

SLOVENSKI STANDARD SIST EN 9223-101:2018

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Vodenje programov - Vodenje konfiguracije - 101. del: Identifikacija konfiguracije

Programme Management - Configuration Management - Part 101: Configuration identification

Programm-Management - Konfigurationsmanagement - Teil 101: Konfigurationsidentifizierung

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Management de Programme - Gestion de la Configuration - Partie 101 : Identification de la configuration

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Management de Programme - Gestion de la Configuration - Partie 101 : Identification de la configuration

Programm-Management - Konfigurationsmanagement - Teil 101: Konfigurationsidentifizierung

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European foreword

This document (EN 9223-101:2018) 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of an identical text or by endorsement, at the latest by September 2018, and conflicting national standards shall be withdrawn at the latest by September 2018.

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Introduction

The finality of Configuration Management is to assure during the whole **product** lifecycle¹:

- 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) iTeh STANDARD PREVIEW

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¹ See EN ISO 9000:2005.

1 Scope

The present document is declined from the principles described in the EN 9223-100, it:

- 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 **configuration identification** but not contract management methods.

It is up to each person responsible for a programme to define the detailed methods of application and tailoring as necessary.

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 9223-100, Programme Management — Configuration Management — Part 100: A guide for the application of the principles of configuration management²

EN 9223-105, Programme Management — Configuration Management — Part 105: Glossary²

EN ISO 9000, Quality management systems - Fundamentals and vocabulary

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

ISO/IEC 6523-1, Information technology — Structure for the identification of organizations and organization parts — Part 1: Identification of organization identification schemes

ISO/IEC 6523-2, Information technology — Structure for the identification of organizations and organization parts — Part 2: Registration of organization identification schemes

NF L 09-001A, Identification of aerospace components — Part numbers writing

3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN ISO 9000, ISO 10007:2003 and EN 9200 apply.

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

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

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

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

4 The configuration identification and its place in the overall programme Configuration Management

4.1 Nature of the configuration identification process

This process is mainly a decisional process (preparing decision and decide) dedicated to **configuration items and data selection**.

Its objectives are to define the perimeter of the configuration according to future management, i. e.:

- identify what shall be controlled;
- identify what shall be recorded;
- identify what shall be submitted to configuration audit.

Within this framework, **configuration identification** is based on an organisation that:

- associates customers, industrial partners and suppliers to jointly assure tasks and responsibilities;
- associates each configuration item to a decisional authority; **REVIEW**
- allocates decision-making delegations throughout a network of customers, partners, suppliers according to selection decisions;

_____ describes the evolution of a decisional system during time;4eae5d-7d99-4167-86cc-

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- uses existing documentation management systems (see Annex A);
- uses existing technical data management systems;
- details identification methods as described in a Configuration Management plan.

4.2 Identification: starting point for other Configuration Management processes

The **decision**, by an **authority**, to submit an **item** and its associated documentation to the overall Configuration Management processes is named **configuration identification**, it has the following consequences:

- the item is thus "identified" as a "configuration item" for this authority and the delegated authorities;
- the whole content of the "identified configuration" of the configuration item is submitted to all Configuration Management processes under the responsibility of the authority that proceeded to these selections;
- all that has not been selected at an authority level shall be managed at a delegated level and, at least at the design level authority.

As an output of this process, the **product** is structured according to a configuration items breakdown, consistent with decision-making (responsibility) breakdown and products breakdowns.



Figure 1 — Place of the configuration identification process in Configuration Management https://standards.iteh.ai/catalog/stanprocesses4eae5d-7d99-4167-86cce7877fd662b5/sist-en-9223-101-2018

In the above figure:

- if the prior **configuration baseline** is the functional configuration baseline (FBL), the new configuration baseline is allocated configuration baseline (ABL);
- if the prior configuration baseline is the allocated configuration baseline, the new configuration baseline is the product configuration baseline (PBL).

