

# DENTRIX ENTERPRISE 7.0 SYSTEM REQUIREMENTS



## Connect In A Meaningful Way

Dentrix Enterprise is a robust practice management software program that is designed to run seamlessly across a network, allowing users to share the same data throughout the enterprise, from the front desk to the operator at multiple locations, making everything available to every user at every workstation.

<sup>1</sup> Source: [www.nnoha.org](http://www.nnoha.org)

Dentrix Enterprise is a powerful, feature-rich dental practice management solution for large community health centers, hospital-based dental clinics, large dental practice management groups, multi-location environments and dental schools—and is the leading electronic dental record (EDR) solution used in community health centers<sup>1</sup>. Dentrix Enterprise provides a single centralized database with centralized scheduling, billing, insurance, collections and reporting including Uniform Data System (UDS) reports required at Federal level. Its multi-site logic manages any number of clinics and workstations with tight security features that provide instant access to network usage statistics via one main server—in real time!

The system requirements describe minimum and recommended standards for using Dentrix Enterprise 7.0. Exceeding the minimum standards may result in better system performance.

## Dedicated Database Server

- Intel Quad Core Xeon X3323 CPU or faster
- 24x (or higher) CD-ROM drive recommended
- Microsoft SQL Server 2005 32 bit (patched to latest Service Pack)
  - Windows Server 2003 SP2 32 bit
- Microsoft SQL Server 2008 32 or 64 bit (patched to latest Service Pack)
  - Windows Server 2003 SP2 32 bit
  - Windows Server 2003 R2 64 bit
  - Windows Server 2008 R2 64 bit
  - Windows Server 2012
- 4 GB RAM for the first 15 concurrent users. For each additional 15 concurrent users, add 1 GB RAM and 0.5 Ghz of processing power. After 60 users, the amount of RAM and processing power requirements will be less for adding additional users.
- Allow a minimum of 50 GB free Hard Drive space for the data file and 50 GB free space for transaction logs. A RAID drive is strongly recommended.
- Server must be Windows® 2003 or 2008 certified.
- Virtual database servers: Has been certified to work with VMware® ESXi version 4 or later.
- When running Dentrix Enterprise, memory has a major impact on your system performance. Using more than 4 GB of RAM in the server computer will noticeably improve performance. Minimum 4 GB.

### Notes:

- Additional performance can be gained by having three physical arrays; one each for the OS, Data, and transaction log.
- The use of clustering with Microsoft SQL Server for a Dentrix Enterprise database is supported only with a failover cluster (active/passive clustering). Active/active or replication clustering is not supported.

## THIN Client Application Server

- Intel Quad Core Xeon X3323 CPU or faster
- 24x (or higher) CD-ROM drive recommended
- Operating system environments (with Terminal Server licenses activated):
  - Windows 2003 32 bit
  - Windows 2008 32 bit
  - Windows 2008 R2 64 bit
- Optional: Citrix<sup>®</sup> Presentation Server is a recommended option for performance.
- Virtual application servers: Has been certified to work with VMware<sup>®</sup> ESXi version 4 or later.
- Allow a minimum of 60 GB free hard drive space.
- Server must be Windows<sup>®</sup> 2003 or 2008 certified.
- When running Dentrix Enterprise, memory has a major impact on your system performance. Using more than 4 GB of RAM in the server computer will noticeably improve performance.

**Note:** For application servers that are being used with Citrix<sup>®</sup> and/or Terminal Server, 1 GHz of processing power and 4 GB of memory can support about 30 – 40 THIN clients with one network adapter. Additional network adapters on the application server will increase performance. After 40 users an additional server(s) is recommended.

## Workstation for Central Office, Remote Location, or THIN Client

- Pentium IV 2.0 Ghz CPU or faster
- 24x (or higher) CD-ROM drive recommended
- Operating system environments:
  - Windows XP 32 bit
  - Windows Vista 32 bit
  - Windows 7 32 bit
  - Windows 7 64 bit
- Home editions of the above operating systems are not supported
- 1 GB RAM minimum, 2 GB RAM recommended.
- 20 GB or more of available disk space.

## 64-bit

- Dentrix Enterprise runs as a 32 bit application.
- Please be aware that some software products and third-party hardware drivers you may be using with Dentrix Enterprise may not be 64-bit compatible. Some devices, such as printers, scanners, digital X-ray equipment, and intra-oral cameras, may not be 64-bit ready either. We strongly recommend that you verify that all software and hardware you use with Dentrix Enterprise, is 64-bit if you install Dentrix Enterprise in a 64-bit environment.

## Monitors

- A 15” or larger monitor with a 4:3 aspect ratio capable of displaying a resolution of 1152 x 864 or higher using 32-bit color (17” or larger recommended)
- A 15” or larger monitor with a 16:9 aspect ratio capable of displaying a resolution of 1280 x 800 or higher using 32-bit color (17” or larger recommended)
- For optimal viewing, select a higher quality monitor that has a dot pitch of 0.28mm or less, and a refresh rate of 72 Hz or higher at the resolution you plan to use.

