OCORA

Open CCS On-board Reference Architecture

Release Notes

Revision history

Version	Change Description	Initial	Date of change
0.90	• DRAFT version for Review	RM	18.11.2021
1.00	Official version for OCORA Release R1	RM	06.12.2021

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1 Release Delta

The OCORA Release R1 is the fifth release (after Alpha, Beta, Gamma and Delta) of documents prepared by the OCORA cooperation.

- OCORA R1 adds new content and provides deeper insight into a selection of topics.
- It completely replaces the OCORA Alpha, Beta, Gamma and Delta Release.

OCORA Release R1 provides its content in a structured manner and provides topic specific documents. An overview is given in chapter 5 Content, highlights are:

- An updated Economic Model, including new User Manual, Model Description and CCS System Life Cycle Costing Scenario Studies
- An additional document out of the Acceptance of Global Standards workstream regarding the "Cartography of Standards"
- Significantly enriched System Capability and updated System Architecture documentation
- A new document about localisation introduction and requirements for ETCS L3 present
- A new document: Specification of the platform independent API between application and platform
- Enriched modular safety documentation with evolution and SRAC management
- New document about software test and integration engineering according to EN 50657 or EN 50128

2 Imprint

- Publisher: OCORA Cooperation
- Channel: OCORA publishes exclusively over https://github.com/OCORA-Public/Publication
- OCORA liaison partners: UIC TOBA, RCA, CER
- Any feedback for OCORA is welcome! If you would like to attend a workshop or give a feedback, please contact jean-baptiste.simonnet@sncf.fr . For specific feedback the *OCORA-BWS01-040 – Feedback Form* shall be used.
- For active collaboration (within the OCORA framework) the OCORA Code of Conduct must be accepted and signed. In case of interest for active collaboration and you are eligible to become a partner according to the OCORA Code of conduct, please drop a "interest of becoming a OCORA member by E-mail" to rolf.muehlemann2@sbb.ch .
- All OCORA deliverables and work will be published and licensed under the dual licensing Terms EUPL 1.2 (Commission Implementing Decision (EU) 2017/863 of 18 May 2017) and the terms and condition of the Attributions- ShareAlike 3.0 Unported license or its national version (in particular CC-BY -SA 3.0 DE).

3 Capella Model publishing Announcement

In addition to the official OCORA releases, frequent publications of the Capella Model shall facilitate discussions with other initiatives (e.g. RCA, X2Rail4, LinX4Rail) and/or potential suppliers without overreaching someone. Model updates will be available for download on OCORA public GitHub.

4 Authors and Reviewers

The OCORA Delta Release has been reviewed by several technical experts, approved by the OCORA Coreteam and endorsed for publication by the OCORA Steering Committee.

