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Design and Implementation of a Terminology Management System for Automotive Testbenches based on Namespacing schemes

Abstract:

Todays testbenches within the automotive industriy are highly complex systems with a big number of sensors, measured values or other attributes.

To ensure exchangeability of testbench components and applications, there is a need for mechanisms to standardize names that get applied to those attributes for identification purposes. The terminologies themself can be concatenated from a set of vocabulary entries. This will help standardizing terminologies and enforcing naming schemes.

This requirements can be extended so that this defined Terminologies come with additional semantics. They can deliver e.g. Units, Physical Dimension or descriptions of themselves. This additional information has to be applied to a target attribute when the corresponding terminology is applied.

This requirements will be realized using the concept of namespaces to organize terminologies in a hierarchical tree.

The implementation of this terminology management system has to be able to communate with the Cdl Object Model and other services provided by FACE including persistence and library management. The Terminology editor will be used for creating and editing existing terminologies wherease the terminology browser will provide a context sensitive terminology lookup.

The goal of the master thesis will be the design and implementation of the system described above.

Date of Assignment: January 2009

Estimated Completion Date: May 2009