

OCORA

Open CCS On-board Reference Architecture

Release Notes

OCORA Release R3

This OCORA work is 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).



Document ID: OCORA-BWS01-010

Version: 1.00

Date: 09.12.2022

Revision history

Version	Change Description	Initial	Date of change
0.90	• DRAFT version for Review	RM	17.11.2022
1.00	Official version for Release	RM	09.12.2022

Table of contents

1	Release	3
2	Imprint	3
3	Capella Model publishing Announcement	3
4	Authors and Reviewers	3
5	Content	4

Table of tables

Table 1	Release Documents and Content	4
----------------	-------------------------------------	---

1 Release

The OCORA Release R3 is the seventh release (after Alpha, Beta, Gamma, Delta, R1 and R2) of documents prepared by the OCORA cooperation.

- OCORA R3 adds new content and provides deeper insight into a selection of topics.
- It completely replaces the OCORA Alpha, Beta, Gamma, Delta, R1 and R2 Release.

OCORA Release R3 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
- New Concept on Configuration Management
- Significantly enriched Operational & System Analysis
- Results of the Architecture synchronization of X2Rail4 and RCA
- Enriched investigation results related to the need for TRDP in the CCS Communication Network
- Requirements on Monitoring, Configuration, Diagnoses and Maintenance
- Final Concept for the PoC on Online Monitoring System SS-149

