DENTRIX G2

System Requirements
for the DENTRIX G2 Practice Management System & DDO® Products

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Dedicated Server

(DENTRIX G2 or DENTRIX IMAGE) [1]

Hardware [2]
- Intel Pentium® IV 2.4 GHz
- 512 MB RAM - 1 GB RAM [3]
- 40 GB available disk space [4]
- CD-ROM Drive [5]
- Ethernet 10/100/1000 network card [6]
- Third-Party add-in sound card [7]
- Standard CRT/LCD monitor with a minimum of 1024x768 screen resolution [15]
- 32-bit, 1024x768 resolution capable video card [8]
- USB Chipset w/ 2 or more powered USB 2.0 ports [9]
- Additional PCI Express, AGP, PCI or USB 2.0 expansion slots may be required

Supported Operating Systems [10]
- Windows 2003 Server
- Windows 2000 Server

Clinical Workstation

(Support for advanced 3D modeling and/or DENTRIX Image)

Hardware [2]
- Intel Pentium® IV 2.4 GHz
- 512 MB RAM - 1 GB RAM [3]
- 2 GB available disk space [4]
- CD-ROM Drive [5]
- Ethernet 10/100/1000 network card [6]
- Third-Party add-in sound card [7]
- Standard CRT/LCD monitor with a minimum of 1024x768 screen resolution [15]
- 3D capable DirectX 9 compatible graphics card with 128 MB video memory (needed for 3D Modeling) [8]
- USB Chipset w/ 2 or more powered USB 2.0 ports [9]
- Additional PCI Express, AGP, PCI or USB 2.0 expansion slots may be required

Supported Operating Systems [10]
- Windows® XP Professional
- Windows® 2000 Professional
- Windows® XP Tablet Edition
- Windows® Vista Business **(see below)**
- Windows® Vista Ultimate **(see below)**

Front Office Workstation

(No 3D modeling and no DENTRIX Image)

Hardware [2]
- Intel Pentium® III 1 GHz [4]
- 256 MB RAM - 512 MB RAM [3]
- 2 GB available disk space [4]
- CD-ROM Drive [5]
- Ethernet 10/100/1000 network card [6]
- Third-Party add-in sound card [7]
- Standard CRT/LCD monitor with a minimum of 1024x768 screen resolution [15]
- 32-bit, 1024x768 resolution capable video card [8]
- USB Chipset w/ 2 or more powered USB 2.0 ports [9]
- Additional PCI Express, AGP, PCI or USB 2.0 expansion slots may be required [4]

Supported Operating Systems [10]
- Windows® XP Professional
- Windows® 2000 Professional
- Windows® XP Tablet Edition
- Windows® Vista Business **(see below)**
- Windows® Vista Ultimate **(see below)**

Microsoft Windows Vista Compatible

Windows XP Professional is currently the recommended client platform for DENTRIX G2. To run Windows Vista successfully as a workstation in your office (not supported on a server) Dentrix recommends the following:

1. **Certified Hardware:** All new hardware should be Microsoft certified to run Windows Vista Business or Ultimate. For existing hardware, run the
   Microsoft Vista Upgrade Advisor (download from Microsoft.com) on each workstation to ensure compatibility.
2. **Aero System Requirements:** All workstations should meet or exceed the combined Vista AERO and DENTRIX G2 System Requirements.
   This translates into:
   a. **Memory:** 3 GB RAM (most system vendors recommend 2 GB for optimal performance of Vista alone).
   b. **Media:** DVD Drive.
   c. **Graphics Card:** Windows Vista AERO compatible graphics card (DirectX 9/3D capable, WDDM driver, 128-256 MB RAM, Pixel Shader 2.0 (hardware).
   d. **Processor: 2.4** GHz Intel processor (better is recommended).
   e. **Disk Space:** At least 20 GB of available space (much more depending on workstation usage).
3. **Compatible DENTRIX Software: Obtain and install the Windows Vista Compatible version of DENTRIX G2.**
4. **Users running Windows Vista & DENTRIX must have full administrative rights for the program to run successfully.**

Note: Many applications and hardware device drivers have not been updated to support Windows Vista. To avoid disruption, enlist the help of a certified professional, or invest the time to determine hardware and software compatibility prior to upgrading.

