

Customer Success Story

Integration of LemonTree
in Version Control Systems



Safety

HIMA

EN

LieberLieber Software: HIMA Meets Tough Standards with LemonTree

The global leader in smart industrial security solutions, HIMA has used of Enterprise Architect since 2012. It was during a training course that HIMA became aware of LemonTree and recognized the great potential it holds for the versioning of EA models. Before long, a joint effort had been mounted to develop specific enhancements to LemonTree in order to satisfy HIMA's stringent requirements on „smart safety“.

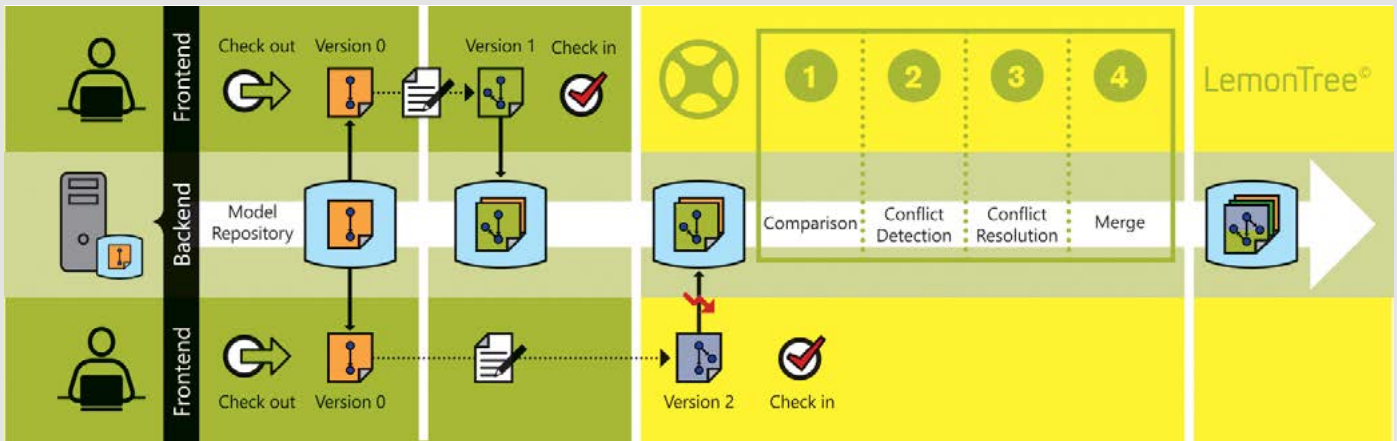
Vienna/Brühl – The HIMA Group is a provider of smart security solutions for industrial applications. Out of 800 worldwide, about one third of its 450 employees in Germany work in research and development. Of these, around 60 are developers who use Enterprise Architect to create models and generate software code for embedded and PC applications. Since development must always comply with functional safety requirements, precise traceability in the versioning of the models is an essential criterion. They had been searching for a tool to facilitate easier versioning and traceability when, during an Enterprise Architect training course, they became aware of LemonTree. Dipl.-Ing. (FH) Stefan Müller, Team Manager Development Software at HIMA: „In general, standards such as IEC 61508 demand configuration management. This also applies to UML models. LieberLieber's LemonTree is our key to efficiently determining what has changed, and in which revision.“ Electrical, electronic and programmable electronic systems are increasingly responsible for keeping machinery and equipment safe. The IEC 61508 basic standard applies across industries to systems that perform safety functions. It describes how the products are functionally-safely designed and developed.



Dipl.-Ing. (FH) Stefan Müller, Development Software (EDSB) Team Leader, HIMA Paul Hildebrandt GmbH

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Schematic process of model versioning with LemonTree - LemonTree can be seamlessly integrated into well-known versioning systems such as SVN, Git and PTC. Model versions can be managed centrally and automatically. This enables the parallel processing of the models in the team, as has been common in the development of source code for years. LemonTree addresses in this scenario as an external diff & merge tool once a model is checked into the central repository. (Source: LieberLieber)

Highest demands on security

First, a workshop was held to define the cornerstones of the joint project. In preparation, the existing models had to be checked and, if necessary, corrected. There was also a desire to automate this controlling process and integrate it into LemonTree for further processing. Dr. Konrad Wieland, Product Manager for LemonTree at LieberLieber: „We are pleased to support HIMA in versioning with LemonTree. Demands on the project are very high, but this merely spurs us on to show that we can also satisfy them. We see ourselves as knowledge leaders when it comes to Enterprise Architect and model versioning.“

Currently around 35 developers work with LemonTree at HIMA and there are regular voting meetings for the further development of the tool. One of the major challenges was the integration of Subversion (SVN), a software for centralized version control of files and directories. Since the developers create five to ten new versions daily, the integration process must be short. Oliver Mummmenthey, software developer at HIMA, comments: „The LieberLieber team was able to increase the performance of LemonTree immensely even for our models of up to 6GB in size. Through close cooperation we are achieving excellent results, which serves to greatly strengthen our confidence in LieberLieber.“ The advantages of the „UniqueMint“ infrastructure developed by LieberLieber, which is especially suitable for high-performance reading and writing of models, soon became quite clear.



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Seamless integration into the HIMA infrastructure

LieberLieber's know-how was in high demand when it came to the seamless integration of model-based development into HIMA's demanding environment. „We have vast practical experience with a wide variety of infrastructures, and we are experienced in transforming them into a productive modeling environment. We adopt our customers' guidelines and internal procedures, for example with regard to versioning, variant management or product family engineering. Our strategy and the tools we use are designed to seamlessly integrate modeling into the existing setting. We realize that newly-added modeling tools must not dictate the processes, but must adapt to existing processes,“ states Wieland.

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The HIMA headquarters in Brühl, Germany

(Source: HIMA)

ABOUT HIMA

The HIMA Group is the world's leading independent provider of smart industrial safety solutions. With over 35,000 global installations of TÜV-certified security systems, HIMA is considered the technology leader in the industry. The company's dedicated engineers develop custom solutions that help customers increase functional safety, strengthen cybersecurity and increase the profitability of their plants and factories in the digital age.

For more than 45 years, HIMA has been a reliable partner to the world's largest oil, gas, chemical and power generation companies. They all rely on HIMA solutions, services and consulting services to ensure uninterrupted operation of their assets while protecting their assets, employees and the environment. The HIMA portfolio includes smart safety solutions that convert data into business-relevant information, thus contributing to greater security and plant availability. In addition, HIMA offers comprehensive solutions for the efficient controlling and monitoring of turbomachinery (TMC), burners and boilers (BMC) and pipelines (PMC). In the global rail industry, HIMA's COTS-based CENELEC-certified SIL 4 safety controllers are leaders in terms of functional and IT security and profitability.

The family-owned company, founded in 1908 and headquartered in Brühl, Germany, is today represented at more than 50 locations worldwide. Around 800 employees generate sales of € 126 million (2016).

www.hima.com/en

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



Ask for a free Trialversion
or Web-Demo:
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LemonTree[®] Fresh Model Versioning