Release Notes

ALtair Engineering Inc / Car Real-Time (CRT)

<=== v1.2 - 12/13/2023 ===>

- Update for Twin Activate 2023.1

- CRT library can now be loaded as an extension

<=== v1.1 - 12/16/2022 ===>

New features & Enhancements:

- Added a single track vehicle with MagicFormula (Pacejka) based tires

- Added a double track vehicle with Fiala and TNO based tires

- Added a demo model for the single and double track vehicle

- Added a demo model documentation to the CRTVehicle-UsersGuide

- All demo models are read-only going forward to prevent accidental override.

  Users can make a copy of the demo model and modify the copy instead.

- Parameters of the demo models have been updated to reflect the default

  vehicle in MotionView better

- Improvements to the chassis and road documentation

- The polynomial fitting for the conceptual suspension has changed:

  unsteered suspensions are now treated in a different way to improve

  numerical stability

Fixed Issues:

- Fixed default CRT_Model0 MAT file

<=== v1.0a - 07/08/2022 ==>

Fixed Issues:

- CRT-211: fixed issue caused by missing TNO shared libraries causing

   Activate crash (reading/writing to virtual address)

<=== v1.0 - 06/01/2022 ===>

New features & Enhancements:

- This is a first release. New features are tracked after

  the first official release v1.0.

Fixed Issues:

- This is a first release. Bug fixes are tracked after

  the first official release v1.0.

<=== v0.9 - 05/16/2022 ===>

New features & Enhancements:

- This is a prerelease of Car Real-Time.

Fixed Issues:

- This is a prerelease of Car Real-Time.

<=== Known Issues ==>

CRT-214: MV2CRT not (yet) available, but described in documentation.

Currently planned for MotionView 2022.3.

CRT-205: Demo models yield compiler warnings. Can be ignored savely.

(Problems in the Modelica Standard Library)

CRT-168: No tutorials are currently available. Use QuickStart to get

familiar with CRT.

CRT-120: Simple brake model "Torque coupled" increases CPU time

(RealTime-factor) when braking down to zero. Advanced model

"Coulomb brake" increases CPU time even without applying

the brake.

CRT-151: Aerodyanmics model was not sufficiently tested.

CRT-169: Animation impacts compilation time (significantly)

(Run time is only slightly increased.).

CRT-208: Deficits in animation facilities and controls such as

non-smooth animation ('Bursts of motion'), no

vehicle-following camera, etc. impair the usefullness

for CRT (SCP-8707, SCP-9105)

CRT-199: Curve editor, although very useful for defining driver

inputs, often shows unpredictable behaviour. Workaround:

Never work with tables with less than 5 rows. (SCP-9874)