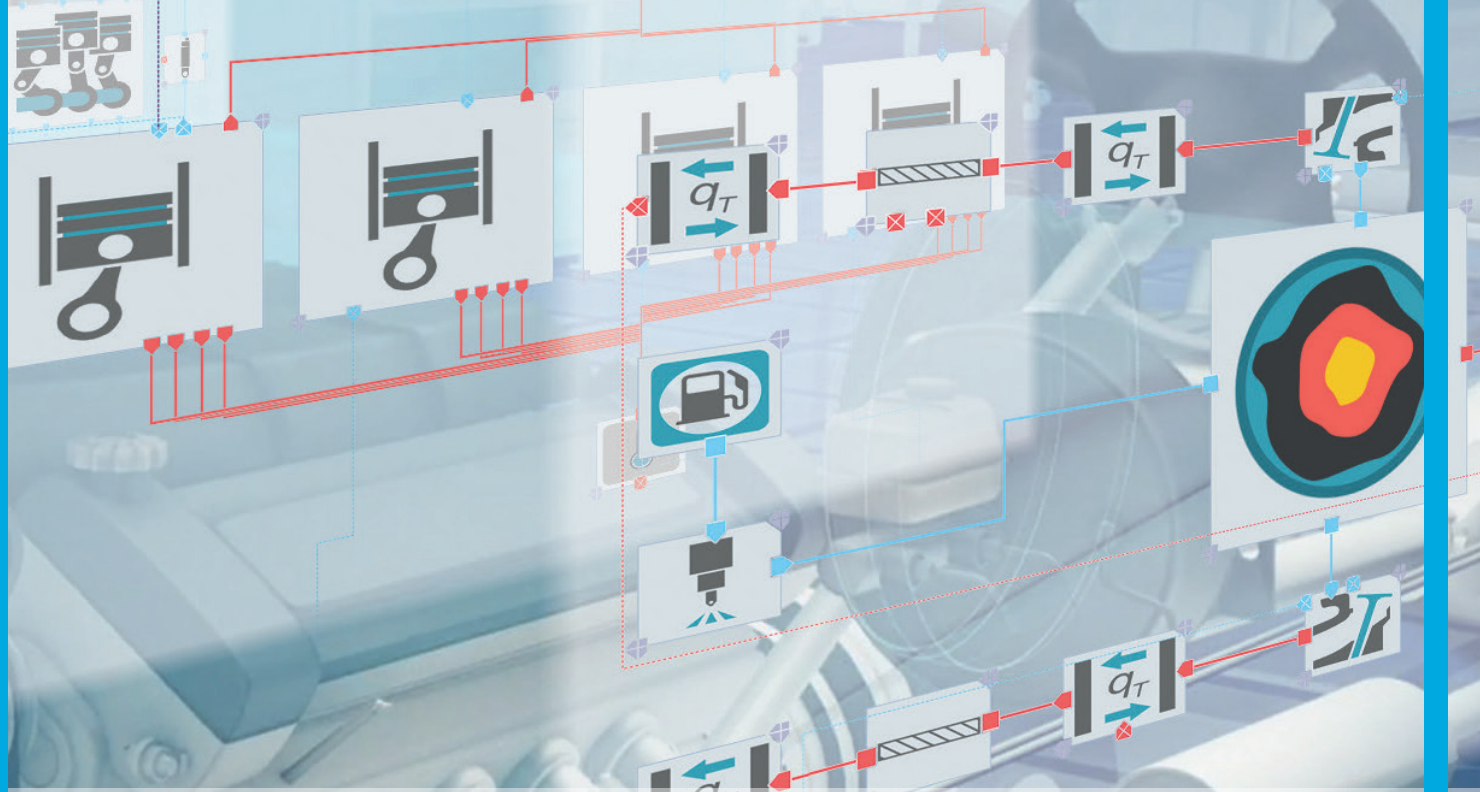




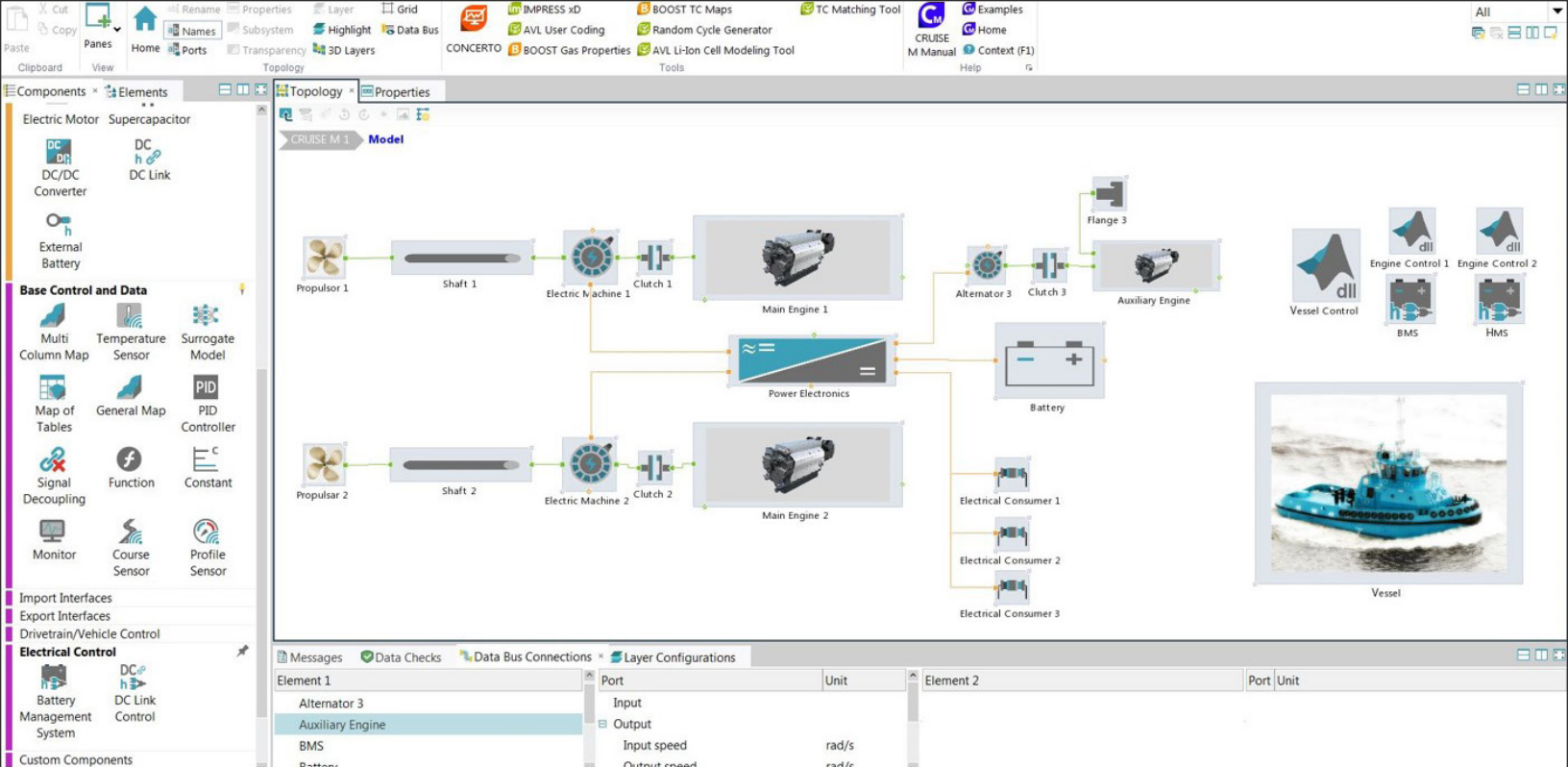
Altair

Partner Alliance



AVL CRUISE™ M

PARTNER SPOTLIGHT



## Partner Spotlight: AVL GmbH

*Andrej Kodrin, Product Manager - System Simulation, discusses system simulation software, AVL CRUISE™ M, available through the Altair Partner Alliance.*