Additional Functionality for DENTRIX G2

DENTRIX Voice

DENTRIX Voice 4.0 will not work in the DENTRIX G2 Chart, but will continue to work with the Perio Module. Updates to Voice and Perio are in progress and will be released with or in conjunction with DENTRIX G3. DENTRIX Voice 4.0 is not supported on Windows Vista. The updates for Voice and Perio will be Windows Vista compatible.

Internet Connection [11]

- Most eServices functionality requires either dial-up or broadband Internet access (provided separately).

Printers [12]

- Laser Printers : Printing Insurance Forms, Letters, Cards, Coupons, Envelopes, Statements, and Reports
- Color/Image Printers : Printing Patient Tooth or Perio Charts and Images or X-rays from DENTRIX Image
- Dot Matrix Printer : Printing Carbon-Copy, Tractor-Feed Insurance Forms

Label Printers

- Printing DENTRIX Labels

Backup System [13]

- eBackUp for DENTRIX (recommended)
- Windows approved backup system capable of backing up the entire DENTRIX Imaging and Practice Management system.

Additional Software

- Microsoft Word/Excel 2000, 2003 or 2007 (Required for full letter-merge functionality)
- Anti-virus Software [14]
- QuickBooks 2004, 2005, 2006 or 2007

Hand Held Devices

- Any Palm compatible device running Palm OS® 4.1 or higher (optional—for use with DXMobile)

Uninterruptible Power Supply (UPS)

- Any UPS with shutdown software

Digital Camera [16]

- Any standard TWAIN 32-bit compliant camera

Scanner [17]

- Any standard TWAIN 32-bit compliant scanner

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Notes & Additional Recommendations:

1. **Server:** Dentrix recommends running DENTRIX G2 and DENTRIX Image on a dedicated server. A dedicated server is a computer which has a server version of Microsoft Windows (2000 Server or 2003 Server) installed on it. In a DENTRIX system, the server's primary function is the database server for all of the workstations and should not be used as a DENTRIX workstation itself. It may also provide other server related functions like DHCP, Internet connectivity, or file and print sharing services. Both DENTRIX G2 and DENTRIX Image may be installed and run together on the same 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 in the system requirements to help reduce any latency/performance issues. Running DENTRIX G2 on a (or more) non-dedicated server could impact the performance of the entire network. Windows Vista Business and Windows Vista Ultimate are not supported on the server.

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 G2. 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. Dentrix highly recommends the use of a Certified Integration Engineer (CIE) in conjunction with any DENTRIX installation (new or upgrade).

3. **RAM:** The amount of memory (RAM) needed on a particular workstation may 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; 3) the type and speed of the memory being used; 4) the operating system requirements. As a general rule, Dentrix recommends that workstations and servers have more memory, faster processors and more available disk space than those listed in the system requirements. This will help minimize the potential variability between different computers, and will better position each computer for a successful DENTRIX upgrade, minimizing the number of times the computer hardware needs to be upgraded.

4. **Hard Drive:** Disk space listed in the system requirements is an estimate and will change depending on the size of the practice and the amount of data that is currently being stored and that will be stored in the future. For a dedicated DENTRIX G2 server or DENTRIX Image server, 40 GB is listed to estimate the space that may be needed for patient images or patient records that are stored in the 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. Dentrix 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. **CD-ROM Drive:** For workstations, only one workstation needs to have a CD-ROM. The software can then be shared across the other workstations as needed. DVD-ROM drives are required for computers running Windows Vista operating systems.

