Test system Build Diary

2023 R2 (V12 patch 34) Installation

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Disclaimer

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Document Information

Author: Mike Shaw, Sage UK X3 Support Team

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Introduction

What is a "Build Diary"

A Build Diary simply describes the steps taken by Sage Support to perform a task or tasks on our internal test systems. Build diaries could be created for major multi-node installations but may also just be describing the steps taken when installing a small hotfix, or anything in-between.

Why is this being shared

It may be useful for you to see the steps we have taken to create or implement some feature or installation, as this may highlight "gotcha's", issues encountered or just give you some guidance if you are planning something similar yourself.

You could potentially use these documents as the base for your own "Workplan document" (Described in "Overview of patching X3 and supporting technologies" https://communityhub.sage.com/gb/sage-x3-uk/b/sage-x3-uk-support-insights/posts/sage-x3-technical-support-tips-and-tricks---march-2021-index) when you are planning your own activities

Target Audience

This document is aimed at Sage X3 Certified Technical consultants. Sage prescribe that X3 system installation, maintenance, migrations, etc. should be performed by suitably qualified Sage X3 consultants. The prerequisite consideration would be for them to have the latest "Sage X3 Certified Technical Consultant" certification. You can read more about the Sage X3 qualifications and requirements in Sage University (https://sageu.csod.com/catalog/CustomPage.aspx?id=20000242#tc)

Additional things to note

- This document does NOT purport to illustrate "best practice" for the task being described.
- The steps described will not necessarily be for a "perfect" task, as there may have been issues that needed to be overcome, worked around, or ignored.
- The Sage internal test system has network and hardware configuration specific to Sage.
- The Sage internal test system does not necessarily include a Windows Domain and has Sage sandbox specific Windows security setup, so operating system permissions are generally not discussed.
- If you intend to use these notes as a guide for your own activities, use with caution and perform your own testing to ensure the described steps are suitable and identify any additional considerations that apply to your own situation.
- Ensure you only install and use software you are licensed for.

What does this Build Diary describe?

This build diary primarily describes a fresh install of X3 2023 R2.

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2023 R2 - installation build diary

Objective

I want to complete a fresh installation of Sage X3 2023 R2.

Starting architecture and notes

Single Windows Server 2022 server (Server name X3V12)

Software already loaded:

Windows Server 2022

OpenJDK 1.8 latest version

Edge, Firefox and Chrome browsers

Windows users setup (Local users)

"x3admin" for installation and management

"X3run" for service runtime

Summary of steps

Preamble

- Install pre-req components

Install SQL Server 2022

- SQL Server 2022
- SSMS 19.2

Install X3 technology components

- MongoDb 4.4.22
- X3 Console 2.58.0
- Adxadmin 96.1.206
- SQL Server component 3.0.0
- Application 12.0.34
- Runtime 96.1.206
- Print Server 2.29.0
- Syracuse Server 12.19.0

Configure X3

Final setup and testing

Additional installations

- Install Elastic Search 8.11

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Documentation to use for planning and execution of this task

Sage Online documentation

Overall V12 documentation
http://online-help.sageerpx3.com/erp/12/public/index.html

- Prerequisites overview
- Version 12 prerequisites
- Architecture and system requirements
- Installation procedure

Sage Knowledgebase articles or Blogs

Sage X3 version 12 latest release information https://communityhub.sage.com/gb/sage-x3/f/announcements/146573/sage-x3-version-12-november-2023

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Initial steps

Make sure the server meets the requirements listed at https://online-help.sageerpx3.com/erp/12/public/prerequisites_overview.html

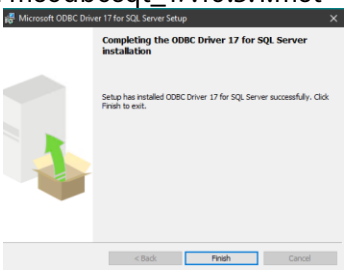
Update Firefox, Chrome, and Edge and check the versions conform to prerequisites https://online-help.sageerpx3.com/erp/12/public/prerequisites_browsers.html

Run Windows Update to ensure up to date on Operating System.

Check disk configuration to ensure have enough free space.

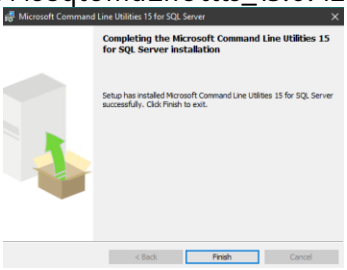
Install ODBC

Launch msodbcsql_17.10.5.1.msi



Install SQL tools

Launch MsSqlCmdLnUtils_15.0.4298.1.msi



Install Microsoft Powershell

Latest version is recommended (64-bit).
https://learn.microsoft.com/en-us/powershell/scripting/install/installing-powershell-on-windows?view=powershell-7.4
Download from
https://github.com/PowerShell/PowerShell/releases/download/v7.4.0/PowerShell-7.4.0-win-x64.msi

NOTE: the release notes (https://online-help.sageerpx3.com/erp/12/wp-static-content/news/en_US/x3-release-notes/index.html#/release/en-US/2023-r2-34) say "*The runtime and console support PowerShell 7.3.*" but the prereqs (https://online-help.sageerpx3.com/erp/12/public/prerequisites_overview.html) state "*Microsoft PowerShell 7.2 or later*" so it is not clear if the latest Microsoft Powershell version 7.4 can be used or not. After checking, it is confirmed that Powershell 7.4 **CAN** be used.

Launch “PowerShell-7.4.0-win-x64.msi”

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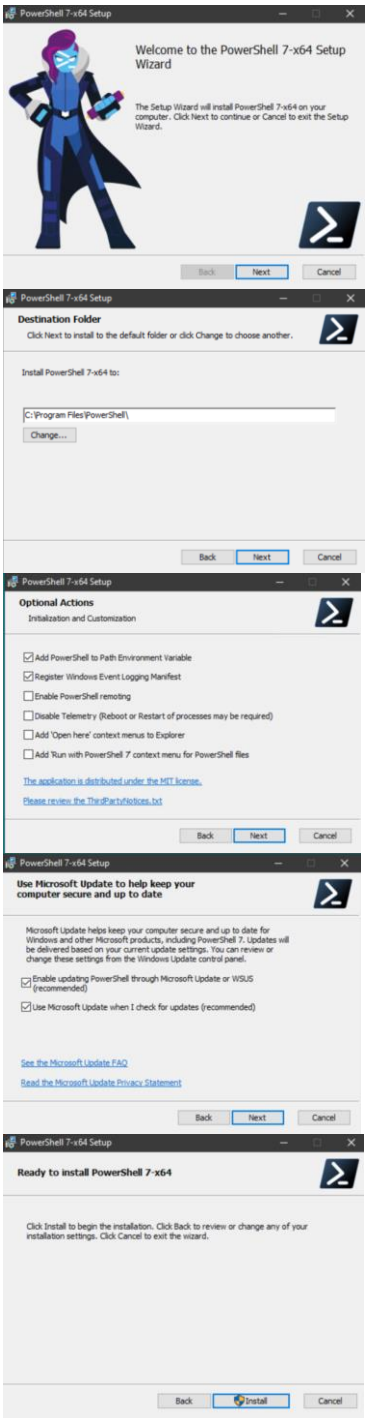

Pin “Powershell 7” to taskbar for easier launching. Launch and run “$PSVersionTable”

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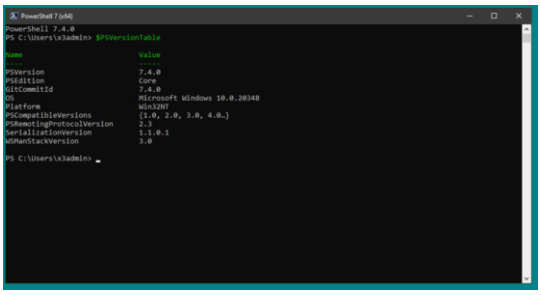


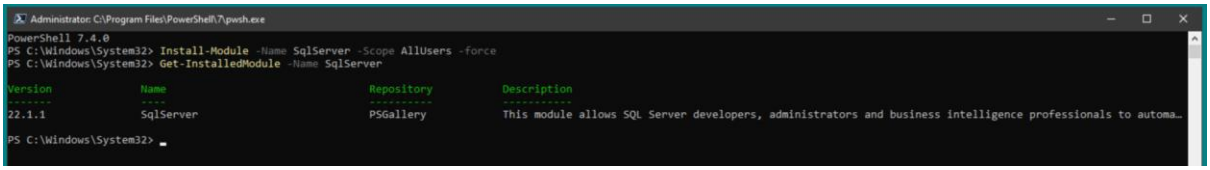
Install SQL Server module for powershell

Latest version is recommended. v22 or above is mandatory
https://learn.microsoft.com/en-us/sql/powershell/download-sql-server-ps-module?view=sql-server-ver16
See "Installing Microsoft PowerShell" section in https://online-help.sageerpx3.com/erp/12/public/getting-started_sage-erp-x3-installation-procedure.html#solution

Launch Powershell 7 as Administrator

Run "Install-Module -Name SqlServer -Scope AllUsers -force"

Then run "Get-InstalledModule -Name SqlServer" to check results



We can see version 22.1.1 is now installed.

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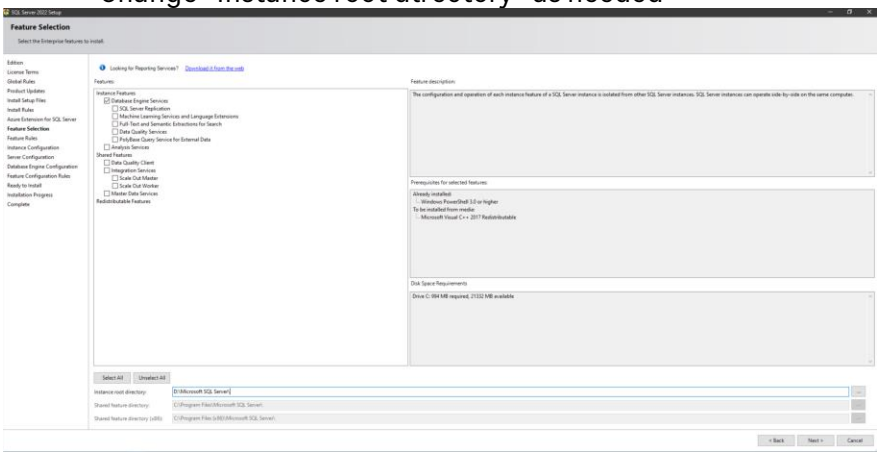
Installation of SQL Server 2022

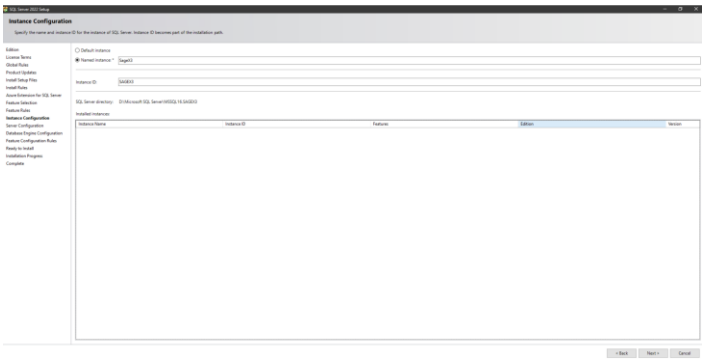
https://online-help.sageerpx3.com/erp/12/public/prerequisites_windows-sql-server.html

Mount the SQL Enterprise ISO file
Execute “setup.exe“
Select New SQL Server stand-alone installation
Deselect “Azure extension for SQL Server”
Feature selection

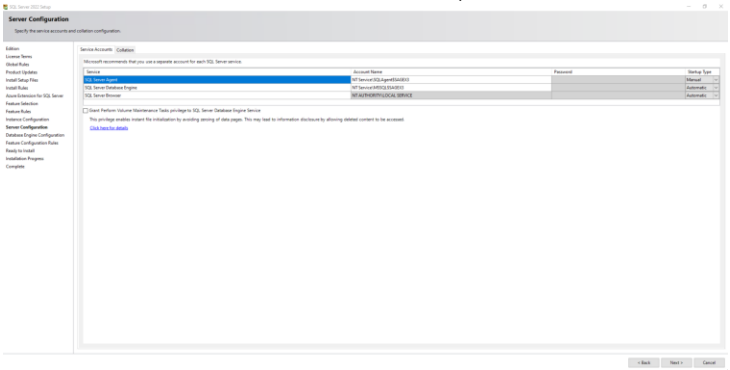
Only need Database Engine Services
Change “Instance root directory” as needed



