

Release notes

RCA Baseline set 0, Release 1 - Update 02/2021

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1. RCA Baseline set 0, Release 1

RCA BL0 R1 is the fourth public release (after Alpha, Beta and Gamma) of the documents prepared by the RCA initiative.

- This release includes several new architecture documents. Content which belongs to the specification in strict sense is being prepared in a MBSE (model-based systems engineering) approach.
- The documentation structure is described in “RCA Documentation Plan” [RCA.Doc.6].
- Access: RCA releases are made directly available here <https://public.3.basecamp.com/p/Kee-hzqFmXv5R2N7tGDjaEokq> or through links on the EUG or EULYNX websites.
- The RCA Roadmap including planned releases for 2020 can be found in the [RCA.Doc.34].
- This release is not yet a complete or precise specification of RCA. It is likely that the architecture will change/evolve, based on feedback we expect from within and outside of the RCA group.

2. Imprint

- Publisher: RCA (an initiative of the ERTMS Users Group and EULYNX Consortium)
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3. New or updated content of RCA Baseline set 0, Release 1

The complete documentation plan can be found in [RCA.Doc.6]

Id	Name	Short description	Update BLO R1
RCA.Doc.1	RCA White Paper	The rationale for starting RCA. Foundation for MoU between EUG and EULYNX.	Unchanged
RCA.Doc.3	RCA Process Overview	How the RCA group works to prepare, maintain and bring the RCA specification to the sector.	Unchanged
RCA.Doc.5	RCA Release Notes	Description of current release of RCA deliverables.	Update 02/2021 0.2
RCA.Doc.6	RCA Documentation Plan	Overview of the documentation set of RCA	Update 02/2021 0.2 (0.A)
RCA.Doc.7	RCA FAQ	Frequently asked questions and answers regarding RCA. Useful for a quick overview.	Unchanged

RCA.Doc.8	Concept: Modular Safety	A modular architecture requires and enables concepts to reduce the safety workload.	Unchanged
RCA.Doc.10	Concept: RCA Effects - Business Case	The economic effects (savings) of an RCA-based implementation, based on smartrail 4.0 and extrapolated to other IMs.	Unchanged
RCA.Doc.11	Concept: Plattform Independence	The need to achieve more modularity between applications and the platforms.	Unchanged
RCA.Doc.12	Concept: RCA Effects - Capacity	The effects on traffic capacity for an RCA-based system.	Unchanged
RCA.Doc.13	Concept: Architectural approach / System-of-systems perspective	Architectural principles for the RCA.	Unchanged
RCA.Doc.14	RCA Glossary	Definition of used terms.	Update 0.2 (0.A)
RCA.Doc.15	RCA System Concept	A high-level description of the goals and fundamental concepts of RCA:	Unchanged
RCA.Doc.18	RCA Domain knowledge	Defines important domain concepts used in the specification.	New 0.2 (0.A)
RCA.Doc.28	Migration	Illustrates how migration towards an RCA-based system can be planned, including examples of different IMs.	Unchanged
RCA.Doc.29	Concept: LSL - Enhanced L3, Supervision, Localisation	Evolution of ETCS, rationale for submitted TSI CRs.	Unchanged
RCA.Doc.30	Concept: Principles of the safety logic	Geometric-based interlocking for more capacity and flexibility.	Unchanged
RCA.Doc.31	Concept: Operational plan	Concept for the standardized interface between RCA and a TMS.	Unchanged
RCA.Doc.32	Concept: Degraded modes	The role of degraded modes in specifying RCA.	Unchanged
RCA.Doc.33	Methods and Tooling	Describes the methods and tools used for developing the RCA specification.	Unchanged
RCA.Doc.34	RCA Roadmap	Overview planned development for RCA.	Unchanged
RCA.Doc.35	RCA System Architecture (merged): System Def, System Reqs, Sys Arch		New 0.2 (0.A)
RCA.Doc.36	RCA Documentation plan - Annex	Visualization of the documentation plan.	Unchanged
RCA.Doc.37	Concept: RCA effects overview	Overview of potential the effects / benefits of an RCA-based system.	Unchanged
RCA.Doc.40	RCA Architecture Poster	Diagram of the interface architecture of RCA.	Update 0.2 (0.A)
18E112	LWG: Railways Localisation System HL Users' Requirements	Provided by the Localisation Working Group of the EUG.	Unchanged
RCA.Doc.43	Concept: Informal Architecture Overview	Provides an informal overview, until the MBSE-generated documents are officially published.	Unchanged

RCA.Doc.45	(Cyber) Security Guideline	A guideline to and definition of a harmonized Security Risk Assessment for System Design process	New 02/2021 1.0 (0.A)
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Related documents:

- RCA white paper: the rationale for starting RCA, accessible here https://ertms.be/workgroups/ccs_architecture and here <https://www.eulynx.eu/index.php/home2/37-reference-ccs-architecture-white-paper>.
- Command and Control 4.0 by Josef Doppelbauer (ERA): https://www.era.europa.eu/sites/default/files/library/docs/command_and_control_en.pdf

4. Feedback for RCA

Feedback for RCA is welcome! If you would like to attend a workshop or give feedback, please contact rca@eulynx.eu.

RCA will inform if and how feedback is integrated in future work. RCA will continue to provide regular updates in the form of new releases (see “RCA roadmap” [RCA.Doc.34]).

5. Authors and Reviewers of RCA

The RCA initiative is initiated and supported by EUG and EULYNX.

RCA BL0 R1 has been reviewed by members of the RCA Core Group and third parties including: DB, Pro-Rail, SBB, Infrabel, BaneNOR.