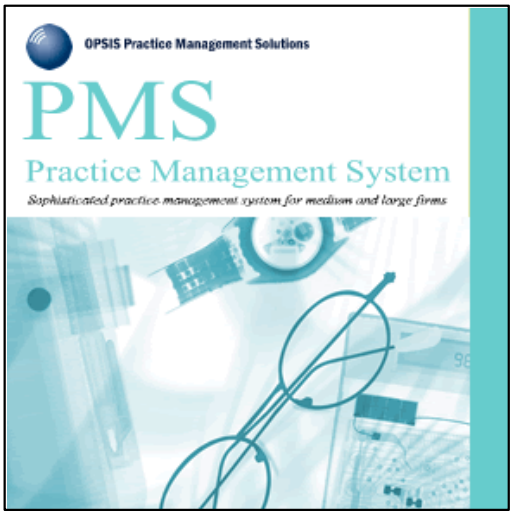
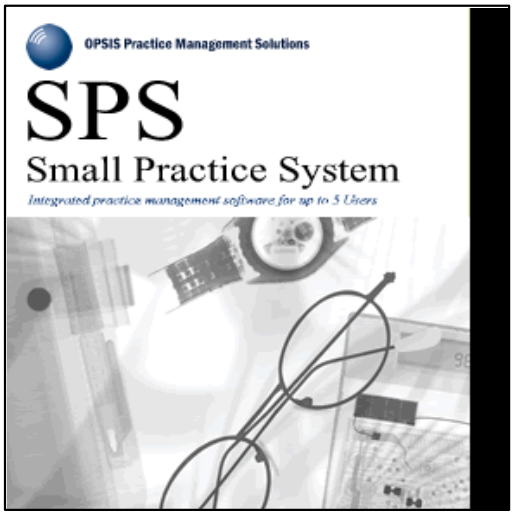
PMS & SPS
(MS Access or MS SQL Server)
Technical Specification





Please note the following specifications are intended as a guideline only, and are recommended minimum specifications. Our software may run on a lower specification but performance might be affected. We do not provide support for systems with a lower specification than that shown below. We recommend upgrading operating systems regularly to utilise the most recently available service packs.

	Database Type	
Item	**Microsoft SQL Server**	**Microsoft Access**
WORKSTATIONS	Networked Client PC's	
Processor (CPU)	Pentium III 750MHz (Pentium IV 1.2GHz or higher recommended)	Pentium III 750MHz
Memory (RAM)	512Mb min.	512Mb min.
Disk Space	2Gb min. (more if storing scanned documents locally)	
Display Resolution	Min. SVGA 800 x 600 with 256 colours (1024 x 768 recommended).	
Operating System	MS Windows 2000 Pro, XP Pro, Vista Business/Ultimate with latest Service Packs installed. ***We do not recommend*** ***Win 98, XP Home or Win ME.***	
.NET Framework Version 2.0	The Microsoft .NET Framework version 2.0 (x86) redistributable package installs the .NET Framework runtime and associated files required to run applications developed to target the .NET Framework v2.0. Our software will detect and download as required, but you can pre-install this prior to OPSIS installation. **Required on ALL workstations.** Click here to download.	
Software	MS Office 2000, MS Office XP, MS Office 2003, MS Office 2007 with latest Service Pack. *(Note: If MS Office 2007 is to be used on a Terminal Server, this will require appropriate volume-license agreement for Office, otherwise it will refuse to function if a normal copy is installed).* (PMS can export reports to MS Word & Excel). IE 5.0 or later (for Internet).	

