

American Dental Association  
Technical Report No. 1012

# Computer Hardware Recommendations for Dental Offices

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**AMERICAN DENTAL ASSOCIATION TECHNICAL REPORT NO. 1012 FOR COMPUTER  
HARDWARE RECOMMENDATIONS FOR DENTAL OFFICES**

The Council on Dental Practice of the American Dental Association has approved American Dental Association Technical Report No. 1012 for Computer Hardware Recommendations for Dental Offices. Working Groups of the ADA Standards Committee on Dental Informatics (SCDI) formulate this and other technical reports and specifications for the application of information technology and other electronic technologies to dentistry's clinical and administrative operations. The ADA SCDI has representation from appropriate interests in the United States in the standardization of information technology and other electronic technologies used in dental practice. Approval of ADA Technical Report No. 1012 was confirmed by the ADA SCDI on May 17, 2002.

The Council thanks the working group members and the organizations with which they were affiliated at the time the technical report was developed:

Chris Bope, Chairman, Soredex Inc., Marietta, GA; Ekramul Khan, Cieos Inc., Totowa, NJ; LTC Stephen Rouse, U.S. Army, Falls Church, VA; Scott Trapp, National Dental EDI Council, Omaha, NE (Subcommittee 10 chairman); and Greg Zeller, U.S. Department of Veterans Affairs, Washington, DC.

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### **Foreword**

(This foreword does not form a part of American Dental Association Technical Report No. 1012 for Computer Hardware Recommendations for Dental Offices)

In 1992, there was interest in the standardization of clinical information systems related to electronic technology in the dental environment. After evaluating current informatics activities, a Task Group of the ANSI Accredited Standards Committee MD156 (ASC MD156) was created by the ADA to initiate the development of technical reports, guidelines, and standards on electronic technologies used in dental practice. In 1999, the ADA established the ADA Standards Committee on Dental Informatics (SCDI). The ADA SCDI is currently the group that reviews and approves proposed American National Standards (ANSI approved) and technical reports developed by the standards committee's working groups. The ADA became an ANSI accredited standards organization in 2000.

The scope of the ADA SCDI is:

*"To promote patient care and oral health through the application of information technology to dentistry's clinical and administrative operations; to develop standards, specifications, technical reports, and guidelines for: components of a computerized dental clinical workstation; electronic technologies used in dental practice; and interoperability standards for different software and hardware products which provide a seamless information exchange throughout all facets of healthcare."*

This technical report was prepared by SCDI Working Group 10.2 for Hardware Recommendations for Dental Information Systems. The SCDI Working Group 10.2 chairman is Chris Bope. SCDI Working Group 10.2 prepared this report at the request of SCDI Subcommittee 10 for Dental Informatics Architecture and Devices (Scott Trapp, Chairman).

## **AMERICAN DENTAL ASSOCIATION TECHNICAL REPORT NO. 1012 FOR COMPUTER HARDWARE RECOMMENDATIONS FOR DENTAL OFFICES**

### **INTRODUCTION**

Computer hardware requirements for dental offices can vary widely due to the large array of high-tech devices available. Recommendations will be divided into two categories:

- A** Dental offices where only patient management software, accounting, spreadsheet and/or word processing software is used.
  
- B** Dental offices where high-tech products such as digital x-ray, computer-based intraoral video imaging (intraoral cameras) and/or cosmetic imaging are used.

Dental offices that fit "Category A" can use the base level computer hardware recommendations. Dental offices that fit "Category B" should use the optimum level hardware recommendations or better.

The base level recommendations will be listed first, with the optimum level recommendations in brackets "[ ]" where necessary. Keep in mind these recommendations are just a starting point and it is important to work with a local computer hardware provider to develop a system that meets your needs now and in the future.

These recommendations are designed to promote standard computer hardware and devices as opposed to proprietary, closed systems, which will most likely increase cost of ownership over time. Purchasing industry standard hardware also allows the most freedom of choice in choosing both a supplier and service provider, who will be able to maintain the computer hardware over its useful lifetime.

A glossary of technical terms is included at the end of this document.

*NOTE:* Hardware technology is constantly changing. The technical specifications recommended in this report represent current computer hardware industry standards as of the date of publication. This report will be revised periodically to provide updated technical details. For the most current hardware specifications at any time, system managers are advised to consult hardware manufacturers' websites.

Computer hardware may consist of:

- A** Workstation computers;
  
- B** Server computer(s);
  
- C** Monitors;
  
- D** Display adapters (video cards);