New Server Checklist

Domain Controller	DC must be separate to the Sage server, on the same domain as the Sage server and must be accessible & writeable.
Sage/SQL Server Resources	**GCC Minimum** Recommended Server Spec: • 4x Physical or Virtual Processor Cores (If running RDS on the same server 6 or more cores recommended). • 16GB Memory (If running RDS on the same server, enough memory to cover the maximum number of concurrent users).
Operating System	Check supported Operating Systems for the version of Sage 200 that is being upgraded to from the full Sage 200 pre-requisite document.
Internet Browser	Edge installed and set to default browser.
Drives	We recommend splitting the Operating System and binaries away from the data so we would suggest a C: for OS and binaries and a D: or Other for Sage static data & SQL data etc.
Windows Updates	Please ensure that Windows Updates are complete.
Server Name	The server machine name must start with a letter, end with a letter or digit, and have as interior characters only letters, digits, and hyphens. The name can't be longer than 15 characters.
Roles & Features	Please do not go any further than installing the Operating System and attaching it to the domain as we use PowerShell scripts to install all the prerequisites and components during the Sage 200 installation. Please **do not** install Remote Desktop Services until after the Sage 200 installation is complete.
Anti-virus & Management Tools	Please hold off installing Anti-virus and Management tools on the server until after the SQL and Sage Installation. These tools can deploy Microsoft Visual C++ Runtime packages that will conflict with the installation of SQL and Sage.
Microsoft SQL	Please **do not** install SQL unless it has been discussed and agreed, there are some specific settings that must be set correctly during the installation process to ensure they meet Sage 200 pre-requisites.
Regional & Language Settings	All the regional and language settings for all users and the server are set to **United Kingdom and English UK**. Please see page 7 & 8 to confirm that settings are identical to the screenshot.
Microsoft Office	If you email Sage documents (e.g. Statements and Remittances) from Sage or use Sage Business Intelligence, Office **32-bit** is required for full integration with Sage 200. Please refer to page 2 for full details of which Office version is compatible with your version of Sage 200. Please **do not** install Office on any new servers, until the Sage 200 installation is complete.
Data Migration	To aid us with the data migration process, the new server will need to be deployed within the same local area network. In situations where you are migrating to a new environment, it would be preferrable to have a site-to-site VPN connection between the old and new server to reduce the time for migrating data.
Domain Users/Groups	Sage 200 Domain Users & Groups created/configured as required. See "Domain Users & Groups"
GCC Local Admin Account	• We will require a Windows domain account with local admin for both the current and new Sage/SQL server(s). • This user must be placed within the Sage 200 Admin security group. See "Domain Users & Groups". • The Windows user account will need Sysadmin rights to the current SQL server, or we will require the SA password.
Remote Access	Install TeamViewer **Host Module.** Please refer to our guide and the download link for this specific version on Page 3.

A complete list of the prerequisite checks that GCC test for are listed on page 10 below.

Sage 200 Full Pre-Requisites Document

These documents contain the full official Sage specifications for the server, SQL and client elements required to run Sage 200. It should be used as a guide to check compatibility of Operating Systems, Active Directory Services, SQL Versions and Supported Remote Desktop Solutions.

Please do not configure the Windows Server Roles and features specified within this document, as many of these pre-requisites will be installed when we use our installation scripts for both SQL and Sage. Once Sage 200 is installed, we will then be in touch should any additional roles and features need to be configured.

Version	Database Version	Download Link
2024 R1	12.00.0053	2024 R1
2023 R2	12.00.0051	2023 R2
2023 R1	12.00.0048	2023 R1

Microsoft Office Versions

As discussed in the Sage 200 Upgrade FAQs document, the interactivity between Sage and Office is affected by the version of each of them.

Microsoft (Office) 365 continuously (automatically) updates on either a monthly, semi-annual or annual basis depending on how each device it is installed on is configured. These updates may then take office past the latest version that Sage have tested and will therefore support.

If the functionality listed below is very important to you then you may wish to consider pausing those auto updates so that you can manage them to keep Office in line with Sage compatibility.

The below table displays compatible Office versions for Sage 200 **2024r1**. For older Sage 200 releases, please refer to the specific Sage pre-requisites guide from the table located on .

Microsoft 365 / Microsoft Office

Functions	2021 [1]		2019 [1]		Microsoft 365 [2]		
	32-bit	64-bit	32-bit	64-bit	Desktop 32-bit	Desktop 64-bit	Online App
Excel Reporting	Yes	Yes	Yes	Yes	Yes	Yes	No
Send to Excel (from workspaces and lists)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Opening Attachments	Yes	Yes	Yes	Yes	Yes	Yes	No
Send Email (not from Report Designer)	Yes	No	Yes	No	Yes	No	No
Report Designer - output to email	Yes	No	Yes	No	Yes	No	No
Sage Contact, Power BI, Power Automate [4]	No	No	No	No	Yes [3]	Yes [3]	Yes [3]
Sage 200 BI	Yes	No	Yes	No	Yes	No	No

[1] Microsoft Office 2021, 2019 - Standard, Home and Business, Small Business Premium, Professional Plus, and Enterprise editions.

