



## **Medtech32 New Zealand Hardware & Software Requirements**

**August 2009**



These Documentations contain important information for Medtech32.  
Please ensure the Technical Documentations are circulated amongst all your  
IT staff and/or IT service providers.  
We suggest these should be filed safely for future reference.

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For further information or any other queries regarding the Hardware & Software Requirements, please contact the Medtech Helpdesk on 09 358 0116 → Option 1, or email [nzsupport@medtechglobal.com](mailto:nzsupport@medtechglobal.com).

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## Client/Server System Requirements

Below is a list of the minimum and recommended system requirements for an ideal Medtech32 Client/Server environment. The following requirements assumed both the Server and the Workstations will not be running any other applications or services other than Medtech32 and CodeGear Interbase.

Depending on the volume of transactions and the amount of digital images (such as scanned documents and digital camera photos) that need to be processed, as well as factors such as what other third-party applications or services are running on the computers (such as antivirus and backup software), the exact system requirements could vary.

If in doubt, please consult a Medtech Certified Engineer prior to purchasing any new computing equipment.

System Requirements	Minimum	Recommended
<b>Server Requirements with up to 5 Workstations</b>	Pentium 4 2GHz CPU or Equivalent.	Dual-Core Pentium 1.8Ghz CPU or Equivalent.
	1GB DDR RAM.	2GB DDR2 RAM.
	40GB ATA100 or SATA1 7200rpm HDD.	80GB SATA2 7200rpm HDD.
	Power Surge Protector.	Standard UPS.
	Windows 2000 Standard Server or 2000 Professional or XP Professional.	Windows 2003 Standard Server.
<b>Server Requirements with up to 10 Workstations</b>	Pentium 4 2.4GHz CPU or Equivalent.	Dual-Core Pentium 2.2Ghz CPU or Equivalent.
	2GB DDR RAM.	2GB DDR2 RAM.
	73GB SCSI160 or 80GB SATA1 7200rpm HDD.	2 x 73GB SCSI320 or 2 x 80GB SATA2 7200rpm HDD on RAID1.
	Standard UPS.	Smart UPS with Serial or USB Interface.
	Windows 2000 or 2003 Standard Server.	Windows 2003 Standard Server.
<b>Server Requirements with up to 25 Workstations</b>	Xeon 2.8GHz CPU or Equivalent.	Dual-Core Xeon 2.4GHz CPU or Equivalent.
	2GB DDR ECC RAM.	4GB DDR2 ECC RAM.
	2 x 73GB SCSI320 or SAS 10000rpm HDD on RAID1.	3 x 73GB SCSI320 or SAS 10000rpm HDD on RAID5.
	Smart UPS with Serial or USB Interface.	Smart UPS with Serial or USB Interface + Redundant Power Supply.
	Windows 2000 or 2003 Standard Server.	Windows 2003 Standard Server.

System Requirements	Minimum	Recommended
<b>Server Requirements with up to 50 Workstations</b>	2 x Xeon 2.8GHz CPU or Equivalent.	Quad-Core Xeon 2.0GHz CPU or Equivalent.
	4GB DDR ECC RAM.	4GB DDR3 ECC RAM.
	3 x 146GB SCSI320 or SAS 10000rpm HDD on RAID5.	3 x 146GB SCSI320 or SAS 15000rpm HDD on RAID5.
	Smart UPS with Serial or USB Interface.	Smart UPS with Serial or USB Interface + Redundant Power Supply.
	Windows 2000 Advanced or 2003 Enterprise Server.	Windows 2003 Enterprise Server.
<b>Additional Server Requirements</b>	Deploy 2 x physical hard disk drives or RAID disk sets to separate the following functions: <ol style="list-style-type: none"> <li>1. Windows OS, Services, Applications, Virtual Memory, and System and Interbase Temp Files.</li> <li>2. Database Files – i.e. MT32 and BLOB.</li> </ol>	Deploy 3 x physical hard disk drives or RAID disk sets to separate the following functions: <ol style="list-style-type: none"> <li>1. Windows OS, Services, Applications, and Virtual Memory.</li> <li>2. System and Interbase Temp Files.</li> <li>3. Database Files – i.e. MT32 and BLOB.</li> </ol>
	CD or DVD Optical Drive (for Medtech32 installation and updates).	CD or DVD Optical Drive. (for Medtech32 installation and updates).
	Tape or DVDRW or External Hard Disk Drive (for removable off-site data backup).	Tape or DVDRW or External Hard Disk Drive (for removable off-site data backup).
	Fast Ethernet NIC (running TCP/IP protocol only).	Gigabit Ethernet NIC (running TCP/IP protocol only).
	Internal Hardware or External Dial-up Modem (if running FaxTech Server).	Internal Hardware or External Dial-up Modem (if running FaxTech Server).
	Dial-up Internet Connection with Antivirus & Firewall Protection (if running HealthLink, ManageMyHealth™ Portal, ManageMyHealth™ SMS, or Web Forms.)	Broadband Internet Connection with Antivirus & Firewall Protection (if running HealthLink, ManageMyHealth™ Portal, ManageMyHealth™ SMS, or Web Forms.)