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	Database Type	
Item	**Microsoft SQL Server**	**Microsoft Access**
Email / Diary Integration	MS Outlook 2000 or higher	
SERVER	**IMPORTANT: Please make allowance by increasing resources for any additional services running on your server that may impact performance.**	
Processor (CPU)	Pentium III 750MHz (Pentium IV 1.2GHz or higher recommended). Recommend use of Uninterruptible Power Supply.	
Memory (RAM)	Min. 1Gb	
Disk Space	In addition to the standard SQL Server installation requirements as specified by Microsoft, additional hard drive space is required for the actual SQL database files created by PMS, e.g. SQL Server Transaction Log files, also Differential & Full Online Backup files. Due to the large document storage requirements we recommend 15Gb min. (more if performing document scanning). You may wish to increase tolerance of system failures using options such as RAID (Redundant Array of Independent Disks) to increase data access speed and prevent data loss in the event of disk failure.	10Gb min (recommend more if performing document scanning)
Display	Min. SVGA 800 x 600 with 256 colours (1024 x 768 recommended).	
Operating System	MS Windows 2000 Server, 2003 Server, 2008 Server, Small Business Server	
Software	**Microsoft SQL Server 2000 Standard Edition** (or Enterprise Edition) **with latest Service Packs.** **Microsoft MSDE** (only for 20 users or less). **Microsoft SQL Server 2005 (Full) with latest Service Packs.** **Microsoft SQL Server 2005 Express** (only for 20 users or less). If a full SQL Server version is used it is the customers responsibility to ensure that an appropriate number of **CAL**s (Client Access Licenses) have been purchased from Microsoft. These SQL Server **CAL**s are in addition to any Millennium User Licenses purchased. i.e. purchasing a Millennium User license does NOT include an SQL Server CAL. If using **MSDE** or **SQL Server 2005 Express** no CALs are required from Microsoft, but database size limits of 2Gb and 4Gb respectively are imposed by Microsoft. The minimum requirements for an SQL Server based database are equivalent to the requirements specified by Microsoft for the particular version of SQL Server being used. Millennium uses **SQL Authentication** for the main database user account.	**For MS Access database on the server Opportunistic Locking must be disabled (use our OpLock utility to set required registry settings).**
Office Server Software	MS Exchange Server 2000, 2003 or 2007 (see also Outlook Integration Notes below)	
Outlook integration notes	There must be an *Organisational Forms Library* enabled and at least one user must have “owner” permissions to this	

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Item	**Microsoft SQL Server**	**Microsoft Access**
	folder. At least one user must have permission to set up *Public Folders* in Outlook. With MS Exchange 2007 the *Public Folder Store* must be enabled (it is not by default). Documentation for creating an *Organisational Forms Library* is available on request.	
Zetafax Fax Software	Integration of Zetafax fax software with Solicitor requires activation of the **API** and **Rendering** add-in modules to allow Word documents to be converted into TIFF format then Faxed. These modules must be included when you order your Zetafax license.	
NETWORK		
Network Cards	100Mb Intel, 3COM, D-Link or LinkSys network interface card recommended. 10Mb can be used in Workstations only (not Server). 100Mb or higher recommended for network hubs/switches.	
	Virtual Private Network (VPN) is considered essential for protecting inter-office connections by tunneling/encryption of SQL data if going across the Internet. You will most likely require this anyway to safely transfer your non-database files over wide-area network, e.g. Word processing files, spreadsheets, etc.	***Network cards using Realtek RTL8139 chipset are strictly NOT supported (e.g. Realtek, Genius, TrendNET, Micronet, Edimax, Aopen, Accton, Alloy 1439, LanVision, Pancer, Zonet and several others – this cheap make of card causes data corruption with MS Access and is not recommended for professional network use).***
Cabling	Category 5 network cabling recommended maximising the performance of your network.	
Notes	**Peer to peer networking is not recommended.** **Wireless (WiFi) networks are not recommended due to potential transmission dropouts and security risks if incorrectly configured.**	
Remote Access	**Helpdesk Technical Support:** We insist on remote access for support purposes either via a modem and PCAnywhere (V10 minimum), VNC or VPN access via the Internet using Remote Admin, Terminal Server, or using our **Netviewer** remote support and demonstration software. **Staff Remote Working:** We recommend Remote Working by staff to use a Terminal Server to run the application. This Terminal Server should be in addition to any Domain Controller or Data Servers that you have, i.e. a dedicated application server.	
Internet Connection	Our **OPSIS Weblink Online Case Information** product requires a fast ADSL Broadband connection. See separate spec sheet for full details.	
MISCELLANEOUS		
Recommended Installation & Administration Skills	The IT Manager responsible for on-going administration of the application should possess the following skills: • Microsoft Windows 2000, XP and/or 2003 server administration skills • MS SQL Server database administration knowledge for MS SQL version of software • General Internet and TCP/IP networking knowledge	

