

Siemens Inside e-Car: The Customized Process

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Berlin, 24.01.2012 – Siemens Industry Drive Technologies Inside e-Car has added model-based development with the dSPACE toolchain to its classic software development activities for realizing safety-critical vehicle functions. The move involved defining a new process that satisfies the requirements of the ISO 26262 standard. The process was introduced with the help of dSPACE TargetLink Strategic Partner, Model Engineering Solutions GmbH (MES).

Siemens Inside e-Car, automotive industry supplier of converters, electric motors, charging technology, and other components of the electric drive train, expanded its code-based software development to include model-based software development with Simulink[®] and TargetLink[®]. MES defined a company-wide process for all Siemens' model-based development activities, based on an ISO 26262 GAP analysis. Process maps were developed to visualize integration of the new development process into existing processes and the company's existing tool environment: with precise goals, all the necessary tools, as well as quality and success criteria. In a further step, MES developed a customized process manual for Siemens for modeling and code generation with the dSPACE toolchain. The process manual details individual work steps in such a way that all involved parties understand the work steps for which they are responsible and the tool applications they require.

As a result, Siemens now has an ISO 26262-conform process, which seamlessly integrates model-based development of safety-critical vehicle functions into existing code-based development, enabling maximum efficiency in the context of the ISO standard.

Model Engineering Solutions

Model Engineering Solutions GmbH (MES) specializes in integrated quality assurance of embedded vehicle software. The company's market-leading product is the Model Examiner, a tool that checks guideline consistency of Simulink[®] and TargetLink[®] models. MES also provides consulting services and training programs for companies wishing to introduce or enhance their existing model-based development activities. MES clients include major OEMs and suppliers from the automotive industry. MES has been a TargetLink Strategic Partner of dSPACE GmbH since 2010.

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