System Requirements	Minimum	Recommended
<b>Workstation Requirements</b>	Pentium III or Equivalent.	Pentium 4 or Equivalent.
	512MB RAM.	1GB DDR RAM
	1GB Free HDD Space.	2GB Free HDD Space.
	Ethernet NIC (running TCP/IP protocol only).	Fast Ethernet NIC (running TCP/IP protocol only).
	Power Surge Protector.	Power Surge Protector.
	Windows 2000 Professional or XP Professional.	Windows XP Professional.
	Internal Hardware or External Dial-up Modem (if running FaxTech Server).	Internal Hardware or External Dial-up Modem (if running FaxTech Server).
	Dial-up Internet Connection with Antivirus & Firewall Protection (if running HealthLink, ManageMyHealth™ Portal, ManageMyHealth™ SMS, or Web Forms.)	Broadband Internet Connection with Antivirus & Firewall Protection (if running HealthLink, ManageMyHealth™ Portal, ManageMyHealth™ SMS, or Web Forms.)

## Peer-to-Peer System Requirements

**NOTE:** Medtech does NOT recommend Peer-to-Peer networks under any circumstances or environment. Client/Server architecture is always the preferred deployment solution (please refer to the "Client/Server System Requirements" section above).

For small networks running a Peer-to-Peer configuration, where the server is also used as a workstation, you will require a minimum specification as follows:

System Requirements	Type	Minimum
<b>Peer-to-Peer Server Requirements</b>	CPU	Pentium 4 2.4GHz CPU or Equivalent.
	Memory	2GB DDR RAM.
	Hard Drive	73GB SCSI160 or 80GB SATA1 7200rpm HDD.
	Power Surge Protection	Standard UPS.
	Operating System	Windows 2000 Professional or XP Professional.
	Additional Requirements	Refer to "Additional Server Requirements" as stated in the "Client/Server System Requirements" section above.

## Network Requirements

Network Requirements	Type	Recommended
<b>Network Bandwidth Requirements</b>	Server Segment	1Gbps Gigabit Ethernet.
	Client Segment	100Mbps Fast Ethernet.
	Backbone	1Gbps Gigabit Ethernet.
	WAN	Secured Virtual Private Network via public network or Dedicated private network.
	Internet	Broadband Internet, with proper security measures such as Antivirus & Firewall Protection.
<b>Network Device Requirements</b>	Network Interface Card	For small networks: - Unmanaged.  For medium to large networks: - SNMP compatible.
	Layer 1 Device or Hub-less configuration (NOT recommended)	NOT recommended: - Layer 1 Hub. - Cross-over cabling.
	Layer 2 Device	For small networks: - Unmanaged Layer 2 Switch.  For medium to large networks: - Managed Layer 2 Switch with SNMP support.
	Layer 3 Device	As required to isolate Medtech32 segment from other LAN/WAN segments.
	Wireless Device	NOT recommended.
<b>Network Cabling Requirements</b>	Cable Type	Unshielded Twisted Pair (UTP) Category 5e or Category 6 certified.
	Connector Type	Registered Jack RJ45.
	Certification	All cabling segments tested and certified for TIA/EIA-568-B standard.

Network Requirements	Type	Recommended
<b>Firewall / Proxy Requirements</b>	Interbase	Allow TCP Port 3050 on internal LAN/WAN.
	Medtech32	Allow UDP Port 300 on internal LAN/WAN.
	ACC45 Electronic Forms	Allow HTTP on Internet for: - emgweb.acc.org.nz  Allow HTTPS on Internet for: - emg.acc.co.nz
	ManageMyHealth™ Portal	Allow HTTP on Internet for: - managemyhealth.co.nz
	ManageMyHealth™ SMS	Allow HTTP on Internet for: - sms.managemyhealth.co.nz
	Web Forms	Allow HTTP on internal LAN/WAN for: - Web Forms Engine Default = servername:8080 i.e. ServerName:Port for Apache Tomcat, which is installed by default with ConnectedCare™.  - MT SOAP Service Default = servername:7080 i.e. ServerName:Port for built-in SOAP Service, which is installed by default with Medtech32.  - Messaging Gateway Default = servername:5099 i.e. ServerName:Port for HealthLink Quantum – please contact HealthLink for further information.

## Printing Requirements

Printer Requirements	Type	Recommended
<b>Printer Requirements</b>	Driver Compatibility	Windows Driver Model (WDM) compatible.
	Driver Language	Recommended: <ul style="list-style-type: none"> <li>- Printer Command Language 5 (PCL 5)</li> <li>- PostScript (PS).</li> </ul> NOT Recommended: <ul style="list-style-type: none"> <li>- Printer Command Language 6 (PCL 6)</li> <li>- Other manufacturer proprietary languages.</li> </ul>
	Paper Size	MUST be capable of handling both A4 and A5.
	Manual Feed (optional)	For printing pre-formatted forms and letterheads if required.
	Multiple-Trays (optional)	For handling different paper types and paper sizes without manually changing/feeding papers if required.
	Label Printing (optional)	For printing laboratory and mail merge labels if required.
<b>Recommended Printer Models</b>	Recommended (general)	Any Hewlett Packard LaserJet printers.
	Recommended (label)	Any Dymo Label printers.
	NOT Recommended	Any all-in-one multifunction printers.
	Kyocera Incompatibility	It has been reported Kyocera printers may cause intermittent illegible document printouts from Medtech32.

