

# Digitalization in Restorative Dentistry

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- Guillermo Pradíes Ramiro (1) Email author (gpradies@ucm.es)
- Bassam Hassan (2)
- Alberto Ferreira Navarro (1)
- Cristian Abad Coronel (3)
- Arthur Rodriguez Gonzalez Cortes (4)
- Otavio Henrique Pinhata Baptista (5)
- Nataly Rabelo Mina Zambrana (6)

1. Conservative and Prosthodontics Dentistry, Faculty of Dentistry, University Complutense of Madrid, , Madrid, Spain
2. Prosthodontics and Restorative Dentistry, Acibadem International Medical Centre Amsterdam, , Amsterdam, Netherlands
3. Prosthodontics and Restorative Dentistry, Faculty of Dentistry, University of Cuenca, , Cuenca, Ecuador
4. Faculty of Dentistry, Ibirapuera University (UNIB), , São Paulo, Brazil
5. Oral Implantology, Area Military Hospital of São Paulo (HMASP), , São Paulo, Brazil
6. School of Dentistry, University of São Paulo, , São Paulo, Brazil

Chapter

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## Abstract

Digitalization is the first step involving a digital restorative dentistry workflow. Although the digitalization process was initially confined to CAD/CAM (computer-aided design/computer-aided manufacturing) dental procedures, nowadays a much wider range of dental procedures have been revolutionized by their ongoing digitalization. Digitalization consists basically of converting any physical 2D or 3D volume into an electronic information language codified in terms of only two possible digits (0 or 1) normally contained in an informatic file.

The number of digitalized procedures and devices that have been incorporated into restorative dentistry is substantially growing. Digital photograph cameras, spectrophotometers for tooth shade matching, intraoral and extraoral scanners and

2D/3D radiological devices, spectrophotogrammetry, facial scanners, and jaw track motion systems are the main devices used to obtain digital information in restorative dentistry. The aim of this chapter is to describe to the reader the characteristics of every single family of devices as well as their specific nomenclature, features, and the types of file used.

## Keywords

Dental photography Jaw track motion Confocal technology Triangulation  
Stereolithography Standard tessellation language Intraoral scanner  
Extraoral scanner

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