2 Imprint

- Publisher: OCORA Cooperation
- Channel: OCORA publishes exclusively over <https://github.com/OCORA-Public/Publication>
- Any feedback for OCORA is welcome! If you would like to attend a workshop or give a feedback, please contact rolf.muehlemann2@sbb.ch . 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 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	Update for R3	1.00
OCORA-BWS01-020	Glossary	Minimal update for R3	3.21
OCORA-BWS01-030	Question and Answers	No change	4.00
OCORA-BWS01-040	Feedback Form	Updated Doc list for R3	1.10
Communication Material from Business Workstream BWS02			
OCORA-BWS02-010	Executive Summary Slide Deck	Update for R3	1.01
OCORA-BWS02-020	Program Slide Deck	Update for R3	1.01
OCORA-BWS02-030	Technical Slide Deck	Update for R3	3.00
OCORA-BWS02-040	Program Posters	Update for R3	1.11
OCORA-BWS02-050	Technical Posters	Update for R3	3.00
Program Documentation from Business Workstreams BWS03-09			
OCORA-BWS03-010	Introduction to OCORA	Minimal update for R3	6.10
OCORA-BWS03-020	Guiding Principles	No change	2.01
OCORA-BWS04-010	Problem Statements	Minimal update for R3	4.10
OCORA-BWS05-010	Road Map	Update for R3	2.10
OCORA-BWS06-010	Economic Model – Guiding Principles - Assumptions - Assessment Criteria	No change	2.01
OCORA-BWS06-020	Economic Model	Update for R3	1.00
OCORA-BWS06-030	Economic Model – Model Description	No change	2.01
OCORA-BWS06-040	Economic Model – User Manual	No change	2.01
OCORA-BWS06-050	Economic Model – CCS System Life Cycle Costing Scenario Studies	No change	1.01
OCORA-BWS06-060	Economic Model – CCS Impact on Vehicle System Life Cycle Costing Scenario Studies	No change	1.00
OCORA-BWS06-070	Economic Model – Evolution of the modeling	New for R3	1.00
OCORA-BWS07-010	Alliances	Update for R3	4.11
OCORA-BWS08-010	Methodology	No change	3.01
OCORA-BWS08-020	Tooling	No change	3.10
OCORA-BWS09-010	Acceptance of Global Standards – Overview	No change	3.01
OCORA-BWS09-020	Acceptance of Global Standards – Focus on Safety in CCS	No change	2.01
OCORA-BWS09-030	Acceptance of Global Standards – Cartography of Standards	No change	1.01
OCORA-BWS09-040	Acceptance of Global Standards – Assessment of Railway Sectoral Needs	No change	2.10
Technical Documentation from Technical Workstreams TWS01-15			
OCORA-TWS01-010	Design Requirements	No change	2.10
OCORA-TWS01-020	Operational & System Analysis	Update for R3	3.00
OCORA-TWS01-030	System Architecture	Update for R3	3.00
OCORA-TWS01-035	CCS On-Board (CCS-OB) – Architecture	Update for R3	3.00
OCORA-TWS01-040	Capella Modelling	Update for R3	3.10
OCORA-TWS01-041	MBSE Modelling Guidelines	Update for R3	2.00
OCORA-TWS01-050	Capella Model Export	Update for R3	08.12.2022
OCORA-TWS01-100	Localisation On-Board (LOC-OB) – Introduction	Update for R3	3.00
OCORA-TWS01-101	Localisation On-Board (LOC-OB) – Requirements	Update for R3	3.00
EUG 22E126	LOC-OB System Definition & Operational Context	Update for R3	1.1
EUG 22E135	LOC-OB Risk Analysis	Update for R3 (available by December 2023)	
OCORA-TWS01-112	Automated Train Protection On-Board (ATP-OB) – MLM Interface Analysis	No change	1.10
OCORA-TWS02-010	CCS Communication Network – Evaluation	Update for R3	4.00
OCORA-TWS02-020	CCS Communication Network – Proof of Concept (PoC)	Update for R3	4.00
OCORA-TWS03-010	SCP – Whitepaper Computing Platform for Railway Applications	No change	1.10
OCORA-TWS03-020	SCP – High-Level Requirements	Update for R3	4.10
OCORA-TWS03-030	SCP – Specification of the PI API between Application and Platform	No change	2.00
OCORA-TWS04-010	Functional Vehicle Adapter – Introduction	Update for R3	6.00
OCORA-TWS04-011	Functional Vehicle Adapter – Requirements	No change	3.00
OCORA-TWS04-012	TCMS – Standard Communication Interface Specification	Update for R3	4.00
OCORA-TWS05-010	Requirements – Management Guideline	No change	2.20
OCORA-TWS05-020	Stakeholder Requirements	Minimal update for R3	2.11
OCORA-TWS05-021	Program Requirements	No change	2.10
OCORA-TWS06-010	(Cyber-) Security – Project Security Management Plan	Update for R3	4.00
OCORA-TWS06-030	(Cyber-) Security – Concept	Update for R3	2.00
OCORA-TWS07-010	RAMS – Modular Safety Strategy	Update for R3	3.30
OCORA-TWS07-020	RAMS – Evolution Management	Update for R3	3.40
OCORA-TWS07-030	RAMS – SRAC/AC Management	No change	2.60
OCORA-TWS07-040	RAMS – Optimized Approval Process	Update for R3	2.20
OCORA-TWS07-050	RAMS – RAM Strategy	Update for R3	2.00
OCORA-TWS07-060	Configuration Management – Concept	New for R3	1.10
OCORA-TWS07-100	CENELEC Phase 1 – Concept	No change	2.30
OCORA-TWS07-201	GRAMSS – GRAMS Strategy	New for R3	1.01
OCORA-TWS08-010	MDCM-OB – Introduction	Minimal update for R3	1.02
OCORA-TWS08-030	MDCM-OB – SRS	New for R3	1.00
OCORA-TWS09-010	Testing – Strategy	Update for R3	4.01
OCORA-TWS09-011	Testing – Requirements	Minimal update for R3	2.00
OCORA-TWS09-050	Testing – Cybersecurity Testing Strategy	New for R3	1.00
OCORA-TWS09-110	Train Adapter Block Integration Plan	No change	1.00
OCORA-TWS09-111	Testing – Testplan Functional Vehicle Adapter	New for R3	1.01
OCORA-TWS15-040	CCS-OB Retrofit - Guideline for Projects	New for R3	1.01
OCORA-TWS15-050	PoC OMS SS-149 - Concept	Update for R3	1.10

Table 1 Release Documents and Content