Customer Success Story

**Code Generation
with Embedded Engineer
for HILTI**

LieberLieber

LieberLieber Software: Hilti chooses Code Generator

Following exhaustive tests, the renowned construction industry supplier Hilti decided on LieberLieber's Code Generator for Embedded Systems for Enterprise Architect.

(Vienna/Kaufering near Munich, 10.04.2014) – Following exhaustive tests, the renowned construction industry supplier Hilti decided on LieberLieber's uml2code Code Generator for Embedded Systems for Enterprise Architect. Roman Bretz, CTO of LieberLieber Software: "We are proud that we could convince the Hilti development team of the benefits of our Code Generator after a one-year pilot phase. This confirms that we can also generate UML models from complex code which suits the very high requirements of the embedded industry. Moreover, our approach allows already existing code to be integrated without a problem – which is decisive for entering running projects." As a parter of Sparx Systems, LieberLieber creates solutions for the optimized, user-friendly implementation of the popular UML modeling tool Enterprise Architect, used by over 300,000 users world-wide. LieberLieber uml2code is especially aimed at embedded software developers and software architects in the area of Embedded Systems, but can also be useful for testers and integration managers. The solution enables code generation from UML structures, state machines and activity models, and creates platform-independent C++ and MISRA-conform C-Code from UML models.

Roman Bretz
CTO of LieberLieber Software

We are proud that we could convince the Hilti development team of the benefits of our Code Generator after a one-year pilot phase. This confirms that we can also generate UML models from complex code which suits the very high requirements of the embedded industry. Moreover, our approach allows already existing code to be integrated without a problem – which is decisive for entering running projects.

Big test, big benefits – Hilti supplies the construction industry globally with technologically-leading products, systems and services, and employs around 21,000 associates in more than 120 countries. Software for electrical power tools is developed at the Kaufering development center. Dr.-Ing. Michael Fuchs, Software, Electronics & Drives Department, who lead the LieberLieber Codegenerator implementation project: "Due to its brilliant cost/performance ration, Enterprise Architect has been successfuly implemented at the Hilti headquarters in Liechtenstein, however without code generation. Therefore, in close collaboration with LieberLieber and with the assistance of a student trainee, we have begun to closely examine the code generator and adapt it to our specifications. The goal of this totally new approach has been to further improve the quality and productivity of our developments. Our project expectations have been surpassed and we have been able to clearly achieve all goals!"

All guidelines met – The topic of code generation has occupied Hilti developers for several years, therefore everyone is happy to finally have found a suitable solution in LieberLieber uml2Code. One of the key conditions for the selection of the Code Generator has been that it cannot presuppose any special requirements (such as a framework). Already-existing code should continue to be useable, and taken over into the entire solution problem-free. In addition, the Generator must also be open for company-specific adaptations. "When implementing other code generators, these requirements were not fulfilled. Therefore, it soon became clear that the approach of LieberLieber was very practical and promising for us," highlights Fuchs.

Dipl. Ing.
Michael Fuchs
Software, Electronics
& Drives Department

Due to its brilliant cost/performance ration, Enterprise Architect has been successfuly implemented at the Hilti headquarters in Liechtenstein, however without code generation. Therefore, in close collaboration with LieberLieber and with the assistance of a student trainee, we have begun to closely examine the code generator and adapt it to our specifications. The goal of this totally new approach has been to further improve the quality and productivity of our developments. Our project expectations have been surpassed and we have been able to clearly achieve all goals!

The student trainee implemented company-specific adaptations in close cooperation with LieberLieber. Such a project also naturally implies a certain learning curve: "Since during code generation activity diagrams and state machines play the greater roles, the internal learning curve can be reduced to one week. After this time, our developers can already model on their own and generate runnable code – another very positive surprise," concludes Fuchs. As a next step, a suitable debugging solution is being developed with LieberLieber partner iSYSTEM to complete the code generation.

Since during code generation activity diagrams and state machines play the greater roles, the internal learning curve can be reduced to one week. After this time, our developers can already model on their own and generate runnable code – another very positive surprise.

ABOUT HILTI

Hilti was founded in 1941 and supplies the global construction industry with technologicaally-leading products, systems and services. The offer the professional builder innovative solutions with dominant added value. Hilti distinguishes itself through outstanding innovation, highest quality, direct customer relationships and effective marketing. Hilti has about 21,000 associates worldwide in more then 120 countries. The headquarters of the Hilti Group is located in Schaan in Liechtenstein.

Learn more at www.Hilti.com

ABOUT LIEBERLIEBER SOFTWARE

We are a software engineering company. The know-how of our employees lies in model-based software and system design based on tools such as Enterprise Architect from Sparx Systems.

Our customers are companies that place particular importance on the quality of their software and systems development. They wish to maintain a constant overview of their complex development scenarios while ensuring that security-relevant requirements are clearly represented in models.

For this task we provide our own special tools, such as LemonTree and Embedded Engineer. In addition, we offer a range of useful tool integration services to help make our customers' development processes more productive.

Get more information at www.lieberlieber.com

Download your 90-day
trial version:

lieberlieber.com/embedded-engineer/

**EMBEDDED
ENGINEER**
Top Code Generation