point: Paul will send out invite and ask for topics
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting 2023-01-17

*If you have a topic you want to prioritize please add it here. We do however have the ambition to regularly discuss recent issues and pull requests, so no need to explicitly mentions a PR unless it needs to be prioritized:*

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Neil Puthuff (RTI) presenting some initial observations as new to COVESA/VSS
    - Reference: <https://docs.google.com/document/d/1dHHMIIIzpsbnVsTiiza4Suua-vVbfR1xm11KNKdAm38/edit>
    - Grouping of signals - is there a mechanism to group signals.
    - Best way forward - create issues for most important areas to describe problem and wanted solution and continue discussion
  - Ford proposal - Fleet based range prediction
    - Christoph Schierjott presents [EV Charging Event Data Aggregation Project](#)
    - Data upload of various data to cloud
    - Cloud calculates correction factor individually and sends down to vehicle to correct fleet range prediction
  - Power Optimize
    - [Mobis Architecture](#)
      - Intention is to have a power manager that will select scheme, either based on user request or for example based on that remaining power drops below 20%
    - Pre-information Bosch proposal
      - Erik: Bosch has some ideas on representation that will be presented in the Power Optimize meeting this week
- Open Pull Requests VSS
  - Closed: [https://github.com/COVESA/vehicle\\_signal\\_specification/pull/523](https://github.com/COVESA/vehicle_signal_specification/pull/523)
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting 2023-01-10

*If you have a topic you want to prioritize please add it here. We do however have the ambition to regularly discuss recent issues and pull requests, so no need to explicitly mentions a PR unless it needs to be prioritized:*

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - None
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Information from Paul
  - Big interest at CES
  - We need to have a bigger discussion late January or February to how to simplify use of VSS.
  - Paul to discuss with Data Expert Group (Erik, Adnan) on how to proceed.
- Prioritized topics for next meeting

## Meeting 2022-12-20

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Aggregate vs. structs - when do we see it need to be kept
    - From last week - Ulf/Erik: In favor of deprecating/removing aggregate keyword
    - Since then: Ulf requested a credible example, Erik stated that if we are to keep it we should better propose/specify how tools shall handle it
    - Adnan: Allow aggregate on deployment level, can use it when needed. For now good to only have it as information.
    - Krishna: Thinks aggregate makes changes, struct does not affect it. If we want to deprecate we can do it later
    - Ulf: Does not have a strong opinion
    - Adnan: Good to document when structs vs aggregate shall be used
    - Erik: Can update the PR
    - Erik: Do you Krishna have interest in doing actual work.
    - Krishna: In January will start working on it, can help Erik
    - Erik: Then we can discuss later when we think it will be ready for VSS 4.0 release
  - Information: [Overlays after expansion](#)
    - Internal Bosch discussion if it would be better to refactor tooling so that only one parameter needed and tool is "smart enough" to deduce if given path refers to extended entity or not.
  - Discussion: [PowerOptimize PR](#)
    - Chandra: Intention to have one branch in each area, for infotainment we see brightness and audio volume
    - Chandra: Does not intend to duplicate, only want one signal, need only one
    - Erik: Isn't PowerOptimize only one of many use-cases for e.g. brightness, why need a PowerOptimize branch
    - Chandra: If scattered more difficult to find

- Sebastian: OEM needs to decide what is part of his power optimization, do not understand the value of having them in separate branch
  - Adnan: What is difference
  - Pradeep: Adding a feature set, complete algorithm,
  - Adnan: If you are only proposing values, then it makes sense
  - Sebastian: Alternative usages could be e.g. overlay
  - Chandra: When we explain we see some signals are duplicated
  - Adnan: Best solution would if you prepare and show architecture on how it is intended
  - Adnan: Have not seen scope. Like to learn how
  - Pradeep: Do you have any public link describing how it is supposed to work.
  - Adnan: if you create some simple document you can attach it, then we can try to find best way
- UUID elements
  - Adnan: Is anyone using UUIDs at the moment
  - Sebastian: We have never used them
  - Adnan: We saw a potential of UUID, could help versioning. We could UUID hash to validate. Has anyone any ideas. Otherwise we might create improvement proposal.
  - Sebastian: UUID are as of today generated based on tree structure.
  - Adnan: We need more, e.g. history. How do we move leave but keep UUID.
  - Sebastian: Could be a hash of only name/description/....
  - Erik: Please Adnan create an issue and ask if someone use UUIDs - if not you are free to do anything.
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting
  - **Note: Dec 27th cancelled**
  - Meeting as usual Jan 3rd

