

## System Requirements – STRATA Master

The following are minimum and recommended system requirements for STRATA Master. Whilst the program will operate on the minimums listed, we strongly suggest you meet or exceed the **recommended** requirements to ensure performance of your system is suitable for your agency operations. Please note that any environment or operating system not specifically mentioned here should be considered not supported.

The requirements for memory and processors are indicative only and more RAM or disk space may be required when running Rockend products in conjunction with other software. Please consult a qualified network technician to ensure that your network is adequately sized and tuned for the number of users and applications used by your agency.

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## Server Requirements

STRATA Master allows multiple users to run the software concurrently on different computers all accessing the same database. The data may be located on either a peer server, or a dedicated server.

In peer server environments the faster the peer server the better the performance for connected network users. For sites with five or more concurrent operators a dedicated server is recommended dependant on expected loads.

	Minimum	Recommended
Processor	Intel Core i3 2.1GHz	Intel Core i5 2.6GHz
RAM	4Gb	8Gb
Hard Disk	100Gb free	200Gb free
Network	1000mb TCP/IP networking	1000mb TCP/IP networking

## Server Operating System

Recommended and supported	Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Windows 7 Professional, Enterprise, Ultimate (x86/x64) Windows 8 Standard, Pro, Enterprise (x86/x64) Windows 8.1 Windows 10 Requires .NET Framework v3.5 and v4.0 Ensure all Operating Systems have the latest Service Pack installed.
Not supported	Operating systems not mentioned above <u>are not supported</u> .
Regional Settings	Time/Date must be current System locale set to English (Australia) Short Date format set to dd/MM/yy or dd/MM/yyyy

## Terminal Server Requirements

	Minimum	Recommended
Processor	Xeon processor(s) Maximum 4 users per Core	Xeon processor(s) maximum 2 users per Core
RAM	Base of 4GB plus 512MB per user	Base of 8GB plus 1 GB per user
Hard Disk	100GB free	200GB free

## Terminal Server Operating System

Recommended and Supported	Windows Server 2008 Windows Server 2008 R2 Windows Server 2012 Windows Server 2012 R2 Requires .NET Framework v3.5 and v4.0 All with Terminal Services and with latest Service Pack
Not supported	Operating systems not mentioned above are not supported.

## Microsoft SQL Server

Minimum	Recommended
<p>Microsoft SQL Server 2008 Express R2</p> <p><b>Notes:</b> Where SQL Server is not installed Rockend will install SQL Express 2014, a no cost limited version of SQL Server.</p> <p>SQL Server Express will use 1 processor socket.</p>	<p>Microsoft SQL Server 2014 Express</p> <p><b>Notes:</b> SQL Server Standard edition would only be required when client data reaches more than 10GB.</p> <p>Express versions of SQL Server only utilise one physical processor if multiple CPUs exist and a maximum of 1GB of RAM even if more exists.</p>

## Workstation Requirements

	Minimum	Recommended
Processor	Intel Core i3 2.1GHz	Intel Core i5 2.6GHz
RAM	2Gb	8Gb+
Hard Disk	100Gb free	200Gb + free
Network	1000mb TCP/IP networking	1000mb TCP/IP networking
Display	1280 x 800	1280 x 800
DPI	96	96

## Workstation Operating System

Recommended and supported	Windows 7 Professional, Enterprise, Ultimate (x86/x64) Windows 8 Standard, Pro, Enterprise (x86/x64) Windows 8.1 Windows 10 Requires .NET Framework v3.5 and v4.0
Not supported	Operating systems not mentioned above are not supported.

## Microsoft Office

To utilise Microsoft Office integration functionality with STRATA Master, one of the following versions of Microsoft Office is required (32 bit installs only):

Minimum	Full installation of Microsoft Office 2007 – Service Pack 3 minimum (32bit)
Recommended	Full installation of Microsoft Office 2013 (32 bit)

**Note:** Microsoft Office 2007, 2010 or 2013 should be installed on both the server and workstations for the production of status certificates, mail merge documents and meeting documentation.

## Rockend Recommends

- Install enough processing power, RAM and hard disk space in your server to cater for all applications and services that are being run. These requirements may vary depending on the number of users on the system, applications running and level of usage. Consult your network technician for more details.
- Ensure Hard Drive I/O performance is acceptable, especially on the STRATA Master Server where other applications are running (Such as Microsoft Exchange Server). Collect and review Windows Perfmon counters “Avg. Disk sec/Read” and “Avg. Disk sec/Write”, continued I/O speeds above 20ms will generally cause unacceptable performance.
- Optimise your virus scanner (Excluding STRATA Master application and Data files)
- Ensure that you have offline backup capability that is used on a regular basis – daily at minimum.
- Rockend follows Microsoft’s product lifecycles. If Microsoft has discontinued support, so have Rockend. Refer to <http://www.microsoft.com/windows/lifecycle.asp> for Microsoft’s Windows Desktop and Server Product Lifecycle Guidelines.

## Printers

STRATA Master operates with most standard printers that are supported by your operating system. You will need a special laser printer and toner if you want STRATA Master to print MICR lines on cheques and deposit slips.

Redirected printers in Terminal Server environments can add complexity at runtime.

Printers using continuous stationery, are not supported.

## Network Connectivity

- Ensure you have a stable LAN with adequate latency and bandwidth.
- For local area networks, we recommend investing in Gigabit switches.
- Cabling will impact significantly on the reliability and speed of your software. Ensure that the cable specification (UTP Cat 5, UTP Cat5e, UTP Cat6) is the appropriate type for the networking hardware installed.
- We recommend that only necessary protocols are loaded on both the server and workstation.
- Database and printer connection paths (UNCs) should not contain full stops.

