# DENTRIX<sup>®</sup>

System Requirements



# System Requirements

The System Requirements describe minimum and recommended standards for using Dentrix G5, G5.1, and G5.2.

Exceeding the minimum standards may result in better system performance.

Over time, system requirements change. For the latest system requirements, please visit www.dentrix.com.

# Server Requirements

#### Minimum (if using existing hardware)

Intel ® Core™ 2 Duo processor

4 GB RAM

7200 RPM hard drive

40 GB available disk space

DVD drive (Dentrix G5 and later is not available on CD-ROM discs.)

100 Mbm Eshamas and (000 mass #6

100 Mbps Ethernet card (see note #6)

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1024 x 768 (see note #12)

USB chipset with two or more powered USB 2.0 ports

Additional PCI Express, AGP, PCI or USB 2.0 expansion slots may be required.

#### Recommended (if purchasing new hardware)

Intel® Core™ i5 processor or faster

8 GB RAM or more

10000 RPM hard drive

40 GB available disk space

DVD drive (Dentrix G5 and later is not available on CD-ROM discs.)

1 Gbps Ethernet card (see note #6)

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1280 x 1024 (see note #12)

USB chipset with four or more powered USB 2.0 ports

Additional PCI Express, AGP, PCI, or USB 2.0 expansion slots may be required.

### Supported Operating Systems

Windows® Server 2012 Standard/ Datacenter (for Dentrix G5.1 & G5.2 only; see notes #9 and #10) Windows® Server 2008 R1 Standard/ Enterprise/Datacenter (32- and 64-bit) and R2 (see note #9)

Windows® Server 2003 Standard/ Enterprise/Datacenter

Note: Windows Vista, Windows 7, and Windows 8/8.1 Pro and Enterprise can be used as server operating systems but are not recommended due to security and scalability issues that may require special server configuration. Windows Small Business Server 2008/2011 are not supported server operating systems. If you are running 25 or more computers in your office, we recommend that you run Dentrix G5.1 or later and a 64-bit version of Windows Server. If you choose to run a 32-bit operating system with more than 25 computers, you may experience performance issues and crashes due to 32-bit memory limitations.

# Workstation Requirements

#### Minimum (if using existing hardware)

Intel Pentium® IV 2.4 GHz processor

2 GB RAM (4 GB if using Windows® Vista or later)

4 GB available disk space

DVD drive preferred. CD-ROM drives are acceptable on workstations if there is a DVD drive on the network to be used to install Dentrix

100 Mbps Ethernet card (see note #6)

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1024 x 768 (see note #12)

3D capable DirectX 9 compatible graphics card with 128 MB video memory (needed for advanced 3D modeling)

USB chipset with two or more powered USB 2.0 ports

Additional PCI Express, AGP, PCI or USB 2.0 expansion slots may be required

#### Recommended (if purchasing new hardware)

Intel® Core™ 2 Duo processor

2 GB RAM (4 GB if using Windows® Vista or later)

4 GB available disk space

DVD drive preferred. CD-ROM drives are acceptable on workstations as long as there is a DVD drive on the network to be used to install Dentrix

1 Gbps Ethernet card (see note #6)

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1280 x 1024 (see note #12)

3D capable DirectX10 compatible graphics card with 128 MB video memory (needed for advanced 3D modeling)

USB chipset with four or more powered USB 2.0 ports

Additional PCI Express, AGP, PCI, or USB 2.0 expansion slots may be required

## Supported 32-Bit Operating Systems

Windows® Vista Business/Ultimate

Windows® 7 Professional

Windows® 7 Ultimate

Windows®8/8.1 Pro and Enterprise (see note below)

G5.2 only: Windows 10 Pro and Enterprise (see note below)

#### Supported 64-Bit Operating Systems

Windows® Vista Business Windows® 7 Ultimate

Windows® Vista Ultimate Windows® 8/8.1 Pro and Enterprise (see

Windows®7 Professional note below)

**Note:** Microsoft discontinued support for Windows XP and Windows XP Tablet PC Edition in April 2014. These operating systems are no longer recommended for use with Dentrix since these operating systems no longer receive security updates, which may affect HIPAA compliance.