## Printer Deployment Considerations

- It has been reported many all-in-one multifunction devices could cause compatibility issues when printing within Medtech32. If in doubt, please consult a Medtech Certified Engineer to perform proper testing prior to deploying any printers.
- If the practice will be printing on both A4 and A5 papers, then two separate instances of the printer will need to be installed and configured for each paper size.
- When configuring multiple-trays printers in Windows, aside from installing one instance of the printer for each paper size, you will also need to INACTIVATE or DISABLE or make NOT AVAILABLE the unused trays. Any auto-tray-select features will also need to be DISABLED.
- Network Printers with their own IP Addresses will need to be installed as LOCAL printers on the workstations to work efficiently with Medtech32.
- Remote printers will also need to be installed as LOCAL printers on the Terminal Services Server for these printers to work properly in Terminal Services Client sessions.
- "Automatic" Client Printer Mappings should be disabled in Terminal Services Client sessions. Instead, "Static" Server Printer Mappings should be created via Windows logon scripts.
- Where Windows XP or Windows 2003 is installed, ensure Automatic Search for Network Printers and Folders has been DISABLED as a policy.
- Even though no users will be logging onto the Medtech32 Server, a dummy printer MUST be installed on the Server for Medtech32 to function properly.
- All printer names, driver names, and port names MUST conform to the Medtech32 naming convention, i.e. less than 64 characters in length, and avoid using spaces and symbols like \ / : \* ? " < > | in the names.
- It has been reported Kyocera printers may cause intermittent ineligible document printouts from Medtech32. If the use of Kyocera printers cannot be avoided, Mini PCL5e drivers should be used instead of KX Extended or KPDL drivers.  
**NOTE:** Please consult a Medtech Certified Engineer to perform proper testing prior to deploying any Kyocera printers.

## Scanning and Digital Imaging Requirements

Printer Requirements	Type	Recommended
<b>Scanner / Digital Camera Requirements</b>	Driver Compatibility	MUST be TWAIN compatible.
	Image Format Compatibility	Scanning Module Support: - TIFF - TWAIN  Drawing Tool Support: - BMP - GIF - JPEG - TIFF - TWAIN
	Paper Size	Capable of handling A4.
	Automatic Document Feeder (optional)	For scanning multiple documents if required.
<b>Recommended Scanner Models</b>	Recommended	- Canon DR-2050C or DR-2580C. - Kodak I30 or I40.
	NOT Recommended	Any all-in-one multifunction printers.
<b>Recommended Digital Camera Models</b>	Recommended	- Canon PowerShot A200.
	NOT Recommended	Any non TWAIN compatible cameras.

**Medtech32 has been FULLY tested with the following scanners:**  
*(Please contact **Medtech Sales** for further information on 09 358 0116.)*

### **Canon DR-2050C/2580C (Recommended)**

- It allows for easy setup and integration (TWAIN compatible).
- Scans up to 20/25 pages per minute or 38/50 images per minute.
- Built-in Automatic Document Feeder – allows scanning up to 5mm stack or 50 sheets of 80 gsm A4 paper in one go.
- Hi-Speed USB 2.0 interface (cable included).
- Fits in any work space – small and compact design.

### **Kodak i30/i40 (Recommended)**

- It allows for easy setup and integration (TWAIN compatible).
- Scans up to 25 pages per minute or 50 images per minute.
- Built-in Automatic Document Feeder – allows scanning up to 50 sheets of 75 gsm A4 paper in one go.
- Single/Dual CCD scanning technology.
- Hi-Speed USB 2.0 interface (card and cable included).
- Fits in any work space – small and compact design.

## Scanner and Digital Camera Deployment Considerations

- Medtech32 can only interface with TWAIN compliant scanners and digital cameras. Aside from the recommended scanner and digital camera models listed above, Medtech CANNOT guarantee other brands or models can be fully integrated with Medtech32.

**NOTE:** If in doubt, please consult a Medtech Certified Engineer to perform proper testing prior to deploying any scanners or digital cameras.