Set Named Instance



The default Service Acounts are OK, but need to customise the Collation



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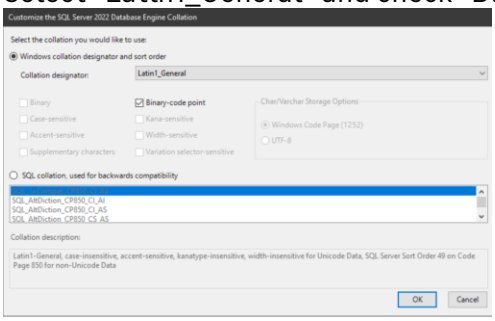
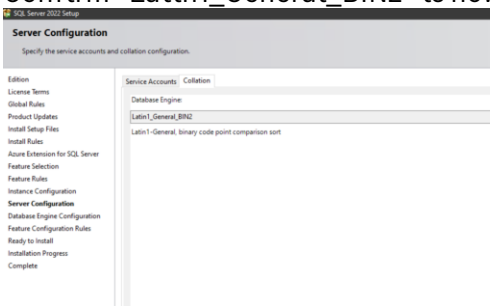
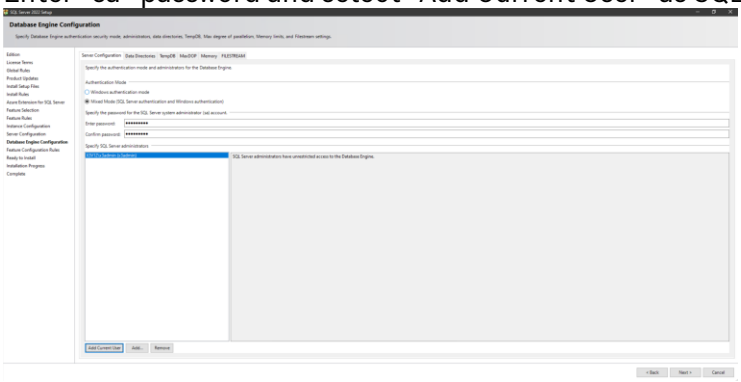
Select “Latin1_General” and check “Binary-code point”.



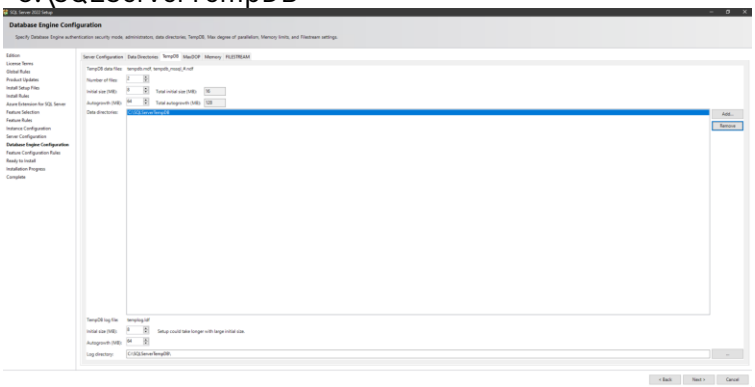
Confirm “Latin1_General_BIN2” is now specified.



In Server Configuration you must specify “Mixed Mode”
Enter “sa” password and select “Add Current User” as SQL administrator



It is not required to change from default, but I will set my Temp DB location to “C:\SQLServerTempDB”



As I am running on a single server, I will limit the memory

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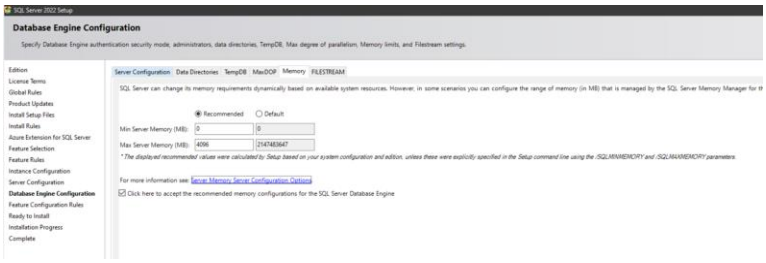
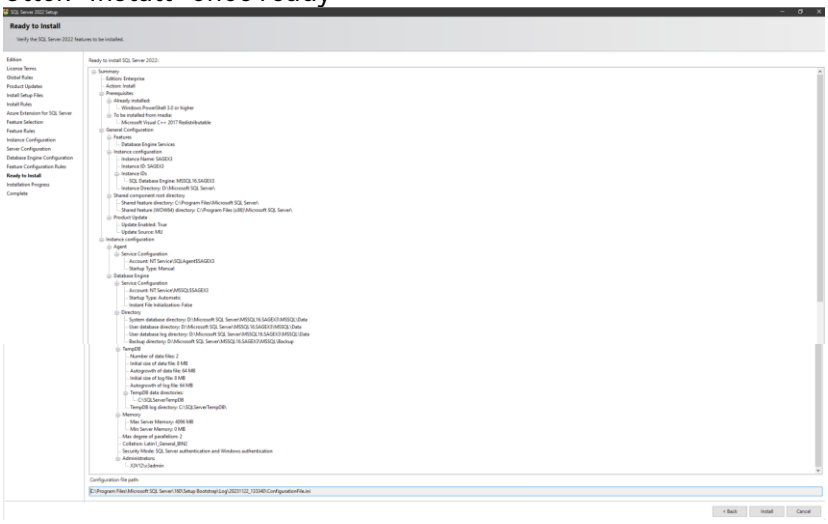
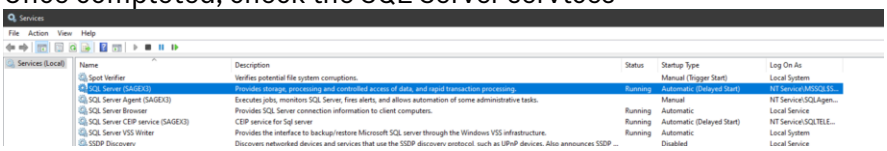


Click “Install” once ready



Once completed, check the SQL Server services



I will set the SQL Server CEIP and VSS services to manual start, as don’t intend to use them.

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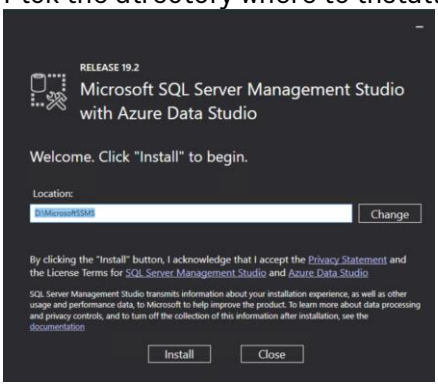
Installation of SSMS 19.2

NOTE: In the Prereqs online help we say "*With SQL Server 2019/2022, you should use SSMS 18.x in its latest version (18.9.1 as of May 2021).*" As the SSMS component is optional and independent from Sage X3 I am going to install the latest SSMS which is currently 19.2 (https://learn.microsoft.com/en-us/sql/ssms/release-notes-ssms?view=sql-server-ver16#current-ssms-release) After checking, it is confirmed that SSMS 19.2 **CAN** be used.

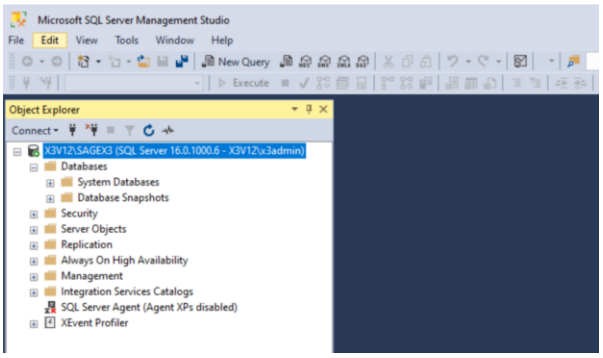
Execute " D:\Software\Microsoft\SSMS\SSMS-Setup-ENU_19.2.exe"

Pick the directory where to install into. In my case this is “D:\MicrosoftSSMS”



Once completed, restart the server as directed

Launch SSMS and test can connect to the SQL instance



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Configure SQL Server for secure connections

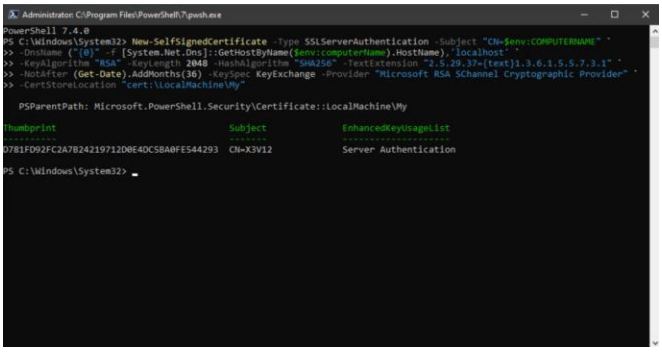
https://communityhub.sage.com/gb/sage-x3/b/sage-x3-uk-support-insights/posts/how-can-i-secure-my-sql-server-data-using-encryption

https://learn.microsoft.com/en-us/sql/database-engine/configure-windows/configure-sql-server-encryption?view=sql-server-ver16

https://learn.microsoft.com/en-us/sql/database-engine/configure-windows/special-cases-for-encrypting-connections-sql-server?view=sql-server-ver16

I am going to use the Microsoft instructions and use the provided Powershell script to generate a self-signed certificate.

```
New-SelfSignedCertificate -Type SSLServerAuthentication -Subject
"CN=$env:COMPUTERNAME" `
-DnsName ("{0}" -f
[System.Net.Dns]::GetHostByName($env:computerName).HostName),'localhost
' `
-KeyAlgorithm "RSA" -KeyLength 2048 -HashAlgorithm "SHA256" -
TextExtension "2.5.29.37={text}1.3.6.1.5.5.7.3.1" `
-NotAfter (Get-Date).AddMonths(36) -KeySpec KeyExchange -Provider
"Microsoft RSA SChannel Cryptographic Provider" `
-CertStoreLocation "cert:\LocalMachine\My"
```



Install a certificate for a single SQL Server instance

- In SQL Server Configuration Manager, in the console pane, expand SQL Server Network Configuration.
- Right-click Protocols for <instance Name>, and then select Properties.
- Choose the Certificate tab, and then use the drop down to pick the X3V12 self-signed certificate, then click OK.

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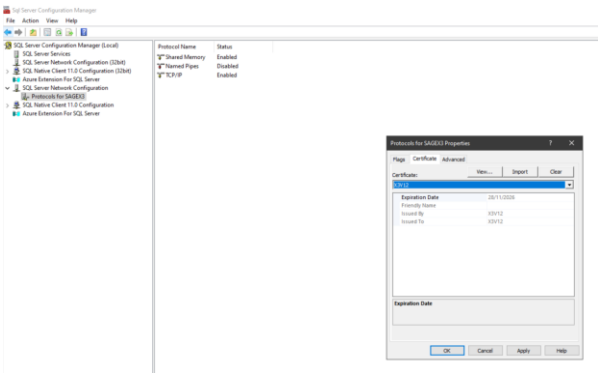
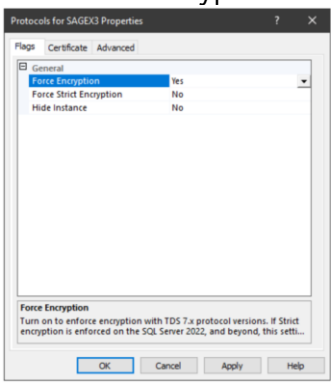


Set “Force encryption” flag to “Yes” on the “Flags” tab whilst we’re here.



Restart SQL server service for the changes to take effect.
If the service does not start, don’t panic, you’ll see the following errors in the SQL Server ERRORLOG file

```
The server could not load the certificate it needs to initiate an SSL
connection. It returned the following error: 0x8009030d. Check
certificates to make sure they are valid.

Found the certificate [Cert Hash(sha1) "XXXXXXXXXXXXXXXXX"] in the
local computer store but the SQL Server service account does not have
access to it.
```

If this is the case, follow the following article to resolve (SQL Server account needs permission to see the certificate) https://learn.microsoft.com/en-us/troubleshoot/sql/database-engine/startup-shutdown/event-id-33565-start-sql-server

Adding the permissions in “Manage Computer Certificates” will resolve.