Dentrix G5.1 running Update 3 and Dentrix G5.2 are compatible with Windows 8/8.1 Pro/Enterprise. Before installing Dentrix on a Windows 8/8.1 computer, however, make sure that all your hardware and software are compatible with Windows 8/8.1, including any eServices products and third-party software (such as imaging software) that you link to through Dentrix. For current information regarding Dentrix and eServices compatibility with Windows 8/8.1, visit www.dentrix.com/support/software-updates/g5.aspx. Windows 8.1 does not support Microsoft 2005 SQL Express, which may be needed to run some software programs that integrate with Dentrix.

G5.2 users running Windows 10 must install the .NET hotfix from the Update Manager to address issues related to .NET 4.6. Windows 10 has not been tested for G5.0 and G5.1.

#### Other Software Compatibility

Microsoft Word 2007, 2010, or 2013 32/64-bit are required for full letter merge functionality. (Microsoft Word 2003 supports some letter merge functionality. If you are using a 64-bit version of Word, you need to be running Dentrix G5.1 Update 3 or later.)

Dentrix G5 and later is compatible with VoicePro 5.0. Earlier versions of Dentrix Voice are not supported.

DXPort is compatible with QuickBooks 2012 or higher.

**Note:** Over time, system requirements change. For the latest system requirements, please visit www.dentrix.com.

#### Notes & Additional Recommendations

- 1 Server: In a Dentrix system, the Dentrix server is the computer that will act as a Dentrix database server for all of the Dentrix computer workstations. It can also provide other server related functions like DHCP, Internet connectivity, or file sharing services. The Dentrix server can be used as a Dentrix workstation, but disk space, memory, and networking throughput requirements should be evaluated and optimized to ensure that the overall response to the workstations is acceptable. Non-dedicated servers (servers that are also used as workstations) will require an additional 2 GB of memory beyond the server requirements and preferably have a faster processor than the one listed to help reduce any latency/performance issues.
- 2 Hardware Certification: Make sure that all servers and workstations are Microsoft Certified for their respective operating systems. Each operating system should have the latest service packs and critical updates installed. Hardware requirements can vary significantly depending on several factors including: the size and configuration of the network; make, model, configuration and speed of the workstations; size and complexity of the practice; and software from other vendors, such as Dexis Imaging, that competes for server resources. It is recommended that dental offices contact Henry Schein TechCentral (1-877-483-0382) or other qualified integration specialists who offer help with installation and ongoing service and support.
- 3 RAM: The amount of memory (RAM) needed on a particular workstation can depend on several factors, including but not limited to the number of Dentrix modules being used at one time, other programs and processes that are running simultaneously on the computer, and the type and speed of the memory being used. As a general rule, Henry Schein recommends that systems have memory amounts much higher than those listed in the system requirements to allow for variability from computer to computer, to better position each computer for a successful Dentrix upgrade, and to minimize the number of times the computer hardware needs to be upgraded.
- 4 Hard Drive: The disk space needed for Dentrix depends on the size of the practice and the amount of data that will be stored. For a dedicated Dentrix G5 server, 40 GB is listed as an estimate for the space that might be needed for patient images or patient records that are stored in the Dentrix Document Center. Systems being upgraded from previous versions of Dentrix should have at least 10 GB of free space. Customers should continually evaluate their disk space needs and plan accordingly. Henry Schein only recommends hardware RAID 1 or 5 for additional fault tolerance and does not recommend software RAID or dynamic drives. Implementing RAID is not a backup solution. Disk compression utilities should not be used.

5 DVD Drive: Dentrix releases are available on DVD. For networks, only one computer (preferably the server) needs to have a DVD drive. The software can then be shared with the other workstations as needed.

Networks: Industry standard Ethernet network cards should be used that support

- the TCP/IP protocol. Wireless networks are to be used at your own risk due to the inherent nature of interference in dental offices from X-ray machines and other devices. Wireless networks require professional installation to ensure appropriate security and to provide a reliable signal in order for the Dentrix system to operate correctly. Wireless networks must still meet the minimum Ethernet network speed to be in compliance with system requirements. If a router is being used on the network, it is recommended that all computers be on a single subnet to ensure that all computer workstations receive the server broadcast.

