

Produced by the expert from OICA

OICA comments to document GRRF-73-06 on AMEVSC

Appendix 1 / paragraph 1.4

Extract: *“The availability of the simulation tool software, to the software version used, shall be maintained for a period of not less than 10 years.”*

Comment:

- During a period of 10 years, it is very likely that the computer hardware, operating system and software/model development tools (Matlab / Simulink, compilers etc.) will get several evolutions or even complete renewals. At each level of evolution, the level of compatibility to the previous versions cannot be guaranteed by any supplier, in particular over such a long period.
- For that reason, the original software version of the simulation tool won't be usable after 10 years without software changes, which could be a complete reprogramming. The proposed requirement should be limited to the maintenance of the simulation tool such that the simulation tests can be reproduced, using up-to-date hardware, operating system or development tools. From a technical and practical standpoint, this looks as to be the best that can be achieved.
- In addition this proposed requirement is also requiring from the system manufacturers that they provide to the vehicle manufacturers up-to-date software modules, for integration in the vehicle software models, over this 10 years period (for example in the case of SIL simulation tool).

Appendix 2 / paragraph 1.4.2

- “Fixed load” and “given mass” looks to be very similar. OICA suggests clarifying their meaning in the text of the paragraph.
Does “fixed load” means the load on the vehicle has to be “fixed and solid” (i.e. it cannot not be fuel, milk, hey bundles or wood...)?
- The height of the centre of gravity is already in the list of parameters of paragraph 1.1.2. Isn't that redundant?

Appendix 2 / paragraph 2.2

Extract:

“[...] The ability of the simulation tool to be used with parameters that have not been validated by a practical vehicle test shall be shown by conducting simulations with varied parameter values. The results of these simulations shall be checked to be logical and similar in comparison to the results of known practical vehicle tests.”

Clarifications are needed here:

- Is this sentence referring to extra parameters the manufacturer may have in his simulation tool (in addition to the list of paragraph 1.1.2 of appendix 2)?
- Is this sentence giving some kind of tolerance to the requirement of paragraph 1.3 of appendix 1 (which is ensuring that the simulation tool can only be used [...] when the value of each parameter is within the validated range of the simulation tool) ?

Appendix 2 / paragraph 2.5.1

Extract:

“A simulation tool validation carried-out in accordance with Annex 21 [...], prior to the entry into force of Supplement [10] [...], may continue to be used [...] provided that the relevant technical requirements are fulfilled and the scope of application is complied with.”

Comments:

OICA needs clarification on the aim of this requirement. Does it mean the simulation tools validated before this amendment remains valid provided that they technically fulfil the requirements of this amendment? For example, the “parameters not taken into account shall limit the use of the simulation tool”, even on simulation tools validated before this amendment.