



**International
Standard**

ISO 18739

**Dentistry — Vocabulary of process
chain for CAD/CAM systems**

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

**Second edition
2026-03**

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Published in Switzerland

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Foreword

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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](#)).