OETCS/WP2/D01

openETCS

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INFORMATION TECHNOLOGY FOR EUROPEAN ADVANCEMENT

ITEA2 Project
2012 – 2015

Work-Package 2: “Requirements”

SRS subset for modelling tool benchmarking

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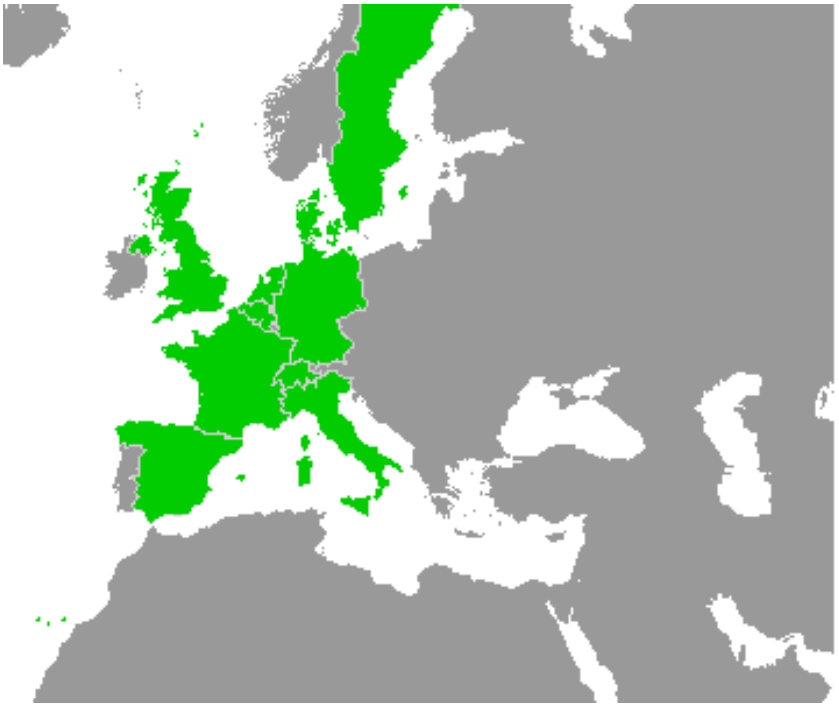
November 2012



SRS subset for modelling tool benchmarking

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Requirements

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Abstract: This document defines the subset of SRS SUBSET-026 that should be used to evaluate modelling tools.

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1 Introduction

One goal of openETCS is to make a model of the ERTMS/ETCS System Requirement Specification (SRS). Several tools are possible to make this model. In order to evaluate them, we need to define a subset of the SRS that would be modelled by each tool, therefore allowing to compare the tools on the same basis.

This document defines this subset of SRS.

2 SRS Subset definition

The following paragraphs of UNISIG SUBSET-026 v3.3.0 should be used in the benchmarking model in order to evaluate a tool:

§3.5.3 Establishing a communication session Rationale: Sample of the communication part.

§3.6.3.2 Location, Continuous Profile Data and Non-Continuous Profile Data Rationale: example of complex generic data structure.

§3.8.3 Structure of Movement Authority and §3.8.5 Update of Movement Authority Rationale: example of complex procedure, with complex data.

§3.11.3 Static Speed Profile and §3.11.12 Gradients Rationale: example of data structure, referring to §3.6.3.2 and used by §3.13.4.

§3.13 ?? FIXME: We should find a representative subset of §3.13. Guillaume proposes §3.13.4 (Acceleration / Deceleration due to gradients). Stanislas and David think this is not enough.

§4.6.2 (Transitions Table) and §4.6.3 (Transitions Condition Table) Only transitions:

1. from SB to SH
2. from SB to FS
3. from SB to IS

Rationale: Having transitions at different priority level is important to look at priority issues and exclusion issues at the same priority level.

§4.8.3.2 From National System X (through STM interface) Rationale: Model a small table.

§5.9 Procedure On-Sight FIXME: §5.6 also proposed by Guillaume

Rationale: Procedure sample.

§8.7.2 Movement Authority message This includes reference to Packet 15 (§7.4.2.4). **FIXME: Maybe reference one optional packet**

Rationale: That would be a perfect use case for tools able to model things down to bit level.