- It has been reported many all-in-one multifunction devices could cause compatibility issues or could limit scanning functionalities when scanning within Medtech32 – this is especially the case with the low-end models.
- It is NOT recommended to enable TWAIN GUI Mode – i.e. scanning via the GUI (graphical user interface) of the TWAIN compatible driver/software supplied by the scanner's manufacturer – unless your scanner does not function properly when scanning directly into Medtech32.
- Network scanners should be installed as LOCAL scanners, i.e. TWAIN driver is locally detectable for Medtech32 Scanning to work.
- Scanning via Citrix and Terminal Services sessions is not supported, except for the latest version of Citrix Metaframe Presentation Server 4.x.
- When scanning multi-paged documents via the scanner's ADF (automatic document feeder), you can add a blank piece of paper between each document – the blank page will be detected as a separator and Medtech32 will automatically create a new Inbox record.  
**NOTE:** The blank page should ALWAYS be of the maximum paper size that your scanner supports in order for this feature to work properly.
- Duplex scanning is not supported unless all pages to be scanned within the same document have information printed on both sides, as any blank front or back page will be detected as a document separator.

## 32-Bit Operating Systems Support

Depending on the version of Medtech32 and Interbase installed, the following versions of Microsoft Windows are currently supported by Medtech:

### Supported 32-Bit Operating Systems (Interbase Version 2007, Medtech32 Version 18 or above)

<b>Supported 32-Bit Server Operating Systems</b>	Windows 2000 Server
	Windows 2000 Advanced Server
	Windows 2003 Standard Server (32-bit)
	Windows 2003 Enterprise Server (32-bit)
	Windows 2003 Small Business Server (Not Recommended – please refer to the "Server Deployment Considerations" section below.)

<b>Supported 32-Bit Workstation Operating Systems</b>	Windows 2000 Professional
	Windows XP Professional (32-bit)
	Windows Vista Business Edition (32-bit)
	Windows Vista Ultimate Edition (32-bit)
	Windows Vista Enterprise Edition (32-bit)

### Supported 32-Bit Operating Systems (Interbase Version 7.0/7.1)

<b>Supported 32-Bit Server Operating Systems</b>	Windows 2000 Server
	Windows 2000 Advanced Server
	Windows 2003 Standard Server (32-bit)
	Windows 2003 Enterprise Server (32-bit)
	Windows 2003 Small Business Server (Not Recommended – please refer to the "Server Deployment Considerations" section below.)

<b>Supported 32-Bit Workstation Operating Systems</b>	Windows 2000 Professional
	Windows XP Professional (32-bit)

**Supported 32-Bit Operating Systems (Standalone Medtech32 Server)**

In cases where the Medtech32 Server is hosted on a separate computer than the Interbase Server, the following versions of Microsoft Windows are currently supported by Medtech for hosting the Medtech32 Server:

<b>Supported 32-Bit Server Operating Systems</b>	Windows 2000 Server
	Windows 2000 Advanced Server
	Windows 2003 Standard Server (32-bit)
	Windows 2003 Enterprise Server (32-bit)
	Windows 2003 Small Business Server (Not Recommended – please refer to the "Server Deployment Considerations" section below.)

## Non Supported 32-Bit Operating Systems

**NOTE:** Medtech32 **DOES NOT** support the following versions of Microsoft Windows. Although it might be possible to run Medtech32 on these operating systems, Medtech **WILL NOT** be able to provide support if a practice encounters problems while running on these Windows versions.

<b>Non Supported 32-Bit Server Operating Systems</b>	Windows NT 3.51 Server or earlier
	Windows NT 4.0 Server
	Windows 2000 Datacenter Server
	Windows 2003 Compute Cluster Server
	Windows 2003 Datacenter Server
	Windows 2003 Storage Server
	Windows 2003 Web Server
	Windows Home Server
	Any non-Windows OS

<b>Non Supported 32-Bit Workstation Operating Systems</b>	Windows 95 or earlier
	Windows 98
	Windows Millennium Edition
	Windows NT 3.51 Workstation or earlier
	Windows NT 4.0 Workstation
	Windows XP Embedded Editions
	Windows XP Home Editions
	Windows XP Media Centre Editions
	Windows XP Starter Editions
	Windows XP Tablet PC Editions
	Windows Fundamentals for Legacy PCs
	Windows Vista Starter Edition
	Windows Vista Home Basic Edition
	Windows Vista Home Premium Edition
	Any non-Windows OS

## 64-Bit Operating Systems Support

Medtech **DOES NOT** recommend deploying Medtech32 in any Windows 64-Bit operating systems environment – due to the fact that the current versions of both Medtech32 and CodeGear Interbase are 32-Bit based, and software development and testing have yet to be conducted in a 64-Bit operating systems environment.

**WARNING:** Although it might be possible to run Medtech32 on 64-Bit Windows, Medtech **WILL NOT** be able to provide support if a practice encounters problems while running on any 64-Bit Windows versions.

## Macintosh Operating Systems Support

Medtech **DOES NOT** recommend deploying Medtech32 on any Macintosh computers that runs any Windows operating systems – regardless of whether Windows is running in emulation mode on a Motorola-based MAC, or in emulation or native mode on an Intel-based MAC.

**WARNING:** Although it might be possible to run Medtech32 on Macintosh computers, Medtech **WILL NOT** be able to provide support if a practice encounters problems while running on any MAC machines.

## Virtualization Operating Systems Support

Medtech **DOES NOT** recommend deploying Medtech32 in any Windows virtualization environment – regardless of whether Medtech32 is running directly on the host, or on a virtual machine on the host.

