

Carestream strongly adheres to compliance with Microsoft Windows operating systems and hardware compatibility (HCL), which can be found at <http://www.microsoft.com/whdc/hcl/default.mspx>. Only operating systems and hardware listed below have been fully tested and certified on OrthoTrac software. System Requirements are updated regularly. Before purchasing any equipment, please review the latest requirements located at http://www.carestreamdental.com/us_region/support/SystemRequirements.aspx

Item	Minimum Required	Recommended	Notes
Computer System	<p>Database Server Server-class Intel Pentium 4 2.0 GHz CPU DVD drive 10/100 Ethernet Card USB Port Keyboard, Mouse</p> <p>Workstations Pentium 4 1.7GHz VGA 1024x768 Resolution video card 10/100 Ethernet Card USB Port Keyboard, Mouse, DVD drive</p>	<p>Database Server Server-class Intel Duo Processor 3.0 GHz or faster CPU DVD-RW Drive 100/1000 Ethernet Card USB Port Keyboard, Mouse</p> <p>Workstations Pentium 4 3.2GHz (or faster) 100/1000 Ethernet Card USB Port Keyboard, Mouse, DVD</p>	<p>Ensure the computer system selected is running one of the following Microsoft Certified Windows Products: Windows XP 32 bit Windows Server 2003 Standard Edition 32 bit Windows Server 2003 Enterprise Edition 32 bit Windows Server 2008 Standard Edition 32/64 bit Windows Server 2008 Enterprise Edition 32/64 bit</p>
System Memory	Server 1 GB* Workstation 1GB*	Server 2 GB * Workstation 2 GB *	*Increasing the amount of RAM often improves performance.
Hard Drive	Server 20 GB Workstation 10 GB	Server 100 GB Workstation 20 GB	<p>Disk compression or other utilities should not be used.</p> <p>Disk space requirements grow as your practice grows. The data directory starts at 100MB, and could easily grow to 400-500MB in a few years.</p>
Monitor and Video Card	15" Standard LCD/CRT monitor 1024 x 768 resolution 32 MB video RAM 32 bit True Color Normal/Small font size (96 DPI)	17" Standard LCD/CRT monitor 1280x1024 resolution 512 MB video RAM 32 bit True Color Normal/Small font size (96 DPI)	Monitor size selections should be based on space considerations where the monitor will be located. A flat panel or 15" monitor may be desirable in confined spaces.
Operating System	<p>Database Server:*</p> <p><u>With 4 or more workstations</u> Windows Server 2003 (Standard Edition) (SP2) 32 Bit</p> <p><u>With 1-3 workstations</u> Windows XP Professional (SP3) 32 Bit</p> <p>Workstations:*</p> <p>Windows XP Professional (SP3) Windows Vista Business 32bit *** Windows Vista Enterprise 32bit ** Windows Vista Ultimate 32 bit *** Windows 7 Professional 32/64 *** Windows 7 Enterprise 32/64 *** Windows 7 Ultimate 32/64 ***</p>	<p>Database Server:*</p> <p><u>With 4 or more workstations</u> Windows Server 2003 (Standard Edition) (SP2) Windows Server 2008 Standard 32/64 bit Windows Server 2008 Enterprise 32/64 bit</p> <p><u>With 1-3 workstations</u> Windows XP Professional (SP3) 32 Bit</p> <p>Workstations:*</p> <p>Windows XP Professional (SP3) Windows 7 Professional 32/64 Windows 7 Enterprise 32/64 Windows 7 Ultimate 32/64</p> <p>XP SP3 or higher is required for the Quick Books Integration running on a workstation. See Add-on Software section for specific version information.</p>	<p>Carestream recommends using the least-used machine as the data server. If there are more than 4 workstations in the office, a dedicated data server running Windows Server 2003 (SP2) is recommended.</p> <p>Carestream recommends disabling QOS Packet Scheduler on Windows Server 2003 (Standard Edition), and Windows XP Professional to prevent network performance issues.</p> <p>Windows XP is limited to 10 concurrent inbound connections.</p> <p>*Access Rights Use caution in restricting access to operating system resources. For simplicity, Carestream recommends that all users have Administrator rights. At a minimum, all OrthoTrac software users will need <u>full access rights</u> to the following:</p> <ul style="list-style-type: none"> • The Registry • The OMS and OMS-SPEC folders • The root directory. <p>***Users running Windows Vista or Windows 7 should check compatibility of 3rd party software and peripherals with their providers.</p>