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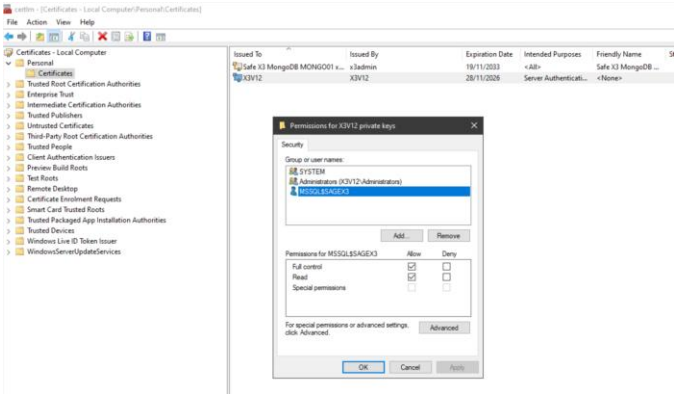
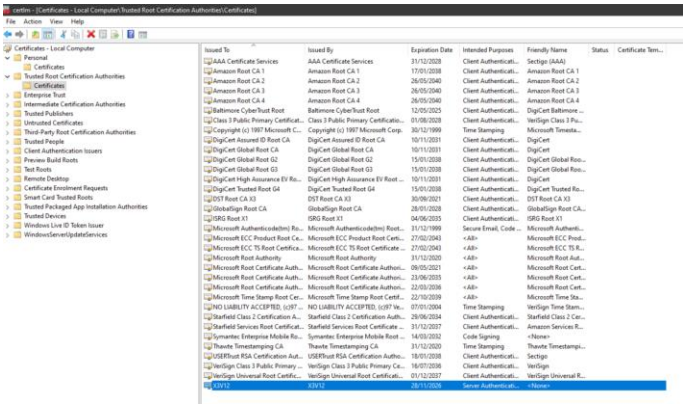


Login with SSMS and see the error:

I am adding the self-signed certificate into the Trusted Root Certifation Authorities store to solve this one...



Test the setup by logging in with SSMS and running the following SQL (Should return “TRUE”)

```
USE [master]
GO
SELECT DISTINCT (encrypt_option)
FROM sys.dm_exec_connections;
GO
```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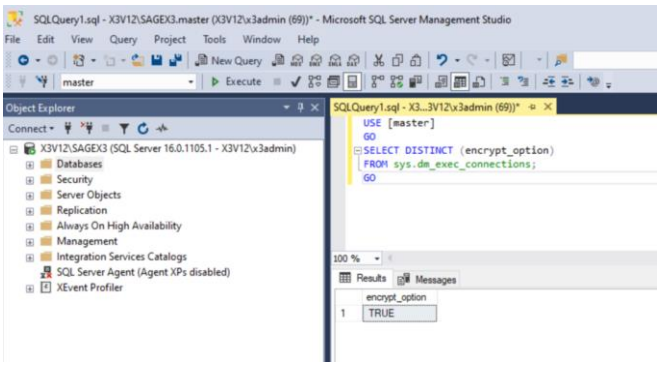

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Install X3 technology components

https://online-help.sageerpx3.com/erp/12/public/getting-started_sage-erp-x3-installation-procedure.html

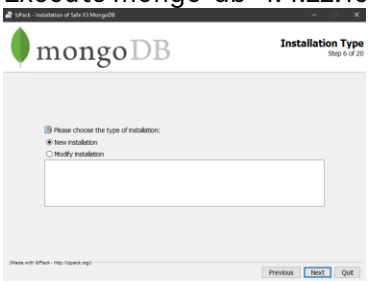
MongoDb 4.4.22

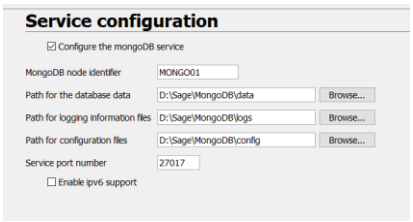
https://online-help.sageerpx3.com/erp/12/public/prerequisites_mongodb-on-windows.html

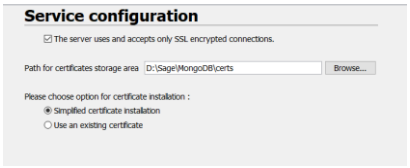
https://online-help.sageerpx3.com/erp/12/public/getting-started_MongoDB-installation-procedure.html

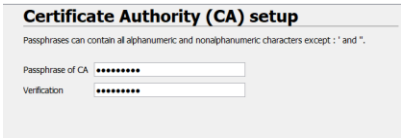
Additional notes when upgrading to MongoDB 4.x https://gb-kb.sage.com/portal/app/portlets/results/viewsolution.jsp?solutionid=220924660107620

Execute mongo-db-4.4.22.10.jar









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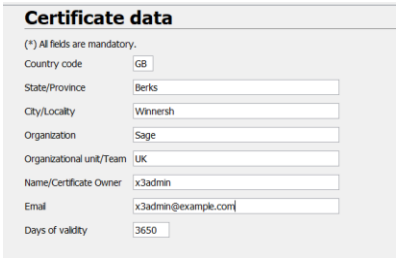
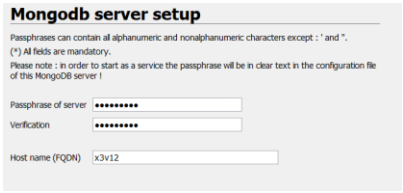
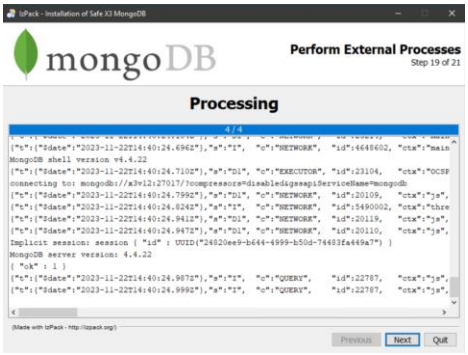
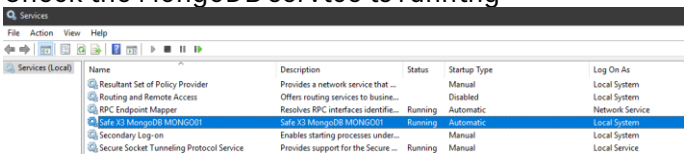






Check the output in the window for any errors. These messages also echoed to "D:\Sage\MongoDB\Install_V4.4.22_xxxx.log"

Check the MongoDB service is running



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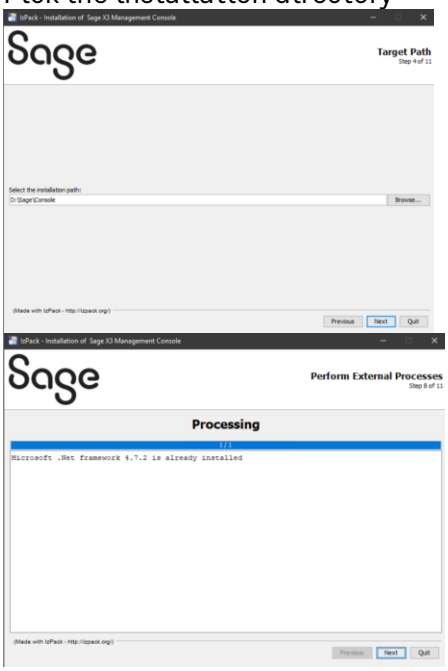
X3 Console 2.58.0

https://online-help.sageerpx3.com/erp/12/public/prerequisites_console.html

Execute console-2.58.0.14-win.jar

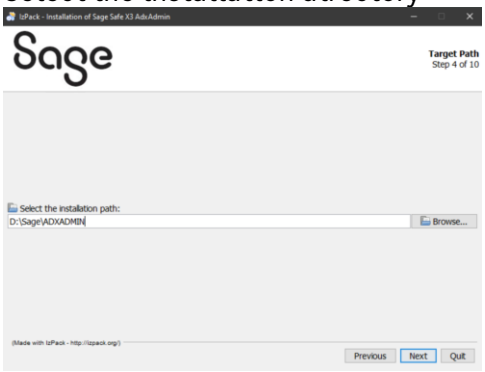
Pick the installation directory



Adxadmin 96.1.206

Execute adxadmin-96.1.206.jar

Select the installation directory



Pick the port number (I prefer to change from default of 1895 to 51895)

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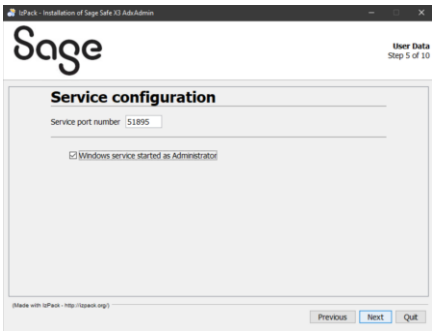
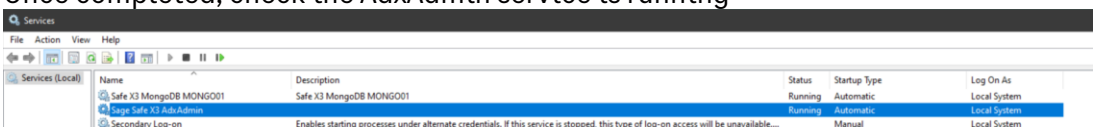


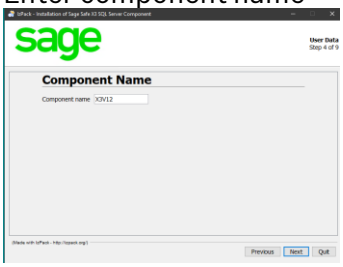
Once completed, check the AdxAdmin service is running



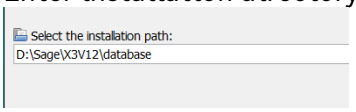
SQL Server component

Launch db-sql-3.0.0-win.jar

Enter component name

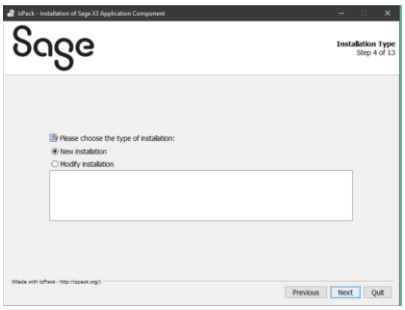


Enter installation directory



Application 12.0.34

Execute x3-application-12.0.34.jar



Enter component name

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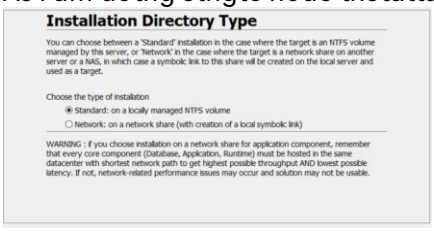
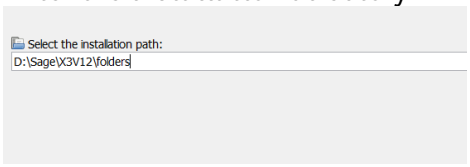
As I am doing single node installation, I will select “Standard”



Enter the installation directory

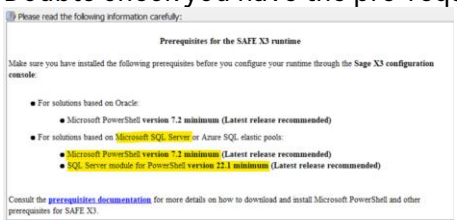


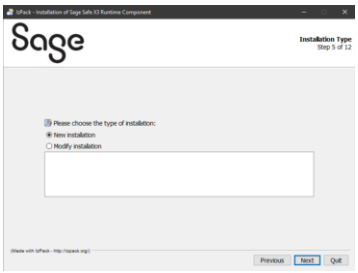
Runtime 96.1.206

https://online-help.sageerpx3.com/erp/12/public/prerequisites_windows-sql-server.html

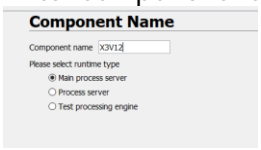
Execute runtime-96.1.206.jar

Double check you have the pre-reqs installed!