**WARNING:** Although it might be possible to run Medtech32 in virtualization platforms, Medtech **WILL NOT** be able to provide support if a practice encounters problems while running in any Windows virtualization environment.

## Windows 2008 Operating Systems Support

Until Medtech Software can confirm Windows 2008 operating systems are compatible with Medtech32, please **DO NOT** attempt to upgrade your current systems to any Windows 2008 versions.

**WARNING:** Medtech **WILL NOT** be able to provide any support to sites who have upgraded to Windows 2008 until formal testing has been passed.

For sites that might be upgrading to Windows 2008 soon, please be aware that Medtech only plans to support the following editions in line with our currently supported operating environments:

<b>"To-Be" Supported Windows 2008 Editions</b>	Standard Edition (32-bit)
	Enterprise Edition (32-bit)
	Small Business Edition (32-bit)

<b>Non Supported Windows 2008 Editions</b>	Datacenter Edition
	Essential Business Edition
	HPC Edition
	Itanium Edition
	Storage Edition
	Web Edition
	Any 64-Bit Editions

**NOTE:** CodeGear **DOES NOT** support Interbase 5.6, 7.0, 7.1, and 2007 on Windows 2008. Although CodeGear officially supports Windows 2008 with Interbase 2009, software development and testing have yet to be conducted on this new version of Interbase.

## Server Deployment Considerations

- Due to performance issues, it is NOT recommended to install Interbase and Medtech32 on ANY server (Small Business Server or otherwise) that is utilised by other resource-hungry functions, such as Domain Controller, Domain Name System (DNS), Windows Internet Naming Service (WINS), Dynamic Host Configuration Protocol (DHCP), Exchange, Internet Information Services (IIS), Internet Security and Acceleration (ISA), SharePoint Services, etc. Instead, a DEDICATED server should be allocated to serve Interbase and Medtech32 requests ONLY.  
**NOTE:** If this cannot be avoided, please consult with a Medtech Certified Engineer to perform proper load testing PRIOR to deployment.
- Due to compatibility issues, it is NOT recommended to install ANY OTHER Database Management System (DBMS) on the Interbase Server, such as SQL Server (including 2000 Desktop Engine and 2005 Express Edition), Firebird, Informix, Oracle, Sysbase, etc.  
**NOTE:** If this cannot be avoided, please consult with a Medtech Certified Engineer to perform proper compatibility testing PRIOR to deployment.
- Due to performance and compatibility issues, it is recommended by CodeGear, NOT to install Interbase (and therefore Medtech32) on ANY Citrix or Terminal Server. Instead, a DEDICATED Citrix or Terminal Server should be setup as an Intebase and Medtech32 Client to serve Citrix or Terminal Client sessions.  
**NOTE:** If this cannot be avoided, please consult with a Medtech Certified Engineer to perform proper load and compatibility testing PRIOR to deployment.
- Due to performance and data integrity issues, it is NOT recommended to enable ANY system restore applications or services on the Interbase databases (i.e. .GDB or .IB files), such as Windows XP System Restore, Distributed File System (DFS), Volume Shadow Copy Service (VSS), Symantec LiveState Recovery, Acronis True Image, etc. Instead, Interbase Backup should be used to perform online backups of the databases.
- Due to performance issues, it is NOT recommended to allow users to use the Interbase and Medtech32 Server as a workstation, i.e. DO NOT leave the local console in a logged in state.
- Where a dedicated server has been allocated SOLELY for Interbase (and Medtech32 as recommended above), it is recommended to OPTIMIZE the performance by:
  1. Setting Windows Performance Options to be adjusted for best performance of "Background Services" and "System Cache".
  2. Setting "SERVER\_PRIORITY\_CLASS" in the Interbase Configuration File (i.e. ibconfig) to High Priority (applicable to Interbase 7.0, 7.1, 2007).

- Medtech32 directory monitoring utilities such as NIR Directory Monitor, Scanning Directory Monitor, and Generic Directory Monitor are NOT compatible with Citrix or Terminal Server environment. Instead, these utilities should be setup to run on individual workstations as required.
- Medtech32 Scheduler is NOT compatible with Citrix or Terminal Server environment. Instead, Windows Scheduled Tasks should be configured to run Medtech32 utilities such as Message Transfer, NIR Message Transfer, ManageMyHealth™ Message Transfer, and ManageMyHealth™ SMS.
- Where Windows XP Service Pack 2 (or above), or Windows 2003 Server Service Pack 1 or Release 2 (or above), or Windows Vista is installed, ensure "Windows Firewall" has been DISABLED or exceptions have been created to allow Interbase and Medtech32 traffic to pass through (please refer to the "Network Requirements" section above).
- Where Windows XP or Windows 2003 is installed, ensure "Automatic Search for Network Printers and Folders" has been DISABLED as a policy.
- Where Windows XP or Windows Vista is installed, ensure "Fast User Switching" has been DISABLED as a policy.
- Where Windows XP or Windows Vista is installed, ensure "System Restore" has been DISABLED as a policy on the partition that contains the Interbase databases (i.e. .GDB or .IB files).
- Where Windows XP is installed, ensure "Simple File Sharing" has been DISABLED as a policy.
- Where Windows Vista is installed, ensure "Password Protected Sharing" has been ENABLED as a policy.
- Where Windows Vista is installed, ensure "User Account Control" (UAC) has been DISABLED as a policy.
- Where Windows Vista is installed, ensure "Data Execution Prevention" (DEP) has been configured on the Server to allow exceptions for Medtech32 application, i.e. `MT32\Bin\MT32.exe` (located on the Server).
- Medtech32 relies heavily on accurate timestamp to function properly. It is CRITICAL to ensure Regional and Language Options are set to English (New Zealand) on ALL computers, and time synchronization is set to run automatically on ALL computers across the whole internal LAN/WAN.

