Model-Based Calibration Toolbox Jumpstart Service

Model-Based Calibration Toolbox™ Jumpstart Service is a two-day engagement that introduces tools and techniques for using Design of Experiments, statistical modeling, and optimization to calibrate modern powertrain systems in MATLAB® and Simulink®. It is intended for engineers working in engine testing and calibration, control algorithm development, and powertrain simulation. By the end of the engagement, you will be able to produce a set of optimal base calibration tables for a typical modern gasoline or diesel engine.

Two subject variants, based on gasoline or diesel materials, are available.

The consultants will provide sample models, code, and supporting electronic files.

Service Topics

Working with Design of Experiments

- Setting up test plans
- Designing for constraints
- Applying classical, space-filling, and optimal methods

Data loading and handling

- Loading, visualizing, filtering, and augmenting measured data

Response surface modeling

- Creating one- and two-stage response-surface models using radial basis functions, polynomials, splines, and neural nets

Calibration generation

- Setting up optimization problems
- Reviewing, executing, filling, and exporting tables
- Applying application-specific, multiobjective, and drive-cycle optimization

Service Requirements

Prerequisites: Background in powertrain calibration required; basic knowledge of MATLAB fundamentals recommended

Required equipment and software: A laptop computer, with the appropriate software installed, for each attendee

Duration: Two days

Location: Onsite or at a MathWorks training facility

Maximum number of attendees: Five

Ordering Options

You can order Model-Based Calibration Toolbox Jumpstart Service from your MathWorks sales representative or include it in your product purchase.

Learn More

Consulting Services
www.mathworks.com/jumpstart

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www.mathworks.com

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