Test system Build Diary

Upgrade 2023 R2 (12.0.34) to 2025 R1 (12.0.37) with additional runtime server

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

Disclaimer

This document is provided "as is" and is for your guidance and educational purposes only. It does not replace the Online documentation, nor is any warranty expressed nor implied for the steps described herein.

Document Information

Author: Mike Shaw, Sage UK X3 Support Team

Contents

Test system Build Diary 1
Introduction 3
Upgrade 2023 R2 (12.0.34) to 2025 R1 (12.0.37) with additional runtime server build diary 4
Side note: consider the choice of architecture 4
Objective 4
Starting architecture (Sage X3 2023 R2) 4
Target architecture (Sage X3 2025 R1) 5
Documentation to use for planning and execution of this task 6
Summary of upgrade steps 7
Prerequisites 8
Update Powershell 8
Upgrade technology components 10
Configure the classic components in X3 Console 16
Upgrade Sage X3 patch level 21
Testing 21
Conclusion 22

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

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 completing an in-place upgrade of 2023 R2 (12.0.34) to 2025 R1 (12.0.37) where there is an additional runtime server.

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

Upgrade 2023 R2 (12.0.34) to 2025 R1 (12.0.37) with additional runtime server build diary

Side note: consider the choice of architecture

Rather than upgrading your secondary runtime architecture as its,you may want to take this opportunity to instead convert to Application cluster (aka “multi-main”) as described in “Application cluster architecture” (https://online-help.sagex3.com/erp/12/howtoguides/en-US/technical/Application%20cluster%20architecture/Default.htm) and also “Test system Build Diary: 2021 R3 (V12 Patch 27) Convert runtime to Multi-Main” (https://communityhub.sage.com/gb/sage-x3/b/sage-x3-uk-support-insights/posts/test-system-build-diary-v12-patch-27-convert-runtime-to-multi-main)

Objective

I want to upgrade 2023 R2 (12.0.34) to 2025 R1 (12.0.37) with additional runtime server

Starting architecture (Sage X3 2023 R2)

Windows Server 2022 (Server name: X3ERPV12SQLVM)

Software already loaded:

- Windows Server 2022
- SQL Server 2022 (RTM-CU18) (KB5050771) - 16.0.4185.3 (X64)
- OpenJDK 1.8.0_442
- Powershell 7.4.10

Sage X3 software already installed and configured:

- Application 12.0.34
- MAIN Runtime/AdxAdmin 96.1.223
- Print Server 2.29.0.15
- X3 Console 2.58.0.14
- SEED folder

Windows Server 2022 (Server name: WEB01)

Software already loaded:

- Windows Server 2022
- OpenJDK 1.8.0_442
- Powershell 7.4.10

Sage X3 software already installed and configured:

- SECOND Runtime/AdxAdmin 96.1.223

Windows Server 2022 (Server name: WEB02)

Software already loaded:

- Windows Server 2022
- OpenJDK 1.8.0_442
- Powershell 7.4.10

Sage X3 software already installed and configured:

- Syracuse 12.19.25.3-0

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

MongoDB 4.4.22
Elastic Search 8.10.4

All servers have windows users setup as local users with administrator access:
"x3admin" for installation and management
"X3run" for service runtime

Target architecture (Sage X3 2025 R1)

Windows Server 2022 (Server name: X3ERPV12SQLVM)
General software:
Windows Server 2022
SQL Server 2022 (RTM-CU18) (KB5050771) - 16.0.4185.3 (X64)
OpenJDK 11.0.27
Powershell 7.5.1

Sage X3 software
Application 12.0.37
MAIN Runtime/AdxAdmin 96.3.114
Print Server 3.1.0
X3 Console 2.61.0.1
SEED folder

Windows Server 2022 (Server name: WEB01)
General software:
Windows Server 2022
OpenJDK 11.0.27
Powershell 7.5.1
Sage X3 software:
SECOND Runtime/AdxAdmin 96.3.114

Windows Server 2022 (Server name: WEB02)
General software:
Windows Server 2022
OpenJDK 11.0.27
Powershell 7.5.1

Sage X3 software:
Syracuse 12.22.0.24
MongoDB 7.0.16.7
Elastic Search 8.10.4

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

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

Pre-requisites
http://online-help.sageerpx3.com/erp/12/public/Prerequisites-(Last-version).html
http://online-help.sageerpx3.com/erp/12/public/prerequisites_overview.html

