



PRODUCT DATA SHEET

Instrument Cluster Framework (ICF)

THE CHALLENGE

The advance development of new functions that are relevant to display systems requires fast and efficient possibilities for the implementation of prototype display concepts. In addition to easy and uncomplicated usability, it is important to ensure that display modules that have already been created can be reused. Another key requirement is the versatility of the application possibilities. Therefore, the design process should consider simultaneous applications for use in the vehicle (FPK, MMI, HUD, display replacement), at the workplace (monitor), at on an HiL test bench. The ICF is a software toolbox for the development of prototype display and control elements. Using any combination of display modules, various full simulations can be created even at an early phase of the development process.

TECHNICAL HIGHLIGHTS OF THE SOFTWARE

Separation of the user level (visualization) and the kernel (behavior)

- Generic and user-friendly framework
- Development of display elements in the form of independent and reusable components
- Various links between the components and a configurable simulation (ICS – Instrument Cluster Simulation)

FIELDS OF APPLICATION AND CUSTOMER BENEFITS

- Modular display components / reusability
- Easy & fast development of display components
- No advanced programming knowledge necessary
- Simultaneous use of several output devices: HUD, MMI, combined devices
- Online use in the vehicle (display as a substitute for analog displays)/ offline use at the test bench (monitor)
- Full simulation of the entire display content
- Possible applications in advance development in the field of display concepts and HiL test benches (VTD: Virtual Test Drive)
- Easy possibility for video streaming



INTERFACES

- Input/output to vehicle's onboard electrical system (CAN)
- Input/output to specific customer interface (ADTF Message Bus)
- Output display control (HDMI/DVI)
- Input/output virtual BAP ASG
- Input DirectShow video stream (USB)
- Input touch control
- Input FlexRay (Vector)
- Input/output SomIP (BroadR-Reach)
- Input Xbox controller
- Input trace files
- Input/output MQTT client

SYSTEM REQUIREMENTS

- Windows from version 7
- Visual Studio C# from 2013

CONTACT

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