

AVL



AVL
Team
SUITE



AVL CAMEO 4™ – Active DoE

The next generation of Design of Experiments (DoE)

THE CHALLENGE

Real Driving Emissions, high number of variants, short development cycles – powertrain calibration has never been as complex as it is today. Therefore, it is extremely important to use intelligent methods in order to stay efficient and be able to manage the testing tasks.

Design of Experiments (DoE) is an important way of boosting innovation, reducing testing time and making effective use of the capacity of test fields – day and night.

Due to the increasing challenges in calibration, the conventional DoE reaches its limits. When using a pre-defined variation list, the measurement points cannot be distributed ideally in the input-output space.

THE AVL SOLUTION

AVL CAMEO 4™ responds to these challenges with the solution Active DoE. It is easy to set up and delivers not only data but first-class quality results ready for the calibration task.

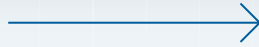
How is AVL CAMEO 4™ able to do this?

The answer is “Active DoE”, the next generation of DoE. With this approach AVL CAMEO 4™ is generating excellent results in the most efficient way. The measurements are distributed to deliver the maximum value while also being located in the area of interest. The result is maximum accuracy where needed, requiring a minimum amount of data.

AVL CAMEO 4™ Active DoE – THE NEXT GENERATION OF DoE

AVL CAMEO 4™ Active DoE is an interactive process which automatically adapts the design to the given targets. Intelligent mechanisms support calibration engineers to easily generate high quality results which can directly be used for calibration tasks guaranteeing high performance and efficient work procedures.

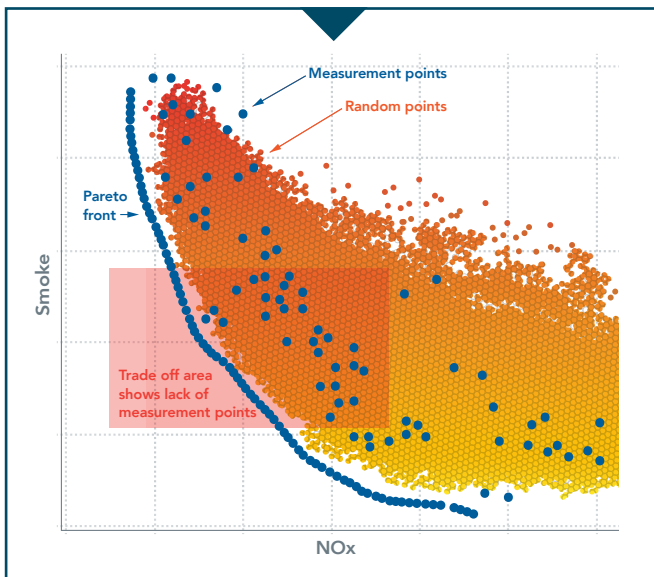
THE PAST



THE FUTURE

CONVENTIONAL DoE

With the conventional DoE approach there is a risk that a large portion of the time and effort is spent in collecting data in less interesting areas while lacking measurements close to the pareto-front where they are crucial for the calibration task.

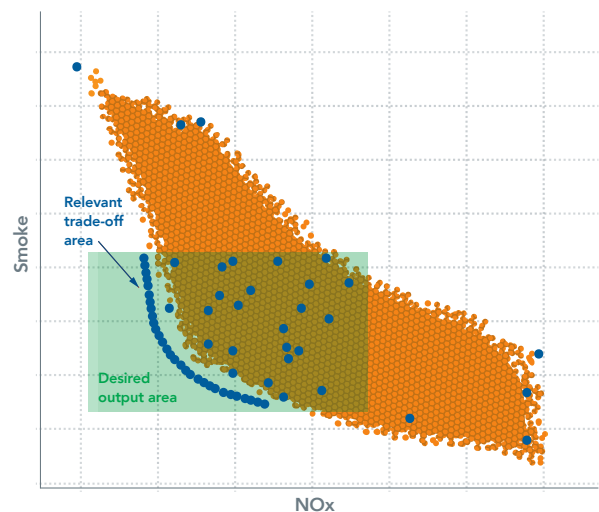


POTENTIAL RISKS

- Risk of missing the optimal result
- Risk of lacking focus in the interesting area
- Risk of unnecessary run-time and costs
- Risk of accelerated wear and drift of engine and measurement devices
- Risk of missing expert know-how

Active DoE

With Active DoE, AVL CAMEO 4™ is focusing on the area of interest by modeling the responses during the test. It uses the desired output area defined by the user to distribute the measurement points optimally including those on the pareto-front.



THE ADDED VALUE

- Maximum accuracy of the optimization result
- Focus on area of interest
- 30 % less data needed for better results
- Added protection from wear and drift
- Easy to use

FOR FURTHER INFORMATION PLEASE CONTACT:

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