Elektrobit

EB tresos Safety RTE release notes

Product Release 5.5

Technical support

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Table of Contents

1. Release Notes

1.1. General Information

Release:

- EB tresos Safety RTE 5.5.0 [revision B604689]
- Rte Code Verifier 5.5.0

Date:

2023-01-30

Supplier:

Elektrobit Automotive GmbH

1.2. Prerequisites

EB tresos Studio version:

29.2.0

EB tresos AutoCore Generic 8 RTE version:

6.9.2

Java version:

8

1.3. Change log

This chapter lists the changes between different versions.

Module version 5.5.0

2022-11-16

- ASCRTECV-2517 Fixed known issue: The RteCV stops with an error if a generated pattern is too big
- Removed the test generator plugin

Module version 5.4.0

2022-08-24

- ASCRTECV-2408 Fixed known issue: The RteCV does not generate patterns for data handle buffer types and component data structure types under certain circumstances
- ASCRTECV-2418 Fixed known issue: The detailed review instruction for event declarations is too strict
- ASCRTECV-2409 Fixed known issue: Code checks fail if there is a runnable with implicit read and write access to the same VariableDataPrototype
- ASCRTECV-2413 Fixed known issue: The RteCV generates the RTE data model reports incorrectly
- ASCRTECV-2410 Fixed known issue: The RteCV executes introspection checks for unsupported sender/receiver features
- Add command line option to print the current version of the RteCV
- Added support for structure implementation data types with optional elements
- Added support for application data types
- ASCRTECV-2406 Fixed known issue: Code checks for implementation data type fail if an array with SubElements of category ARRAY is configured
- ASCRTECV-2428 Fixed known issue: RteCV generates wrong task patterns if runnables have implicit read/write access and different execution conditions

Module version 5.3.0

2022-05-04

- ASCRTECV-2346 Fixed known issue: The RteCV generates wrong pattern if the task type is set to EXTENDED
- ASCRTECV-2347 Fixed known issue: The RteCV generates wrong patterns if several timing events of an extended task have the same period
- Added support for implicit intra-ECU sender/receiver communication
- Added support for pointer implementation data type usage in PortInterfaces

Module version 5.2.4

2021-12-07

- Added support to allow direct server calls where the server runnable has an exclusiveArea of runsInsideExclusiveArea type

Module version 5.2.3

2021-09-03

- ASCRTECV-2288 Fixed known issue: The RteCV does not check all SchM lifecycle APIs if not all BSW module instances are mapped to the BSW partition
- ASCRTECV-2291 Fixed known issue: The RteCV generates wrong patterns if client and server PortInterfaces use different names for the ClientServerOperation ArgumentDataProtoTypes
- ASCRTECV-2292 Fixed known issue: The RteCV generates wrong patterns if client and server compatible PortInterfaces use different array ImplementationDataTypes

Module version 5.2.2

2021-05-21

- ASCRTECV-2147 Fixed known issue: Code checks for the extern function definition for server runnables fail if RunnableEntityArguments are configured
- ASCRTECV-2166 Fixed known issue: Code checks can fail if a runnable of a sender-receiver connection is not mapped to a task
- ASCRTECV-2183 Fixed known issue: The RteCV reports an unknown property error if option RteCV.-Option.DataModelFile is used in the option file
- ASCRTECV-2175 Fixed known issue: The RteCV reports a broken test case if /Rte/RteGeneration/SingleScheduleTablePartitionRef is enabled and set
- ASCRTECV-2185 Fixed known issue: RteCV reports an error if client-server PPortPrototype is unconnected
- ASCRTECV-2184 Fixed known issue: The RteCV generates wrong patterns if client and server PortInterfaces use different ImplementationDataTypes with identical ClientServerOperation ArgumentDataPrototypes names
- ASCRTECV-2201 Fixed known issue: Memory corruption of shared buffers on QM partition may cause missing messages
- Added introspection checker to perform abstract syntax tree based static code checks

Module version 5.2.1

2020-12-17

- ASCRTECV-2101 Fixed known issue: Code checks for Rte_Call API functions fails if the ClientServerOperation does not have any ArgumentDataPrototypes
- ASCRTECV-2100 Fixed known issue: Code checks for Rte_Call API functions fails if PortDefinedArgumentValues are configured

- ASCRTECV-2106 Fixed known issue: Code checks for OsTasks with scenario A2 are failing because of a wrong order of called executable entities in the generated patterns
- ASCRTECV-2107 Fixed known issue: Code checks for OsTasks with scenario A2 fail if an executable entity is triggered by different events with the same period
- Added automated checker to find violations of the Safety RTE limitations in the configuration

Module version 5.2.0

2020-08-31

- ASCRTECV-1053 Fixed known issue: Code checks can be executed by the RteCV for unsupported feature variants
- Internal module improvements on the data model
- ASCRTECV-1996 Fixed known issue: Code checks for OsTasks with scenario A1 or A2 fail if more than one executable entity is started with the same execution condition

Module version 5.1.1

2020-04-17

- ASCRTECV-1827 Fixed known issue: Code checks fail if a pattern contains an invalid capture group name