[2] Microsoft 365 Business Standard (formerly Office 365 Business Premium), Microsoft 365 Apps for Enterprise (formerly Office 365 Professional Plus), and Enterprise editions. Home and Personal editions are **not** supported.

[3] Microsoft 365 Business Standard (formerly Office 365 Business Premium), Enterprise (E1, E3 or E5) or Office 365 Education (A1, A3, A5) subscription is required for Sage connected apps: Sage Contact, Microsoft Power BI, and Microsoft Power Automate. Your Microsoft 365 subscription must include Microsoft Entra ID P1 or P2 (formerly Azure Active Directory Premium P1 or P2).

[4] To use Microsoft Power Automate, we recommend a Power Automate Per user plan.

GCC User Account Required

- We will require a Windows user account that has local admin rights for both the current and new Sage/SQL servers.
- This user must be placed within the Sage 200 Admin security group, see "Domain Users & Groups" for additional information.
- The Windows user account will need Sysadmin rights to the SQL server, or we will require the SA password.

GCC Remote Access Required

For GCC to perform our elements of the Sage 200 audit/build and on-going support we will need remote access to both the current and new Sage/SQL Server(s).

Our preferred Secure Remote Access method is via TeamViewer **Host Module** with a strong password. Please note, the Host module version is different to the Free/Commercial Version. It is used as a tool for us to securely connect to using our GCC corporate license.
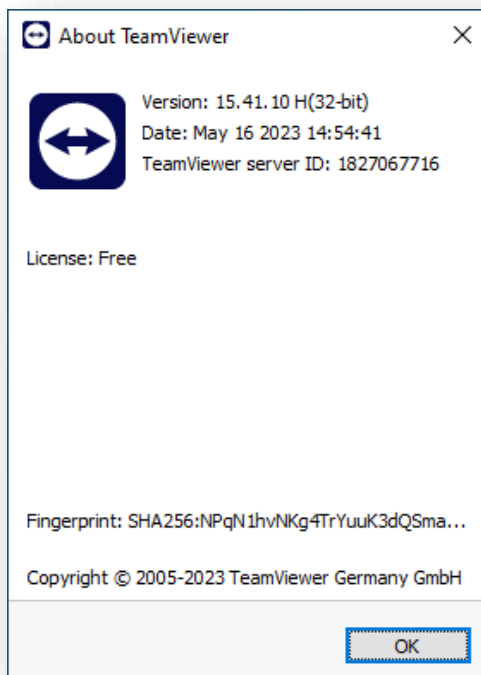
Please follow the below steps to ensure the correct version is installed and configured as required:

- Download the latest version of the host module here:
  https://download.teamviewer.com/download/TeamViewer_Host_Setup.exe
- Run the installer and click Next – do not check the "Show advanced settings".
- After the application is installed, check "I accept the EULA and the DPA" and click Continue.
- In the tray icons locate the TeamViewer application:

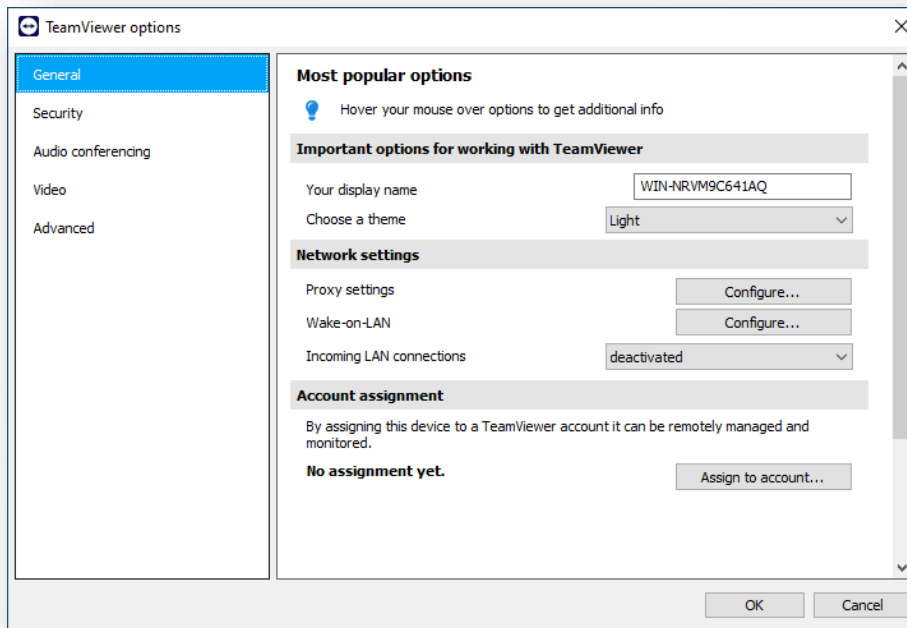 You may need to use the Show/Hide button to show the tray icons.
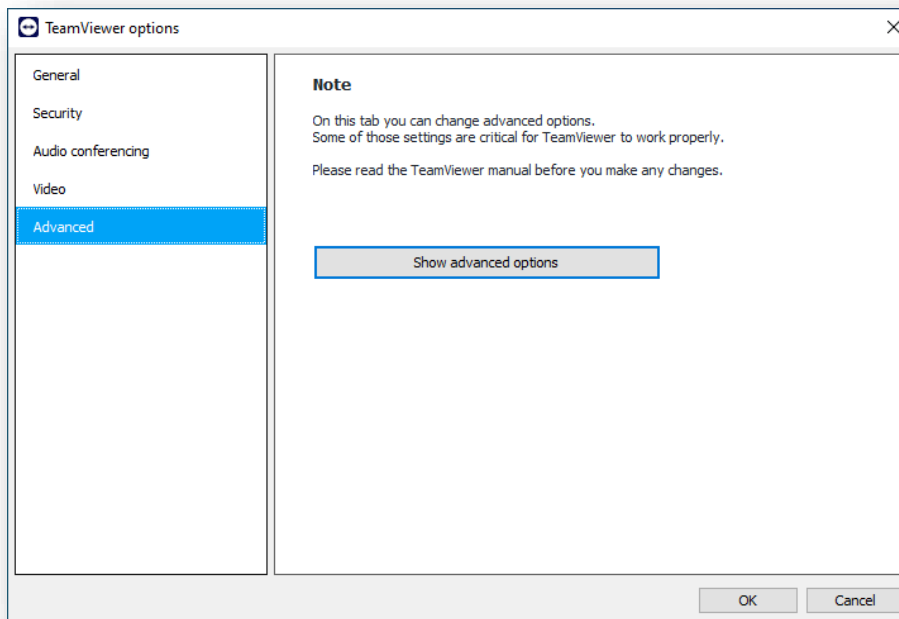- Right-click the icon and choose the menu option "About TeamViewer"

About TeamViewer

Version: 15.41.10 H(32-bit)
Date: May 16 2023 14:54:41
TeamViewer server ID: 1827067716

License: Free

Fingerprint: SHA256:NPqN1hvNKg4TrYuuK3dQSma...

Copyright © 2005-2023 TeamViewer Germany GmbH

OK

This screen should have a "TeamViewer server ID:" and it may have other ID values also shown. **We need to be provided with the server ID number.**
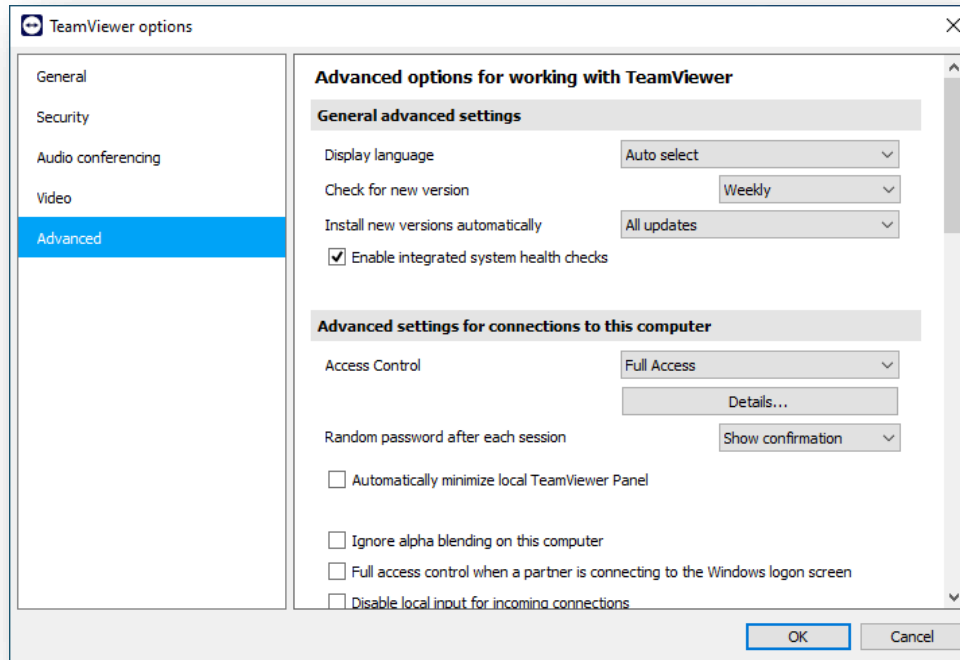
- Dismiss this screen by pressing the OK button.
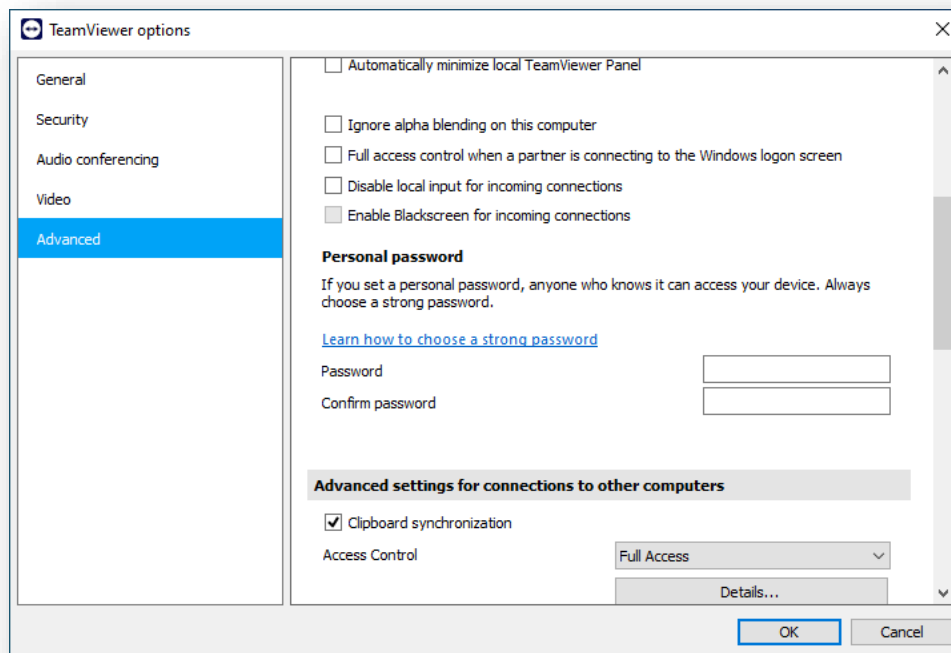- From the tray icon again, now take the "Options" menu option:

- Now select the "Advanced" menu option on the left of the screen:

- Now in the right window pain, select the "Show advanced options" button:

- Now scroll down to the section headed "Personal password":

Enter a complex password int the "Password" and "Confirm password" boxes and press the OK button to save the password etc.
We need to be provided with this complex password.
If you need to change the password, repeat the steps above to access the advanced settings and simply enter a new password.

Domain Users & Groups

For Sage 200 to run, the below Active Directory groups and users are required. Your installation may require further configuration, we will let you know if this is the case.

Please note that the below groups and users may already exist in your Active Directory, if they do then please review the below to ensure they have been configured correctly.

If these accounts do not already exist in your Active Directory, please create new ones as below:

Windows user groups

Sage 200 Administrators Group
The name can be something like "Sage200Admins" and it must include all users who also need to access the Sage System Administration Program. These users will also be able to access the desktop app and the Self-Service web app so they **should not** be added to the users group as well.

- You cannot use the Domain Administrators group as the Sage 200 Administrator group, as this sets up the file share permissions incorrectly.
- You (Your IT people) may also have issues with the fact the Sage Admin client requires the user to have local admin rights to the device its running on. To alleviate this issue GCC have created a solution where we can isolate these rights to just running the admin client itself. Please let us know if this is required and we can assist.

Sage 200 Users Group
The name can be something like "Sage200Users" and it must include all users who will be accessing the desktop app or the Self-Service web app.

Windows Users

Sage 200 Services user
The name can be something like "S200Service".
Enter a password for the user account and set it to Password never expires. It does not require any other special permissions. Add this user to the Sage200Admins group.