Enter component name



Enter installation directory

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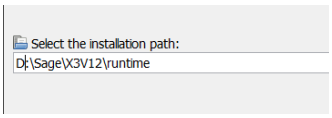
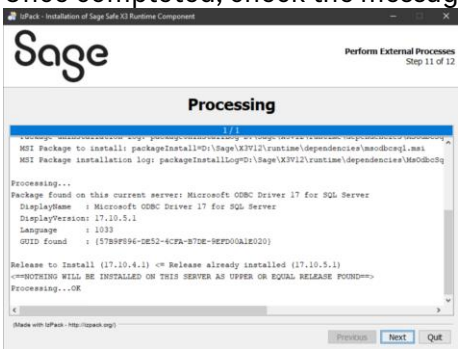


Once completed, check the messages for any errors

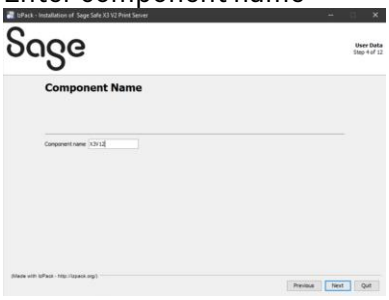


Print Server 2.29.0

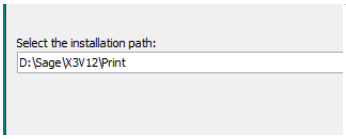
https://online-help.sageerpx3.com/erp/12/public/prerequisites_print-server-on-windows.html

Execute print-server-2.29.0.15-win.jar

Enter component name



Enter installation directory



Select ODBC driver as needed (Probably not needed but I always select it!)

Will install SAP Crystal Reports runtime engine (Takes a few minutes for this bit)

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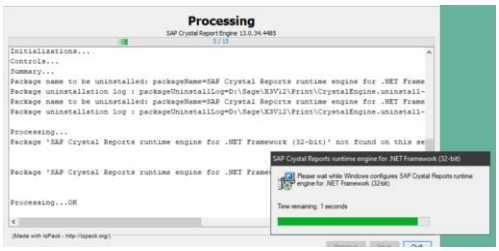
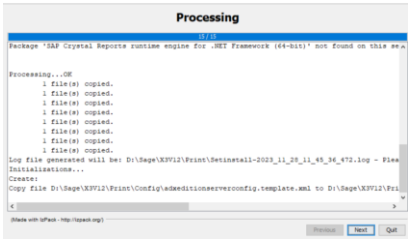


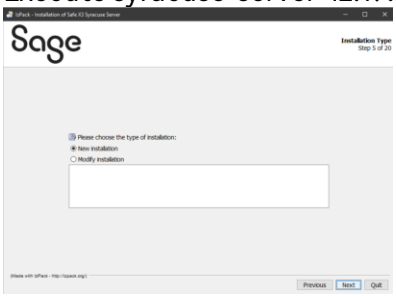


Once completed, check the messages for any errors. Messages are also written to "D:\sage\X3V12\Print" directory in the "*.log" files

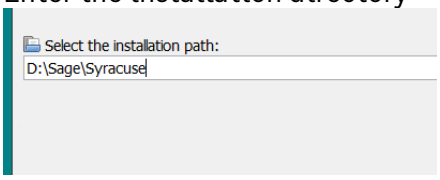
Syracuse Server 12.19.3.4 (Security hotfix version)

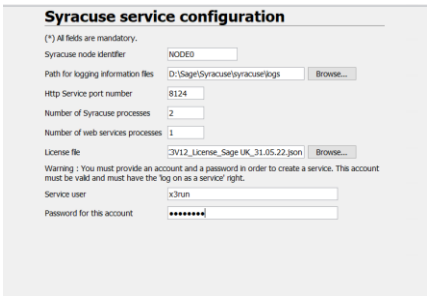
https://online-help.sageerpx3.com/erp/12/public/prerequisites_web-syracuse-server-on-windows.html

Execute syracuse-server-12.19.3.4.jar



Enter the installation directory





Enter the fields as required.

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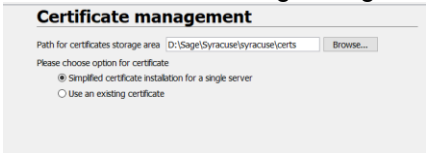
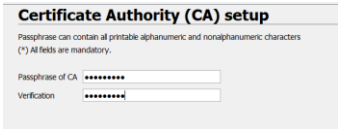
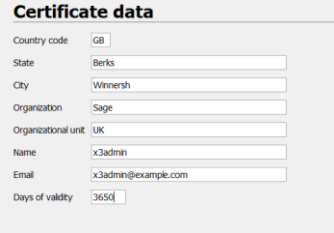
In this case I am doing a single node install, so can use simplified certificate installation

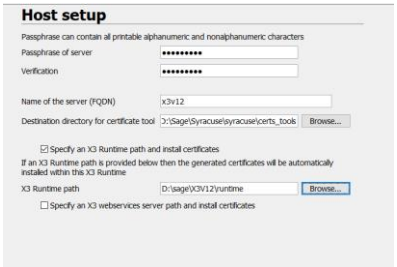




Enter password

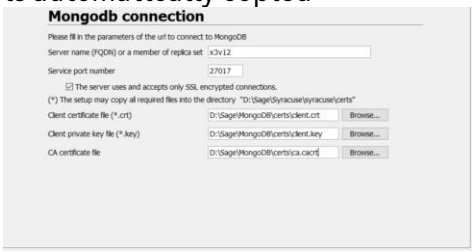


Enter certificate data as needed



Enter server passphrase

As my runtime is on the same server, I can also select the X3 Runtime Path so the certificate file is automatically copied



MongoDB is setup for SSL connections only.
As MongoDB is already in place, I can select the client SSL certificate details from the MongoDB installation.

Once completed, check the messages for any errors (Also written into "D:\sage\Syracuse\Install_V12.19.3_xxxx.log")

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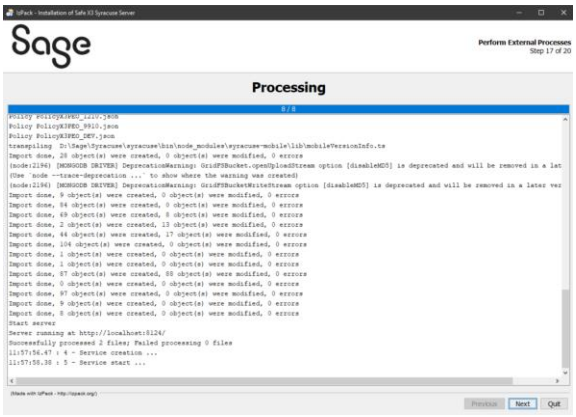
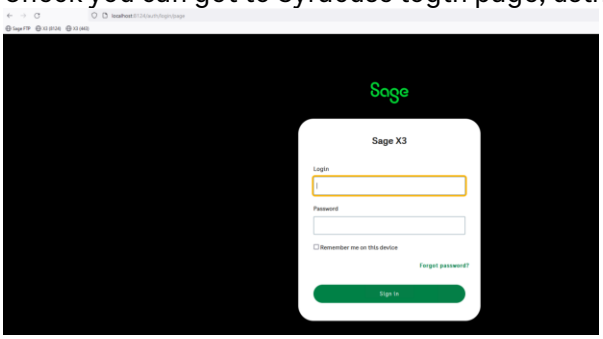
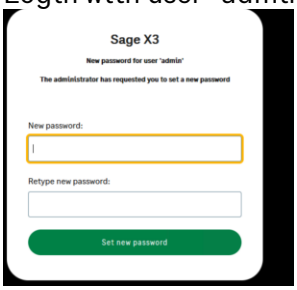


Check you can get to Syracuse login page, using URL http://localhost:8124



Login with user “admin” and password “admin” and enter new password



Set new password that conforms to minimum requirements.

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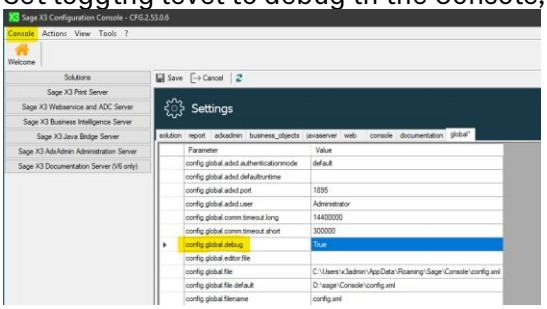
Configure X3

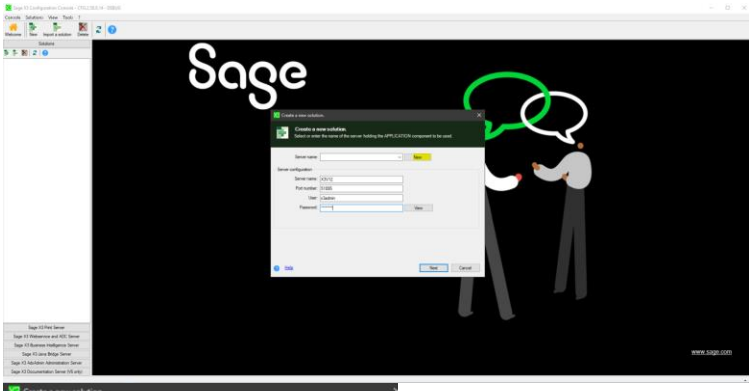
Launch the X3 console

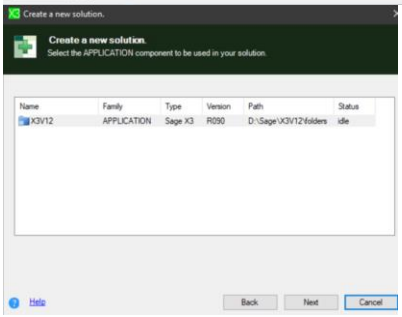
Set logging level to debug in the Console, settings

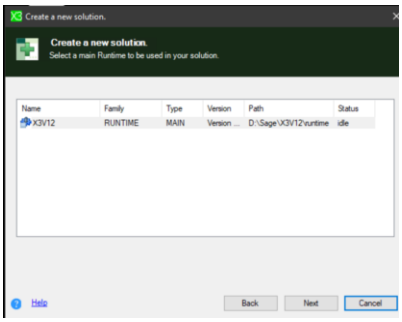


Save the change, then restart the console

Create new solution in console







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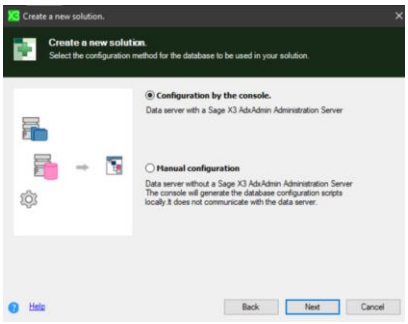

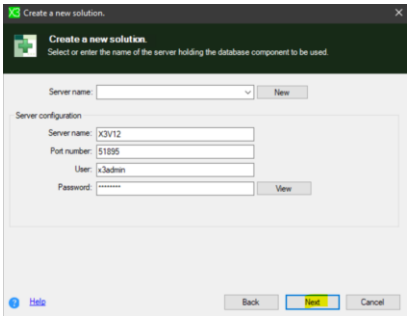

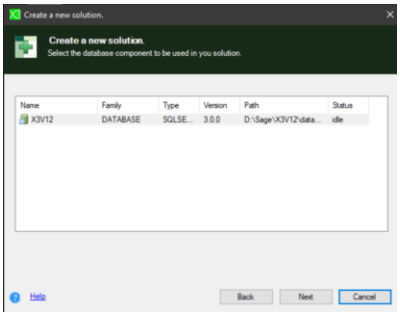

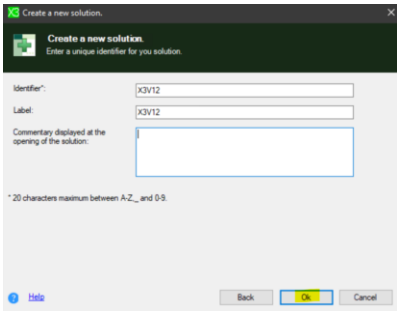

Update the Data server section

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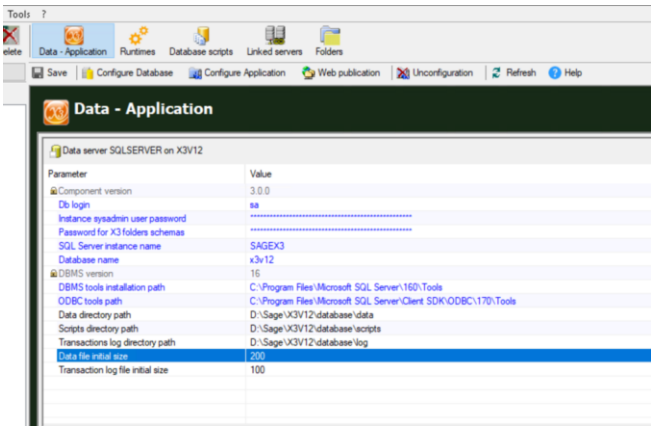
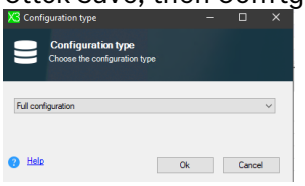
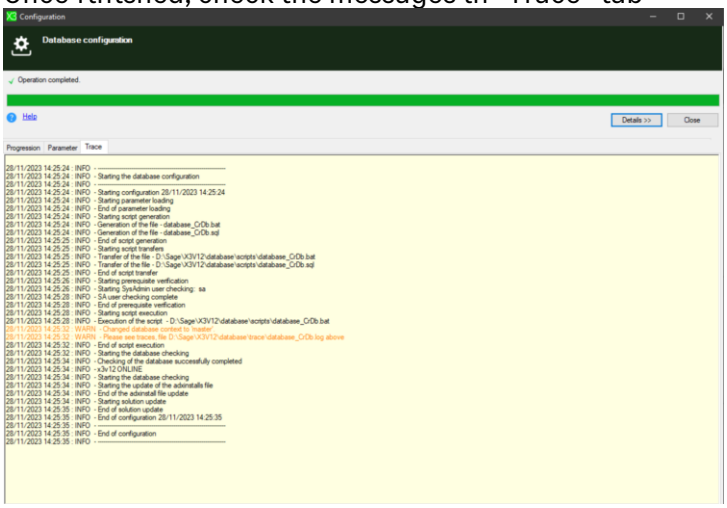


