



# SLOVENSKI STANDARD

## SIST EN 9223-102:2018

01-maj-2018

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### Vodenje programov - Vodenje konfiguracije - 102. del: Računovodsko stanje konfiguracije

Programme Management - Configuration Management - Part 102: Configuration status accounting

Programm-Management - Konfigurationsmanagement - Teil 102: Konfigurationsbuchführung

Management de Programme - Gestion de la Configuration - Partie 102 : Enregistrement de la configuration

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03.100.70	Sistemi vodenja	Management systems
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EUROPEAN STANDARD

EN 9223-102

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2018

ICS 35.080; 49.020

English Version

## Programme Management - Configuration Management - Part 102: Configuration status accounting

Management de Programme - Gestion de la  
Configuration - Partie 102 : Enregistrement de la  
configuration

Programm-Management - Konfigurationsmanagement  
- Teil 102: Konfigurationsbuchführung

This European Standard was approved by CEN on 1 October 2017.

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## European foreword

This document (EN 9223-102:2018) 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of an identical text or by endorsement, at the latest by September 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN 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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

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## Introduction

The finality of Configuration Management is to assure during the whole **product** lifecycle<sup>1</sup>:

- consistency and commonality of the technical information among all actors;
- **traceability** of this technical information.

For that purpose, Configuration Management organizes and implements the following activities:

- selection of **items** and technical information that shall be submitted to Configuration Management, under clearly established responsibility (**configuration identification**);
- capture, keeping this information and making it available (**configuration status accounting**);
- verification and validation of the coherence of this information at defined steps of the product lifecycle (**configuration verifications, reviews and audits**);
- technical changes and gaps processing in order to keep the consistency of this information (**configuration control**).

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<sup>1</sup> See EN ISO 9000.

## 1 Scope

The present document:

- is based on internationally-recognised concepts;
- proposes organisational principles and implementation processes for Configuration Management from both viewpoints: “programme” and “company”, with emphasis on the “programme” viewpoint;
- deals with capture, safekeeping and release of configuration information. It details the principles described in EN 9223-100.

It is up to each programme responsible person to define the necessary details of application and tailoring in the Configuration Management plan.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 9100, *Quality Management Systems. Requirements for Aviation, Space and Defense organizations*

EN 9200, *Aerospace series — Programme management — Guidelines for project management specifications*

EN 9223-100, *Programme Management — Configuration Management — Part 100: A guide for the application of the principles of configuration management*<sup>2</sup>

EN 9223-105, *Programme Management — Configuration Management — Part 105: Glossary*<sup>2</sup>

EN ISO 9000, *Quality management systems — Fundamentals and vocabulary*

ISO 10007:2003, *Quality management systems — Guidelines for configuration management*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 9000, ISO 10007 and EN 9200 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