Module version 5.1.0

2019-12-11

- ASCRTECV-1690 Fixed known issue: The RteCV generates wrong patterns for RunsInsideExclusiveAreas
- ASCRTECV-1695 Fixed known issue: The RteCV generates wrong patterns for different but also compatible port interfaces
- Added support for multicore

Module version 5.0.1

2019-08-14

- ASCRTECV-1607 Fixed known issue: The RteCV generates wrong patterns for BSW exclusive areas with OS_RESOURCE mechanism

- ASCRTECV-1610 Fixed known issue: The RteCV does not recognize source files which are passed with an option file
- ASCRTECV-1643 Fixed known issue: The RteCV does not evaluate the SwDataDefProps if multiple ImplementationDataTypes with the same shortName exist

Module version 5.0.0

2019-05-01

- Integrated new Rte data model
- Added Rte data model report generator

Module version 4.1.2

2019-02-07

- ASCRTECV-1393 Fixed known issue: The test generator fails if the data model contains sender-receiver connections with complex data types
- ASCRTECV-1442 Fixed known issue: Task checker may incorrectly fail if a timing event has the same period as the task
- ASCRTECV-1488 Fixed known issue: Lifecycle code checks fail if the BswOsTask is solely assigned to a partition
- ASCRTECV-1486 Fixed known issue: The RteCV generates wrong patterns if more than two partitions are used

Module version 4.1.1

2018-08-31

- Added static code checks for inter-runnable variables
- Added support for user defined patterns
- ASCRTECV-1272 Fixed known issue: Code checks for Rte and SchM schedule tables may incorrectly fail
- ASCRTECV-1307 Fixed known issue: The RteCV fails without any errors or warnings if the RteCV log file has no write permissions

Module version 4.1.0

2018-03-23

- ASCRTECV-1167 Fixed known issue: NullPointerException if a client-server port is not connected
- ASCRTECV-1165 Fixed known issue: ClassCastException when configuration with queued sender-receiver communication is passed to RteCV
- ASCRTECV-1178 Fixed known issue: Verification of the Rte_StartScheduleTable Api mapping within the file Rte_Intern_<Partition>.h fails
- ASCRTECV-1166 Fixed known issue: Java Exception when an EcuC sub-container tag is not defined in EcuC configuration
- Added static code checks for inter-ECU transformers

Module version 4.0.0

2017-12-15

- Update to ACG-8.4

Module version 3.1.1

2017-12-01

- Internal module improvement. This module version update does not affect module functionality

Module version 3.1.0

2017-11-10

- Extended the EcuExtract creator for inter-ECU communication
- Added static code checks for exclusive area API functions
- Added static code checks for lifecycle API functions
- Added static code checks for sender/receiver read and write API functions
- Added highlighting of matched code patterns to the test report
- Added static code checks for SMC read write IP Functions
- Added static code checks for SMC send receive functions

Module version 3.0.4

2017-06-09

- Introduced static code checks for client server application errors

- Introduced static code checks for operation invoked events
- Introduced static code checks for Rte_Calls
- ASCRTECV-898 Fixed known issue: The manual review of sender receiver critical section protection is too restrictive
- ASCRTECV-899 Fixed known issue: The manual review of sender receiver critical section protection is not complete
- ASCRTECV-903 Fixed known issue: The manual review of ComSignal queue length may not be correct
- Introduced static code checks for implementation data types
- Introduced static code checks for SchM Lifecycle API
- Introduced static code checks for the generation of OsTasks

Module version 3.0.3

2017-03-24

- Updated support for inter-runnable variables
- Updated support for intra-ECU sender/receiver connections
- Updated support for synchronous client/server connections
- Updated support for inter-ECU sender/receiver connections

Module version 3.0.2

2016-11-04

- Introduced command-line parameter to select source files to be statically verified

Module version 3.0.1

2016-10-10

- Introduced the code verifier plugin API

Module version 3.0.0

2016-09-09

- The EB tresos Safety RTE supports now AUTOSAR 4.2.2 data model

- ASCRTECV-676 Fixed known issue: The RteCV reports the wrong output directory in log output when using the option file

Module version 2.0.7

2016-07-21

Module version 2.0.6

2016-06-19

- Added support for synchronous client/server connections

Module version 2.0.5

2016-04-19

- Internal module improvement. This module version update does not affect module functionality

Module version 2.0.4

2016-02-26

- Added support for inter-ECU sender/receiver connections
- Added support for implementation data types
- Added support for inter-runnable variables

Module version 2.0.3

2015-12-11

- Added support for ignoring unsupported data types used in sender/receiver connections
- Added support for explicit exclusive areas

Module version 2.0.2

2015-10-16

- Internal module improvement. This module version update does not affect module functionality

Module version 2.0.1

2015-09-18

- Initial version of the RteCV with basic sender/receiver tests
- Added support for life cycle APIs
- Added support for intra-ECU sender/receiver connections
- Added support for partition handling

Module version 2.0.0

2015-03-27

- Initial version for AUTOSAR version 4.0.3

Module version 1.0.0

2013-09-12

- Initial version for AUTOSAR 3.1 (internal only)