4.3 Tasks associated with identification

4.3.1 Documentation Management Tasks

Documentation management tasks are not part of **configuration identification** but are sometimes associated to it. To set up a system of identifiers/codification of **items**, documents and samples ensures the uniqueness of the tracking (see Annex A).

The corresponding verifications are detailed, phase by phase, in 5.7.

4.3.2 Configuration Management tasks prior to identification

In order to enable an authority to select configuration item or data, this item or data necessarily exists or has been subject to a decision of existence and can be identified (description and identifier). Thus, the item name appears in a breakdown and an identifier is given by the designer, allowing the different

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stakeholders to exchange in order to define the content and the perimeter of its documentation. These Configuration Management tasks shall be recorded.

If item or data have not been yet treated as a configuration item or configuration data for the considered authority, this item or data shall, most of the time, be considered as a configuration item by a delegated authority (down flowed to the subcontractor) or at least its designer.

The process of authority appropriation or transfer will be treated in the following chapters.

4.3.3 Identifier of items, identification documentation and specimens

When a product is changed, its product identifier (on the document or specimen) is updated to reflect the new configuration, when:

- the updated product is no longer interchangeable, functionally or physically, with the product it replaces;
- the updated product requires new or revised testing, maintenance, repair, training, operating procedures;
- the updated product has different restrictions. Example: use restrictions.

5 Configuration identification principles iTeh STANDARD PREVIEW

5.1 General

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The configuration item is defined by an "identified" set of documents and associated data.

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This above defined set establishes the boundary of the Configuration Management authority of this item. e7877fd662b5/sist-en-9223-101-2018

In order to establish its intervention perimeter, each authority³ assumes at its level, the following decisions:

- take into account the configuration items and data for which it has been given delegation of authority upon Configuration Management;
- select at proper times:
 - components items for which it self-ensures authority upon configuration, then selects the technical data (or documents) necessary to delimit them and describe their configuration;
 - items for which it decides to delegate management authority and designates the delegate.
- propose to higher level authorities the configuration items and associated data for which they are supposed to take the decision concerning the configuration.

The following actions are often associated to this configuration identification tasks:

³ Several authority levels exist and each authority is responsible for the configuration identification at its level.

- verification of the setting up of an identifier (item number, official designation, alias, etc.) and its uniqueness for each item where configuration is managed (see NF L 09-001 and ISO/IEC 6523-1 and ISO/IEC 6523-2);
- verification of the completeness and efficiency of the configuration documentation describing the configuration item (see 5.3.1);
- verification of the setting-up of relevant identifiers on selected documents.

5.2 Attribution of a configuration item to an authority

Attribution of an **item** to an authority, as described in EN 9223-100, is set up progressively and discontinuously during the system preliminary design.

This attribution is delegated, starting with the system management authority.

5.3 Configuration items selection

5.3.1 Principles of selecting configuration items

Within the framework of its mandate, each authority shall select **items** the control of which will be further implemented by this authority.

This selection usually progresses in a sequential but not in a continuous manner, at specific moments as the programme progresses.

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A sufficient amount of configuration items shall be selected to guarantee a full control of the system. A contrario, only just necessary number of configuration items shall be selected to ensure an efficient control. Any overmuch selection will provoke a decrease in the control process efficiency but a cost increase for further control. (2010)

The selection of configuration items shall be based on an appropriate risks cotation.

5.3.2 Progressiveness of the configuration items selection

During the **item** design, the designer shall be left enough freedom as long as possible in order to assume the technical decisions at his responsibility level. According to these technical choices and to the criteria described hereafter, the decision to select an item occurs when the configuration item data must be shared.

5.3.3 Selection criteria of configuration items

In accordance with 5.3.1, the usual criteria are based on the risk represented by the item for the programme and are mainly (non-restrictive list):

- safe use of the **item**;
- critically or complexity;
- potential importance upon the global cost;
- importance on functions and performances;
- importance on operating condition and logistic support;