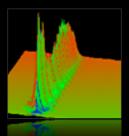
## **Product Sound**



Quiet electric drives cause new risks, which can be effectively handled with ELVIS<sup>3</sup>. At the same time the vehicles' quietness opens up new fields for exciting and creative sound personalities



Sound Synthesis ELVIS<sup>3</sup> seamlessly integrates the sounds generated by the vehicle with its own in real time.



Sound Signatures ELVIS<sup>3</sup> creates maximum branding content with minimum effort. Let us create your vehicle's unique Audio-Ćl

### $ELVS^3$ Electric Vehicle Interactive Sound Signature System

### Features

ELVIS<sup>3</sup> is a highly innovative development environment for brand-specific sounds in electric and hybrid vehicles.

The system produced by Product Sound generates sounds completely latency free and synthesizes its output depending on the vehicle's current condition like speed or load.

Due to its open architecture it is possible to efficiently develop an extremely broad palette of dynamic sound signatures, ranging from natural combustion engines to smooth elegant synthetic sounds.

### **Function**

During setup the sounds generated by the vehicle - motors, tires, wind noises - are integrated into ELVIS<sup>3</sup> with a few clicks. Thus, sound signature development takes place in a realistic context under real-world conditions.

The powerful ELVIS<sup>3</sup> realtime audio engine together with the realistic user interface controls allow for a highly effective targeted workflow during the sound design stage. Lengthy calibration and tuning processes without any sonic feedback are now a thing of the past.

### Safety

Waterproof speakers hidden behind the motor grill warn pedestrians and the visually impaired when electric vehicles are approaching. Laws requiring outdoor sounds for electric vehicles can be fulfilled with minimum effort.

Thanks to its flexible architecture. EL-VIS<sup>3</sup> can output the vehicle's signature in any speaker configuration, even in surround!

By means of its high-quality sound signature your electric vehicle communicates its emotional identity in a clear and concise way.



Please contact us for a demonstration!

Product Sound . Ursulastrasse 21 . D-45131 Essen . T +49.201.43084-17 . db@product-sound.de . www.product-sound.de

# Product Sound

### **Product Sound**

Prouct Sound has more than 20 years of experience in finding and delivering the right sound for your product. In addition wie conceive and implement complex interactive audio software systems to create these sounds.

We cover the entire workflow including defining customer expectations, sound perception, physical sound analysis and technical and artistic realization.

### Competencies

### Product Sound

- Sound Design & Sound Quality
- Applied psycho acoustics
- Identification and elimination of sound problems

### <u>Methods</u>

- Development of spezific signal processing chains
- Development of tools to objectively assess sound perception

### Audio Software

- Development of complex interactive audio systems
- Creative audio design

### Innovation

We are active in sound research. Over the past years we have written 80 publications in scientific journals and congress sessions\*.

Neben der Organisation von Seminaren und Schulungen sind Flexibilität, Kompetenz und Kreativität unsere Stärken: Mit und für unsere Kunden entwickeln wir maßgeschneiderte, optimal sitzende Lösungen.

\* www.product-sound.com/html/publications.html

### Your contacts:

Dr. Markus Bodden Torsten Belschner M.A. markus.bodden@product-sound.de torsten.belschner@product-sound.de

### References