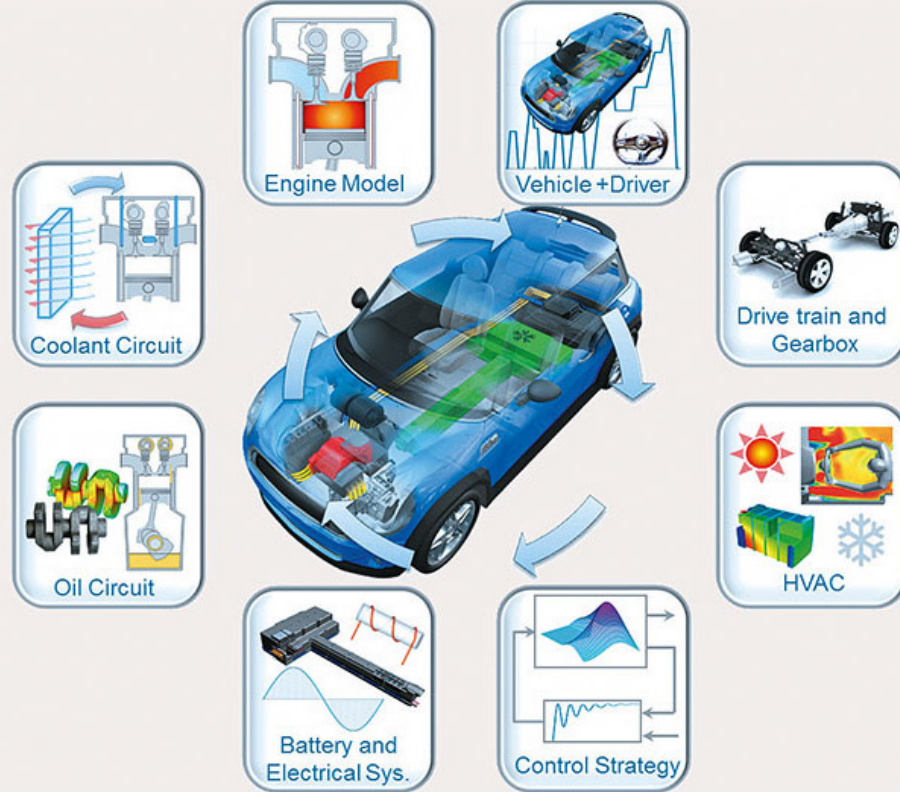
### APA: What prompted the development of your software? What problem is AVL CRUISE™ M meant to solve?

**Andrej:** Continuously shorter development cycles and the increased complexity of today's and future powertrains are the main reasons for introducing AVL CRUISE™ M, a model based development solution. AVL CRUISE™ M enables a close cooperation among different teams starting with the concept phase and ending with component testing.

Engineers can focus on their core work because AVL CRUISE™ M's re-useable models with scalable fidelity require minimal effort to be transferred through the development process, delivering maximum model consistency and comparable results along the different stages of the process.

### APA: What are the benefits of using AVL CRUISE™ M for system simulation?

**Andrej:** One of the benefits of AVL CRUISE™ M is the possibility to re-use high-quality models across teams and throughout the entire development process. In addition, we should also mention; the extensively validated model accuracy compared to AVL test data, realtime crank-angle resolved engine models used in function and control strategy development in the office and HiL environment, the ability to change parameters on-the-fly to optimize HiL and testbed usage.



AVL CRUISE™ M delivers a holistic multi-domain modeling approach within one solution.

**APA: Are there any unique applications that AVL CRUISE™ M works for that your competition cannot?**

**Andrej:** The most prominent application is utilizing AVL CRUISE™ M’s physical real-time capable, crank angle resolved engine and gas path models for ECU development and calibration. This means front-loading development tasks to earlier phases into virtual environment before the first prototype is even available.

**APA: How much time does it take to learn and start using your software?**

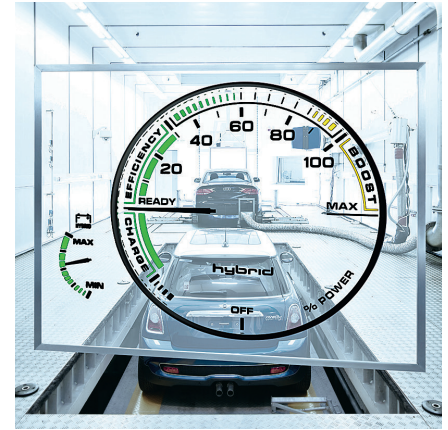
**Andrej:** Engineers are able to handle the tools after only two days of training. This is possible as AVL CRUISE™ M offers a very intuitive user interface, making it easy to explore and understand the available functionalities and capabilities.

**APA: What are the biggest challenges or problems that customers in your target market face and how do you address their needs?**

**Andrej:** Tools and processes deployed during the development are often still disconnected. This triggers re-generation of similar models by different teams, wasting a huge amount of valuable engineering time without any benefits. AVL CRUISE™ M enables different teams to work on tasks within their core competence, while sharing sub-system models with other teams within one holistic simulation model inside a single software environment.

**APA: Describe a typical workflow of AVL CRUISE™ M.**

**Andrej:** Everything starts with the model setup. Here engineers can rely on models stored in the example library, models from previous developments or building a new one from scratch. After the model and its input data have been validated the model is ready for ‘productive use’, i.e. to support the next generation product development.



Those models can then be used with minimal modifications along the development cycle to custom fit the application case at each individual stage.

### APA: What's next for AVL CRUISE™ M... what can we look forward to?

**Andrej:** AVL CRUISE™ M is continuously improving and extending across all of its domains. Currently a focus is set on extending the electric domain to keep pace with present developments in the hybrid and fully electric vehicle segment.

**For more information about [AVL CRUISE™ M](#), visit the solution page.**