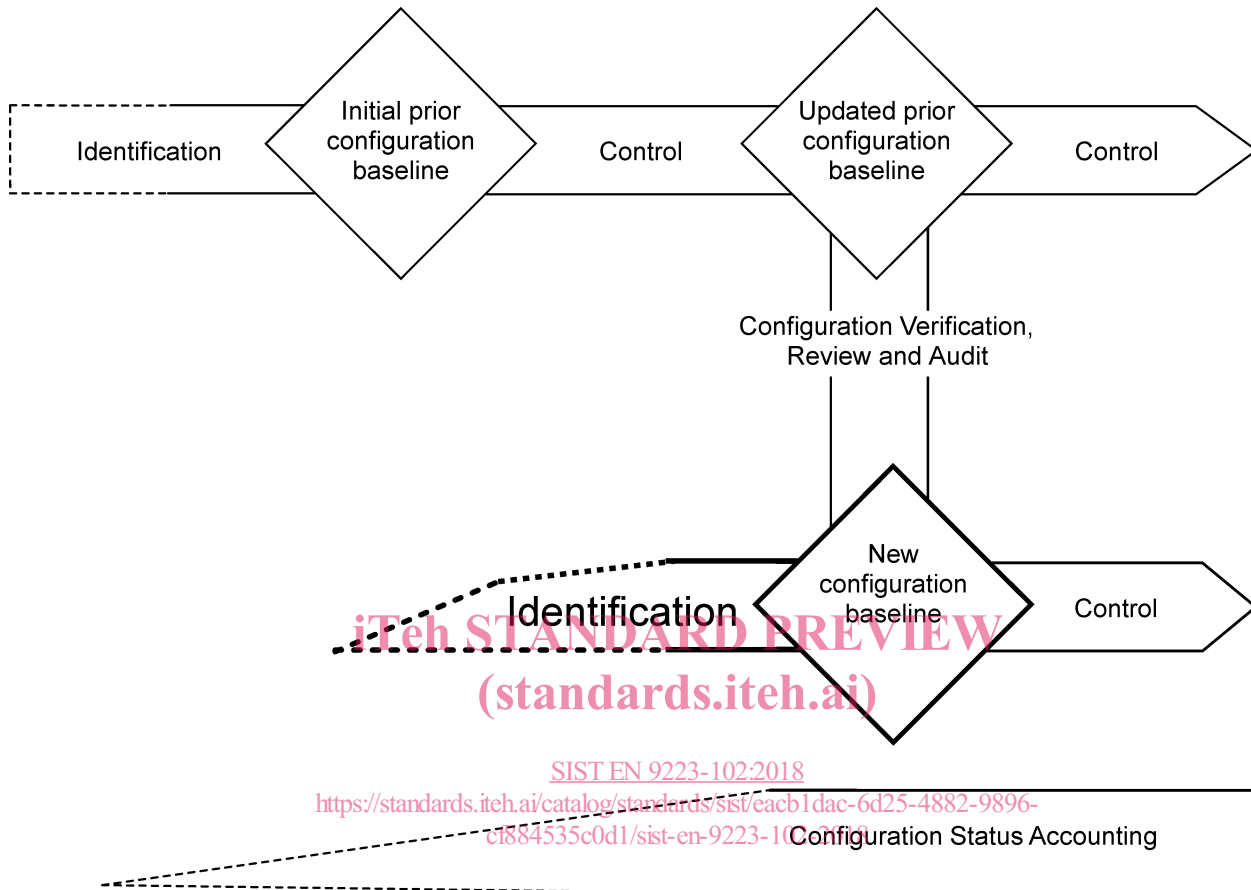
- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

The specific terms needed to understand and to use the document are the object of definitions appearing in EN 9223-105.

<sup>2</sup> Published as ASD-STAN Prestandard at the date of publication of this standard. <http://www.asd-stan.org/>

## 4 The configuration status accounting process and its place in the overall programme Configuration Management

### 4.1 Configuration status accounting process overview



**Figure 1 — Place of the configuration status accounting process in Configuration Management processes**

Configuration status accounting is a process present during all activities of Configuration Management. It consists in recording configuration data as outputs of the 3 other Configuration Management processes, then to store them and release them as accounts that can be used in aid of other processes (compliant with 4.3).

Configuration status linked to key steps during the life of a specimen (or a defined set of specimens) is inferred from one or other of the three main configuration baselines. The following configuration status can be found at some manufacturers or customers, called by example as follows:

- the updated approved configuration, including the configuration baseline completed with all decided technical changes;
- “as-designed” configuration, associated to a specimen, batch or lot to be manufactured or foreseen;
- the “as-built” configuration: this configuration is characterized by gaps in compliance with as designed configuration (these gaps are dealt with concessions). These gaps are the result of technical events, anomalies, repairs, used life potential, etc. that have impacted the product before delivery;



- the “in-use” configuration that takes into account technical events occurring during the operational life of the specimen starting with as-built configuration. By example, these events can be technical changes and deviations decided and applied during this life phase, so as technical events and anomalies. Remaining nonconformities are usually dealt with concessions.

We can also find other status configurations as “as specified”, “as-planned” or “as-maintained”. The configuration management plan defines the need and the content for particular status.