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

How to upgrade to MongoDB 7
https://online-help.sagex3.com/erp/12/en-us/Content/V7DEV/how-to_how-to-upgrade-to-MongoDB-7.html

Sage Knowledgebase articles or Blogs

Which firewall ports need to be open in a multi-node environment
https://gb-kb.sage.com/portal/app/portlets/results/viewsolution.jsp?solutionid=220924260102936

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

Summary of upgrade steps

Upgrade technology components

- X3 Console
- AdxAdmin (MAIN and SECOND servers)
- Runtime (MAIN and SECOND servers)
- Print Server
- Configure the classic components in X3 Console

- MongoDB
- Syracuse

Upgrade Sage X3 patch level

- Patch 37

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

Prerequisites

Upgrade Java version

2025 R1 installation JAR files need Java 11.x so my first step is to install this version on all three servers.

Download the latest supported JDK 11 from your preferred source.

I am installing “zulu11.80.21-ca-jdk11.0.27-win_x64.zip” manually as prefer the control of the ZIP format rather than MSI installer package.

Extract ZIP file to “D:\OpenJDK” directory

Edit the System Environment variables to update PATH (and JAVA_HOME if already set) to point to this directory.

Setup file association between OpenJDK and JAR files

Launch CMD with the “As administrator” option

Execute the following two commands:

```
assoc .jar=jarfile
ftype jarfile="D:\OpenJDK\zulu11.80.21-ca-jdk11.0.27-win_x64\bin\javaw.exe" -jar "%1" %*
```

Update Powershell

Launch Powershell on each server and run “$PSVersionTable” to confirm the version is 7.2+ and all servers have the exact same version installed. Sage recommend to use the latest 7.x version. In my case I want to use the latest stable release, which is currently 7.5.1. It may be prudent to stick to the latest LTS version (7.4.10 at the time of writing) but should not be any issues with the latest stable release.

https://learn.microsoft.com/en-us/powershell/scripting/install/installing-powershell-on-windows?view=powershell-7.5

Download from
https://github.com/PowerShell/PowerShell/releases/download/v7.5.1/PowerShell-7.5.1-win-x64.exe

Additionally the SQL and Runtime servers should have SqlServer Powershell module for Powershell v22.+ component installed.

I want to use the latest 22.x version available as Sage recommend.

https://learn.microsoft.com/en-us/powershell/sql-server/download-sql-server-ps-module?view=sqlserver-ps

https://www.powershellgallery.com/packages/Sqlserver (22.3.0 at time of writing)

Launch Powershell with the “Run as administrator” option

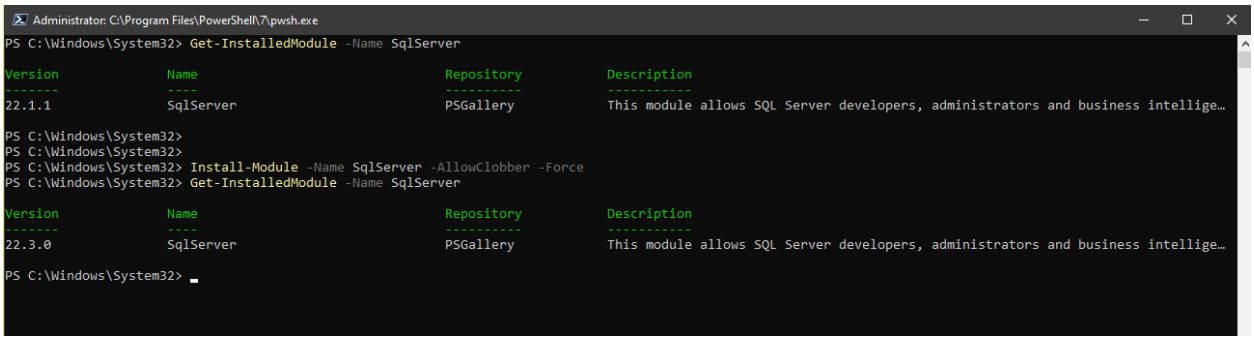
©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

Run “`Get-InstalledModule -Name SqlServer`” to confirm current version. I currently have 22.1.1

```
Install-Module -Name SqlServer -AllowClobber -Force
```

“Y” to trust the repository (assuming you are happy to do so)

