OETCS/WP2/D01

openETCS

ITEA2

INFORMATION TECHNOLOGY FOR EUROPEAN ADVANCEMENT

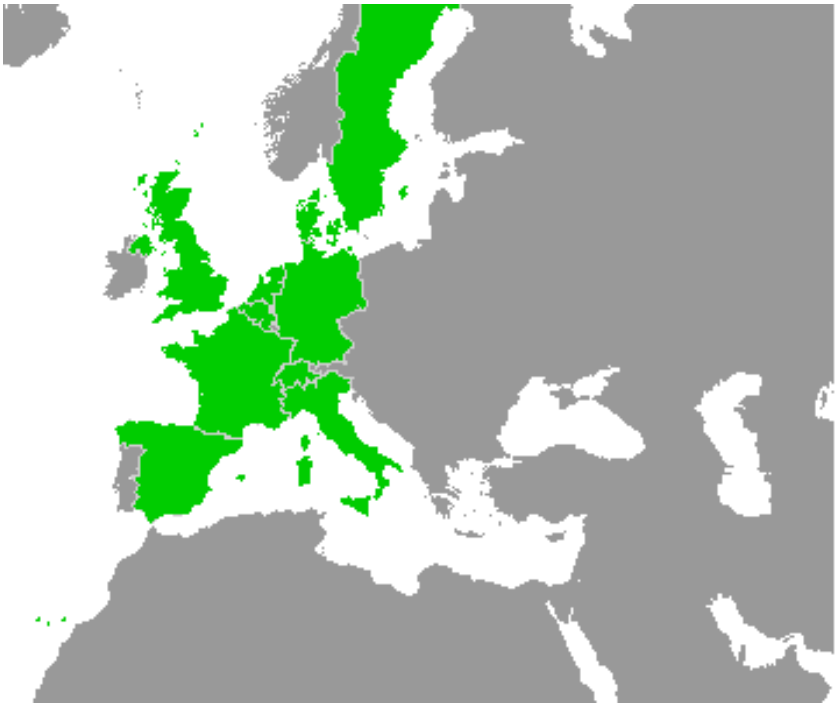
ITEA2 Project
2012 – 2015

Work-Package 2: “Requirements”

SRS subset for modelling tool benchmarking

David Mentré, Stanislas Pinte, Guillaume Pottier and WP2 participants

November 2012



SRS subset for modelling tool benchmarking

David Mentré

Mitsubishi Electric R&D Centre Europe

Stanislas Pinte

ERTMS Solution

Guillaume Pottier

SNCF

WP2 participants

OpenETCS

Requirements

Prepared for ITEA2 openETCS consortium
Europa

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

Table of Contents

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. This subset is divided into two subsets: a high priority subset that should be modeled first and a lower priority subset that should be modeled if time permits.

2.1 High priority items

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

FIXME **§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.

§5.9 Procedure On-Sight Rationale: Procedure sample, contains a timer. Procedure not too long compared to Start of Mission.

2.2 Lower priority items

§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.

§4.8.3.2 From National System X (through STM interface) Rationale: Model a small table.
FIXME FIXME: Isn't such a table redundant with §4.6.2?

FIXME **§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.

3 Other open questions

FIXME: Should we model an API? E.g. Odometer? Which reference document? FIXME