- Enter Instance sysadmin user password (as defined when installing SQL Server)
- Password for X3 folders schemas (as needed)
- SQL Server instance name, from drop down list
- Database name = x3v12
- DBMS tools installation path, from drop down list
- ODBC tools path, from drop down list

Click Save, then Configure Database



Once finished, check the messages in “Trace” tab



Configure Application section

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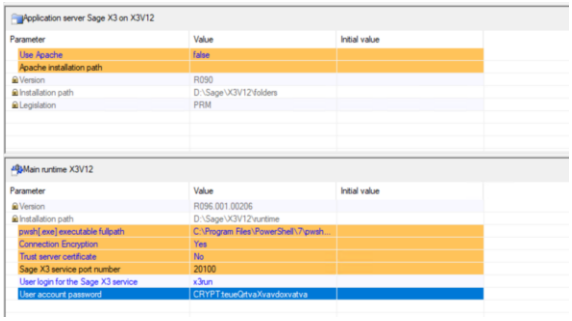
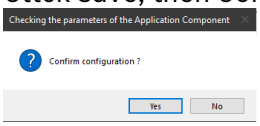
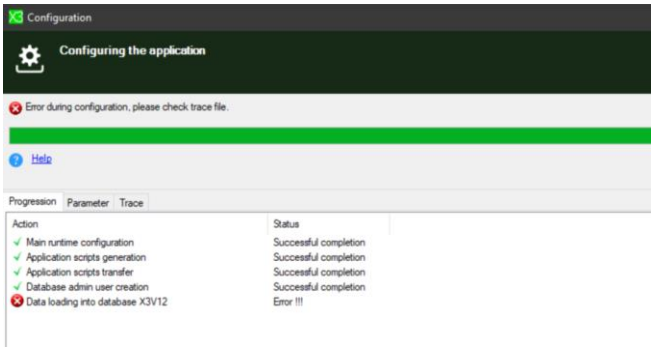


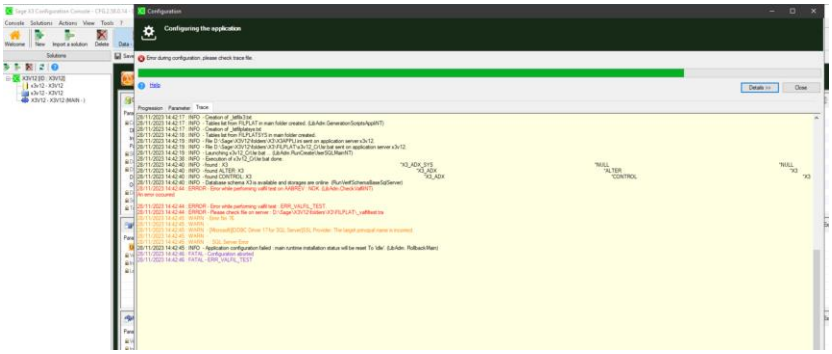
- Use Apache = false
- Pwsh[.exe] executable fullpath , from dropdown list
- Connection Encryption = Yes (as I have already configured SQL server)
- Trust server certificate = No (as the certificate is a trusted CA)
- Sage X3 service port number = 20100 (default)
- User login for the Sage X3 service = x3run
- User account password = (enter x3run user password)

Click Save, then Configure Application, then “Yes” to continue



Check the messages in “Trace” tab once completed.





28/11/2023 14:42:40 : INFO - Database schema X3 is available and storages are online (RunVerifSchemaBaseSqlServer)
28/11/2023 14:42:44 : ERROR - Error while performing valfil test on AABREV : NOK. (LibAdm.CheckValfilNT)
An error occurred

28/11/2023 14:42:44 : ERROR - Error while performing valfil test : ERR_VALFIL_TEST.
28/11/2023 14:42:44 : ERROR - Please check file on server : D:\Sage\X3V12\folders\X3\FILPLAT_valfiltest.tra

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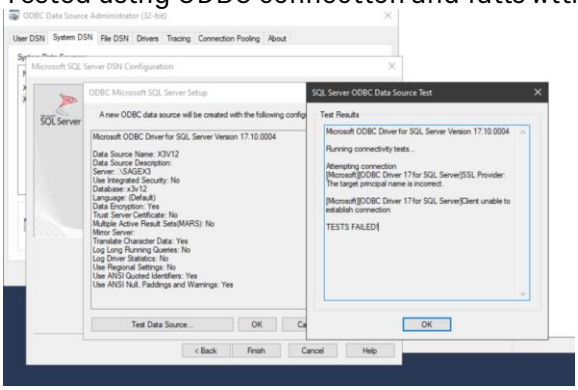
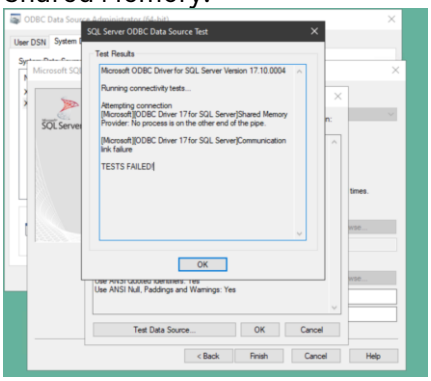
28/11/2023 14:42:45 : WARN - Error No 76
28/11/2023 14:42:45 : WARN -
28/11/2023 14:42:45 : WARN - [Microsoft][ODBC Driver 17 for SQL Server]SSL Provider: The target principal name is incorrect.
28/11/2023 14:42:45 : WARN -
28/11/2023 14:42:45 : WARN - : SQL Server Error
28/11/2023 14:42:45 : INFO - Application configuration failed : main runtime installation status will be reset To 'idle'. (LibAdm. RollbackMain)
28/11/2023 14:42:46 : FATAL - Configuration aborted
28/11/2023 14:42:46 : FATAL - ERR_VALFIL_TEST

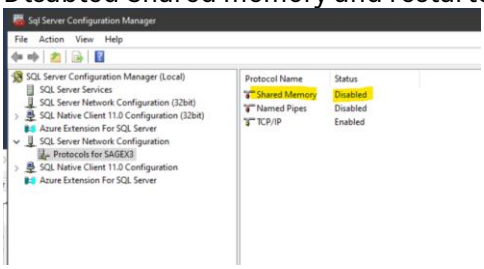
Tested using ODBC connection and fails with same error.



When I selected “Trust Server Certificate” = Yes, then it gave different error complaining about Shared Memory.



Disabled Shared memory and restarted SQL Server service



This then worked OK for ODBC connection. Subsequent testing found this error only happened if I tested with “Trust Server Certificate” = No first. If I launched ODBC and tested “Trust Server Certificate” = Yes first then it worked OK, so re-enabled Shared Memory and restarted SQL Server services.

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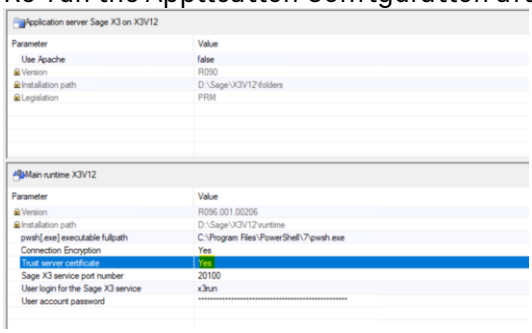
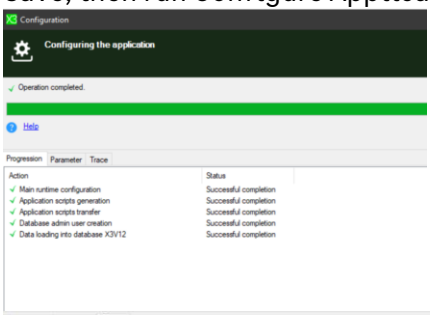
Re-run the Application Configuration after changing “Trust server certificate = Yes”



Save, then run Configure Application and select OK to confirm.



Configure Print Server
Add Print Server and pick existing connection from the drop down

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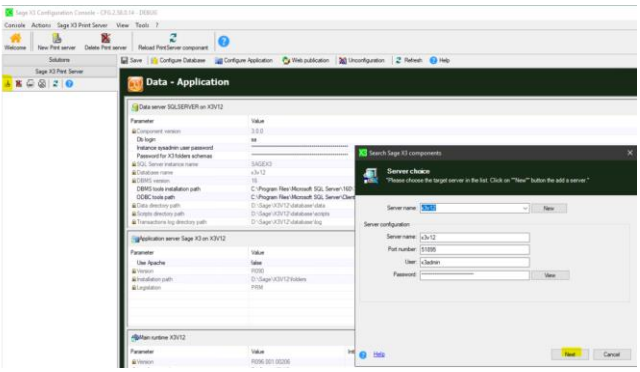
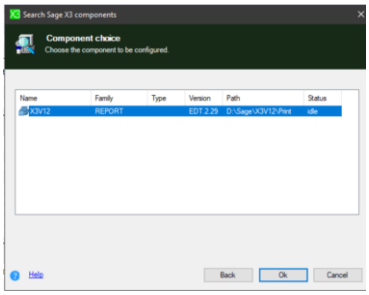
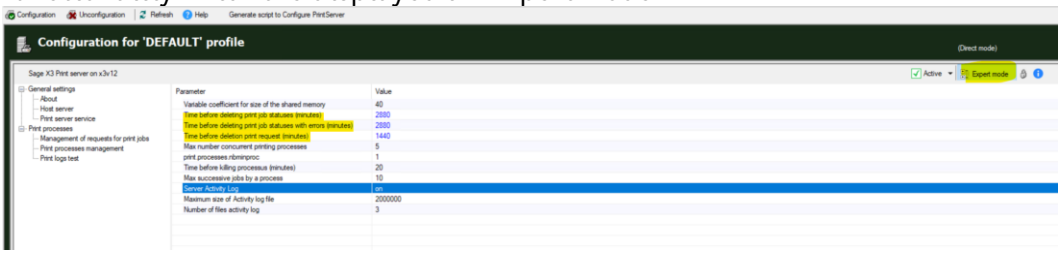


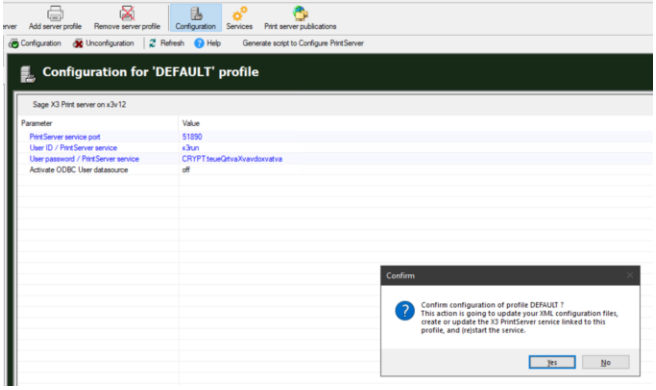


In the configuration, enter the port you wish to use. I normally change from the default 1890 to 51890. Also enter Service runtime user as “x3run” and password.
Although optional, I will also change some of the new parameters to take advantage of new functionality which are displayed in “Expert mode”



I want to keep all print jobs (printed OK or in error) for review for 2 days and have also enabled Server Activity Log.