Sage 200 Secured Services user
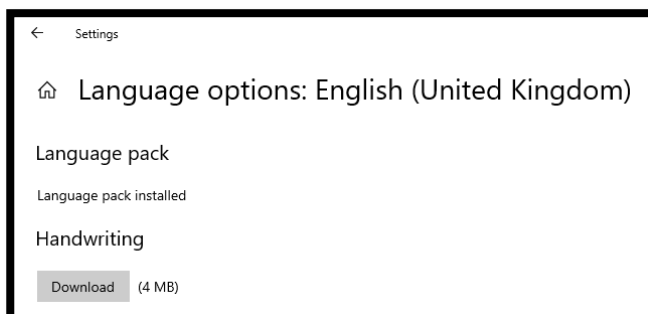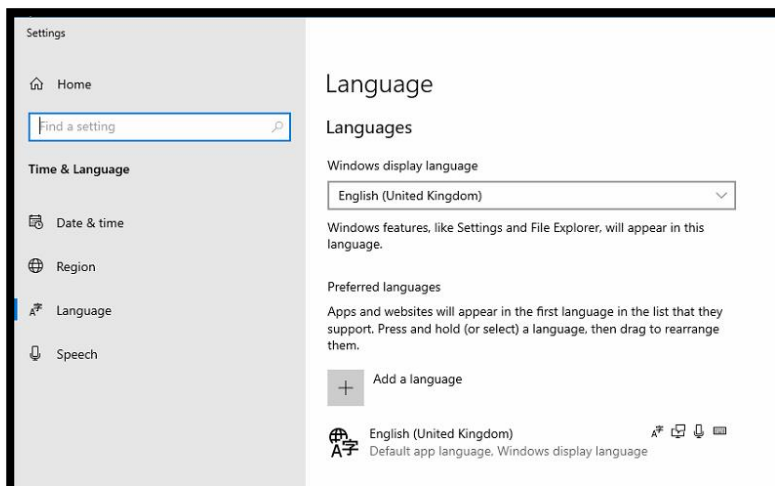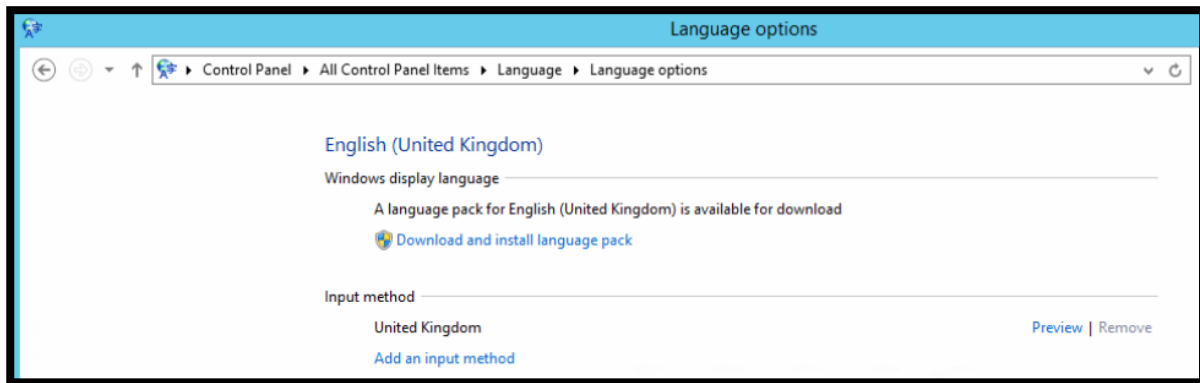The name can be something like "S200SecuredService".
Enter a password for the user account and set it to Password never expires. It does not require any other special permissions. Add this user to the Sage200Admins group.

If the above accounts did not already exist and you have created new ones, please provide GCC with the account names and passwords, as we need to enter these as part of the installation process.
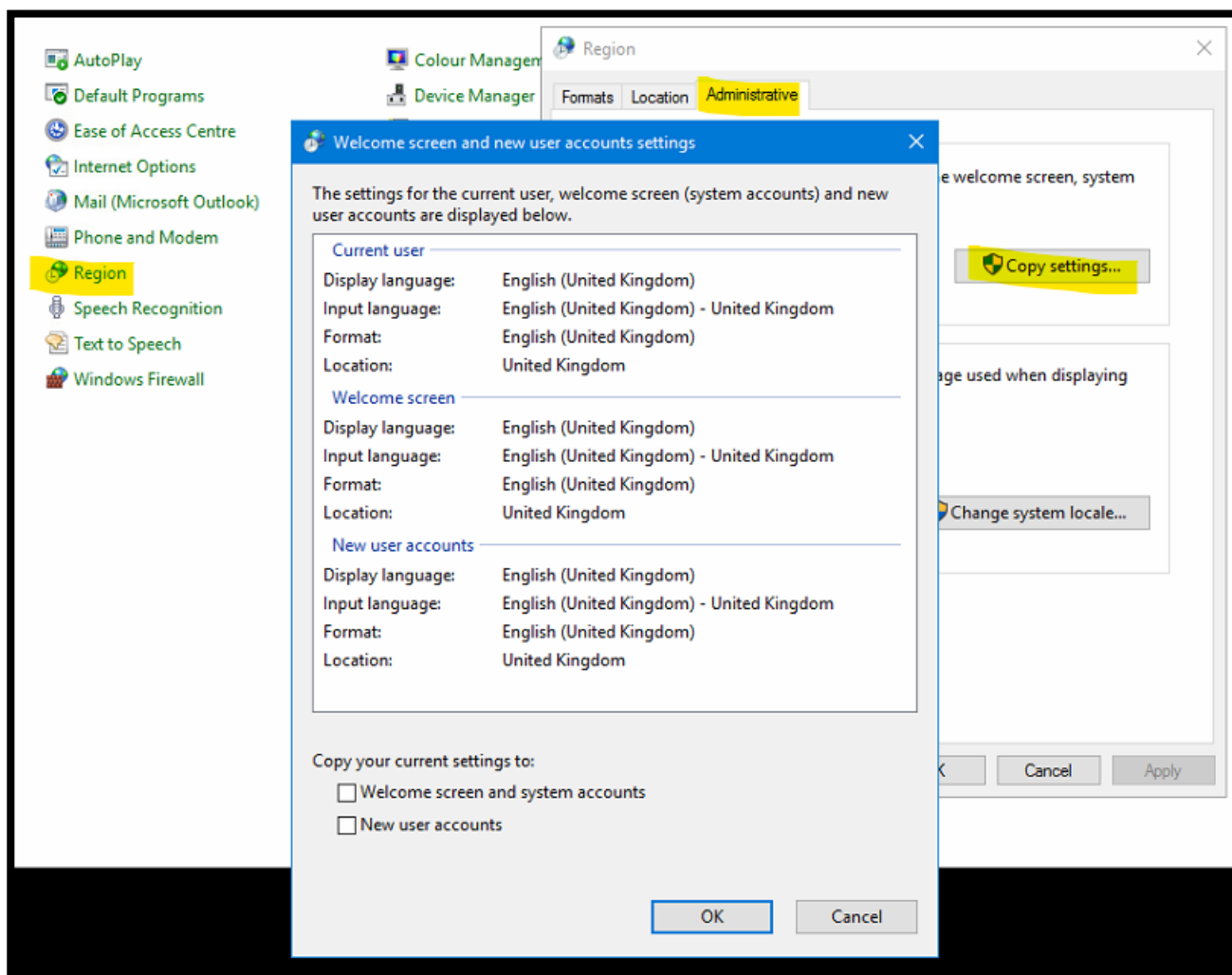
Region & Languages