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 with 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:** A quality third-party sound card is required for DENTRIX Image, DENTRIX Voice, DENTRIX Dictation, DENTRIX Professor and DENTRIX Patient Education. The Sound Blaster Live and Audigy sound cards provide exceptional performance. In general, on-board sound cards are not supported because they don't have the quality necessary to support the DENTRIX product line. Add-in sound cards are only needed on the computers where sound products from Dentrix are being run and accessed (e.g., if the DENTRIX G2 server is running as a dedicated server, no add-in sound card is needed).

8. **Graphics Card:** In order to use the new 3D modeling capabilities in DENTRIX G2, 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 may work, but may impact graphic related performance. Computers will also require a good monitor capable of supporting 1024x768 high color resolution settings. Dentrix has tested graphics cards from multiple vendors and has noticed a wide range of variability. Some on-board graphics cards use shared memory and may not work well with the new DENTRIX G2 3D modeling features. Dentrix has seen success with graphics cards from ATI/Radeon and NVIDIA like the ATI Radeon 9200 or 9550, or the NVIDIA GeForce 6800 GS. To run Windows Vista Business or Windows Vista Ultimate requires that you meet the Aero Experience graphic card requirements for the Clinical Workstation and Front Office Workstation computers.

9. **USB:** DENTRIX Image, DENTRIX Voice, DENTRIX Identity and DENTRIX Dictation require a USB port. Dentrix recommends a motherboard with built-in USB 2.0 slots. The USB slots 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 under "Supported Operating Systems" are supported with DENTRIX and the DENTRIX add-on products.

11. **Modems:** Modems should be DOS compatible. The 3COM®/US Robotics 56Kbs V.91 modem has been very reliable. WinModems and AMR modems should not be used. Some devices may not be compatible with Windows Vista Business or Windows Vista Ultimate. Check with your peripheral vendor prior to upgrading to ensure compatibility.

12. **Printers:** For the typical dental office, Dentrix recommends installation of 2 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 charts or, image and x-ray printouts. Dentrix 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, based on your practice needs. Dentrix has had success with the HP LaserJet 4250 series, HP Color LaserJet 2600, HP Business InkJet 2300, Epson LQ 2080, DYMO LabelWriter 400 Turbo, and Seiko Label Printer 450. Some printers may not be compatible with Windows Vista. Check with your printer vendor prior to upgrading to ensure compatibility.

13. **Backup:** For information on backing up your DENTRIX system, see http://www.dentrix.com/support/faxbacks/backup recommendations or call Dentrix Support at 1-800-DENTRIX to request a Backup Recommendation Sheet.

14. **Anti-virus Software:** Anti-virus software is recommended on all computers, but may affect individual system performance. Please see your hardware technician for recommended configuration settings.

15. **Light Pens & CRT Monitors:** Light pens are only intended for CRT monitors. They may cause damage to LCD monitors.

16. **Digital Cameras:** Digital cameras without TWAIN support will not allow "Acquire | Digital Camera…" feature to function in Document Center or "Acquire New Image" in Patient Picture. Images must be retrieved or imported as graphic files into these modules. Some cameras may not be compatible with Windows Vista. Check with your camera vendor prior to upgrading to ensure compatibility.

17. **Scanners:** Some scanners that claim to be 32-bit TWAIN compliant are not. Dentrix has had success with the HP ScanJet 4850, HP ScanJet 5590, and Epson Expression 1680 scanners. Multi-function print/scan/copy machines are not recommended. Some scanners may not be compatible with Windows Vista. Check with your scanner vendor prior to upgrading to ensure compatibility.

DENTRIX G2 and DENTRIX DDO 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 the Dentrix website for the latest updates. It is recommended to have a local network technician for network maintenance that is a Dentrix Certified Integration Engineer (CIE) or Microsoft Certified Systems Engineer. You can find the nearest CIE in your area by going to www.dentrix.com/training/cie/cie_find.asp. We recommend purchasing hardware from a reputable dealer offering ongoing service and support.