  To avoid possible disconnect error messages on computers that will be left inactive for an extended period of time, disable the Power Management options on each of those computer's Network Interface Card (NIC) or close Dentrix on those computers when you are not using them. (Some network cards will go into "sleep mode" even though Dentrix is open and has an active network connection. If this happens while Dentrix is open, Dentrix will not be able to use the same network connection after the network card "wakes" and will not be able to communicate
- 7 Graphics Card: In order to use the 3D modeling capabilities of Dentrix, a 3D graphics adapter card capable of running DirectX 9 with at least 128 MB of RAM on the card is required. Cards with less memory might work, but can cause issues with graphic related performance. Computers will also require a good monitor capable of supporting 1280x1024 high-color resolution settings. Henry Schein has tested graphics cards from multiple vendors and has noticed a wide range of variability. Some on-board graphics cards use shared memory and might not work well (or at all) with the Dentrix 3D modeling features.

with the Dentrix server. If this happens, Dentrix will have to be completely closed and reopened on the client to re-establish a new network connection with the

- 8 USB: Dentrix VoicePro requires a USB port. Henry Schein recommends a motherboard with built-in USB 2.0 ports. The USB ports need to be powered so as to provide adequate power to the devices being plugged into them.
- 9 Operating Systems: Only the operating systems listed in the system requirements are supported with Dentrix G5, G5.1, and G5.2. For current information regarding Windows 8/8.1 compatibility, visit www.dentrix.com/support/software-updates/g5.aspx. Dentrix G5/G5.1/G5.2 is compatible with the following 64-bit operating systems:

Dentrix server.)

Windows Vista (Business and Ultimate), Windows 7, Windows 8 Pro/Enterprise (for G5.1 with Update 3 and later), Windows Server 2008, and Windows Server 2012 (for G5.1 with Update 3 and later). (Microsoft discontinued support for Windows XP and Windows XP Tablet PC Edition in April 2014. These operating systems are no longer recommended for use with Dentrix.)

Third-party hardware and software may not be compatible with Windows Server 2012. Before installing Dentrix on Windows Server 2012, please seek technical advice from your IT provider and verify compatibility of all hardware and software.

Windows Server 2008 users who want to use an ePad to capture signatures must install the R2 version of Windows Server 2008. Terminal Services is not supported. For questions regarding Dentrix compatibility with Windows 64-bit operating systems, please contact Dentrix Support at 1-800-DENTRIX. Please be aware that some software products and third-party hardware drivers you may be using with Dentrix 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. We strongly recommend that you verify that all software and hardware you use with Dentrix is 64-bit compatible if you install Dentrix in a 64bit environment. The following eServices components have already been tested and found to be compatible with the Windows 7 64-bit operating system: eCentral, eTrans 5.1 and later, QuickBill 3.0 and later, and PowerPay 5.0 and later. Ongoing testing and development is underway to ensure that other eServices products are 64-bit compatible. For questions, and the most up-to-date information regarding eServices compatibility with Windows 64-bit operating systems, please contact eServices Support at 1-800-734-5561.

The Link Local Multicast Name Resolution (LLMNR) is a protocol based on the Domain Name System (DNS) packet format that allows computers to perform name resolution for other computers on the same local network. It is included in Windows Vista, Windows Server 2008, Windows 7 and Windows 8. For those using Windows Server 2003 on their server, LLMNR would need to be disabled on the newer clients until the 2003 server could be replaced by a computer with a newer operating system.

According to Microsoft's license agreement for Windows Server operating systems, a Client Access License (CAL) is required for each workstation. Make sure you have an adequate number of CALs for your office. See Microsoft's Product Use Rights for details.

