

Results on Work Package 3.2 (WP3.2) work within AIDE

AIDE WP3.2 entitled “Specifications and system Architecture” aims to specify the technical functional requirements and the functional reference architecture of the AIDE system. This includes the basic functional specifications for the adaptive interface functions to be developed in WP3.4 and the driver-vehicle-environment monitoring modules developed in WP3.3.

The first step in the design and development of the AIDE system was to define the scenarios and use cases that the AIDE system should address. The AIDE system is intended to work as an overall manager of the in-vehicle HMI. Thus the use case and scenario description is based on a more generalised concept called “*meta*” functions. The HMI management “meta”-functions are functions intended to manage the interaction between the driver and the car, taking into account the momentary state of the driver, the vehicle and the environment (DVE), including driver characteristics and preferences. Examples of such meta-functions include termination, interruption or resumption of output messages or change of output format according to DVE data and/or due to other running system output. The AIDE user needs, use cases and design scenarios are documented in AIDE [Deliverable 3.1.2](#).

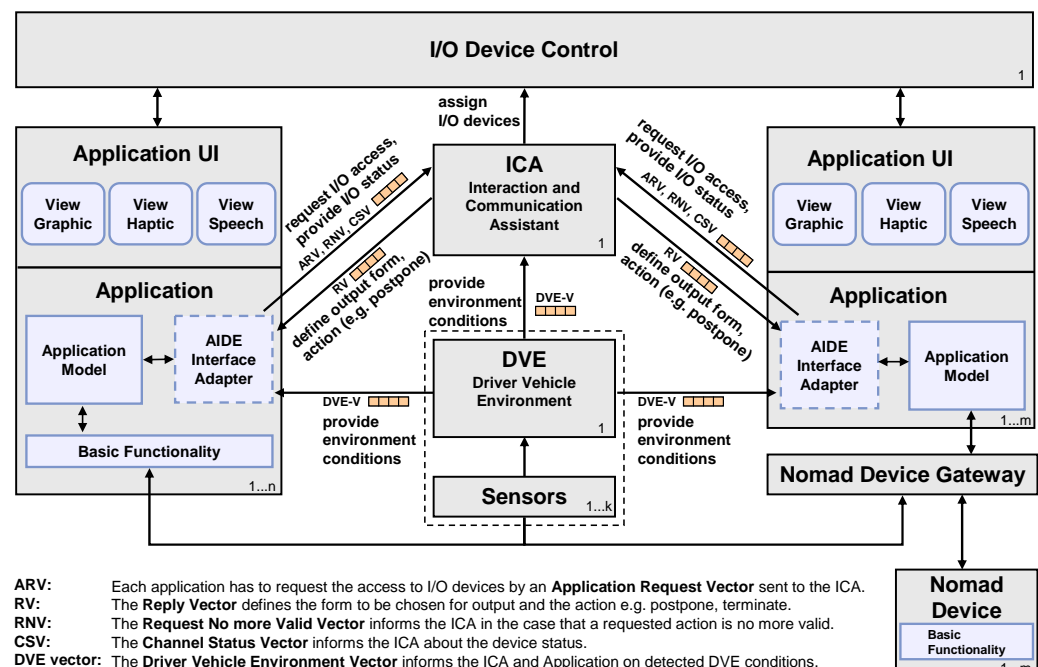
Based on the user needs analysis and the defined scenarios and use cases, a set of basic requirements for the AIDE system were derived. These included functional as well as non-functional requirements, where the former refers to the required functionality of the system (e.g. the AIDE meta-functions, the supported I/O devices, supported nomadic device integration functionality etc.) and the latter refers to technological requirements such as scalability, modularity etc. The AIDE requirements are documented in [AIDE Deliverable 3.2.1](#).

Based on the [design scenarios](#) and [requirements](#), a general [functional reference architecture](#) has been developed. The basic functional reference architecture is shown in the following figure.

A central intelligent communication assistant called ICA is performing the management and adaptation functionality.

Since HMI strategies and system extend, concerning I/O devices and applications, differs between different vehicle manufacturers and between different car segments, modularity and flexibility are the most important requirements. For those reasons it is important to note that the AIDE architecture description is independent from a concrete implementation, because they differ

widely between the OEM’s. This mechanism also holds for the virtual applications connected to the nomad devices. The AIDE architecture is documented in [AIDE Deliverable 3.2.2](#).



This object oriented, modular and flexible designed architecture hopefully leads to a widely accepted approach also outside of AIDE. For more information visit the AIDE website www.aide-eu.org.