I am now running SqlServer module v22.3.0

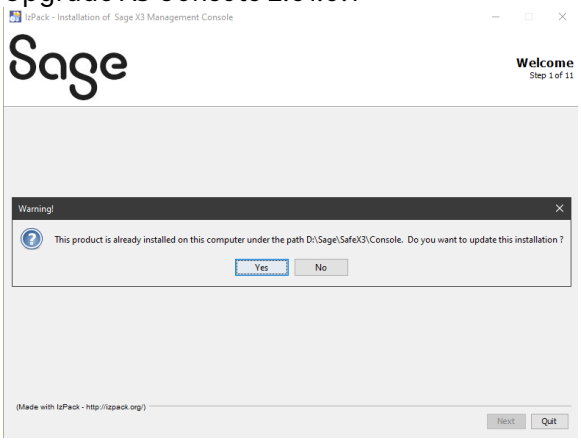


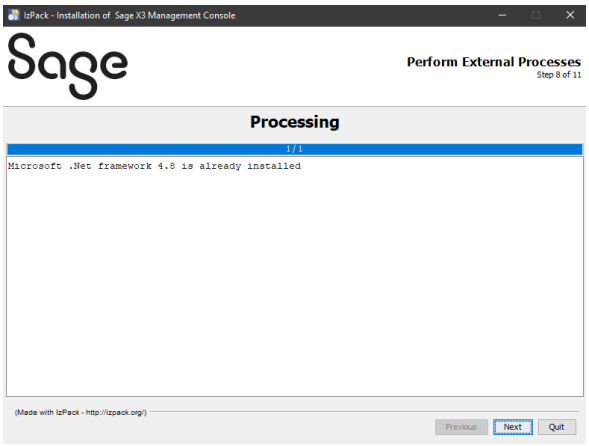
©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