## Client Deployment Considerations

- If the workstations fall below the minimum hardware requirements (please refer to the "Workstation Requirements" section above), it is recommended to use Citrix or Terminal Server to deploy Medtech32.
- Microsoft Terminal Services and/or Citrix Presentation Server together with Virtual Private Networking (VPN) is a proven solution in providing remote access to your Medtech32 clients and in deploying Medtech32 on multi-sites practices.
- Running any applications (such as Medtech32) under Microsoft Terminal Services could result in slower program response as compared to the recommended Client/Server setup. The response time is dependent on the Terminal Server's hardware specifications.
- In Citrix, "Client Clip Board Mapping" should be DISABLED as a policy for all client sessions that require access to Medtech32, in order to ensure Medtech32 Outbox Wizard will function properly.
- In Terminal Services, if the connection is a "Fat Client" (e.g. a computer with Windows 2000 or XP Professional) "Clipboard mapping" should be DISABLED as a policy for all client sessions that require access to Medtech32, in order to ensure Medtech32 Outbox Wizard will function properly.
- In Terminal Services, if the connection is a "Thin Client" (e.g. a terminal with Windows CE or similar Thin Client operating system) AND is using a Remote Desktop Connection, "Clipboard mapping" should be ENABLED as a policy for all client sessions that require access to Medtech32, in order to ensure Medtech32 Outbox Wizard will function properly.
- Where Windows XP Service Pack 2 (or above), or Windows Vista is installed, ensure "Windows Firewall" has been DISABLED or exceptions have been created to allow Interbase and Medtech32 traffic to pass through (please refer to the "Network Requirements" section above).
- Where Windows XP is installed, ensure "Automatic Search for Network Printers and Folders" has been DISABLED as a policy.
- Where Windows XP or Windows Vista is installed, ensure "Fast User Switching" has been DISABLED as a policy.
- Where Windows XP is installed, ensure "Simple File Sharing" has been DISABLED as a policy.
- Where Windows Vista is installed, ensure "Password Protected Sharing" has been ENABLED as a policy.

- Where Windows Vista is installed, ensure "User Account Control" (UAC) has been DISABLED as a policy.
- Where Windows Vista is installed, ensure "Data Execution Prevention" (DEP) has been configured on the Server to allow exceptions for Medtech32 application, i.e. *MT32\Bin\MT32.exe* (located on the Server).
- Windows Display Properties MUST be set to a minimum resolution of 1024 x 768 pixels; whereas the font size MUST be set to "Small Fonts" or "Normal size", i.e. 96 DPI.
- Medtech32 relies heavily on accurate timestamp to function properly. It is CRITICAL to ensure Regional and Language Options are set to English (New Zealand) on ALL computers, and time synchronization is set to run automatically on ALL computers across the whole internal LAN/WAN.

## Interbase Deployment Considerations

### Interbase Version 2007

- Interbase 2007 SP3 (Version 8.1.1.333) is the highest Interbase version that had passed software testing with Medtech32. It is **HIGHLY** recommended that ALL sites should **UPGRADE to Interbase 2007** AS SOON AS POSSIBLE.
- Interbase 2007 supports up to a maximum of 8 physical processor, i.e. 8 x single-core CPUs, or 4 x dual-core CPUs, or 2 x quad-core CPUs.
- Interbase 2007 supports Medtech32 Version 18 or above. If you are on an older version of Medtech32 and would like to take advantage of the new enhancements in Interbase 2007, you **MUST** also upgrade to the latest version of Medtech32 at the same time.

**NOTE:** Although Interbase 2009 had already been released, software development and testing have yet to be conducted on this new version of Interbase, and thus Medtech **WILL NOT** be able to provide support if a practice encounters problems while running on Interbase 2009 or newer.

**NOTE:** Interbase 2007 comes with annual maintenance plan, which allows free upgrade to future Interbase releases without further payment. For example, sites that are on Interbase 2007 annual maintenance plan will receive free upgrade to Interbase 2009 when it is released.

