

***DENTRIX***<sup>®</sup>

G4

SYSTEM REQUIREMENTS

The System Requirements describe minimum and recommended standards for using Dentrix G4. Exceeding the minimum standards may result in better system performance.

Note: With the release of Productivity Pack 7, Dentrix G4 is 64-bit compatible on Windows XP, Windows Vista, and Windows 7 workstations and Windows 2003 and 2008 servers.

## Dedicated Server

### MINIMUM

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#### Hardware:

Intel Pentium® IV 2.4 GHz

1 GB RAM

7200 RPM Hard Drive

40 GB available disk space

DVD drive (Dentrix G4 is not available on CD-ROM discs.)

100 Mbps Ethernet card

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1024 x 768

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.

#### Supported Operating Systems:

Windows® 2008 Server (32- and 64-bit)

Windows® 2008 Small Business Server (64-bit)

Windows® 2003 Server (32- and 64-bit)

### RECOMMENDED

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#### Hardware:

Intel® Core™ 2 Duo Processor

2 GB RAM

10K RPM hard drive

40 GB available disk space

DVD drive (DENTRIX G4 is not available on CD-ROM discs.)

1 Gbps Ethernet card

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1024 x 768

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.

#### Supported Operating Systems:

Windows® 2008 Server (32- and 64-bit)

Windows® 2008 Small Business Server (64-bit)

Windows® 2003 Server (32- and 64-bit)

# Clinical Workstation (Support for advanced 3D modeling)

## MINIMUM

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### Hardware:

Intel Pentium® IV 2.4 GHz

1 GB RAM

3 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 G4.

100 Mbps Ethernet card

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1024 x 768

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.

### Supported 32-bit Operating Systems:

Windows® XP Professional

Windows® XP Tablet PC Edition

Windows® Vista Business

Windows® Vista Ultimate

## RECOMMENDED

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### Hardware:

Intel® Core™ 2 Duo Processor

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

3 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 G4.

1 Gbps Ethernet card

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1024 x 768

3D capable DirectX10 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.

### Supported 32-bit Operating Systems:

Windows® XP Professional

Windows® XP Tablet PC Edition

Windows® Vista Business

Windows® Vista Ultimate

### Supported 64-bit Operating Systems:

Windows® XP Professional

Windows® Vista Business

Windows® Vista Ultimate

Windows® 7 Professional

Windows® 7 Ultimate

### Other software:

Microsoft Word 2003 or 2007 and Microsoft Excel 2003 or 2007 are required for full letter merge functionality.

Dentrix G4 is compatible only with VoicePro 5.0. Earlier versions of Dentrix Voice are not supported.

DxPort is compatible with QuickBooks 2006 or higher.

DxMobile is compatible with Palm OS 4.1 or higher, and is not compatible with Windows® Mobile or Windows® CE operating systems.

## Front Office Workstation (No 3D modeling)

Windows® 7 Professional

Windows® 7 Ultimate

### Supported 64-bit Operating Systems:

Windows® XP Professional

Windows® Vista Business

Windows® Vista Ultimate

Windows® 7 Professional

Windows® 7 Ultimate

Windows® 7 Professional

Windows® 7 Ultimate

### MINIMUM

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#### Hardware:

Intel Pentium® IV 2.4 GHz

1 GB RAM

3 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 G4.

100 Mbps Ethernet card

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1024 x 768

### RECOMMENDED

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#### Hardware:

Intel® Core™ 2 Duo Processor

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

3 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 G4.

1 Gbps Ethernet card

Standard CRT/LCD monitor and video card capable of displaying 32-bit color and a resolution of at least 1024 x 768

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.

## MINIMUM

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### Supported 32-bit Operating Systems:

Windows® XP Professional

Windows® XP Tablet PC Edition

Windows® Vista Business

Windows® Vista Ultimate

Windows® 7 Professional

Windows® 7 Ultimate

### Supported 64-bit Operating Systems:

Windows® XP Professional

Windows® Vista Business

Windows® Vista Ultimate

Windows® 7 Professional

Windows® 7 Ultimate

### Other software:

Microsoft Word 2003 or 2007 and Microsoft Excel 2003 or 2007 are required for full letter merge functionality.

Dentrix G4 is compatible only with VoicePro 5.0. Earlier versions of Dentrix Voice are not supported.

DxPort is compatible with QuickBooks 2006 or higher.

DxMobile is compatible with Palm OS 4.1 or higher, and is not compatible with Windows® Mobile or Windows® CE operating systems.

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

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### Supported 32-bit Operating Systems:

Windows® XP Professional

Windows® XP Tablet PC Edition

Windows® Vista Business

Windows® Vista Ultimate

Windows® 7 Professional

Windows® 7 Ultimate

### Supported 64-bit Operating Systems:

Windows® XP Professional

Windows® Vista Business

Windows® Vista Ultimate

Windows® 7 Professional

Windows® 7 Ultimate

Dentrix G4 system requirements are based on a network consisting of 10 computers or less. If you have more than 10 computers, you may need faster/better computers and networking infrastructure.