Upgrade technology components

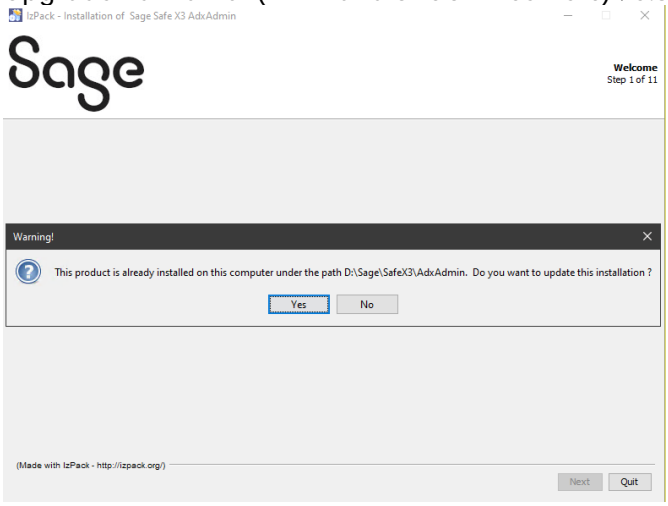
Stop all X3 services

Upgrade X3 Console 2.61.0.1

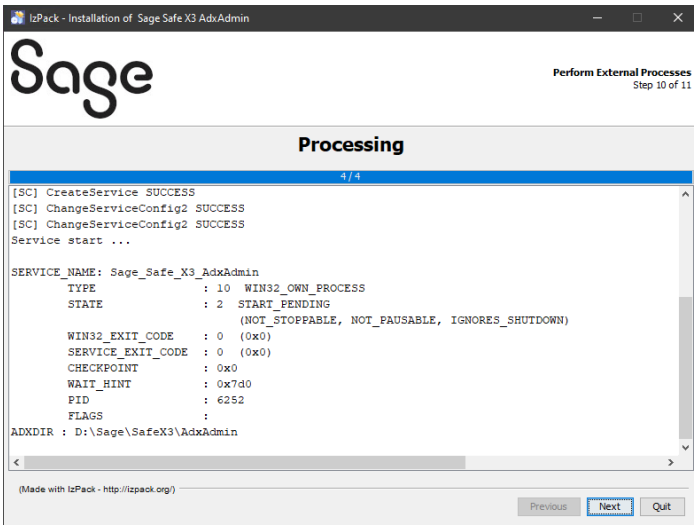




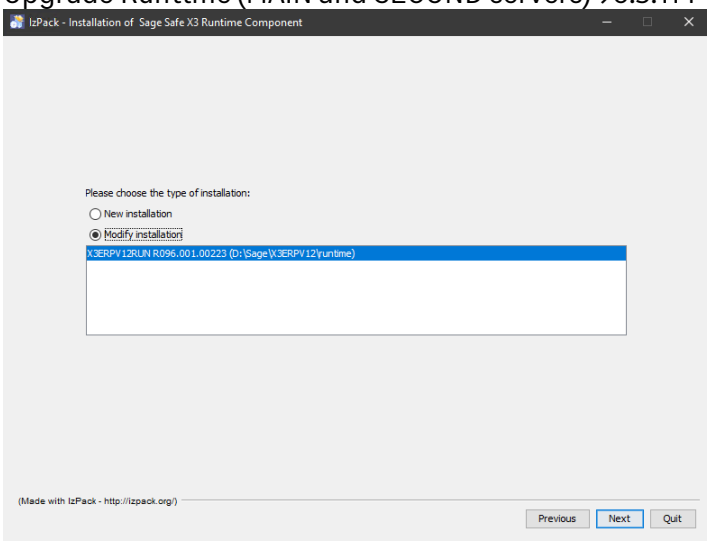
Upgrade AdxAdmin (MAIN and SECOND servers) 96.3.114



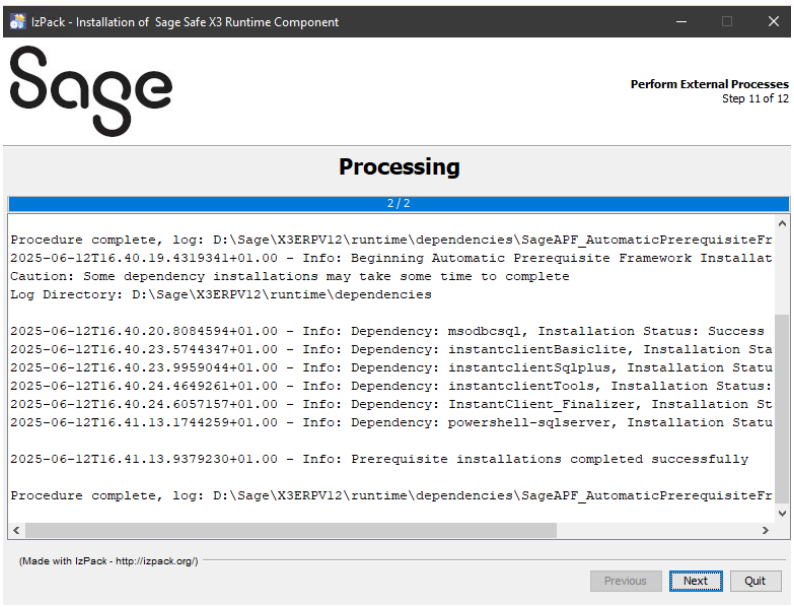
©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.



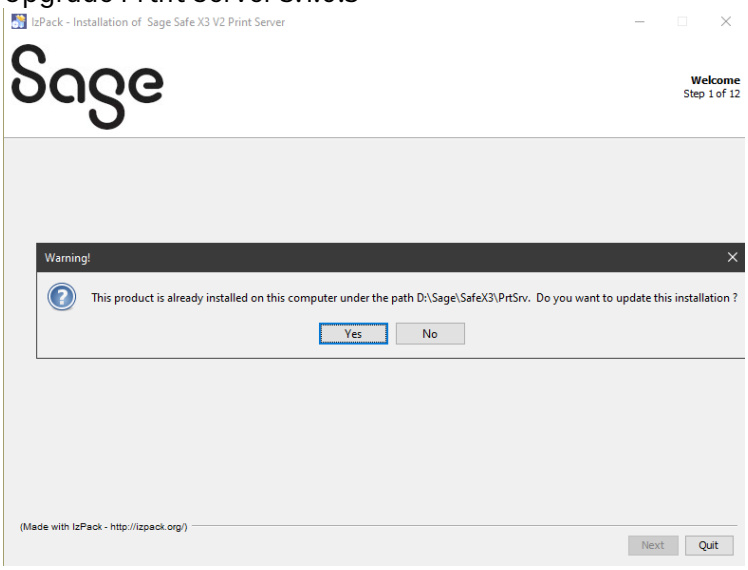
Upgrade Runtime (MAIN and SECOND servers) 96.3.114