Sage 200 requires that all Windows Region and Language settings for the server and clients are set to United Kingdom and English UK.
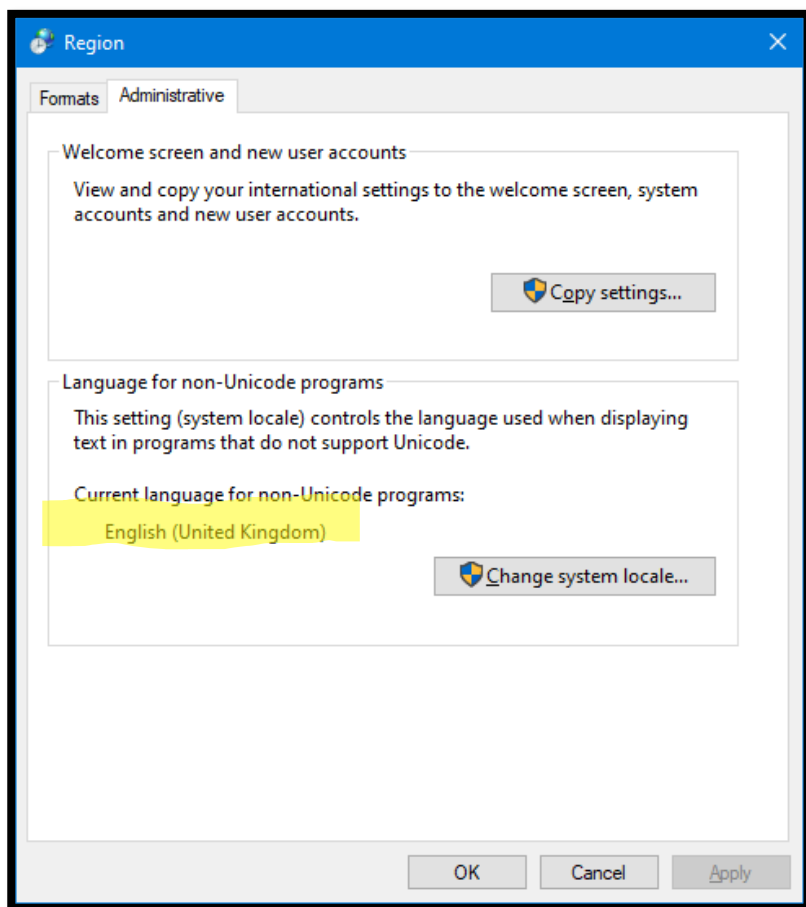
You will need to download the English UK language pack and apply it to the server.

Once this has been installed, all the settings must be set as below:

In addition to this, the system locale also needs to be English (United Kingdom):

SQL Media & Licences

If you are providing the SQL server media, licence, and user CALs, then you need to be aware of the difference between the Microsoft full SQL licence and the Sage SQL runtime licence and where the boundaries are so that you are correctly licensed.

In brief, if you are only going to have the Sage 200 databases deployed to the SQL server then the Sage SQL runtime licence will be enough. The runtime licence will also cover you if you have Sage 200 addons within Sage itself for example Sicon DMS.

If any other product apart from Sage 200 stores data on the SQL server and that data is stored in a SQL database outside of the Sage 200 company database, then you need to have the Microsoft full SQL licence.

Some other common example addons that would require the Microsoft full SQL license would be Sicon WAP, Spindle Document Management or Paperless.

If you are in doubt as to which licences you would require then please contact us.

GCC pre-requisite checks

Active Directory access and enumeration

If Sage 200 is hosted in an Active Directory (AD) environment, all the domain controllers (DC) configured within the AD must be accessible, visible to the Sage 200 server and configured to be read-write. Microsoft allows for DCs to be read-only but these are not complaint with the requirements of Sage 200. Some businesses like to ring fence their DCs by region and make some of the DCs inaccessible although they are visible within the AD. Again, this is not compliant with the requirements of Sage 200.

