

Customer Success Story

**Code Generation
with Embedded Engineer
and Versioning with
LemonTree for Petwalk**



doors for pets

Petwalk

EN

 LieberLieber

LieberLieber Software: Next-generation doors for cats and dogs

Petwalk, the Austrian specialist for automatic dog and cat doors, is on an expansion course. In order to meet the strict safety regulations required for access to the American market, the company sought the support of LieberLieber. Together, they are now developing a model-based solution that demonstrably meets all safety regulations.

Wien/Ternitz – Petwalk Solutions, founded in 2010 as a result of a research project in Ternitz, Lower Austria, specializes in next-generation automatic doors for cats and dogs. And, since pet owners care a great deal about the well-being of their four-legged friends, safety-critical aspects play a major role in Petwalk's door development process for which proven standards from the automotive industry are being used as criteria for development and testing. Klaus Kindl, founder and managing director: "Our doors are subject to demanding security requirements similar to those that apply, for example, to passenger elevators. We must comply with requirements for both the electronic and mechanical components. We are very export-oriented and already deliver to more than 30 countries worldwide; however, in order to be able to export to more complex legal markets such as the USA, we had to start a re-engineering project." The need for a model-based approach soon became apparent, which naturally led to contact with LieberLieber. Daniel Siegl, Managing Director of LieberLieber: "Following my presentation at the Austrian Software Industry Association (VÖSI), the project's objectives soon crystallized during our conversation. Petwalk's use case makes it particularly important to formally demonstrate compliance with the legal requirements on its software. Model-based development is ideal for this."



Klaus Kindl
founder and managing director of
Petwalk Solutions

Our doors are subject to demanding security requirements similar to those that apply, for example, to passenger elevators. We must comply with requirements for both the electronic and mechanical components. We are very export-oriented and already deliver to more than 30 countries worldwide; however, in order to be able to export to more complex legal markets such as the USA, we had to start a re-engineering project.





Models document the fulfilment of legal requirements

One big advantage of model-based software and systems development is the fact that compliance with legal requirements can be proven automatically in the model. Since traceability is nowadays mandatory in more and more industries and countries, the use of models is likewise growing in prevalence. Markus Hammer is Managing Director of CertaBit Engineering and fills the role of CTO at Petwalk: "As I have worked with Enterprise Architect in the automotive sector before, I was familiar with the strengths and challenges of this modeling platform. Looking for enhancements I came across LieberLieber's LemonTree and Embedded Engineer, two powerful solutions that extend the capabilities of Enterprise Architect." After initial tests and training, Hammer was quickly convinced of the quality of the LieberLieber extensions. "Embedded Engineer allows us to debug directly in the model. We were able to bring the firmware of our hardware suppliers in-house and we now get much faster, error-free and clearly structured code." Over the course of development the team was confronted with the challenge of versioning and how development cooperation should work. "The ability to block other users had not been implemented into Petwalk's workflow as we would have liked. LemonTree provides us with an optimal solution that supports us in all versioning issues that occur in a team environment," explains Hammer. Ultimately, the simultaneous use of Embedded Engineer and LemonTree provides excellent conditions for upcoming development challenges.



Dipl. Ing. (FH) **Markus Hammer**, Managing Director of CertaBit Engineering and CTO at Petwalk

As I have worked with Enterprise Architect in the automotive sector before, I was familiar with the strengths and challenges of this modeling platform. Looking for enhancements I came across LieberLieber's LemonTree and Embedded Engineer, two powerful solutions that extend the capabilities of Enterprise Architect.

Embedded Engineer allows us to debug directly in the model. We were able to bring the firmware of our hardware suppliers in-house and we now get much faster, error-free and clearly structured code.



Now, connecting the old and the new is no problem.

Because the Petwalk door's electronics run on embedded Linux and Windows Embedded, the development team decided to clearly separate old and new functions and connect them via an interface. In this way, existing functions can be easily retained while the new ones can be created right away in the modeling tool. LieberLieber's approach is very pragmatic: You can continue to use existing software and still switch to a model-based approach when it makes sense. This makes it much easier for us to decide on the fly whether or not to take this step. This also allow us to intensify our cooperation with LieberLieber on an ongoing basis, trying out new things over and over again," says Kindl. Petwalk intends to kick off the year 2018 with a splash in the US market: The first prototypes from the re-engineering project are to be presented in January at the Consumer Electronics Show (CES) in Las Vegas.

Klaus Kindl

LieberLieber's approach is very pragmatic: You can continue to use existing software and still switch to a model-based approach when it makes sense. This makes it much easier for us to decide on the fly whether or not to take this step. This also allow us to intensify our cooperation with LieberLieber on an ongoing basis, trying out new things over and over again.



ABOUT PETWALK

Petwalk Solutions GmbH & Co KG is an Austrian manufacturer of the first entrance/exit doors suitable for 'passive' homes made especially for cats and dogs, already sold in more than 30 countries around the globe. The patented and award-winning petWALK animal door is the only completely airtight, heat-insulating and burglar-proof animal access system in the world. It can be installed with ease in all kinds of structures, its functionality can be adapted to suit individual tastes, it features contactless pet detection and it opens and closes automatically.

For more information on petWALK, please visit:
<https://www.petwalk.at>

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:
welcome@lieberlieber.com

LemonTree®
Fresh Model Versioning



Download your 90-day
trial version:

lieberlieber.com/embedded-engineer/

**EMBEDDED
ENGINEER**
Top Code Generation