A Description Language for Rich Component Models in Automotive Software

Task

Due to the growing complexity of current automotive electronics and the lack of standards in this field, it is necessary to have a method for specifying the software architecture of modern cars, that lets us improve the exchangeability and reusability of the developed components. One way to specify this functional network is using an ADL that may describe the behaviour of the functions and the connections between them, building conceptual models of the elements (i.e. rich component models). In this thesis, a modular and extensible language, based on the XML standard, is presented to describe formally this models within the automotive domain.

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