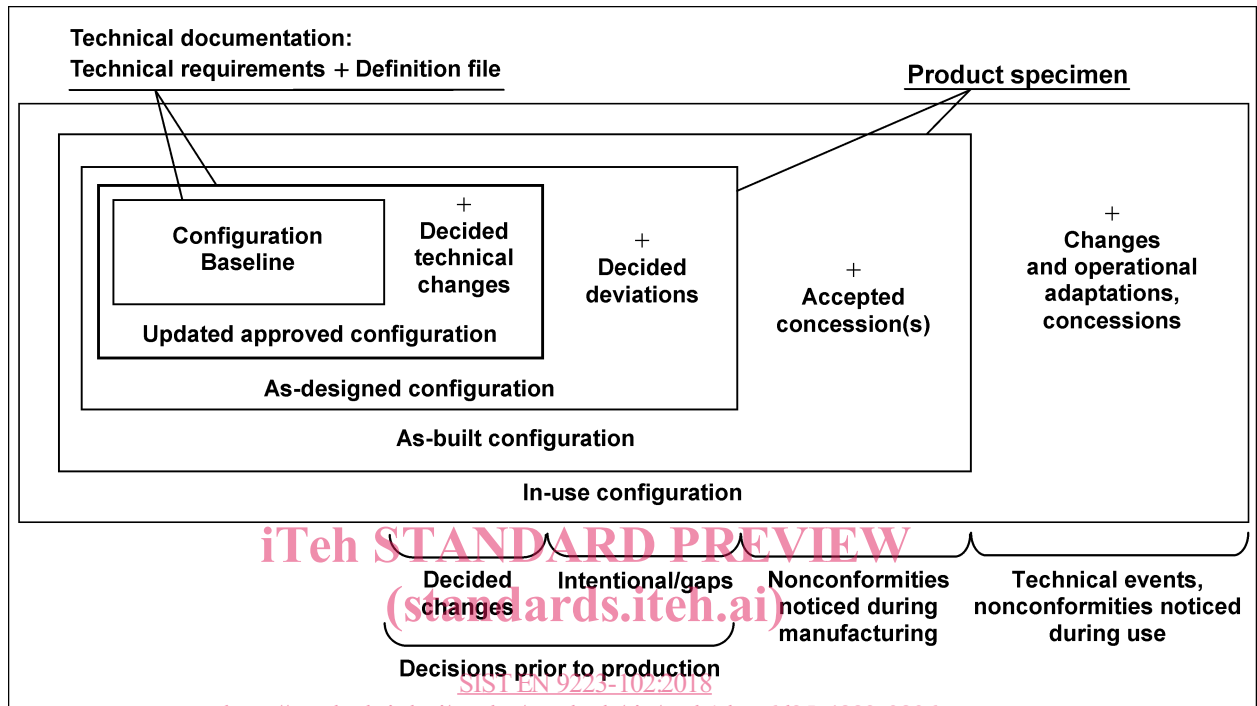


Figure 2 — Configuration baselines and configuration status (example)

#### 4.2 Nature of the configuration status accounting process

This process is the support process central and essential to Configuration Management.

It is a support in the way that it uses the decisions from other Configuration Management processes and returns them as usable accounts.

It is central in the way that any other Configuration Management process communicates through this one.

It is essential because, during the whole lifecycle of the system or product, it assures the safekeeping, the sharing (release) and the uniqueness of configuration information produced by other Configuration Management processes.

It consists in:

- recording all the product or system configuration information with its validity status in an information system;
- returning information in a defined format according to the needs of the users;
- assuring the safekeeping of the configuration information history;

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- assuring the traceability of decisions.

**4.3 Recording initialisation**

Recording of configuration data presupposes that the following are defined taking into account the provisional estimation of the volume and complexity of activities linked to Configuration Management:

- type of objects to be recorded (items, data, attributes, documents, etc.);
- structure of these objects (links between managed objects);
- data bases (including input/output formats, requests, etc.) that will be used for recording these objects.