*(Please contact **Medtech Sales** for further information on 09 358 0116.)*

### Interbase Version 7.0/7.1

- Interbase 7.1 SP2 (Version 7.1.0.189) is the highest Interbase 7 version that had passed software testing with Medtech32. It is **HIGHLY** recommended that ALL sites still running on Interbase 7.0 to **UPGRADE to Interbase 7.1**.
- CodeGear had identified an issue with Interbase 7.0 running on any Intel processors that has Hyper-Threading enabled. Hyper-Threading **MUST** be **DISABLED** on the motherboard BIOS in order for Interbase Server to function properly. This issue had been resolved in Interbase 7.1.
- Interbase 7.0/7.1 **DOES NOT** support any AMD or Intel multi-core processors.

### Interbase Version 5.6

- Both Medtech and CodeGear had officially ceased supporting Interbase 5.6. It is **HIGHLY** recommended that ALL sites still running on Interbase 5.6 to **UPGRADE to Interbase 2007**.
- Interbase 5.6 **DOES NOT** support the following type of processors:
  - Intel processors that has Hyper-Threading enabled.
  - AMD or Intel multi-core processors.
  - Symmetric MultiProcessing (SMP), i.e. multiple processors.
- If running on any Intel processors with Hyper-Threading, Hyper-Threading **MUST** be **DISABLED** on the motherboard BIOS in order for Interbase Server to function properly.

### Interbase Database File Size Limit

- Interbase 5.6 has a database file size limit of 2GB per file, regardless of the file system being used.
- If any Interbase database is over the size limit listed in the table below, it **MUST BE** splitted into multiple files (each file **MUST NOT** exceed the size limit) in order to avoid database corruptions.
- Briefcasing **IS NOT** supported on any Interbase versions where the database has been splitted across multiple files. Briefcasing **ONLY** works with single-file databases.

Interbase Version	File System	Size Limit
<b>Interbase 7.0, 7.1, 2007 Database File Size Limit</b>	FAT16	4GB
	FAT32	4GB
	NTFS	16,384GB
<b>Interbase 5.6 Database File Size Limit</b>	FAT16, FAT32, NTFS	2GB

## ManageMyHealth™ and Web Forms Deployment Considerations

### ManageMyHealth™ Portal Integration

- Data Direct ODBC Driver for InterBase 5.10 MUST be installed on the Server, and on ALL client computers that require access to ManageMyHealth™ Portal.
- Microsoft .NET Framework 2.0 (x86) MUST be installed on the Server, while Microsoft .NET Framework 2.0 (x86) and Client Security Update (MMH\_csu.bat) MUST be installed on ALL client computers that require access to ManageMyHealth™ Portal.
- Windows Data Execution Prevention (DEP) MUST be configured on the Server to allow exceptions for ManageMyHealth™ Portal applications, i.e. ALL executable files located under *MT32\Bin\Addins\ManageMyHealth Applications*.
- In order to utilize the new ManageMyHealth™ Portal features, your practice MUST first apply for a Portal Account with Medtech.
- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.  
*(Please contact **Medtech Sales** for further information on 09 358 0116.)*

### ManageMyHealth™ SMS Integration

- Data Direct ODBC Driver for InterBase 5.10 MUST be installed on the Server, and on ALL client computers that require access to ManageMyHealth™ SMS.
- Microsoft .NET Framework 2.0 (x86) MUST be installed on the Server, while Microsoft .NET Framework 2.0 (x86) and Client Security Update (SMS\_csu.bat) MUST be installed on ALL client computers that require access to ManageMyHealth™ SMS.
- Windows Data Execution Prevention (DEP) MUST be configured on the Server to allow exceptions for ManageMyHealth™ SMS application, i.e. *MT32\Bin\Addins\InTouch\InTouchInterface.exe*.
- In order to utilize the new ManageMyHealth™ SMS features, your practice MUST first apply for a SMS Account with Medtech.
- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.  
*(Please contact **Medtech Sales** for further information on 09 358 0116.)*

**Web Forms Integration**

- ConnectedCare™ MUST be installed on the Server, which includes all the required components – i.e. Idiom Forms Engine, Apache Tomcat 5.5.9, and Sun Java Runtime Environment 1.5.0.04.
- Microsoft Internet Explorer 5.5 (or higher) MUST be installed on the Server.
- Java 1.5.0.04 MUST be the NEWEST Java version installed on the Server. Any newer versions of Java SHOULD NOT co-exist on the same computer.
- Due to compatibility issues, the "Check for Updates Automatically" option MUST be disabled in the Java Control Panel, as Medtech cannot guarantee that any future versions of Java will be compatible.
- HealthLink Quantum MUST be configured for Web Forms.
- For enhanced security, it is RECOMMENDED to install HealthLink Quantum on a separate computer other than the Interbase and Medtech32 Server – e.g. on the proxy/gateway server.
- Please refer to the "Additional Server Requirements" and "Firewall / Proxy Requirements" sections above for connection requirements.

## Third-Party Software Integration Considerations

### Nuance Dragon NaturallySpeaking Integration

- Dragon NaturallySpeaking Medical 9 is a proven solution in dictating Consultation Notes and Outbox Documents into Medtech32.
- It allows users to easily jump between commonly used functions by voice.
- It provides voice playback within Medtech32, allowing easy correction of dictated text.
- Users can also setup predefined text blocks into easily recalled voice Macros, allowing inserting commonly used phrases, sentences and paragraphs for diagnosis and consultation purposes.

