International Standard

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Dentistry — Vocabulary of process chain for CAD/CAM systems

Médecine bucco-dentaire — Vocabulaire de la chaîne de processus pour les systèmes de CFAO

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/TC 106, *Dentistry*, Subcommittee SC 9, *Dental CAD/CAM systems*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 55, *Dentistry*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 18739:2016), which has been technically revised.

The main changes are as follows:

— addition of terms used in the process chain;

— information given in the source statements has been updated.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

Terms and designations for individual system parts and process steps used in product descriptions and instructions for use provided by manufacturers of dental computer-aided design and computer-aided manufacturing (CAD/CAM) systems differ from each other, creating confusion among dentists and dental technicians. In order to overcome these ambiguities, this document defines terminology used in the process chain for CAD/CAM systems.

In the terminological entries, first the preferred term and then the admitted terms which have been in use so far are given. It is intended that the preferred terms will be used instead of the admitted terms in the future.

Dentistry — Vocabulary of process chain for CAD/CAM systems

1 Scope

This document defines terms and definitions used in the process chain for computer-aided design and computer-aided manufacturing (CAD/CAM) systems in dentistry.

NOTE: See Annex A for a flow chart of the process chain.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at https://www.electropedia.org/

3.1 Process step terms

3.1.1
3D data acquisition
three-dimensional data acquisition
3D digitization and generation of a digital data set

3.1.2
3D data acquisition system
three-dimensional data acquisition system
hardware and software used for 3D data acquisition

3.1.3
3D file format
common file format used for storing or encoding information about a 3D model's geometry, colour, texture, etc., as plain text or binary data commonly used in *computer-aided design* (CAD) (3.1.16) and *computer-aided manufacturing* (CAM) (3.1.17)

EXAMPLE Wavefront object (.obj), polygon model (.ply), binary or ASCII stereolithography (.stl).

3.1.4
3D scanning
3D digitizing
raw data acquisition
method of acquiring the shape and size of an object as a three-dimensional representation by recording x, y, z coordinates on the object's surface and, through software, the collection of points is converted into digital data

Note 1 to entry: This collection of data via the scanning process creates a raw *data set* (3.1.23).