Aerospace series - Modular and Open Avionics Architectures - Part 001: Architecture

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 4660-001:2011 sisaldab Euroopa standardi EN 4660-001:2011 ingliskeelset teksti.	This Estonian standard EVS-EN 4660-001:2011 consists of the English text of the European standard EN 4660-001:2011.
Standard on kinnitatud Eesti Standardikeskuse 31.03.2011 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.	This standard is ratified with the order of Estonian Centre for Standardisation dated 31.03.2011 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.
Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 23.02.2011.	Date of Availability of the European standard text 23.02.2011.
Standard on kättesaadav Eesti standardiorganisatsioonist.	The standard is available from Estonian standardisation organisation.

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

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English Version

Aerospace series - Modular and Open Avionics Architectures - Part 001: Architecture

Série aérospatiale - Architectures Avioniques Modulaires et
Ouvertes - Partie 001: Architecture

Luft- und Raumfahrt - Modulare und offene
Avionikarchitekturen - Teil 001: Architektur

This European Standard was approved by CEN on 26 June 2010.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (EN 4660-001:2011) has been prepared by the Aerospace and Defence Industries Association of Europe - Standardization (ASD-STAN).

After enquiries and votes carried out in accordance with the rules of this Association, this Standard has received the approval of the National Associations and the Official Services of the member countries of ASD, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2011, and conflicting national standards shall be withdrawn at the latest by August 2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

0 Introduction

0.1 Purpose

This document was produced under the ASAAC Phase II Contract.

The purpose of the ASAAC Programme is to define and validate a set of open architecture standards, concepts and guidelines for Advanced Avionics Architectures (A3) in order to meet the three main ASAAC drivers. The standards, concepts and guidelines produced by the Programme are to be applicable to both new aircraft and update programmes.

The three main drivers for the ASAAC Programme are:

— Reduced life cycle costs,

— Improved mission performance,

— Improved operational performance.

The Standards are organised as a set of documents including:

— A set of agreed standards that describe, using a top down approach, the Architecture overview to all interfaces required to implement the core within avionics systems,

— The guidelines for system implementation through application of the standards.

The document hierarchy is given hereafter: *(in this figure, the current document is highlighted)*
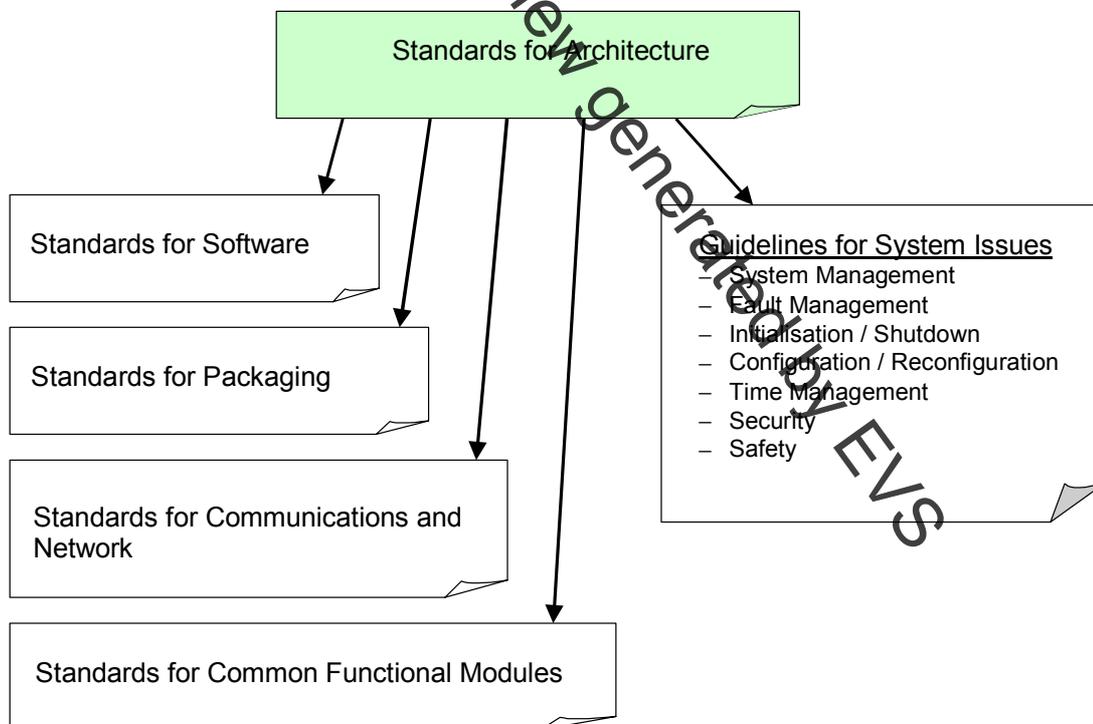

Figure 1 — ASAAC Standard Documentation Hierarchy

0.2 Document Structure

The document contains the following clauses:

Clause 1, gives the scope of the document,

Clause 2, identifies normative references,

Clause 3, gives the terms, definitions and abbreviations,

Clause 4, presents the set of architecture drivers and characteristics as well as an introduction to IMA,

Clause 5, defines the architecture standard, and introduces the other standards,

Clause 6, introduces the guidelines for implementing an IMA architecture,

Annex A, presents the power supply architecture.

1   Scope

The purpose of this standard is to establish uniform requirements for the architecture for Integrated Modular Avionic (IMA) systems as defined by the ASAAC Programme.

The IMA architecture can be built by using common components. These components are specified in separate standards. Ways of using these components are described in a set of guidelines. This document gives references to these Standards and Guidelines as well as a short introduction to IMA.

2   Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 4660-002, *Aerospace series — Modular and Open Avionics Architectures — Part 002: Common Functional Modules*

EN 4660-003, *Aerospace series — Modular and Open Avionics Architectures — Part 003: Communications/Network*

EN 4660-004, *Aerospace series — Modular and Open Avionics Architectures — Part 004: Packaging*

EN 4660-005, *Aerospace series — Modular and Open Avionics Architectures — Part 005: Software*

ASAAC2-GUI-32450-001-CPG Issue 01, *Final Draft of Guidelines for System Issues* [1]

          — *Volume 1 — System Management.*
          — *Volume 2 — Fault Management.*
          — *Volume 3 — Initialisation and Shutdown.*
          — *Volume 4 — Configuration / Reconfiguration.*
          — *Volume 5 — Time Management.*
          — *Volume 6 — Security.*
          — *Volume 7 — Safety.*

3   Terms, definitions and abbreviations

3.1   Terms and definitions

Use of "shall", "should" and "may" within the standards observe the following rules:

—   The word SHALL in the text expresses a mandatory requirement of the standard.

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[1]   Published by: Allied Standard Avionics Architecture Council.