Item	Minimum Required	Recommended	Notes
Apple-Macintosh Computers	<p>Server: Not Supported</p> <p>Workstations:* Intel-based Macintosh: OS X 10.4.6 software or better</p> <p>*Apple-Macintosh Computers: Mac Mini, iMac, MacBook, MacBook Pro, MacBook Air, MacPro</p>	<p>Server: Not Supported</p> <p>Workstations:* Intel-based Macintosh: OS X 10.4.6 software or better</p> <p>*Apple-Macintosh Computers: Mac Mini, iMac, MacBook, MacBook Pro, MacBook Air, MacPro</p>	<p>OrthoTrac on a Mac Requires:</p> <ul style="list-style-type: none"> • Apple Boot Camp (included in Mac OS X), VMWare Fusion or Parallels Desktop • Licensed copy of Windows XP, Vista or Windows 7 <p>NOTES: Some hardware devices such as scanners, card readers, fingerprint scanners, etc. may not be fully functional using either of the virtual machine packages (Fusion/Parallels).</p> <p>You can install & use Boot Camp or you can install either of the virtual machine packages on top of Boot Camp</p> <p>Although no issues have been found when running the applications through either Fusion or Parallels; Boot Camp software without a virtual machine application may be more reliable.</p>
SQL Server Software	SQL Server 2005 Express 32 Bit*	SQL Server 2005 Express 32 Bit*	<p>SQL Server 2005 Express is free and installed with OrthoTrac 11.x. To verify your hardware meets the minimum system requirements visit: http://www.microsoft.com/sql/prodinfo/sysreqs/default.mspx.</p> <p>Select Express Edition System Requirements.</p> <p>New SQL Server Installs require XP SP3 or higher</p> <p>*Larger offices may require a full version of SQL Server 2005** or SQL Server 2008**. System Requirements can be accessed from the link shown above.</p> <p>OrthoTrac software is not certified to run on 64-bit versions of Windows SQL Server 2005 or Windows SQL Server 2008 at this time.</p>
Modem	28.8 - 56K External Modem	Broadband Internet Connection	Carestream recommends a modem connected to the server with a dedicated phone line for maximum supportability.
Credit Card Reader	Required only if utilizing the Carestream Dental electronic credit card processing service.	MAGTEK (part no. 21040101)	Available only from Carestream.
SmartCall Module	Not required to run OrthoTrac	TAPI v2 compliant phone system and associated TSP software for Windows for your particular phone system.	Check with your phone provider concerning TSP software for Windows and any additional licensing of TAPI services they may require.
UPS/Surge Suppressors	Not required to run OrthoTrac software, but strongly recommended.	UPS devices with a wattage level capable of supplying sufficient power to your system.	A UPS device will supply power to your system in the event of a power failure. Carestream recommends that you work with your hardware vendor to configure a UPS solution adequate for your network.
Backup System	Windows approved backup system capable of backing up the all OrthoTrac software directories.	20/40 DAT – digital analog tape Carestream recommends that your backup is tested and guaranteed to be functioning correctly.	Data backup is an important step in your daily procedures. In the event of data corruption, fire, theft or loss, your backup may be the only way to restore your office records.

