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Nederlandse norm

# **NEN-EN 14514** (en)

Space engineering standards - Functional analysis

ICS 49.140  
augustus 2004

Als Nederlandse norm is aanvaard:  
- EN 14514:2004, IDT

VOORBEELD  
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Normcommissie 345 030 "Lucht- en ruimtevaart"

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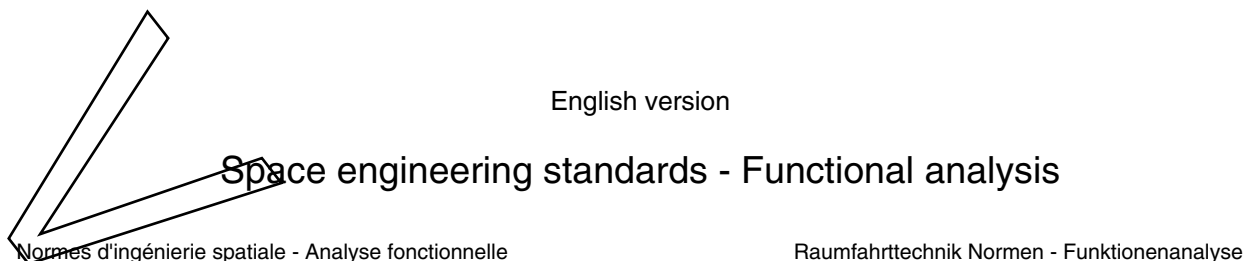
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ICS 49.140



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## Foreword

This document (EN 14514:2004) has been prepared by CMC.

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of an identical text or by endorsement, at the latest by February 2005, and conflicting national standards shall be withdrawn at the latest by February 2005.

It is based on a previous version<sup>1)</sup> prepared by the ECSS Engineering Standard Working Group, reviewed by the ECSS Technical Panel and approved by the ECSS Steering Board. The European Cooperation for Space Standardization (ECSS) is a cooperative effort of the European Space Agency, National Space Agencies and European industry associations for the purpose of developing and maintaining common standards.

This document is one of the series of ECSS Standards intended to be applied together for the management, engineering and product assurance in space projects and applications.

Requirements in this document are defined in terms of what shall be accomplished, rather than in terms of how to organize and perform the necessary work. This allows existing organizational structures and methods to be applied where they are effective, and for the structures and methods to evolve as necessary without rewriting the standards.

The formulation of this document takes into account the existing ISO 9000 family of documents.

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<sup>1)</sup> ECSS-E-10-05A



## 1 Scope

This document defines the requirements to perform functional analysis and the information output of that analysis. It applies to all types and combinations of space systems, projects and products. It also applies to project phases 0, A, B and C and at all levels.

When viewed from the perspective of a specific project context, the requirements defined in this document should be tailored to match the genuine requirements of a particular profile and circumstances of a project.

NOTE Tailoring is a process by which individual requirements of specifications, standards and related documents are evaluated and made applicable to a specific project by selection, and in some exceptional cases, modification of existing or addition of new requirements.

## 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 13701:2001, *Space systems – Glossary of terms*

EN 13290-4, *Space project management – General requirements – Part 4: Project phasing and planning*

## 3 Terms, definitions and abbreviated terms

### 3.1 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 13701:2001 and following apply.

#### 3.1.1

##### **constraint**

characteristic, result or design feature which is made compulsory or has been prohibited for any reason

NOTE 1 Constraints are generally restrictions on the choice of solutions in a system.

NOTE 2 Two kinds of constraints are considered, those which concern solutions, and those which concern the use of the system.

NOTE 3 For example constraints can come from environmental and operational conditions, law, standards, market demand, investments and means availability, organization's policy.

NOTE 4 Adapted from EN 1325-1.

#### 3.1.2

##### **function**

intended effect of a system, subsystem, product or part

NOTE 1 Adapted from EN 1325-1.

NOTE 2 Functions should have a single definite purpose. Function names should have a declarative structure (e.g. "Validate Telecommands"), and say "what" is to be done rather than "how". Good naming allows design components with strong cohesion to be easily derived.

#### 3.1.3

##### **functional analysis**

technique of identifying and describing all functions of a system

NOTE Adapted from EN 1325-1.

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