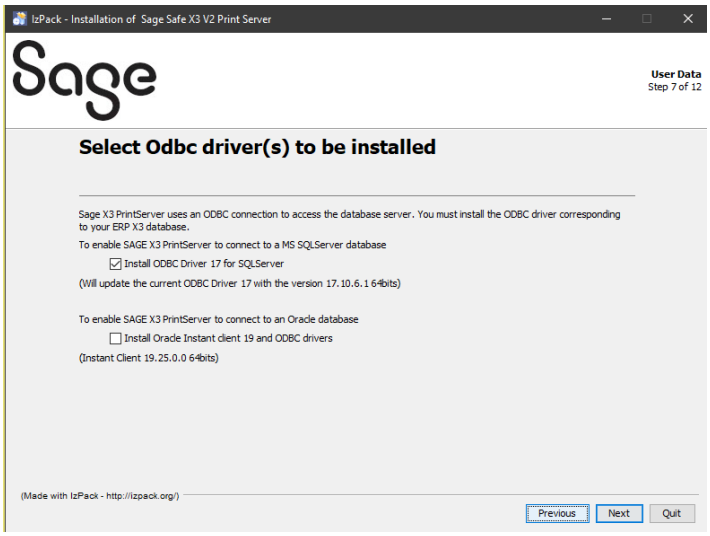
©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