Click “Configuration” then “Yes” to continue



Once completed successfully, exit the X3 console

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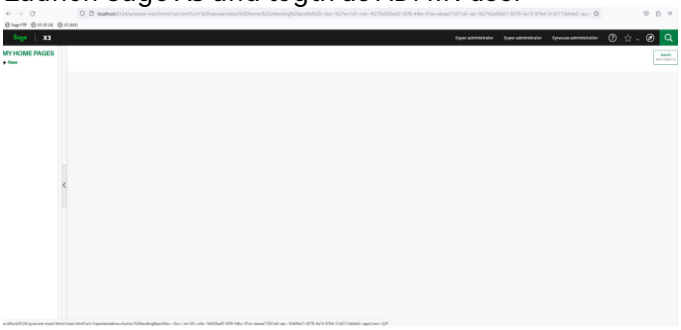
Final setup and testing

Launch Sage X3 and login as ADMIN user



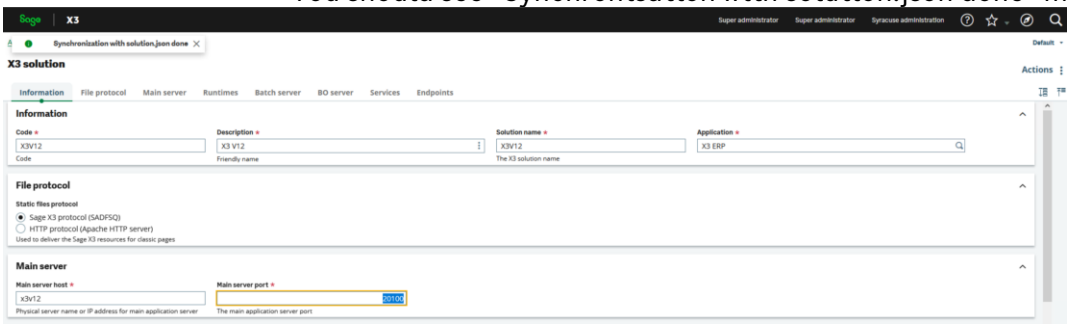
Configure X3 Solution

Navigate to Administration, Administration, Endpoints, X3 solutions
From the “Actions” pick “New X3 Solutions”

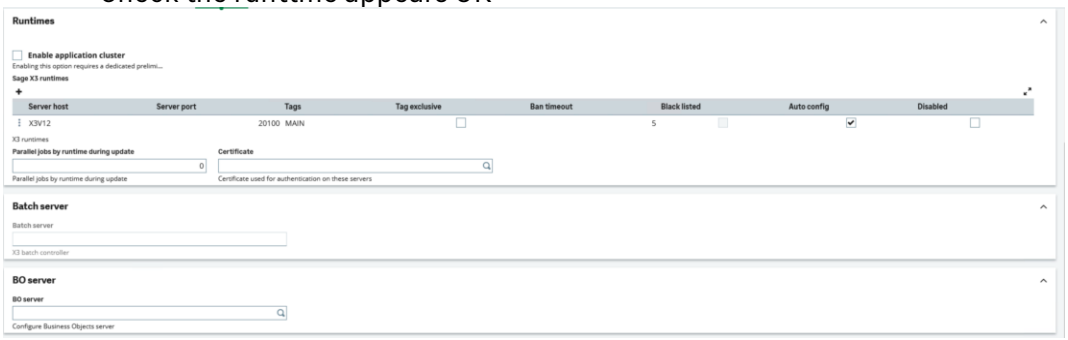
Enter the required information:

Code = X3V12
Description = X3 V12
Solution Name = X3V12
Application, from drop down list
File protocol = “Sage X3 protocol (SADFSQ)”
Main server host = x3v12
Main server port = 20100 (Defaulted)

You should see “Synchronisation with solution.json done” message



Check the runtime appears OK



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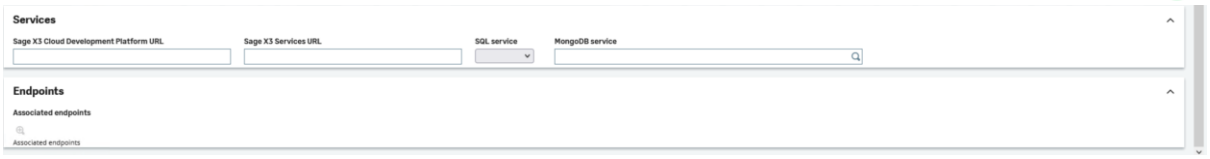
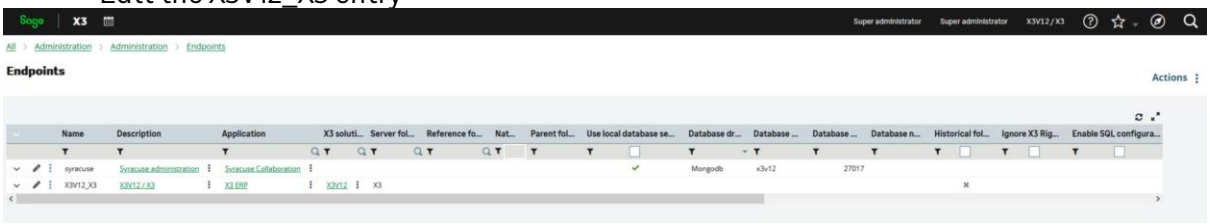


Click “Save” from the Actions button

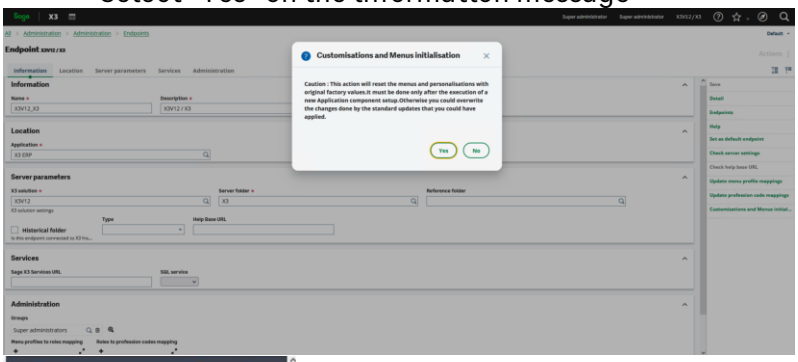
Logout and login again
Set user language to English (United Kingdom)

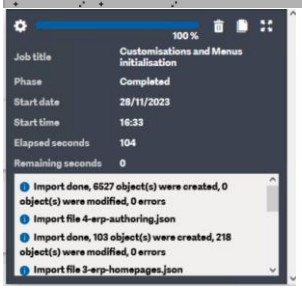
Perform personalization and menu initialization

Navigate to Administration, Administration, Endpoints, Endpoints
Edit the X3V12_X3 entry



From the Actions, select “Customisations and menus initialization from X3 folder”
Select “Yes” on the information message





Log out of X3

Installation of Supervisor component

Log back in as ADMIN user, make sure the X3 endpoint is selected

Navigate to Parameters, Users, Users

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Click OK to continue
Once completed, logout again

Restart the Windows Server to be sure everything starts afresh.

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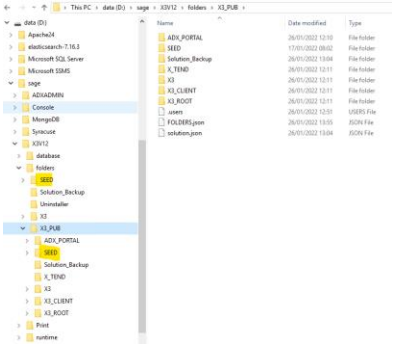
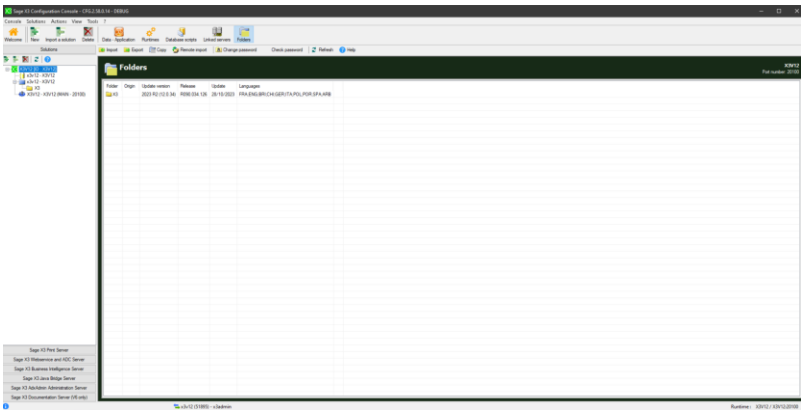
Import SEED Folder

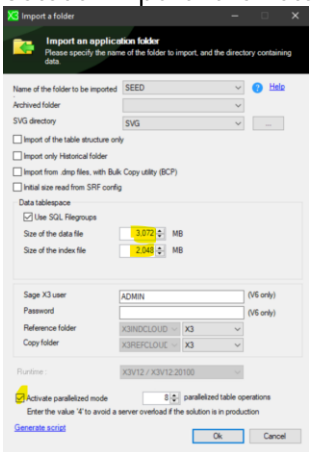
Download SEED ISO image for V12 P34 and mount the iso file “x3-seed-12.0.34.iso”
Extract ZIP file “x3-seed-12.0.34.zip” to “D:\sage\X3V12\folders\”



Once unzip has completed, launch X3 console
Select “Folders” tab



Select “Import” then click OK to launch the import



Once the import has completed, check the folder details look OK. The X3 Console log file will be located in “C:\Users\x3admin\AppData\Roaming\Sage\Console\traces\gtrace.tra” by default. (As I am doing the install as “x3admin” user)

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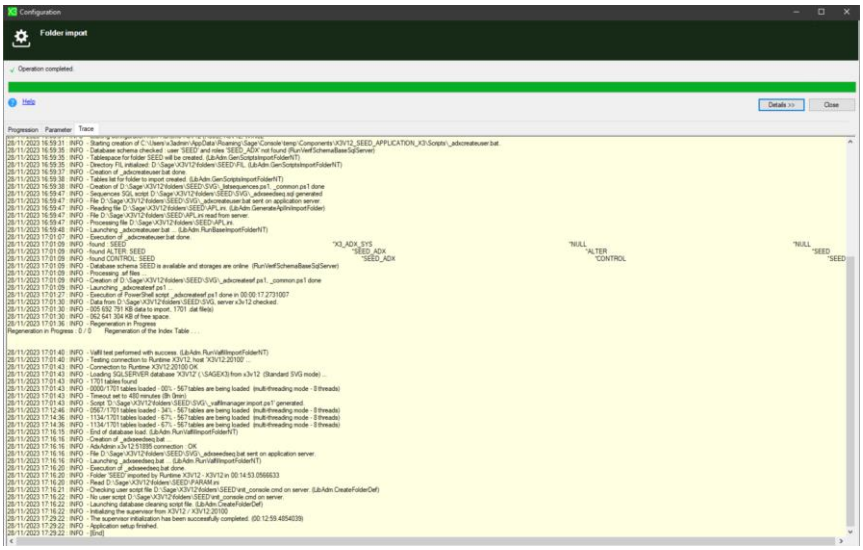
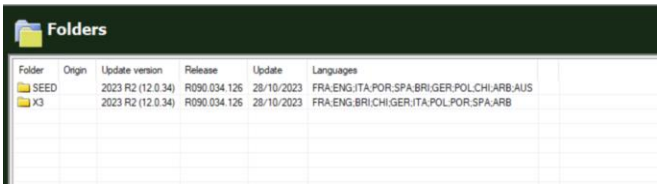
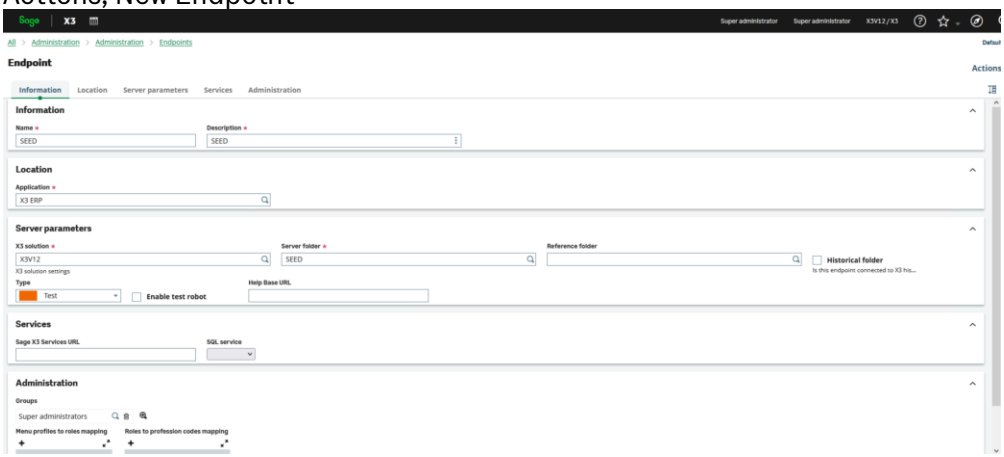




