EB tresos Safety RTE release notes

Product Release 5.5

Technical support

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1. Release Notes

1.1. General Information

Release:

- ► EB tresos Safety RTE 5.5.0 [revision B632837]

- ► Rte Code Verifier 5.5.0

Date:

2023-04-14

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 EX-TENDED

▶ 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 runsInsid-eExclusiveArea 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)