

# Development of Custom Workflows for Simulation and Analysis of Functional Mock-up Units

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## Abstract

Development of customized workflows and interfaces to deploy Modelica Functional Mockup Units (FMUs) with the various FMU tools has been gaining traction in the industry – both with tool vendors as well as end users.

The FMI Add-in for Excel (FMIE) is a commercial product from Modelon AB that enables the deployment of FMUs in Microsoft Excel. FMIE enables the user to programmatically control the add-in through Visual Basic code in Excel. This allows the implementation of custom workflows and interfaces for the user to interact and automate the tasks involved in loading, simulation and analysis of FMUs.

In this paper we present a workflow in FMIE for an automobile thermal management model FMU. The workflow utilizes Visual Basic scripts for automation and user-forms for user interaction.

*Keywords: FMU; Automated workflow; FMI Add-In for Excel; Visualization; Design of Experiments, Batch Simulations, Monte-Carlo Analysis*

## References

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