

AUTOMOTIVE APPLICATION RECOMMENDATION

TESTSUITE: AUTOMOTIVE APPLICATION RECOMMENDATION FOR MOST CORE FUNCTIONALITY

The objective of the Automotive Application Recommendation Core (AAR Core) is to encourage in adding quality verification tests beyond the compliance verification standard. Application recommendation includes much more content in quality testing which leads to better qualification and characterization of tested MOST devices.

Benefits:

- ➔ AAR Core saves resources because of its high degree of standardisation (Figure A)
- ➔ AAR Core finds more critical characteristics of ECUs as normal network testing because of its statistic methods (Figure B)
- ➔ AAR Core with its unique report including a Quality-Index gives a good overview about the quality and robustness of the tested devices
- ➔ The Quality-Index is feasible and suitable for management reports
- ➔ AAR Core is available as a service in the MOST Compliance Test House of RUETZ SYSTEM SOLUTIONS
- ➔ AAR Core is available as an automated TTsuite MOST test suite

Using Application Recommendation standardized testing as basis for System Integration of Infotainment Systems

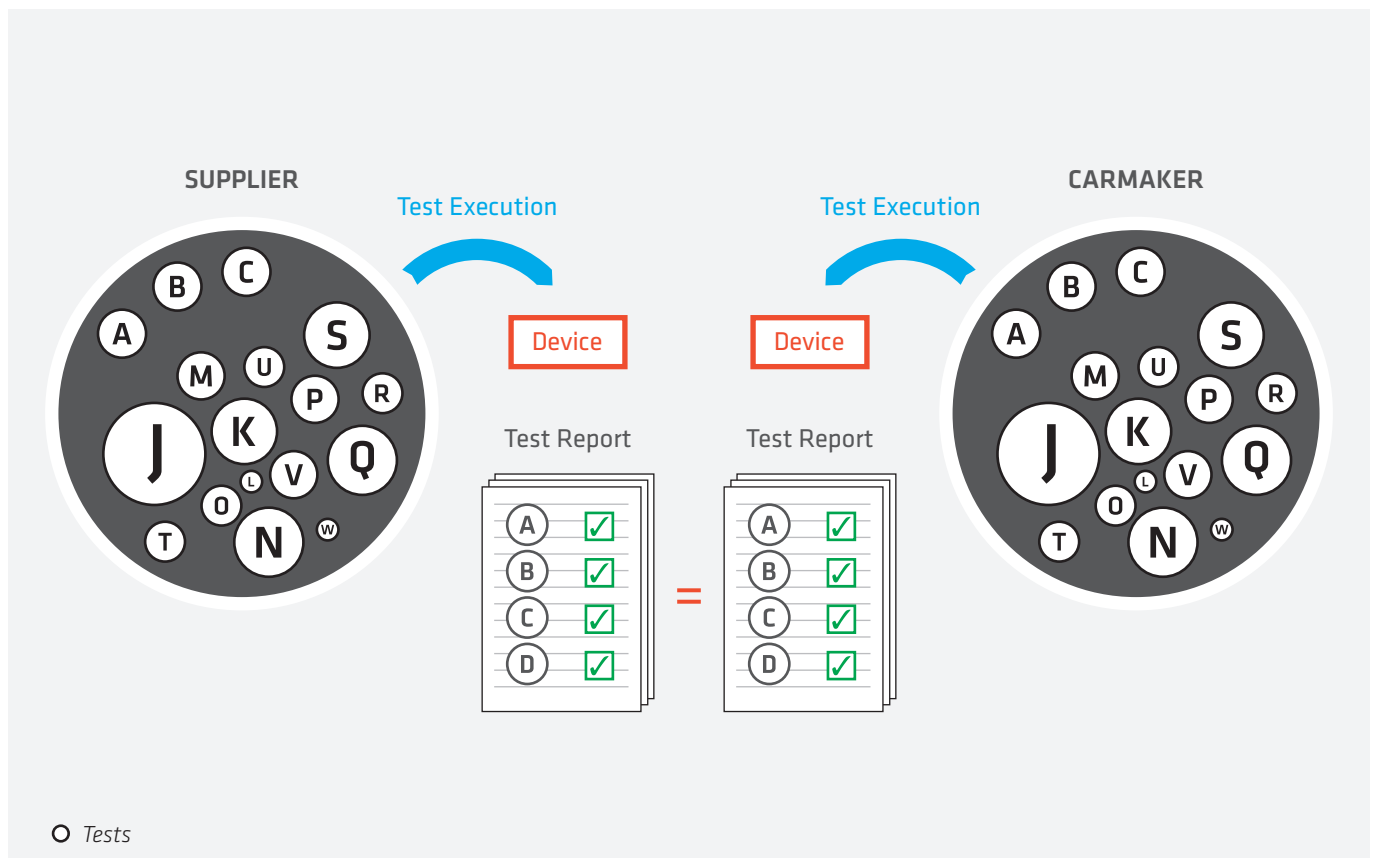


Figure A

EXAMPLE:

Wakeup/Shutdown Test

$t_config(min) (1.975\text{ ms}) \geq \text{time}$
 $\leq t_config(max) (2.015\text{ ms})$

This simple example shows a **critical characteristic of an ECU** even though **most executed tests are passed**.