The recording environment must be adapted to the objects that shall be processed (their volume, but also their nature: text, drawings, software data, etc.), protect them against any deterioration or any unauthorized change, shelter them against natural disaster and other destructive accidents, and allow to access them and to release them within an appropriate schedule to authorized stakeholders.

The recording system must take into account the means implemented in all the organisations involved in the programme, in order to assure the incorporation of data stemming from other systems (customers, partners, suppliers).

The recording activity must first be planned as regards:

- the receiving structure, (data structure, relations, roles);
- the data base structure.

The data organisation at each level of this structure shall foresee:

- the configuration data concerned by the recording;
- the configuration data attributes;
- the traceability and recording ability requirements;
- roles and responsibility;
- recording instance (periodicity, triggering events);
- rules for storage, sheltering, accessing, time schedule for keeping and suppression of records;
- templates for forms and reports;
- distribution criteria (taking into account need and right to know).

Data configuration recording must be initialized as early as possible in a product or system lifecycle.

In order to simplify the future documentation control, it is suitable to limit at the most documents breakdown structures and to prefer each time it is possible links between items and documents instead of links between documents.

#### 4.4 Configuration status accounting and lifecycle

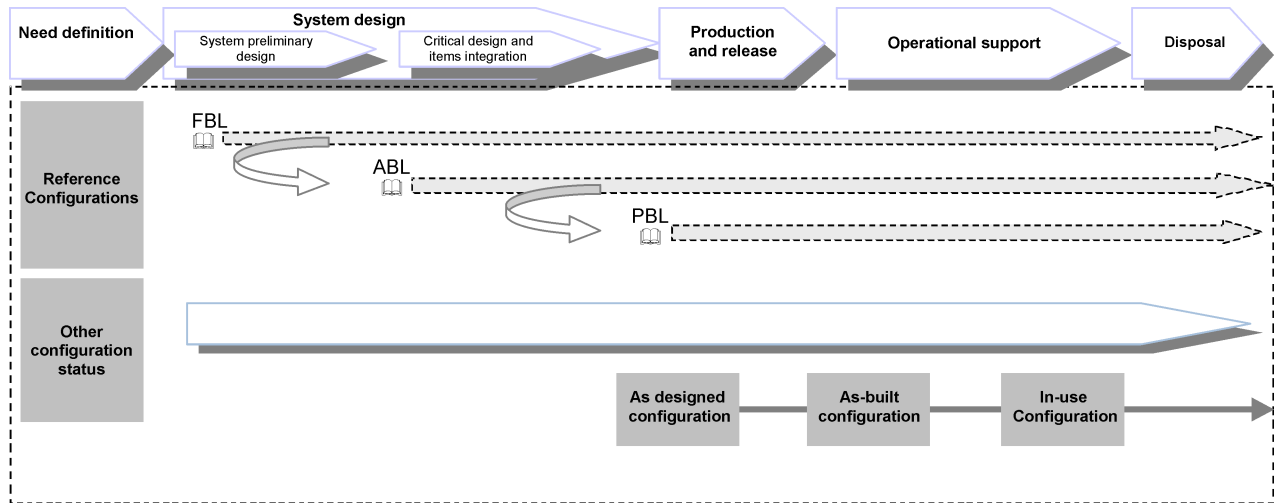


Figure 3 — Configuration status accounting

#### CAPTURE:

Data must be recorded during the whole lifecycle including the operational support process and up to disposal.

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#### OUTPUTS:

- a list of approved documents and data which are associated with configuration baselines and/or with configuration status during the whole product lifecycle;
- gaps between the various configurations of a product or a specimen of this product (retrofit, repair, etc.);
- history of configurations according to statements defined in the Configuration Management Plan (CMP);
- history of decisions taken in the other Configuration Management processes with their justification.

The following paragraphs detail the captured and output data associated with each Configuration Management process.

### 5 Records associated with the configuration identification process

#### CAPTURE:

- recording of configuration baseline data:
  - list and structure of the configuration items that build up the product (identifier, index, links);
  - documents (identifiers, index, links).