5 Content

Doc ID – Doc Title	Change	Version
Release Documentation from Business Workstream BWS01		
OCORA-BWS01-010 – Release Notes	Content Overview	1.00
OCORA-BWS01-020 – Glossary	Minimal update for R1	3.00
OCORA-BWS01-030 – Question and Answers	Minimal update for R1	3.00
OCORA-BWS01-040 – Feedback Form	Updated Doc list for R1	1.00
Communication Material from Business Workstream BWS02		
OCORA-BWS02-010 – Executive Summary Slide Deck	Update for R1	1.00
OCORA-BWS02-020 – Program Slide Deck	Update for R1	1.00
OCORA-BWS02-030 – Technical Slide Deck	Update for R1	2.01
OCORA-BWS02-040 – Program Posters	Update for R1	1.00
OCORA-BWS02-050 – Technical Posters	Update for R1	2.01
Program Documentation from Business Workstreams BWS03-09	Update for R1	
OCORA-BWS03-010 – Introduction to OCORA	Minimal update for R1	5.00
OCORA-BWS03-020 – Guiding Principles	Minimal update for R1	2.00
OCORA-BWS04-010 – Problem Statements	Minimal update for R1	3.00
OCORA-BWS05-010 – Road Map	Update for R1	1.00
OCORA-BWS05-020 – Minimal Viable Product	Update for R1	1.00
OCORA-BWS06-010 – Economic Model – Guiding Principles - Assumptions - Assessment Criteria	Update for R1	2.00
OCORA-BWS06-020 – Economic Model	Update for R1	2.00
OCORA-BWS06-030 – Economic Model – Model Description	New document for R1	2.00
OCORA-BWS06-040 – Economic Model – User Manual	New document for R1	1.00
OCORA-BWS06-050 – Economic Model – CCS System Life Cycle Costing Scenario Studies	New document for R1	1.00
OCORA-BWS07-010 – Alliances	Update for R1	3.00
OCORA-BWS07-020 – CCS On-board for Europes Rail Joint Undertaking	Update for R1	3.00
OCORA-BWS08-010 – Methodology	Update for R1	2.00
OCORA-BWS08-020 – Tooling	Minimal update for R1	3.00
OCORA-BWS09-010 – Acceptance of Global Standards – Overview	Minimal update for R1	3.00
OCORA-BWS09-020 – Acceptance of Global Standards – Focus on Safety in CCS	Update for R1	2.00
OCORA-BWS09-030 – Acceptance of Global Standards – Cartography of Standards	New document for R1	2.00
Technical Documentation from Technical Workstreams TWS01-15		
OCORA-TWS01-010 – Design Requirements	Update for R1 (Polarion export)	2.00
OCORA-TWS01-020 – System Capabilities	New document for R1	1.00
OCORA-TWS01-030 – System Architecture	Update for R1	1.00
OCORA-TWS01-040 – Capella Modelling	Update for R1	2.01
OCORA-TWS01-050 – Capella Model Export	Update for R1	03.12.2021
OCORA-TWS01-100 – Localisation On-Board (LOC-OB) – Introduction	New document for R1	1.01
OCORA-TWS01-101 – Localisation On-Board (LOC-OB) – Requirements	New for R1 (Polarion export)	1.00
OCORA-TWS01-112 – Automatic Train Protection On-Board (ATP-OB) – MLM Interface Analysis	New document for R1	1.01
OCORA-TWS02-010 – CCS Communication Network – Evaluation	Update for R1	2.00
OCORA-TWS02-020 – CCS Communication Network – Proof of Concept (PoC)	Update for R1	2.00
OCORA-TWS03-010 – SCP – Whitepaper Computing Platform for Railway Applications	Re-Publication	1.10
OCORA-TWS03-020 – SCP – High-Level Requirements	Update for R1	3.00
OCORA-TWS03-030 – SCP – Draft Initial Specification of the PI API between Application and Platform	New document for R1	1.00
OCORA-TWS04-010 – Functional Vehicle Adapter – Introduction	Re-Publication	4.00
OCORA-TWS04-011 – Functional Vehicle Adapter – Requirements	Update for R1 (Polarion export)	2.00
OCORA-TWS04-012 – Functional Vehicle Adapter – Standard Communication Interface Specification	Update for R1	2.00
OCORA-TWS04-013 – Functional Vehicle Adapter – Design Guideline	Update for R1	2.00
OCORA-TWS05-010 – Requirements – Management Guideline	Update for R1 (Polarion export)	2.01
OCORA-TWS05-020 – Stakeholder Requirements	Update for R1 (Polarion export)	2.00
OCORA-TWS05-021 – Program Requirements	Update for R1 (Polarion export)	2.00
OCORA-TWS06-010 – (Cyber-) Security – Project Security Management Plan	Update for R1	2.00
OCORA-TWS06-020 – (Cyber-) Security – Guideline	Update for R2	1.00
OCORA-TWS07-010 – Modular Safety – Strategy	Re-Publication	1.01
OCORA-TWS07-020 – Modular Safety – Evolution Management	Update for R1	2.00
OCORA-TWS07-030 – Modular Safety – SRAC Management	New document for R1	2.01
OCORA-TWS09-010 – Testing – Strategy	New document for R1	2.01
OCORA-TWS09-020 – Testing – Benchmarking Report Modular Testing	New document for R2	2.00
OCORA-TWS09-030 – Testing – Software Test and Integration Engineering acc. EN50657 or EN50128	Update for R1	2.01
OCORA-TWS10-010 – CENELEC Phase 1 – Concept	Update for R1	2.00

Table 1   Release Documents and Content