Sage 200 user groups

Sage 200 requires two security groups; one to manage the users who can administer Sage 200 and one to manage the users who only need to run the Sage 200 client.
Sage 200 uses the Microsoft.NET framework to determine the members of these security groups and because Sage 200 supports both an Active Directory environment as well as a Workgroup environment, there are some constraints to how these security groups are setup. Assuming that we refer to the group to administer Sage 200 as Sage200Admins and the group to run the Sage 200 client as Sage200Users, Sage 200 requires that any user that is in the Sage200Admins group must not also be in the Sage200Users group. If a user is assigned to both groups, there is a risk that when a user starts the Sage 200 client, they are given the error so that that they are not a Sage 200 user.
The two security groups can be of the type Global or Domain Local. GCC uses a utility to emulate the way that Sage 200 enumerates the members of these groups and if these groups cannot be read correctly, it is considered that the security groups are not configured correctly for Sage 200. GCC will also use the "net group <groupname> /domain" or the "net localgroup <groupname> /domain" commands to check for group visibility that is required by SQL server.

Sage 200 requires two service accounts that are used exclusively by Sage 200 internally and cannot be used for any other purpose. If the Sage 200 server is in an active directory, these service accounts will need to be domain accounts. One is for security related tasks and the other is for management and operational tasks and are normally named to Sage200SecServices and Sage200Services or something similar. Both of these accounts have to be added to the Sage200Admins security group and that the Sage200SecServices account is also added to the local Administrators security group on the server.

The user account that is used to build and configure the Sage 200 server must be in the Sage200Admins security group and also in the local Administrators.

Windows Operating System

The Windows Operating System (OS) that is used to host both the Sage 200 server and to run the Sage 200 clients from, have to be compliant with the version of Sage 200 being used. Please review the section Sage 200 pre-requisite document to determine the supported operating systems.

Windows Server Memory

It is our recommendation to have the SQL server, the Sage IIS server and the Sage static data folders located on a single server. This is because the SQL installation required for Sage 200 is not the default installation for SQL and Sage 200 cannot share a SQL server with another instance of Sage 200 i.e. you cannot have 2 Sage systems pointing at the same SQL server which would become an issue with a side-by-side upgrade of Sage 200.
The Sage IIS components require an amount of memory and if the free memory on a server gets below 5% of the total memory of the server, the IIS components will stop.

It is possible to have Remote Desktop Services (RDS) also provisioned on the same server if the server resources are capable of handling the required number of concurrent users on top of the IIS and SQL. Therefore, the memory required by the server will need to be enough to handle the Windows Operating System, IIS and SQL as a minimum and potentially a number of RDS users on top. Depending on the number of concurrent users of Sage both through RDS or directly from workstations and the transaction turnover conducted within Sage, this server will need at least 8 GB memory but more usually 16 GB with no upper limit. However, the version of SQL server used will dictate upper limits of memory and processor sockets and cores for example SQL Server 2022 Standard Edition has an upper limit of 128 GB of memory along with the lesser of 4 processor sockets or 24 cores. Earlier versions of SQL server have lower limits and the Enterprise edition of SQL server is only limited by the operating system that it is being run on.

Windows Server Processor Cores

Again, after considering the memory requirements above, the server will need to have enough processor cores but this is dependent on the processor architecture being used along with the load being put on the server. In reality, 4 cores is considered to be the minimum with more cores being required as the transaction turnover increases. If the server is being also used as an RDS server, ideally each concurrent user would need an additional core but this isn't linear - 20 users might not need 20 cores but at the same time, we would recommend 20 concurrent users have their own dedicated RDS server(s).

Network connectivity

Sage 200 requires all clients to be connected with a minimum of a 1 Gbps Ethernet connection. Although a wide-area network connection may be 1 Gbps, it is the latency between the client and the server that is the controlling factor. Assuming the Sage 200 server is already configured with a 1 Gbps or better network connection, any machine that is used to run the client to this server will also need a 1 Gbps or better network connection. GCC will perform ping tests between client and server machines using a 64 Kb packet buffer and if the latency is less than 4ms, this is considered to be acceptable. Ping latencies of about 12 to 15 ms indicate that there is a 100 Mbps restriction somewhere between the client and server machines. Sage 200 cannot be safely run using either WiFi or from a remote location where the network latency falls below the 4 ms threshold.

Windows Server Drives and Partitions

Sage 200 requires that the C: of the server is both visible and accessible even if Sage 200 is not installed into the C: partition. GCC recommends that a Sage 200 server is provisioned with at least 2 partitions. The C: partition would be for the operating system and all things binary i.e. application executables and another partition e.g. D: for all things data i.e. all the SQL databases, backups, logs etc. and all the Sage 200 static data. The size of the D: partition needs to be large enough to handle the daily expansion and contraction of the SQL database and log files along with a rolling 2 week window of locally stored SQL backups, as well as the requires for the Sage 200 static data. A good guideline as a minimum is to take the total space used by the Sage 200 static data along with the space used by the SQL databases, double it and add about 20 to 30%. If there is a high transaction turnover, the SQL log files may grow significantly during the day but may get truncated over night so this will need to be factored into the allocation of disk space.