Create SEED Endpoint in Syracuse

Navigate to Administration, Administration, Endpoints, Endpoints Actions, New Endpoint



Save the record

Logout and login again.
Select SEED folder and confirm looks OK

Setup SEED folder in X3 Console for Print Server

- In X3 console, select Sage X3 Print Server
- Select Print Server publications
- Add solution

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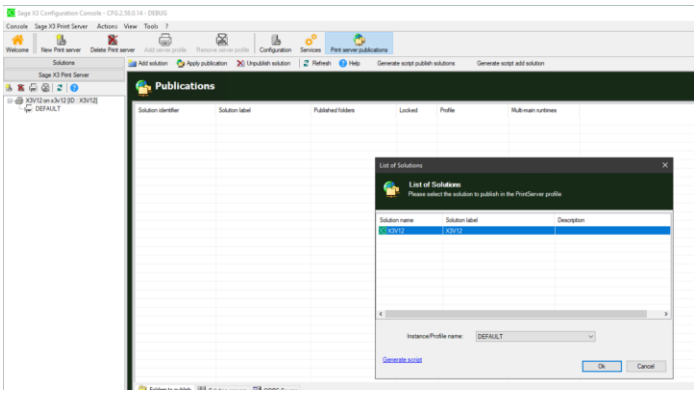
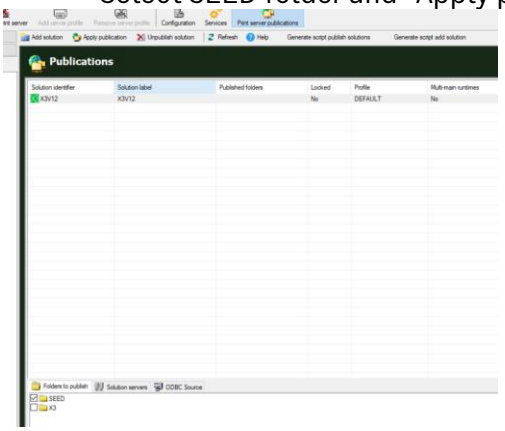


Click OK to continue

Select SEED folder and “Apply publication”



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Apply any mandatory patches

Check the ISO “Patches” directory. E.g. E:\X3Installs\Patch

Apply any patches in this directory.

Login to X3 as ADMIN user and connect to X3 folder
Copy “patches” directory from ISO to “D:\Sage\X3V12\folders\X3\PATCH”
Navigate to Administration, Utilities, Update, Updates
Apply XSDFILES-UBL21.zip ** This is not a patch file!! Skipping this for now.
(Something to do with E-Invoicing I think)

Navigate to Development, Utilities, Patches, Patch Integration
Apply all the SX_*.dat files
** There is no documentation on these files, so skipping until I have got clarifications.

NOTE: the documentation (https://online-help.sageerpx3.com/erp/12/public/getting-started_sage-erp-x3-installation-procedure.html "Applying the list of patches" section and also in the "VersionInformationNote-X3-ENG-12.0.34.html") says only to apply ZIP file in the "patch" directory using "Updates" function, however with patch 34 there is a ZIP file and also 8x *.dat patch files which need to be applied with the "Patch integration" function. See above highlighted notes, I am skipping this for now.

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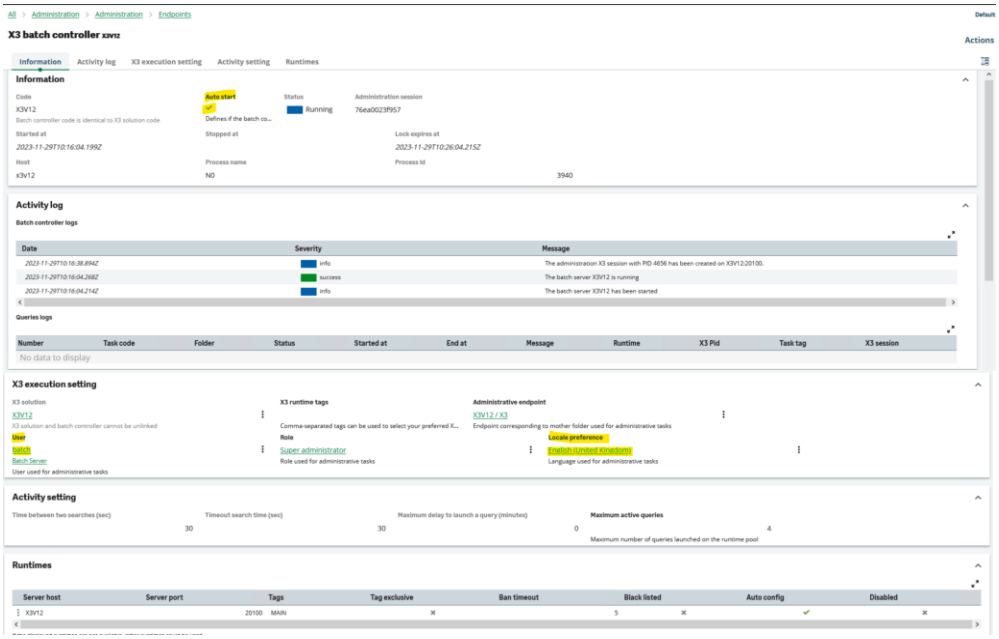
Batch Server

Create new user to process batch jobs “batch”. More or less a copy of ADMIN user. Copy user to all folders.

Navigate to Administration, Administration, Endpoints, Batch server

Edit as needed, then save the change.

Start the batch server



Web Services

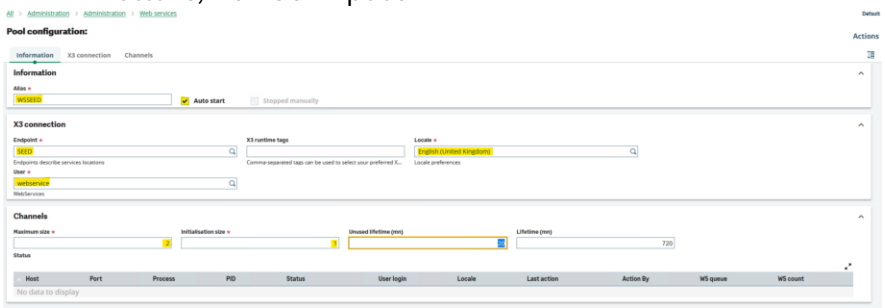
Create new user to launch SOAP pools “webservices”. More or less a copy of ADMIN user. Copy user to all folders.

Connect to SEED folder.

Create/Startup Web Pool.

Navigate to Administration, Administration, Web services, Classic SOAP pools configuration

Actions, New SOAP pool



Save the record

Actions, Start/Update to startup the web pool

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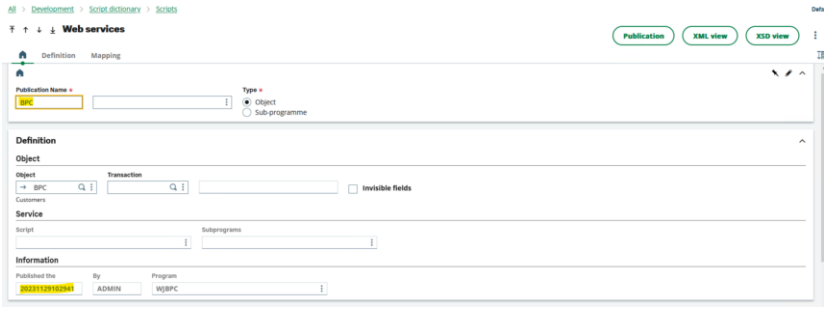
For testing purposes later on I will use the BPC object, so will publish this object now

Navigate to Development, Script dictionary, Scripts, Web services

Select the BPC publication

Save, then Publish. Check the publication date/time is today

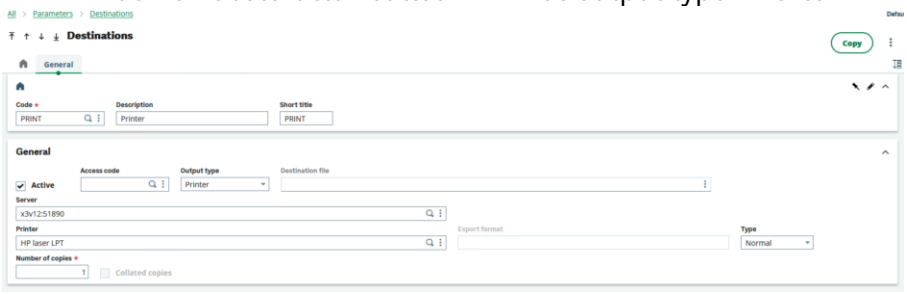


Printer setup

Check/change/delete destinations for SEED folder as per your own requirements.

Navigate to Parameters, Destinations, Destinations

- For each of the existing destinations,resave the record as print servers are missing.
- Add new destination called PRINT as output type “Printer”



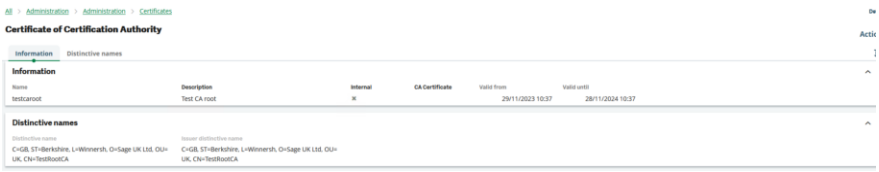
Setup SSL port 443

Generate the required SSL certificates by executing script “D:\SageSupport\mzCertificates\SyracuseTLS\mzSyracuse_TLS_WildCard.cmd” (Available to Sage Business Partners via GitHub)

Navigate to Administration, Administration, Certificates, Certificates of Certification Authorities

Actions, New CA certificate

Add the root and inter certificates



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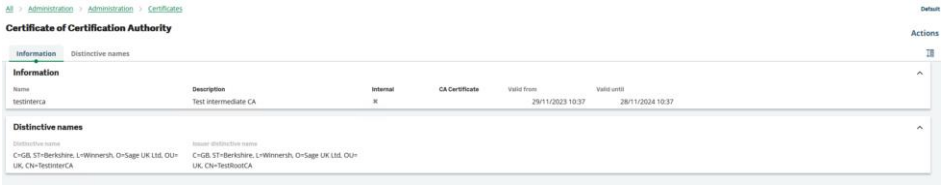
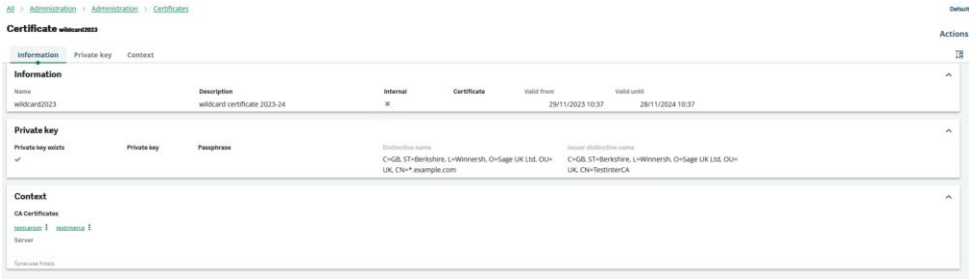
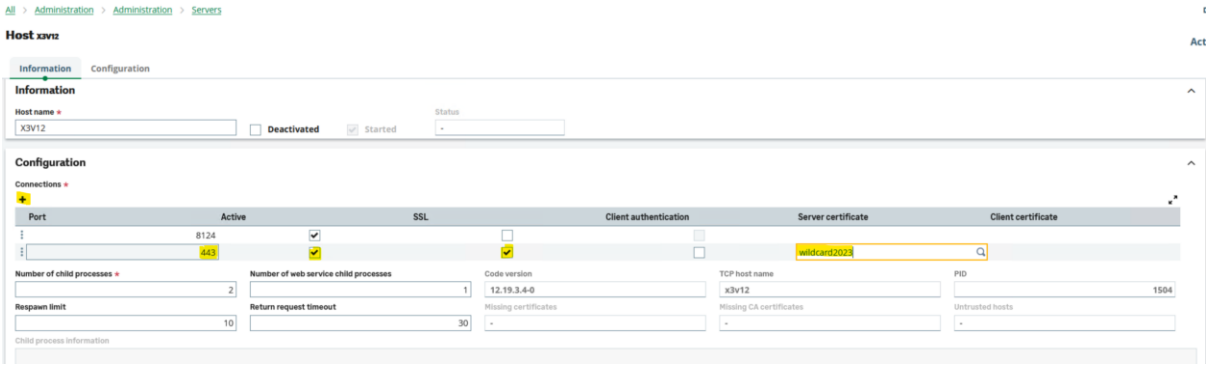


Navigate to Administration, Administration, Certificates, Certificates
Actions, New certificate



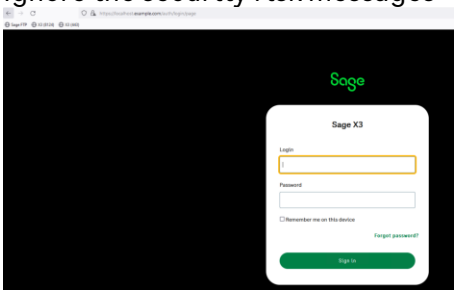
NOTE: The “Server” field should be left blank, as it’s a wildcard certificate

Navigate to Administration, Administration, Servers, Hosts
Edit the “X3V12” host
Add new line for port 443 and configure as SSL



IMPORTANT NOTE: ensure you add as a second line, leave the first line as 8124
Save the change
Logout
Restart Syracuse service

Connect to URL https://localhost.example.com/
Ignore the security risk messages



Make sure you can login OK

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Additional installations

Installation of Elastic Search 8.11

NOTES: Elastic Search is optional from 2022 R4. Elastic Search 8 is supported since 2023 R2 and has a new configuration method.

