

Abstract

The AUTOSAR standard family became an important and acknowledged standard by establishing a common ‘language’ for the automotive industry. Before that a unified software architecture never existed. Nowadays there are a lot of electronic control units in cars that need to communicate with each other and build up a whole communication system. Among others, this communication is established by Large Data COM.

During the implementation of Large Data COM, its specification, especially its requirements guided me. As it was my first module implementation a lot of things were brand new but I was able to overcome the difficulties. The biggest challenge was the function pointer-based solution for the configured named functions but some literature research helped me out.

In my thesis I pointed out the function of the communication modules in the communication layer, the communication layer itself and the main function of the Large Data COM module. After examining the requirement list, I implemented the static part of the code which does not depend on the configuration. The dynamic part of the code with the code generator came just after that. The static code was written in C while the dynamic code was written in Java. As for the testing I implemented the so called ‘smoke test’ which does not include the whole module test but it only tests the basic function of the module.