- 10 Windows Server 2012 Roles and Features: Using Dentrix G5 and later on Windows Server 2012 Standard is supported. Enabling the Server Essentials Role on Windows 2012 Standard is currently not supported due to port conflicts caused by the services that this role enables. (The Server Essentials Role makes Windows Server 2012 Standard run in a Windows Server 2012 Essentials role. Windows Server 2012 Essentials is currently not supported, so this configuration currently is not supported as well.)
- 11 User Accounts: In order to use the Dentrix modules properly, all Dentrix users should have a Windows user account with local administrator rights and additional read/write access to the Dentrix Common folder. For more information, see the Windows Help.

Note: Roaming profiles are not supported with Dentrix.

- 12 Display: For Dentrix to display dialog boxes properly, the Windows screen resolution option for text size must be set to **Smaller 100% (default)**. If you change this option for Windows to use a larger text size, the screen will not display the entire contents of some Dentrix dialog boxes.
- 13 Printers: For the typical dental office, Henry Schein recommends installation of two printers on the network: a laser printer for all insurance forms, letters, cards, coupons, envelopes, statements, reports; and a color printer for tooth and perio chart printouts. Henry Schein does not recommend using an inkjet printer as your primary printer. Choose a printer based on your practice needs. Every printer has a "page-per-minute" speed and an approximate number of pages per month which should be evaluated, according to your practice's needs. Henry Schein has successfully tested the Dell C3760dn, Epson LQ 2190, DYMO LabelWriter 450 Turbo, and Seiko Label Printer 450. Henry Schein cannot guarantee that all printers will be completely compatibile with Dentrix. We recommend that you use PCL5 printer drivers with all printing equipment. For printing customer and merchant receipts in PowerPay 5.0 and later, Henry Schein has successfully tested the Bixolon Samsung POS Printer SRP-350.
- 14 Backup: Henry Schein offers eBackUp, an online product and service that automates the process of backing up data. For information on backing up your Dentrix system, call Dentrix Support at 1-800-DENTRIX.

- 15 Antivirus Software: Antivirus software is recommended on all computers. Henry Schein software products are compatible with most anti-virus programs; however, Dentrix does not recommend one anti-virus provider over another. Testing has revealed that performance can be affected regardless of the type of anti-virus used. When configuring anti-virus software, consider the needs of your office and the inherent risks in excluding certain items from the protection afforded by anti-virus software. Before deciding on a definite course of action, you may want to contact Henry Schein TechCentral (877-483-0382) or consult your hardware technician or an anti-virus specialist (such as your vendor). For recommended configuration options to ensure that the Dentrix program directory is correctly excluded, refer to Article 56877 in the Dentrix Resource Center or contact Henry Schein TechCentral.
- 16 Cameras & Scanners: The Dentrix Document Center supports cameras and scanners that use TWAIN and WIA drivers. If you are using Dentrix G5 or earlier, cameras and scanners using DirectShow must use Import from File in the Dentrix Document Center. If you are using Dentrix G5.1 or later, cameras and scanners using DirectShow appear in the Document Center and Patient Picture under From Device in the Acquire menu. Some scanners that claim to be 32-bit TWAIN-compliant are not. Henry Schein has successfully tested the HP ScanJet 5590, and Cannon DR-3010C scanners. Other scanners that claim to be TWAIN/WIA compliant will probably work also, but Henry Schein cannot guarantee that all cameras and scanners claiming to be TWAIN/WIA compliant will be completely compatible with Dentrix. Recommended resolution for scanning documents into the Document Center module should be kept to 600 DPI or less.
- 17 Electronic Signature Capture Terminals: Dentrix G5 and later supports the ePAD II and ePAD Vision signature devices for signing consents in the Treatment Planner and Questionnaires modules and clinical notes in the Patient Chart. Dentrix does not support the use of the Ingenico electronic signature terminals for signatures inside of Dentrix.

Please visit www.dentrix.com for the latest updates.

**Note:** For help planning, purchasing and supporting computer and network systems, it is recommended that dental offices contact Henry Schein TechCentral (1-877-483-0382) or other qualified integration specialists who offer help with installation and ongoing service and support.

#### www.Dentrix.com

Support: 1-800-DENTRIX

1220 South 630 East, Suite 100, American Fork, Utah 84003