Windows Server Name

Sage 200 requires all machine names to start with a letter, end with a letter or digit, and have as the interior characters only letters, digits and hyphens. This applies to both the Sage 200 servers and workstations that run the Sage 200 client.

Windows Domain

If the Sage 200 server is being hosted in a domain, in addition to the AD requirements above, the logon server must be set and visible.

Windows Languages and Regions

Sage 200 is only compatible with Windows machines that are configured to run with either the English (United Kingdom) or English (Ireland) language packs and regions. Windows server operating systems only come with the English (United States) as a default system language but Windows 10/11 can be provisioned using the English (United Kingdom) as a default system language. If the machine is provisioned using the English (United Kingdom) software, the English (UK) language pack is normally installed by default but this isn't the case with the English (United States) software – this will require the English (UK) or the English (Ireland) language packs to be installed and all the user defaults set to work with these language packs. If you are configuring and Remote Desktop Services (RDS) server, installing the correct language pack as early as possible and configuring all users to use this language pack is highly advisable. Depending on the configuration, RDS will normally use the language of the remote computer rather than the locally installed pack.

Please do not enable the "Beta: Use Unicode UTF-8 for worldwide language support" as this interferes with both Sage 200 and SQL server and as a result, both will fail to work successfully.

Domain Names Services (DNS)

Sage 200 relies heavily on DNS services working correctly with the environment. The Sage server and clients require the forward lookup zones to be correctly populated and correctly resolving all the machines involved with Sage 200. A correctly configured DNS server will have both the Forward Lookup and Reverse PTR zone in place and the Sage server will from benefit having the Reverse PTR zone working correctly to assist with audit and information logging. GCC will test for both the correct functioning of the forward and reverse PTR zones.

Windows Time Source

With machines in an AD environment, the domain controllers should be gettering their time from an external central time source which is usually a stratum level 3 NTP source on the internet or on larger networks, a dedicated machine that is designed to act as the network time source for the business. All machines that are in the domain but not domain controllers should then get their time source from the domain controllers. If the Sage 200 server is configured for a workgroup environment, the server should be configured to get its time source directly from an external NTP time source. GCC will test that the Sage 200 server is configured to correctly get its time source from the appropriate source.

Internet access requirements

Sage 200 server and workstation requires the ability to connect for a variety of internet resources and URLs. Sage do not publish a definitive list of these URLs but GCC have determined that the following are required however some of these are dependent on the functionality used within the Sage 200 product:

- https://www.sage.com/en-gb/shop/inproduct/sage-200c/uk/professional/
- http://desktophelp.sage.co.uk/sage200/professional/Content/Home.htm
- https://s200aproproductstore.blob.core.windows.net/whitelist/analytics.xml
- https://licensing.services.sage.com
- https://licensing2.services.sage.com
- https://regulatory-reports.sagecompliance.com
- https://www.google.com

- https://api.service.hmrc.gov.uk
- https://www.google-analytics.com
- https://login.live.com
- https://www.bootstrapcdn.com
- http://sage.keysurvey2.com
- https://www.sagetokenservice.com
- https://eu.sagebankdrive.com
- https://api-money.sage.com

GCC will test for the connectivity to the above URLs on the Sage 200 server using software that replicates the same method that the Sage 200 software uses.

Windows System Integrity

GCC will run two commands to determine the integrity of the Windows operating system:
1. DISM /Online /Cleanup-Image /Scanhealth
2. SFC /VerifyOnly

If the DISM command reveals any integrity errors, the server will be passed back to the IT service provider to resolve as these issues can be difficult to resolve.
If the SFC command reveals any errors, GCC will run SFC /Scannow to see if the errors can be easily corrected but again, if any issues cannot be resolved, the server will be passed back the IT service provider to resolve the issues.

Web Browsers

Earlier versions of Windows operating systems came with Internet Explorer 11. As this has now gone end-of-life, the later versions of Windows are preconfigured with Microsoft Edge. If Microsoft Edge is not installed, GCC will install it and set it as the default browser etc. GCC will accept Google Chrome as a good alternative.

Microsoft Visual C++ Runtimes

Both Sage 200 and SQL server require a number of the Visual C++ runtimes and will install the required versions as required. However, it has become apparent that in some circumstances, SQL server will fail to install if C++ runtimes are already installed but are later versions than the ones expected and these runtimes are the same edition that is used and/or installed by SQL Server. The workaround is to remove the offending C++ runtimes to allow the SQL to install correctly and to then reinstall them afterwards. However, this will temporarily disable any other software that is dependent on these runtimes. Examples of these are certain management and RIMM agents and the VMware tools. GCC will warn the IT service provider if there is a possibility of a problem and decide on a way forwards accordingly.