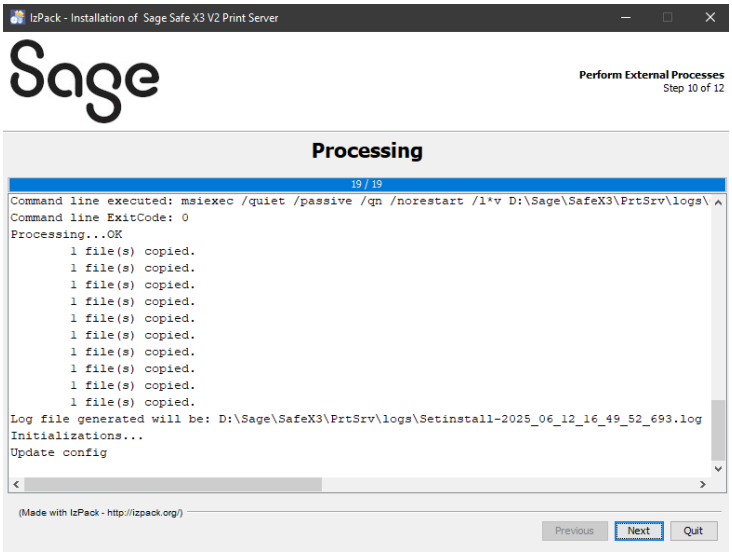


Upgrade Print Server 3.1.0.3



©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

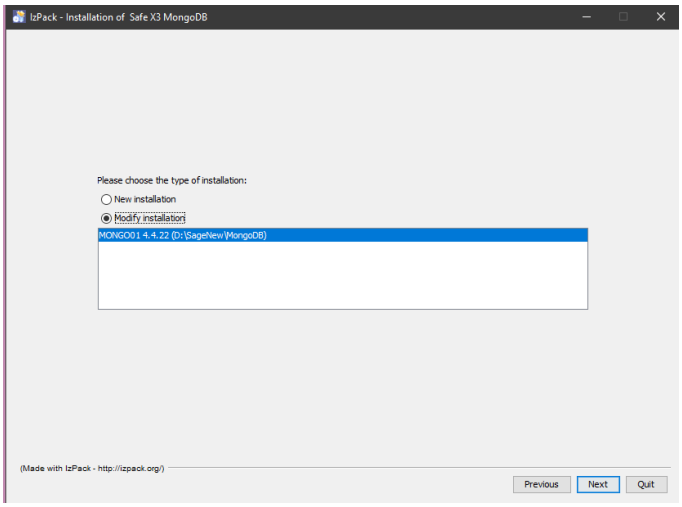


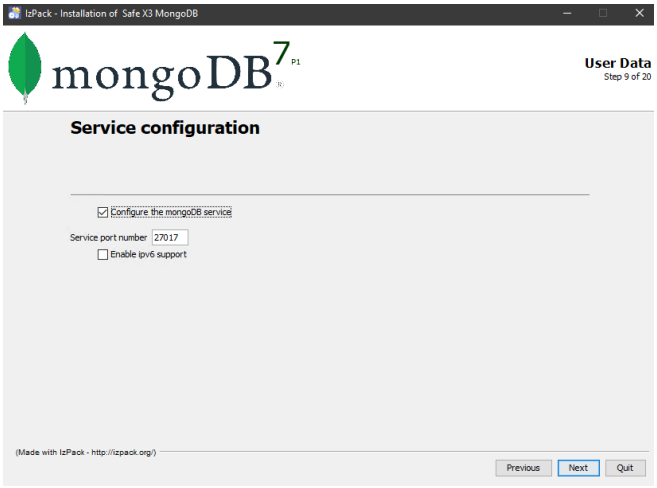


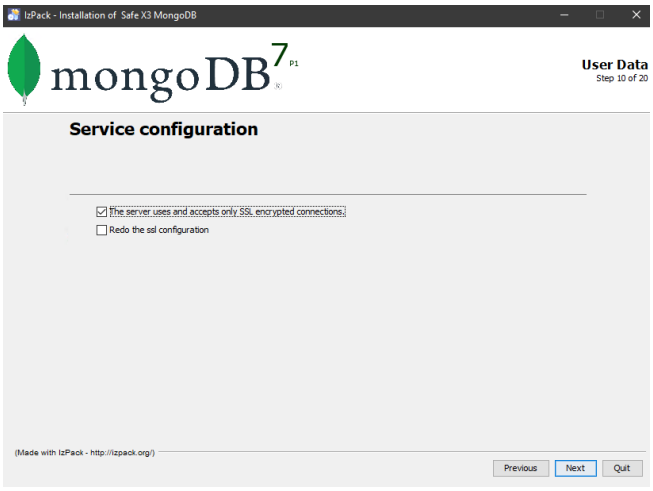
Restart server (as a precaution)

Upgrade MongoDB 7.0.16.7

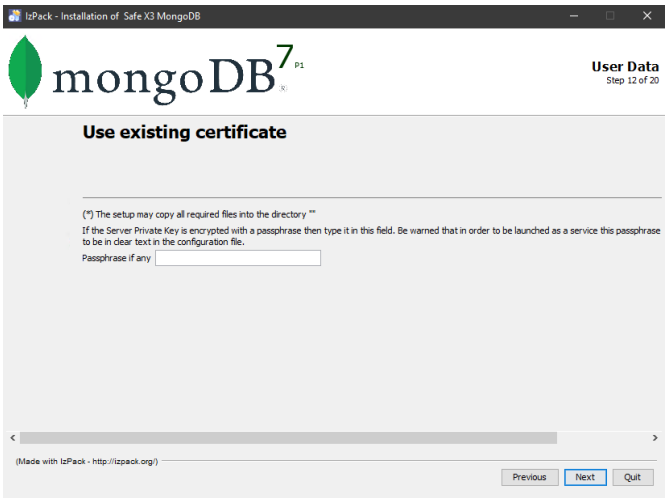
©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.