## Agenda for Meeting 2022-12-13

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Aggregate vs. structs - when do we see it need to be kept
    - Ulf/Erik: In favor of deprecating/removing aggregate keyword
    - Erik: Seems proposal is quite stable, lets wait discussing work packages until Jrishna is back, as he seemed interested in implementing in vss-tools
  - Summary for vote of Allowed ([https://github.com/COVESA/vehicle\\_signal\\_specification/issues/502](https://github.com/COVESA/vehicle_signal_specification/issues/502))
    - vote result: allow int and float for now
  - Meeting cancellations due to new year
    - Availability of participants Dec 20th?
    - Suggest cancelling Dec 27th?
    - Availability of participants Jan 3rd? (Erik unavailable)
    - Decision: Cancel Dec 27th, wait with decision on Dec 20th and Jan 3rd
    - Availability: (Paul: all, Ted: all, Umang: all, Ulf: all)
    - Erik to check with Adnan (and Krishna)
  - Open Pull Requests (vss+tools, except struct) - approve/object before next week.
    - See PRs
  - Information: New [issue](#) for proposal from last week
  - Information: [Overlays after expansion](#)
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting 2022-12-06

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Continued struct decision, focus on recommendations/limitations, why we need it, rationale ([https://github.com/COVESA/vehicle\\_signal\\_specification/pull/511](https://github.com/COVESA/vehicle_signal_specification/pull/511))
    - Meeting notes:
      - Krishna - for types - there could be subtrees working as namespace. Erik to improve description.
      - Adnan - we need to come up with how to use "Aggregate"
      - Krishna - could be useful for aggregating
      - Adnan - we need to explain advantage of aggregate vs struct
      - Erik to create proposal in document
      - If no further comments, next step is to identify work packages in detail and do estimation for roadmap
  - Ulf [presented some roadmap ideas](#) (15-20 minutes)



- Proposals:
  - Reason - to get a domain agnostic taxonomy
  - Move "rule set" to new specification project, VSS keeps the catalog.
- Sebastian: Could be an idea to scope it to "mobility only"
- Erik: Could at least be idea to have a vision/mission for the "rule set" to primarily support mobility use cases
- Daniel: Integrating/reference domains in Yaml does not make sense, Ontology is a better choice. This is the next step of VSSo.
- How to proceed:
  - Document to be uploaded
  - Discussion to be continued at some later time (not urgent)
  - Interesting topic for next AMM, including VSS VSSo relationship
- Summary for vote of Allowed ([https://github.com/COVESA/vehicle\\_signal\\_specification/issues/502](https://github.com/COVESA/vehicle_signal_specification/issues/502))
  - Wait until next week
- PR/Change governance ([https://github.com/COVESA/vehicle\\_signal\\_specification/issues/515](https://github.com/COVESA/vehicle_signal_specification/issues/515))
- ~~Overlays on expanded tree (<https://github.com/COVESA/vss-tools/issues/201>)~~
- ~~Release Cadence/Roadmap ([https://github.com/COVESA/vehicle\\_signal\\_specification/issues/513](https://github.com/COVESA/vehicle_signal_specification/issues/513))~~
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting

## Meeting 2022-11-29

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
  - Struct Proposal ([https://github.com/COVESA/vehicle\\_signal\\_specification/pull/511](https://github.com/COVESA/vehicle_signal_specification/pull/511))
    - See PR, agreed to change proposal to have struct definitions in separate file. Erik to update proposal
  - Release Cadence ([https://github.com/COVESA/vehicle\\_signal\\_specification/issues/513](https://github.com/COVESA/vehicle_signal_specification/issues/513))
    - Skipped due to lack of time
  - Roadmap ([https://github.com/COVESA/vehicle\\_signal\\_specification/issues/508](https://github.com/COVESA/vehicle_signal_specification/issues/508))
    - Skipped due to lack of time
  - Support for "allowed" ([https://github.com/COVESA/vehicle\\_signal\\_specification/issues/502](https://github.com/COVESA/vehicle_signal_specification/issues/502))
    - Voting next week
  - PR/Change governance
    - Skipped due to lack of time
- Open Pull Requests VSS
  - Skipped due to lack of time
- Open Pull Requests VSS-Tools
  - Skipped due to lack of time
- Issues VSS
  - Skipped due to lack of time
- Issues VSS-Tools
  - Skipped due to lack of time
- Prioritized topics for next meeting
  1. Continued struct decision, focus on recommendations/limitations, why we need it, rationale
  2. Ulf to present some roadmap ideas (15-20 min)
  3. Summary for vote of Allowed
  4. Release cadence/Roadmap

## Agenda Template

- Compliance statement - TBD
- Welcome and agenda discussion - anything that needs to be added?
- Prioritized topics
- Decision on old open PRs
- Open Pull Requests VSS
- Open Pull Requests VSS-Tools
- Issues VSS
- Issues VSS-Tools
- Prioritized topics for next meeting