Item	Minimum Required	Recommended	Notes
Printers	<p><u>Report Printer:</u> HP-compatible with 2MB of memory</p> <p><u>Ticket Printer:</u> Microsoft Windows-compatible capable of printing half-sheets of paper</p> <p><u>Business Card Ticket Printer:</u> Not required to run OrthoTrac software</p> <p><u>Label Printer:</u> Not required to run OrthoTrac software</p> <p><u>Color Printer:</u> Not required to run OrthoTrac software</p>	<p><u>Report Printer:</u> HP LaserJet 4200 Series HP Laser Jet P4515tn**</p> <p><u>Ticket Printer:</u> HPLaserJet or HPDeskJet Windows-compatible capable of printing half-sheets of paper</p> <p><u>Business Card Ticket Printer:</u> DYMO LabelWriter™ Twin Turbo DYMO LabelWriter™ Turbo</p> <p><u>Label Printer:</u> (1" labels) DYMO LabelWriter (see above) Brother P-Touch PT-2600 Seiko Smart Label Printer 430</p> <p><u>Color Printer:</u> HP DeskJet 6000 series printer</p>	<p>Carestream does not recommend using "L" series printers or an inkjet printer as your report or primary printer.</p> <p>**See the Printer Fact sheet for Paper Weight Limitations. Recall Cards < 53lb.</p> <p>Ticket Printer: For WTS or Citrix, any network ready HPDeskJet or HPLaserJet (check printer technical specifications) and configured to print in a client/server environment.</p> <p>Label printers are supported only on the machine they are connected to and are not supported for use at a remote office.</p> <p>Carestream does not recommend using dye sublimation printers as your word processing printer</p>
Electronic Signature Pad	Required only if using Electronic Signature feature	Topaz Signature Pads (Standard or LCD) or Tablet PC	To use a signature pad in a WTS or Citrix session, a signature pad with a serial connector is required, available from Topaz. USB pads are not supported on thin clients or fat clients running through WTS.
Fingerprint Device	Required only if using Fingerprint feature	Please contact your Sales representative for specifics.	<p>Fingerprint scanner is supported under a 32bit WTS or Citrix session on a fat client only. Thin client devices are not supported.</p> <p>Fingerprint scanning is not supported on a combined data/WTS server.</p> <p>Scanners built into Tablet PCs are not supported.</p>
Add-on Software	<p>pcAnywhere version 9.0 HOST/REMOTE software</p> <p>MS Word (version 11 or later)</p>	<p>pcAnywhere HOST/REMOTE software</p> <p>Norton AntiVirus or McAfee VirusScan Software</p> <p>MS Word 2003 32 Bit (version11) MS Word 2007 32 Bit (version 12) MS Word 2010 32 Bit (version 14)**</p> <p>MS Outlook 2003 (version11) MS Outlook 2007 (version 12) MS Outlook 2010 (version 14)**</p> <p>Intuit Quickbooks***</p>	<p>MS Word should be installed and registered with the latest update available from Microsoft.</p> <p>**MS Office Standard 2010 and MS Office Professional 2010 are certified to run with OrthoTrac (Word Version 14).</p> <p>NOT SUPPORTED: The 64-bit version of <u>any</u> version of MS Office 2010 (<u>including MS Word & MS Outlook</u>) is not supported for OrthoTrac.</p> <p>Any Microsoft Office "Click to Run" Microsoft product.</p> <p>***See http://support.quickbooks.intuit.com Quickbooks 2007 or higher for Windows XP SP3 Quickbooks 2007 or higher for Windows Vista Quickbooks 2010 or higher for Windows 7</p>
Internet Connectivity	<p>OrthoTrac software supports online updates, product registration and activation, Electronic Insurance Eligibility Service, E-Claims Processing Service, E-Payment Processing and E-Statements Delivery Service, as well as access to training resources on the internet.</p> <ul style="list-style-type: none"> • Security. A hardware and/or software firewall must be used and configured properly. The firewall should be configured to ensure OrthoTrac Software Support connectivity. • Anti-Virus Protection. A comprehensive anti-virus product must be installed and configured properly. Real-time scanning is not recommended due to a negative impact on network performance. <p>We strongly recommend that a qualified computer hardware and network servicing organization configure and maintain your internet connection.</p>		

OrthoTrac Point-Of-Care module (version 11.6.2)

In addition to the system requirements for the main office, the following additional items are required for the Point-of-Care module. OrthoTrac Point-Of-Care module has been optimized for Tablet PCs in portrait mode and requires either a **Remote Desktop Host PC for single users** or a **Terminal Services/Citrix Server for multiple users**. OrthoTrac Point-Of-Care module may also be used on standard OrthoTrac software workstations which meet the minimum requirements stated above.