Documentation
https://online-help.sageerpx3.com/erp/12/public/prerequisites_elastic-search.html
https://www.elastic.co/downloads/elasticsearch
https://www.elastic.co/guide/en/elasticsearch/reference/current/index.html
Additional notes when upgrading ElasticSearch (https://gb-kb.sage.com/portal/app/portlets/results/viewsolution.jsp?solutionid=225924850099424)

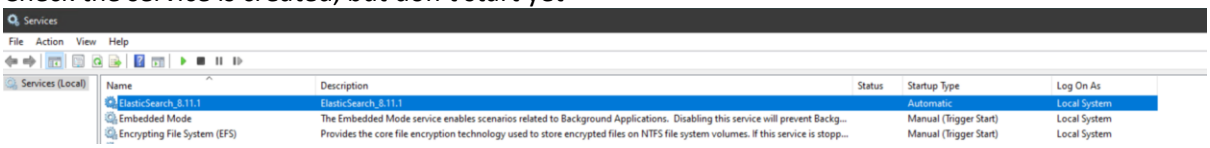
I decided to use the ZIP file method.

Unzip "D:\Software\ElasticSearch\elasticsearch-8.11.1-windows-x86_64.zip" into "D:\" which writes the extracted files into "D:\elasticsearch-8.11.1"

Create text file "D:\Software\ElasticSearch\ElasticInstall.cmd"

```
REM Set the following variables to suit your environment
set "mzNewServiceName=ElasticSearch_8.11.1"
set "ES_HOME=D:\ElasticSearch-8.11.1"
set "ES_JAVA_HOME=%ES_HOME%\jdk"
REM   set "ES_JAVA_OPTS="-Xms512m -Xmx512m""
REM The following lines should not need to be changed
cd /d "%ES_HOME%\bin"
set "ES_START_TYPE=auto"
set "SERVICE_ID=%mzNewServiceName%"
set "SERVICE_DISPLAY_NAME=%mzNewServiceName%"
set "SERVICE_DESCRIPTION=%mzNewServiceName%"
REM goto resetPass
REM goto manage
:installElastic
elasticsearch-service.bat install
goto end
:resetPass
elasticsearch-reset-password -u elastic
goto end
:manage
elasticsearch-service.bat manager %mzNewServiceName%
:end
pause
```

Execute the script using the "Run as administrator" option
Check the service is created, but don't start yet



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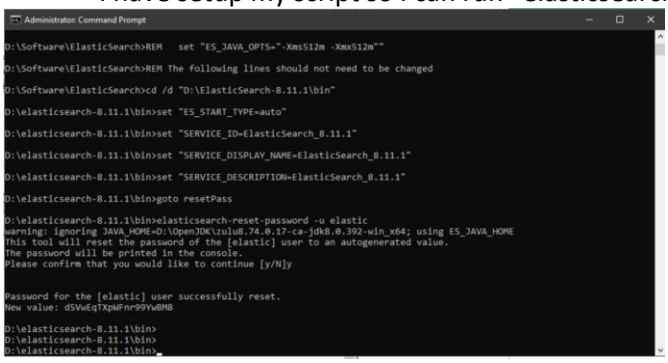
As I am running a single node configuration as a TEST server, I do not need to make any changes to the Elastic Search configuration. For LIVE or multi-node instances, additional configuration will be required.

Start the ElasticSearch service

Re-generate password for “elastic” user

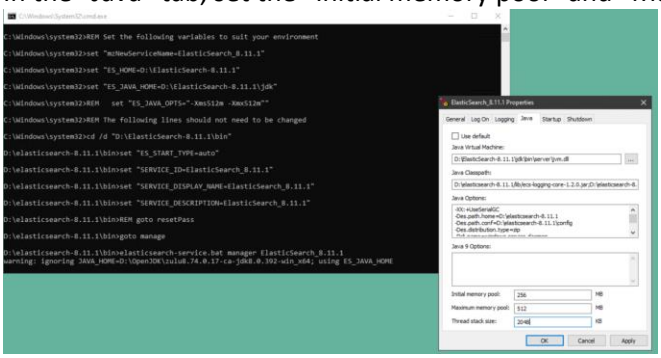
I have setup my script so I can run “elasticsearch-reset-password” easily



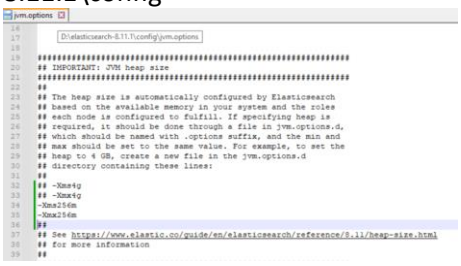
Configure JVM heap sizes, as discussed in https://www.elastic.co/guide/en/elasticsearch/reference/8.11/important-settings.html#heap-size-settings as the default is 4GB on my Windows Server

Execute “elasticsearch-service.bat manager” CMD after adjusting the script again.

In the “Java” tab, set the “Initial memory pool” and “Maximum memory pool” as needed:



You must also set the parameters in “jvm.options” located in directory “D:\elasticsearch-8.11.1\config”



Restart the Elastic Search service

Check the elasticsearch.log to confirm the new parameters have been picked up

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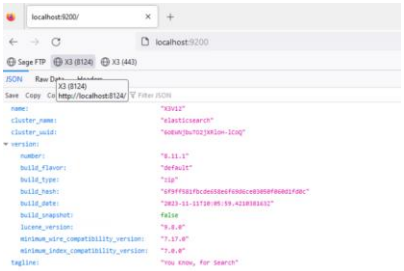
Check Elastic Search is responding with the URL http://localhost:9200

Enter username “elastic” and appropriate password



Secure using https://www.elastic.co/guide/en/elasticsearch/reference/current/manually-configure-security.html

Setup basic security

I used the following script to generate the required certificates.

```
REM Set the following variables to suit your environment
set "mzNewServiceName=ElasticSearch_8.11.1"
set "ES_HOME=D:\ElasticSearch-8.11.1"
set "ES_JAVA_HOME=%ES_HOME%\jdk"
set "ES_PATH_CONF=%ES_HOME%\config"
set "PATH=%ES_HOME%\bin;%PATH%"
REM
REM   Do the work
REM
rem goto createServerCert
rem goto moveFile
rem goto clientTLS
:createCA
REM  Create CA
call elasticsearch-certutil ca
:createServerCert
REM   Create server certificate for inter-cluster validation
call elasticsearch-certutil cert --ca D:\elasticsearch-8.11.1\elastic-
stack-ca.p12
:moveFile
robocopy D:\elasticsearch-8.11.1 %ES_PATH_CONF% elastic-
certificates.p12 /mov /r:2 /w:5 /v
REM
:clientTLS
REM  Create certificate for client connections
elasticsearch-certutil http
:end
Pause
```

Update elasticsearch.yml

```
cluster.name: cluster1
node.name: node-1
#  TLS setup
xpack.security.transport.ssl.enabled: true
xpack.security.transport.ssl.verification_mode: certificate
xpack.security.transport.ssl.client_authentication: required
xpack.security.transport.ssl.keystore.path: elastic-certificates.p12
xpack.security.transport.ssl.truststore.path: elastic-certificates.p12
```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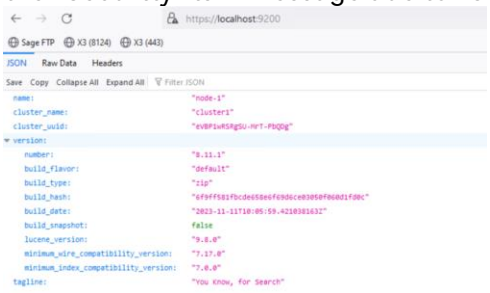
At this point, can restart Elastic Search service and test can still connect to the http://localhost:9200/ URL.

Setup secured HTTPS for all traffic

Generate the certificate for the client connections using the above script.
Update elasticsearch.yml to add the following lines:

```
xpack.security.http.ssl.enabled: true
xpack.security.http.ssl.keystore.path: "http.p12"
```

Copy “http.p12” to the “%ES_HOME%\config” directory
Restart Elastic Search service and test can connect to the https://localhost:9200/ URL. (Ignore the “Security risk” message due to “Unknown issuer”)



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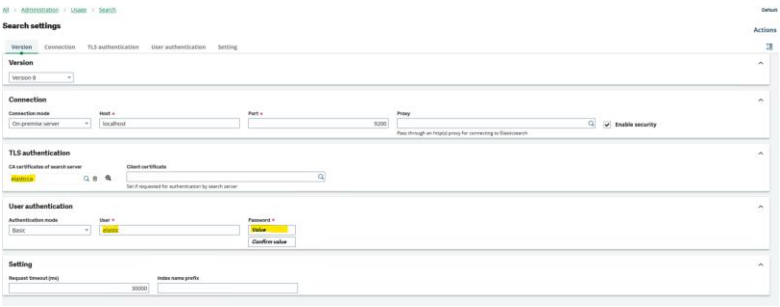
Configure X3 for Elastic Search

First I need to extract the CA certificate from D:\elasticsearch-8.11.1\elastic-stack-ca.p12 and load into X3.

- Open the elastic-stack-ca.p12 file and navigate to the certificate, then export as Base-64 encoded file
- Navigate to Administration, Administration, Certificates, Certificates of Certification Authorities
- Create new CA certificate for the Elastic Search CA

Navigate to Administration, Usage, Search, Search server settings

There is a default setup assuming Elastic Search version 8 is running on the localhost using port 9200 and with no authentication or TLS enabled... so I need to change these settings.



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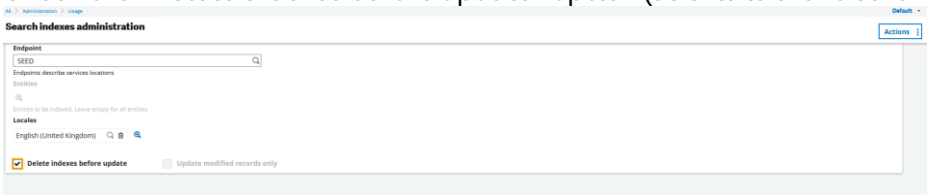
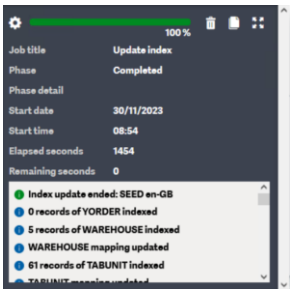
Update Elastic Search Index

Navigate to Administration, Usage, Search, Search Index Management
Check the “Delete indexes before update” option (as this is the first run)



Actions, Update Index

Once completed successfully, shutdown Windows and take a final backup before testing commences.



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Conclusion

This “Build diary” document shows the steps taken to install a new Windows server for testing the latest version of Sage X3, along with any supporting technologies required. This setup is only suitable for TEST instances.

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