

Work Package 4: "Validation &amp; Verification Strategy"

# First Validation and Verification Report on Implementation/Code

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**OETCS/WP4/D4.2.2  
November 2013**

# First Validation and Verification Report on Implementation/Code

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Description of work

Prepared for openETCS@ITEA2 Project

**Abstract:** This work package will comprise the activities concerned with verification and validation within openETCS. This includes verification & validation of development artifacts, that is, showing that models and code produced correctly express or implement what they are supposed to. And also, methods and tools to perform such tasks will be evaluated with the goal of assembling a suitable method and tool chain to support a full development.

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## **1 Introduction**

## **2 Formal Verification of Bitwalker**

### **2.1 Verification Objectives**

#### **2.1.1 Functionality**

#### **2.1.2 Robustness**

### **2.2 Informal Specification**

### **2.3 Formal Specification with ACSL**

### **2.4 Formal Verification with Frama-C/WP**

### **2.5 Open Issues**