# @Source

@Source from Podium Technology enables you to combine the vast simulation capabilities of Simulink® from The MathWorks with the game quality graphic environment of rFactor-Pro. **@Source** is a complete model based design toolbox that can be applied to any target and application/analysis tool. **@Source** has been developed over the past seven years and is now in use by all the Formula One teams as well as many automotive and aerospace companies.

The rFactor-Pro configuration enables complete access to the full API at the Simulink level:

- Access to all rFactor state variables as model inputs(telemetry, graphics, scoring and physics)

- Write back of model outputs to rFactor

- Function called sub systems for each of the rFactor call-backs.

- Output of model variables to the data analysis package (e.g. Pi Toolbox)

- Inter-plug-in communications.
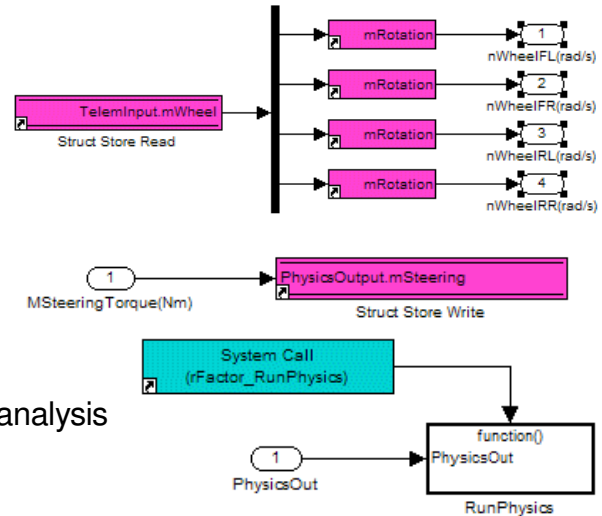
All functionality can be developed in simulation prior to deployment as an rFactor plug-in. The rFactor configuration also builds an ASAP file (or file to your specification) to enable application tools to monitor and tune the model live using tools such as Vector's CANape, ETAS's INCA or Kleinknecht's Gredi (using the rFactor-Pro XCP plug-in).

Plug-in Applications:

- Software-in-the-Loop: Compile control strategies into an rFactor plug-in.

- Hardware-in-the-Loop: Interface rFactor states to hardware to run a real ECU.

- Car Model: Compile your own Simulink car model to replace the standard physics model to make use of the superb rFactor graphics. Models developed in other tools that have Simulink S-Function exports, such as Dymola or SIMPACK, can also be incorporated. API's are also available for non-Simulink based models.

Multiple plug-ins can inter-operate, therefore it is possible to run an existing ECU in HIL mode, a new ECU development in SIL mode all with your own car model.

@Source has the ability to easily interface with 3rd party Simulink libraries, therefore it is feasible to build existing/legacy models into rFactor plug-ins with minimal or no changes, further simplifying the integration process.

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