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1.1 Differences Between MS Access and SQL Server

The main differences are:-

- **MS Access** is suitable for single-user or smaller sized practices, and so a smaller quantity of data.
- **SQL Server** is better suited to larger scale operations, involving large amounts of data, many simultaneous users and minimal downtime requirements when backing up data.
  - **SQL Server** database is a much more reliable and stable way of running a database across your network meaning that overall your network should become more efficient, and may even appear to be faster, with a significantly reduced possibility of data corruption arising from network problems.
  - SQL Server has better security, and so cannot be accessed or deleted easily from outside our applications.
  - SQL Server also allows "on-line" backups, so you can back up the data while people are actually using it.
  - SQL Server can be configured to perform regular "snapshot" backups during the day.
  - SQL Server contains optimisation routines that can be run on your data to enable it to perform as best as it can.
  - SQL Server is better suited for Remote Access. Using a fast internet connection it is possible to connect to your office through a VPN. You can then run our applications across this connection reducing the requirement for Terminal Servers and other methods of connecting into the office. Cost is therefore minimal compared to the price of installing additional terminal server hardware. Also, you will not need a terminal server profile, as the software will run on the local machine.

Important Note: The performance of OPSIS products over remote connection depends greatly on the available bandwidth and reliability of any inter-office connection, and to what degree this connection is shared with other applications. There may be some instances when desktop emulation software such as Terminal Server is still required.

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1.2 Backup Routines

- YOU are responsible for backing up all your data, including any documents or reports produced by our systems, your emails and all other files. Please ensure you have a professional, working and tested backup solution in place.
- The restore procedure should be regularly tested to ensure it can be relied upon.
- Our technical support team are always happy to discuss options with you and make recommendations if you're unsure.

OPSIS recommend a 2 tier backup system:

1. Server based backup requirements:-

- High Capacity Tape drive or similar.
- Multiple copies (suggest 10 or more) of the chosen storage media. So keeping a backlog of at least 2 weeks worth of daily backups.
- Rotate the media over the two week period to ensure you have as many possible restore points as possible in the event of technical failure/corruption.
- For SQL databases please be aware you may need to buy an additional module for your server backup software (*BackupExec* / *Arcserve*) to enable it to backup SQL data. We suggest you also implement a SQL Server online backup system (e.g. configure Database Maintenance Plans in Enterprise Manager), that will take snapshots of your SQL databases at predetermined points in time and place them as files onto the server. These can subsequently be captured by your overnight tape backup system, or copied onto another storage device to give an additional layer of data security.
- OPSIS have SQL backup tools available that can help you achieve this snapshot backup.

2. Workstation backup requirements:-

- Cashiers/system administrators should use ZIP/tape/USB memory stick/external hard disk devices to perform regular one off backups.
- Extra backups must be completed at key points in time e.g. period/year end.
- Our products contain integral backup options.
- Again, keep multiple media sets so you can store many point in time data backups.
- The restore procedure should be regularly tested to ensure it can be relied upon.

1.3 Further Information

Please do not hesitate to contact our Helpdesk if you need any further information or assistance regarding technical/hardware matters:-

England, Scotland & Wales: +44(0)844 815 5752
Northern Ireland: +44(0)28 9065 3006
Republic of Ireland: +353(0)1 294 2903
http://www.opsisltd.com/

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