*(Please contact **Medtech Sales** for further information on 09 358 0116.)*

### Adobe Acrobat Integration

- Medtech32 Patient Information Sheets can only work with the Reader version of Acrobat. Any other versions of Acrobat are not supported.
- Each computer that requires access to the Patient Information Sheets **MUST** have the appropriate Acrobat Reader version installed.
- The version of Acrobat Reader supported is dependent on the Medtech32 version installed, as shown in the following table:

<b>Supported Acrobat Versions (Medtech32 Version 17 or below)</b>	Acrobat Reader 4.x
	Acrobat Reader 5.x

<b>Supported Acrobat Versions (Medtech32 Version 18 or above)</b>	Acrobat Reader 8.x
	Acrobat Reader 9.x

**WARNING:** Although it might be possible to integrate Medtech32 with other Acrobat versions, Medtech **WILL NOT** be able to provide support if a practice encounters problems while running on any Acrobat versions not listed above.

### HealthLink SIX Integration

- For enhanced security, it is RECOMMENDED to install HealthLink SIX on a separate computer other than the Interbase and Medtech32 Server – e.g. on the same computer that will run Medtech32 data import/export utilities such as Message Transfer, NIR Directory Monitor and Message Transfer, ACC/Diabetes/GMS/Maternity Electronic Claims, LinkTech/PHO Export and Import, etc.
- In Citrix and Terminal Services, Windows Scheduled Tasks **SHOULD** be configured to run Medtech32 Message Transfer Utility and NIR Message Transfer Utility in lieu of Medtech32 Scheduler.

### Microsoft Excel and Word Integration

- Each computer that requires the ability to create and view Outbox Word Documents **MUST** have Word installed.
- Each computer that requires the ability to export data from Medtech32 Query Builder for analysis **SHOULD** have Excel installed.
- Each computer that requires the ability to export data from Medtech32 Accounting Reports for analysis **SHOULD** have Excel installed.
- It is recommended to disable ALL Office Clipboard features to ensure Medtech32 Outbox Wizard will function properly.
- The version of Excel and Word supported is dependent on the Medtech32 version installed, as shown in the following table:

<b>Supported Office Versions (Medtech32 Version 17 or below)</b>	Office XP
	Office 2003

<b>Supported Office Versions (Medtech32 Version 18 or above)</b>	Office 2003
	Office 2007

**WARNING:** Although it might be possible to integrate Medtech32 with other Excel and Word versions, Medtech **WILL NOT** be able to provide support if a practice encounters problems while running on any Office versions not listed above.



### Word Documents Image Resolution and Size Considerations

With Microsoft Word installed and integrating with Medtech32, users can insert advanced components into any Outbox Documents and Templates, such as clipart, photos, forms, tables, etc. Most users are not aware of the fact that by inserting images, especially when simply copying and pasting from other sources without any image editing and/or optimization, the size of each Outbox Document could become exceptionally large.

The most common scenario is where huge images are being used as letterhead logos in Outbox Templates. Obviously enough, the same oversized logos will be saved into EVERY SINGLE Outbox Documents created based on the original Templates – which will **DRAMATICALLY** increase the size of the database.

Proper image optimization **SHOULD** be performed before inserting into any Outbox Documents and Templates, such as by reducing the size, resolution, and colour depth of the image. A good example would be, why use a full colour logo, when the Practice only ever prints in black and white?

**NOTE:** If large images cannot be avoided in certain documents, it is HIGHLY RECOMMENDED to save these documents externally (i.e. do create them in the Medtech32 Outbox Module), and create a link to the external document files via the Attachments Manager.

**IMPORTANT:** The major contributor to the growth (in terms of database size) of the Medtech32 main database (MT32.GDB or MT32.IB) is the storage of Word Documents in the Outbox Module. Since Interbase databases (regardless of the Interbase version) has a table size limit of 36GB per table, it is CRITICAL to ensure each MT32 database NEVER exceeds 36GB in order to avoid database corruptions.

### **Critchlow GeoStan NZ Integration**

- Due to performance issues, it is recommended to install GeoStan NZ on a standalone workstation only, i.e. DO NOT install GeoStan NZ on the Medtech32 and Interbase Server and DO NOT install on all workstations.

### **Third-Party E-Mail Software Integration**

- MAPI compatible e-mail client MUST be installed and configured on any Server or Client that needs to e-mail documents or files from Medtech32 Outbox and/or Attachments Manager Modules.

### **Third-Party Fax Software Integration**

- FaxTech is the ONLY fax application that can integrate with Medtech32 Address Book. If any other third-party fax software is used instead, users will be required to maintain a separate address book in the third-party software.

If you require further information, please do not hesitate to contact the Medtech Helpdesk on 09 358 0116 → Option 1, or email [nzsupport@medtechglobal.com](mailto:nzsupport@medtechglobal.com).