## Printers

For a typical office, Dentrix Enterprise recommends installation of 2 printers on the network: a laser printer for all forms, letters and reports, and a good color printer for tooth and perio chart printouts. Henry Schein Practice Solutions does not recommend using an inkjet printer as your primary printer. Choose a printer based on your clinic's demands—Every printer has a “page-per-minute” speed and an approximate number of pages per month which should be evaluated according to your clinic's needs. Henry Schein Practice Solutions has had success with the HP Laserjet P4014N, HP Laserjet P3015, HP Business InkJet 2800, HP Color LaserJet 3600 and the Dymo Label Printer 450 Turbo.

## Cameras and Scanners

The Dentrix Enterprise Document Center supports cameras and scanners that use TWAIN and WIA drivers. Cameras and scanners using DirectShow must use “Import from File” in the Dentrix Enterprise Document Center. ***Some scanners that claim to be 32-bit TWAIN-compliant are not.*** HSPS has had success with the HP ScanJet 5590c and Cannon DR-2010C scanners. Other scanners that claim to be TWAIN/WIA compliant will probably work also, but HSPS cannot guarantee that all cameras and scanners claiming to be TWAIN/WIA compliant will be completely compatible with Dentrix Enterprise. Multi-function print/scan/copy machines are not recommended. Recommended resolution for scanning documents into the Document Center module should be kept to 600 DPI or less

## Signature Devices

- ePad
- ePad II
- ePad Vision

The use of these signature devices requires the installation of the Universal Installer and Integrisign Desktop software from ePadLink (both of which must be version 9.54 or higher). The software can be downloaded from [www.epadsupport.com](http://www.epadsupport.com).

## Optional Software

- Dentrix Enterprise offers extensive letter-merge capabilities with Microsoft Word. Note that only versions of Word 2007 and newer are supported.
- Citrix Client (for THIN client)
- Crystal® Reports
- Anti-virus software is recommended on all computers but can effect individual system performance. Please consult your hardware technician for recommended configuration options.

## Backup

Tape drives are generally the least expensive backup option and are very reliable. Choose a reliable software package for backups. Separate backup tape units for each day of the week are recommended, plus one backup tape unit for monthly backups, which is stored off site.

## Miscellaneous

- DoubleSpace® or other disk compression utilities should not be used.
- Future expandability is the key to successful hardware. Taking advantage of expansion options like voice activation, intraoral imaging, digital x-ray, multimedia, and others, usually requires an available expansion slot or USB ports in your computer. For each workstation, you should consider what options you might want in the future and purchase machines with sufficient expansion capability.
- The Outcome module add-on requires Internet Explorer 7 or 8 (8 preferred).
- The ePrescribe module add-on requires an Internet Explorer 7 or newer (8 or newer preferred).

## Network Environments

Dentrix Enterprise is a robust practice management software program that is designed to run seamlessly across a network, allowing users to share the same data throughout the enterprise, from the front desk to the operator at multiple locations. Everything is available to every user at every workstation. It's important, however, to have powerful networking software and operating systems installed so that Dentrix Enterprise can perform at an optimal level.

- 1. Bandwidth requirements:** Each LAN connection requires 100 Mb of bandwidth. Each WAN THIN client connection requires 50k of bandwidth. Each WAN FAT client (for image capture only) requires 250 – 350 k of bandwidth. (See note below regarding wireless networking.)
- 2. Domain:** Windows® 2003/2008 Server.
- 3. Network wiring:** Having your hardware installed properly is as important as choosing the proper network environment. About 90% of the time, network difficulties in a practice can be traced to improper cabling or other installation problems. Dentrix recommends having a hardware technician with MCSE and MSDBA certification install your hardware. Network wiring needs to be installed by a Certified Network Installer. Do not have an electrician or phone wiring professional install your network cables. Many computer stores may say they know how to install a network, but proper installation requires specialized training, not just general computer knowledge. Check your local area for a qualified installation technician. Instruct the installer to use 8-conductor, twisted pair, Category 5/6 wire with RJ45 connectors. The installer should be aware of x-ray equipment and fluorescent lights, as these can affect your network performance. All cable installed should be certified for use with at least 100 Mb network cards (instead of 10 Mb cards). Have all your wiring certified at that speed. Wiring is a critical component of your network take the necessary steps to assure the highest specifications are met. (See note below regarding wireless networking.)
- 4. Power supply:** As part of your network installation, ask your installer to check the power input from electrical outlets throughout the office. Some buildings have a less reliable power supply that can cause network problems. For added protection, you may want to consider an uninterruptible power supply (UPS).

### Notes:

- Dentrix Enterprise does not recommend and discourages FAT clients in a WAN environment unless it is necessary for image capture only. Once images are captured, users should switch to a THIN client session for all other work.
- WiFi or wireless networks may not provide sufficient performance or security and are not recommended.

Your network is the circulatory system of your practice management system. We can't emphasize enough how important it is that a qualified technician properly installs all of your hardware. Your local Dentrix Enterprise representative can help you decide what you need to get started and may be able to recommend a reputable service provider to get your network up and running.

To discover how your organization can CONNECT IN A MEANINGFUL WAY please visit [www.dentrixenterprise.com/connect](http://www.dentrixenterprise.com/connect) or Call 1.800.DSCHEIN (1.800.372.4346).

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