Item	Minimum Required	Recommended	Notes
Tablet PC	Pentium III 933MHz	Pentium M 1.1GHz or faster	The Remote Desktop feature of Windows XP Tablet PC Edition is used as the client to connect to either a Windows XP RDP Host PC or a WTS/Citrix Server.
Operating System	Windows XP Tablet PC Edition	Windows XP Tablet PC Edition	
System Memory	256MB RAM	512MB RAM	
Hard Drive	20GB Hard Drive	20GB Hard Drive	
Application Server	Pentium 733MHz	Pentium 4 2.0GHz or faster	Single tablet PC users may utilize a PC with Windows XP Professional as the application server using Remote Desktop Host. This PC must be used exclusively as an application server when Point-Of-Care module is being used. For use with more than one tablet PC, Windows Server 2003 (Standard Edition) or Windows Server 2008 (Standard Edition) with Windows Terminal Services must be used.
Operating System	Windows XP Professional (SP3)	Windows Server 2003 (Standard Edition) Windows Server 2008 (Standard Edition)	
System Memory	256MB RAM	128MB for each tablet PC 512MB minimum	
Hard Drive	8GB Hard Drive	20GB Hard Drive	
Display Resolution	1024 x 768	1024 x 768	Point-Of-Care module is optimized to operate in Portrait Mode.
Fingerprint Device	Required only if using Fingerprint feature	UPEK TouchChip® Fingerprint Reader	Fingerprint feature supports the listed fingerprint scanner device only. Scanners built into Tablet PCs are not supported.
Wireless Access Point	Any name brand wireless access point that supports the wireless network adapters in your Tablet PC and provides adequate signal strength.	Wireless access point that supports the 802.11a or 802.11g wireless protocol.	
Wireless Networking	<ul style="list-style-type: none"> • Security. Wireless networks can be secured using different methods including WEP Encryption and hardware ID authentication. Please consult your hardware vendor for the security scheme best suited for your environment. • Wireless Networking Protocols. Tablet PC's can connect to your wireless access point using standard wireless networking protocols including 802.11a, 802.11b, and 802.11g. Each Tablet PC must have a wireless network adapter that matches the protocol supported by your wireless access point. • Wireless Signal Coverage. We strongly recommend that you have your computer hardware and network servicing organization perform a wireless networking site survey in your office to ensure adequate wireless signal strength is available everywhere you plan to operate your Tablet PC and to identify sources of signal interference. • For an interruption-free connection to your OrthoTrac software database, Carestream recommends that you disable all power saving features and screen savers on your Tablet PC. 		

OrthoTrac software Multi-Location Solutions (version 11.6.2)

In addition to the system requirements for the main office, the following additional items are required for a multi-location configuration. OrthoTrac software requires **two servers** for implementing multi-location solutions: the database server as described on page1 of this document, and an Application Server with Windows Terminal Services as described below.

Item	Minimum Required	Recommended	Notes
Computer System	Application Server Server-class Pentium 4 2.0GHz Processor CPU DVD drive 10/100 Network Card Keyboard Mouse	Application Server Server-class Intel 2 Duo Processor 2.0 GHz or faster CPU DVD drive 100/1000 Ethernet card Keyboard Mouse	Ensure the computer system selected is Windows XP, Windows Server 2003 (Standard Edition) or Windows Server 2008. Windows Terminal Services must be installed on the Application Server and a client access license is required for each workstation connected to the Application Server.
Operating System	Windows Server 2003 (Standard Edition) SP2 32 Bit	Windows Server 2003 (Standard Edition) SP2 32 Bit	Citrix Metaframe XP 1.0 Feature Release 3 is now supported for use with OrthoTrac software under the Windows Terminal Services environment.* For additional information, please consult the OrthoTrac software <i>Citrix Configuration Guide</i> . *Because Citrix runs concurrently with Windows Terminal Services and produces additional overhead, Citrix server hardware configurations should meet or exceed the requirements listed for application servers running Windows Terminal Services.
System Memory	2 GB 128 MB for each remote client	4 GB 512 MB for each remote client	
Hard Drive	100 GB Hard Drive	200 GB Hard Drive (or greater)	
Remote PC Based System	Any Intel-based PC capable of running the Terminal Services Client software* and supporting network connectivity via the TCP/IP protocol.	Pentium 4 3.2GHz (or faster) DVD drive 100/1000 Ethernet Card Keyboard Mouse	
Operating System	Windows XP Professional (SP3)	Windows XP Professional (SP3)	*For the Citrix environment, client PCs should run Citrix ICA client software version 6.x (or greater). For use of the Fingerprint Scanner feature of OrthoTrac software, a "fat client" device is required.
System Memory	1 GB	2 GB	
Hard Drive	10 GB	20 GB	
Thin Client Devices	Any device that is capable of running Microsoft RDP (or compatible)* client software, that supports network connectivity via the TCP/IP protocol, and that is capable of generating a display of at least 1024x768 pixels using 32 bit true color.	Wyse Winterm 3150SE	*For the Citrix environment, client devices should run Citrix ICA client software version 6.x (or greater).
Printers	See printer requirements for main office	See printer requirements for main office	Printing at a remote office requires that the printer be available to the network, and then mapped to the Terminal Services Client. There is no support for Label Printers at the remote office.
Wide-Area Network Telecommunications	Carestream recommends using a high speed, dedicated, point-to-point connection such as ISDN or T1.		