## Networks Not Supported

### Wireless Networks

Using STRATA Master on a wireless network, will severely impact the speed of which STRATA Master can process data to and from the data source. Wireless networks that are prone to drop outs will be problematic for the STRATA Master database.

### Wide Area Network (WAN)

Using STRATA Master on a WAN, will severely impact the speed of which STRATA Master can process data to and from the data source.

### IPsec (Internet Protocol Security)

Severely impacts the data transfer for STRATA Master

### Proxy Servers and Corporate Firewalls

For connections through Proxy Servers or Corporate Firewalls, network configuration details will be made available for customers to assist them with configuring any unique networks.

## Memory Considerations

The amount of Random Access Memory (RAM) in your workstations also has a major impact on the speed of your software. The more RAM in your workstations, the better your software will perform - and the more productive you will be.

How much memory you need to run effectively on a workstation depends on many factors, including:

- The operating system you are using
- The software applications you are using concurrently, e.g. Microsoft Outlook, Word and Excel, Rockend software and any other software. The more applications you are using, the more memory you will need.

## Virus Scanning

It is extremely important that your agency is protected from virus infection. However, it is also important that your virus scanning does not impact the performance of your network and software.

To know if your virus scanner is causing performance problems in your Rockend software, as a test, temporarily disable virus scanning on all workstation and the server, including any memory resident scanning. If performance increases once scanning is disabled, consult your network engineer about optimising virus scanning so that performance is not impacted.

Common settings in virus scanners that impact performance:

- We suggest the following virus scanner exclusions on all workstations and servers running STRATA Master: STRATA Master Program folder, STRATA Master Database share and Strata.exe executable.
- If a virus scanner is installed on both your server and workstation, and both are set to scan both incoming and out-going files, you may be scanning each file twice.
- If the option is available in your virus scanning software, disable heuristic scanning.
- Windows Defender is generally installed and enabled by default, this can be running alongside your existing virus scanner and will directly impact performance of your computer at runtime. If Windows Defender is required please review the relevant virus scanner exclusions for STRATA Master.

In all cases, consult your network engineer to determine the best virus scanning solution for your practice that does not impact software.

## Documents to Portals

If you are utilising the Documents to Portals features within fileSMART, Microsoft Word will need to be installed on the Rockend Communicator Server to facilitate the serving of Word documents through the Documents to Portals service.

## Checklist to Optimise and Protect your installation of STRATA Master

The following recommendations are not specifically required to run STRATA Master but will help facilitate an optimal environment and reduce potential for problems at runtime.

These recommendations are targeted for all workstations and servers running STRATA Master.

Please consult your network engineer before proceeding with any changes.

- **Ensure Windows Sync Centre** (Windows Offline Folders) is disabled. Being enabled by default it will reduce performance and may direct STRATA Master to offline versions of files. We recommend reconfiguring the STRATA Master Share to ensure that No files or programs from the shared folder are available offline. (Share Properties > Advanced Sharing > Caching > No files or programs from the shared folder are available offline).
- **User Account Control (UAC)** may need to be disabled temporarily for troubleshooting or during the installation of STRATA Master, UAC can cause intermittent errors at runtime.
- Exclude STRATA.exe in the **Data Execution Prevention (DEP)** List, DEP can cause intermittent errors at runtime.
- Check the **computers network card and configuration**
  - Disable QOS, QOS can place contention on the network interface.
  - Ensure the link speed is at least 1000Mbit and that TCP/IPv4 is the only protocol in use. Disable TCP/IP v6 unless specifically required. \*\*For Domain Controllers or Exchange Servers we recommend TCP/IP v6 is left as default.
  - Ensure the computer is only connected to one physical, cabled network.
  - Check the type of network card installed on the computer, confirm the latest drivers are installed.
  - Under connection properties, disable all power management options to remove control from other programs.
  - If running DHCP review how often new TCP/IP addresses are allocated.
- Review all **screen saver and power saving plans**
  - Optimise for High Performance.
  - Disable items such as hibernation, powering off HDD and Network cards etc.
- Confirm the **computer clocks are synchronised** to the same time source and within a few seconds of each other.
- Confirm the computer has all of the **current Microsoft Updates installed**
- **Turn off Disk Compression** to optimise disk I/O performance
- **Disable Outlook Security Warnings**, this feature can cause intermittent automation errors at runtime (In Outlook this is located under: File > Options > Trust Centre > Trust Centre Settings > Programmatic Access > Never warn me about suspicious activity)

- Ensure the **user's Temp folder is regularly cleared**  
i.e: c:\users\LoggedOnUser\AppData\Local\Temp.  
Windows will query this location and excessive files or folders can cause delays running STRATA Master, particularly running reports. We recommend **scheduling a regular disk cleanout** using Windows Task Scheduler and Disk Cleanup
- If running on a terminal server environment check each users registry for **stagnant redirected printer objects**, these are located under: HKEY\_CURRENT\_USER\Software\Microsoft\Windows NT\CurrentVersion\Devices.

Refer to Microsoft KB: <http://support.microsoft.com/kb/2620656> for further information

- **Ensure .PDF files are associated with a PDF Reader**, some background processes in STRATA Master automatically print documents during some processes. To test in Explorer, right click on a .PDF file and select Print. You may also need to check the registry keys to confirm all file associations:
  - HKCU\Software\Classes\.pdf -- HKCR\.pdf
  - HKCU\Software\Microsoft\Windows\CurrentVersion\Explorer\FileExts\.pdf -- HKCU\Software\Classes\pdf\_auto\_file