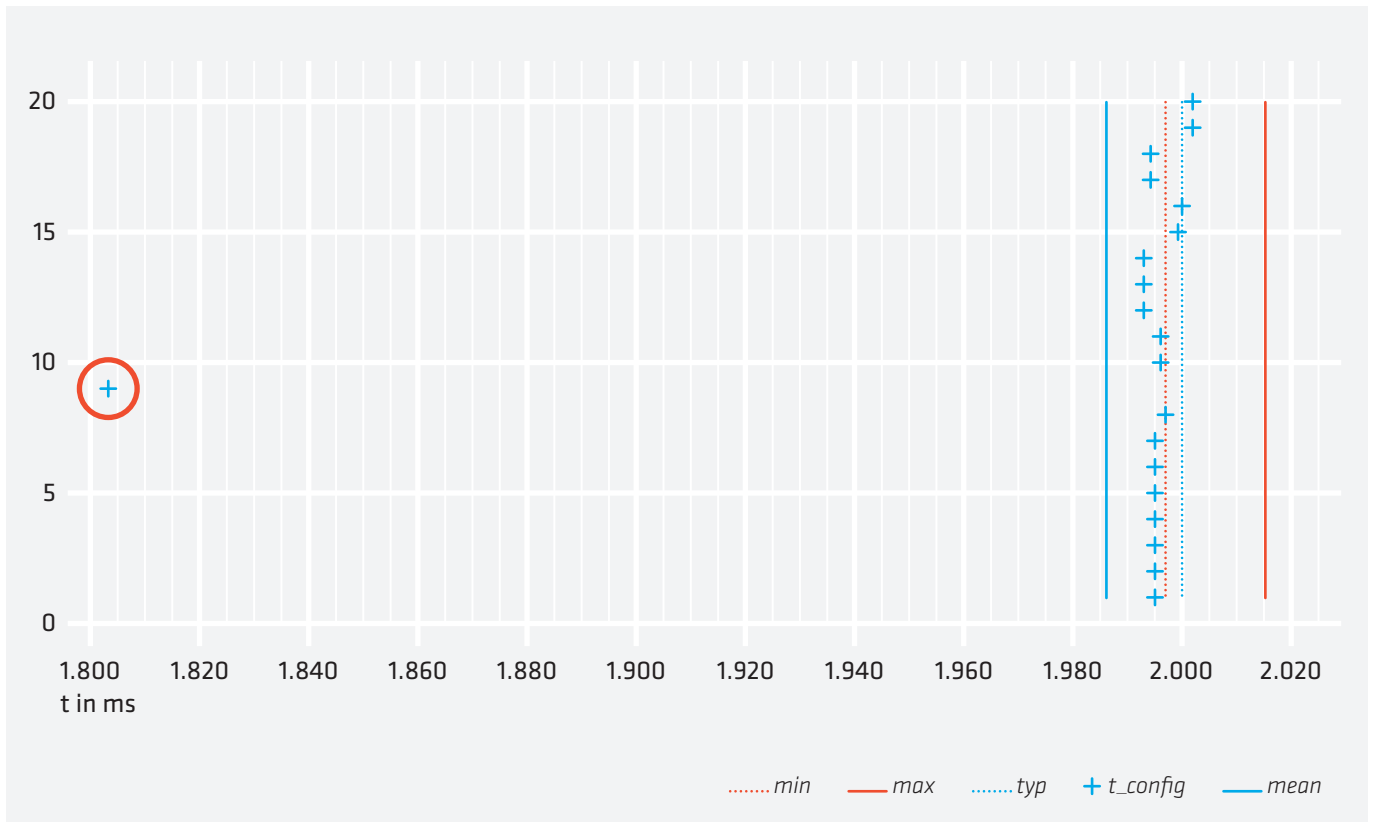


Figure B

Comments:

- classifies statistical distribution (Quality-Index A)
- classifies the mean value in comparison with the typical value (Quality-Index B)
- detects random occurrences of erroneous behaviour
- minimizes measurement uncertainty considerations (e.g. in this example are most values lower than minimum level)

Test Suite Details:

MOST Test Specification

- App_Rec_MOST_Core_Test_Specification_Part2_1v1 (and higher)

Reporting

- Reporting on different levels of detail in MOST analysis style
- Summary of test results

System Requirements

- TTSuite MOST Developer or Executable + Fcat Import
- Standard PC 2 GB RAM / Windows 2000, XP, Java JRE
- Depending on the MOST Version: 2 x SMSC Optolyzer G2 3025o or G2 3050e or G2 3150o
- Depending on the MOST Version: Softing EDICNET MOST for MOST25, MOST50 ePhy or MOST150

Additional Function:

- Interface to HP Quality Center / Test Director