**Note: Over time, system requirements change. Please visit [www.dentrix.com](http://www.dentrix.com) for the latest updates.**

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## Notes & Additional Recommendations

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**1 Server:** Henry Schein Practice Solutions (HSPS) recommends running Dentrix G4 on a dedicated server. A dedicated server is a computer which has a server version of Microsoft Windows (2008 Server or 2003 Server) installed on it. In a Dentrix system, its primary function is to serve as a database server for all of the workstations but should not be used as a Dentrix workstation itself. It can also provide other server related functions like DHCP, Internet connectivity,

or file sharing services. Dentrix G4 can be installed and run together on a dedicated server, 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 512MB of memory and preferably have a faster processor than the one listed to help reduce any latency/performance issues. Running Dentrix on a non-dedicated server could impact the performance of the entire network.

**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 upgrades (processor, disk, memory, graphics and/or network) may be required in order to take full advantage of the new features in G4. 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; other vendor's applications; and many more. Henry Schein Practice Solutions recommends that dental offices contact a Henry Schein Certified Integration Technician (CIT), an independent Certified Integration Engineer (CIE), or other qualified integration specialists for new installations or upgrade assistance.

**3 RAM:** The amount of memory (RAM) needed on a particular workstation can depend on several factors, including but not limited to 1) the number and concurrency of the Dentrix modules being used, 2) other applications and processes that are running simultaneously on the computer, and 3) the type and speed of the memory being used. As a general rule, HSPS recommends that systems have memory amounts much higher than the those listed in the system requirements to allow for variability from computer

to computer and to better position each computer for a successful Dentrix upgrade and minimize the number of times the computer hardware needs to be upgraded.

- 4 **Hard Drive:** Disk space is an estimate and proportional to the size of the practice and the amount of data that is being stored and will be stored in the future. For a dedicated Dentrix G4 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 appropriately. HSPS 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:** Beginning with Dentrix G4 all Dentrix releases will be available only on DVD. Dentrix will not be available on CD-ROM discs. For networks, only one workstation needs to have a DVD drive. The software can then be shared with the other workstations as needed.
- 6 **Networks:** Industry standard Ethernet network cards should be used that support the TCP/IP protocol. Dentrix has seen success with the Intel Ethernet Pro 100 and the 3COM 3C905 Fast Etherlink XL PCI cards. 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.
- 7 **Sound Card:** If Dentrix VoicePro or GURU Patient Education will be installed on a workstation, the workstation will

require a sound card. Older computers, even if they have an integrated sound card, may require a newer, third-party add-in card. The Sound Blaster Live and Audigy sound cards provide exceptional performance.

- 8 **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 1024x768 high color resolution settings. HSPS 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. HSPS has seen success with graphics cards from ATI/Radeon and NVIDIA like the ATI Radeon 9550, the ATI Radeon 9200 or the NVIDIA GeForce 6800 GS.
- 9 **USB:** Dentrix VoicePro requires a USB port. HSPS 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.
- 10 **Operating Systems:** Only the operating systems listed in the system requirements are supported with Dentrix G4. With the release of Productivity Pack 7, Dentrix is compatible with the following 64-bit operating systems: Windows XP Professional, Windows Vista (Business and Ultimate), Windows 7, Windows Server 2003, Windows Server 2008, and Windows Small Business Server 2008. For questions regarding Dentrix compatibility with Windows 64-bit operating systems, please contact Dentrix Support at 1-800-336-8749. If you are planning an upgrade to 64-bit computers, contact Dentrix Support and request the latest Dentrix G4 Installation DVD.

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 either. 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 64-bit environment. The following eServices components have already been tested and found to be compatible with the Windows 7 64-bit operating system: eCentral, eTrans, and QuickBill. 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.

- 11 Printers:** For the typical dental office, HSPS 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. HSPS does not recommend using an inkjet printer as your primary printer. Choose a printer based on your practice demands. 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. HSPS has had success with the HP Color LaserJet 3600, HP LaserJet P4014N, HP LaserJet 4250 series, HP Business InkJet 2800, Epson LQ 2090, DYMO LabelWriter 400 Turbo, and Seiko Label Printer 450.
- 12 Backup:** HSPS offers eBackUp, an online product and service that automates the process of saving data. For information on backing up your Dentrix system, call Dentrix Support at 1-800-DENTRIX.
- 13 Antivirus Software:** Antivirus software is recommended on all computers but can affect individual system performance. Please see your hardware technician for recommended configuration options.
- 14 Light Pens & CRT Monitors:** Light pens are only intended for CRT monitors. They can cause damage to LCD monitors.
- 15 Digital Cameras:** Digital cameras without TWAIN support will not allow the “Acquire | Digital Camera...” feature in the Document Center or the “Acquire New Image” in the Patient Picture to function. Images must be retrieved or imported as graphic files into these modules.
- 16 Cameras & Scanners:** The Dentrix 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 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-2050C scanners. 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.

Dentrix G4 system requirements are based on a network consisting of 10 computers or less. If you have more than 10 computers, you may need faster/better computers or networking infrastructure. Over time, system requirements change. Please visit [www.dentrix.com](http://www.dentrix.com) for the latest updates.

For help with computer or network maintenance, Henry Schein Practice Solutions recommends that dental offices contact Henry Schein Office Automation & Technology Solutions (877-483-0382), an independent Certified Integration Engineer ([www.dentrix.com/training/cie.asp](http://www.dentrix.com/training/cie.asp)) or other qualified integration specialists who offer ongoing service and support.



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