

Demonstrator HMI Specification

Development of a **demonstrator** for the model-based specification of automotive HMI systems

Customer requirements

We are developing a common exchange format for the model-based development of future HMI systems within the framework of the automotiveHMI research project where our partners are renowned car manufacturers and suppliers.

As a subtask within the project a demonstration system is being created that is the basis for being able to measure the effectiveness and feasibility of such research results.

In the early development phases – setting up the general and detailed specifications – a demonstrator is necessary that can show how the specification can be created using the newly developed technology that is now at hand.



comlet solution

The first step was to figure out what the requirements would be for both the demonstration system as well as the prototype that needed to be developed. Included here were amongst other things an analysis of the development process and the setting up of use cases that come about from typical workflows.

With the help of a development tool used by our partner in an everyday practical work environment, a HMI system made up of radio and telephone applications was implemented. Thereby the detailed specifications were developed in an iterative manner as a second step, these being based on the partner's general specifications which were laid down as a first step. For this the library of the available graphic widgets was extended in order to be able to comply with both the graphical as well as functional requirements of such a detailed specification.

In addition to this, the connection to the exchange format as defined within the research project for this development tool was set up. Thereby the suitability of this format was clearly demonstrated. For this model conversions between the two formats were realized.

Technology used

XML, XSD, Flash Player 11/Action Script 3, Java, ISF (automotiveHMI exchange format), Mockup