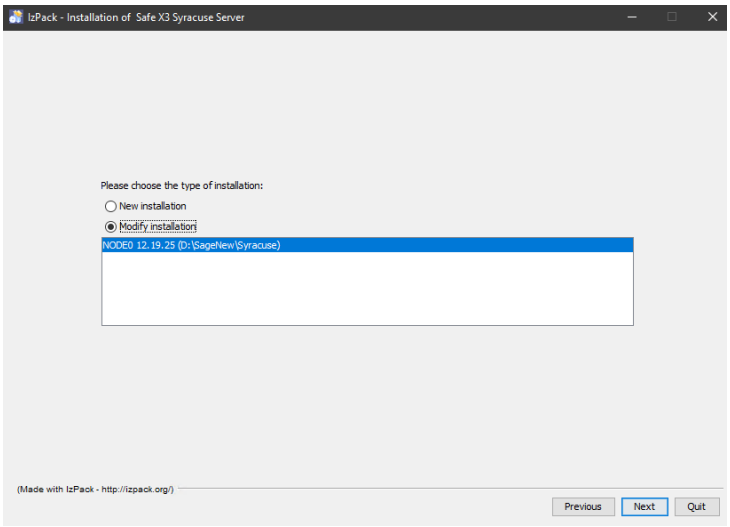


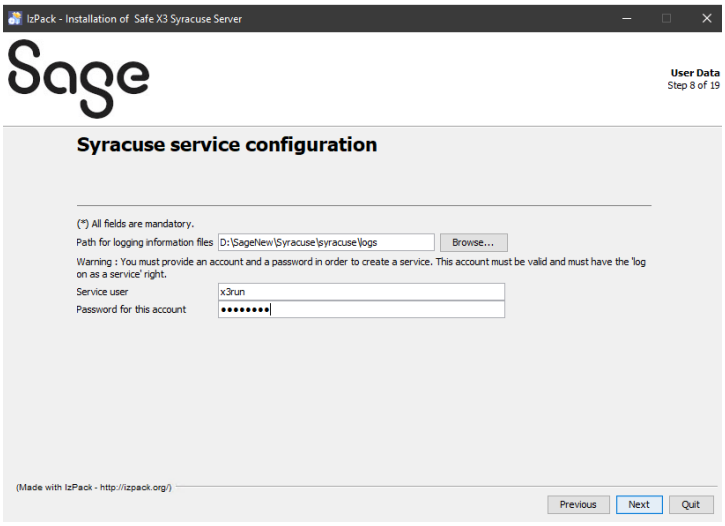


©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

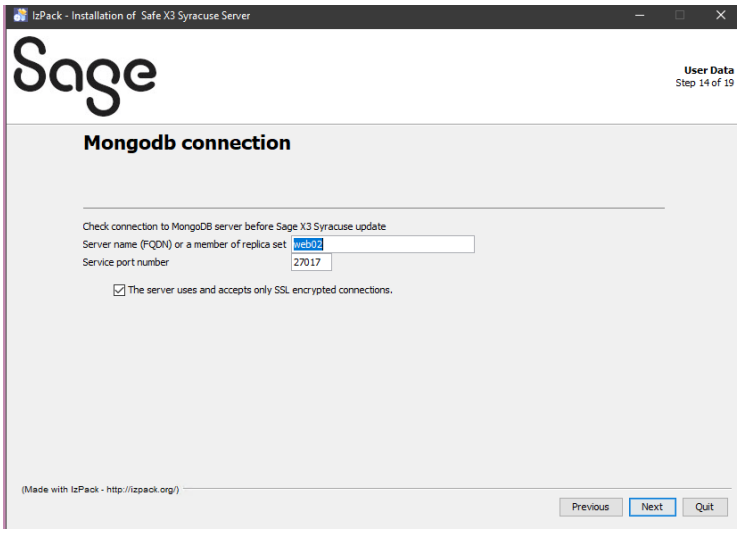


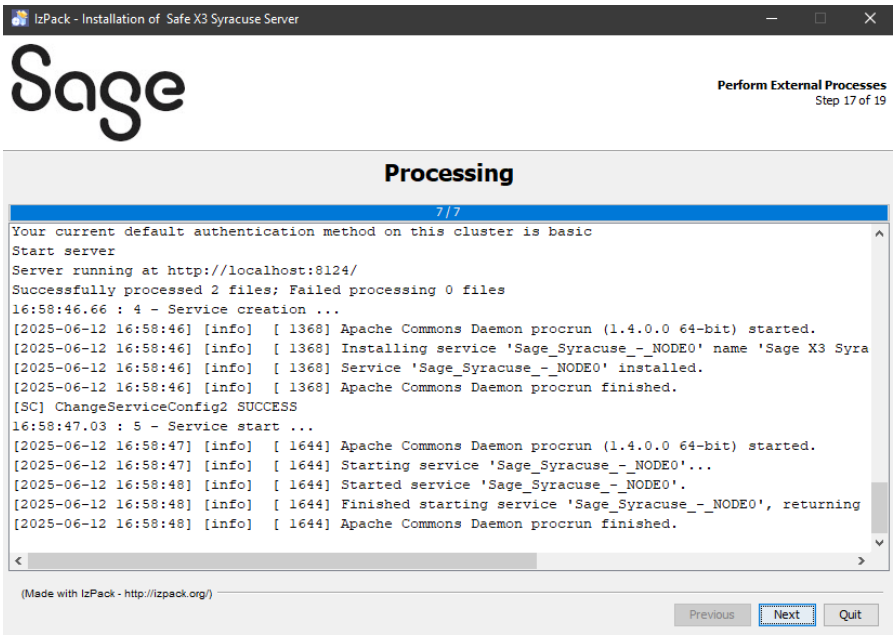
Upgrade Syracuse 12.22.0.24





©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

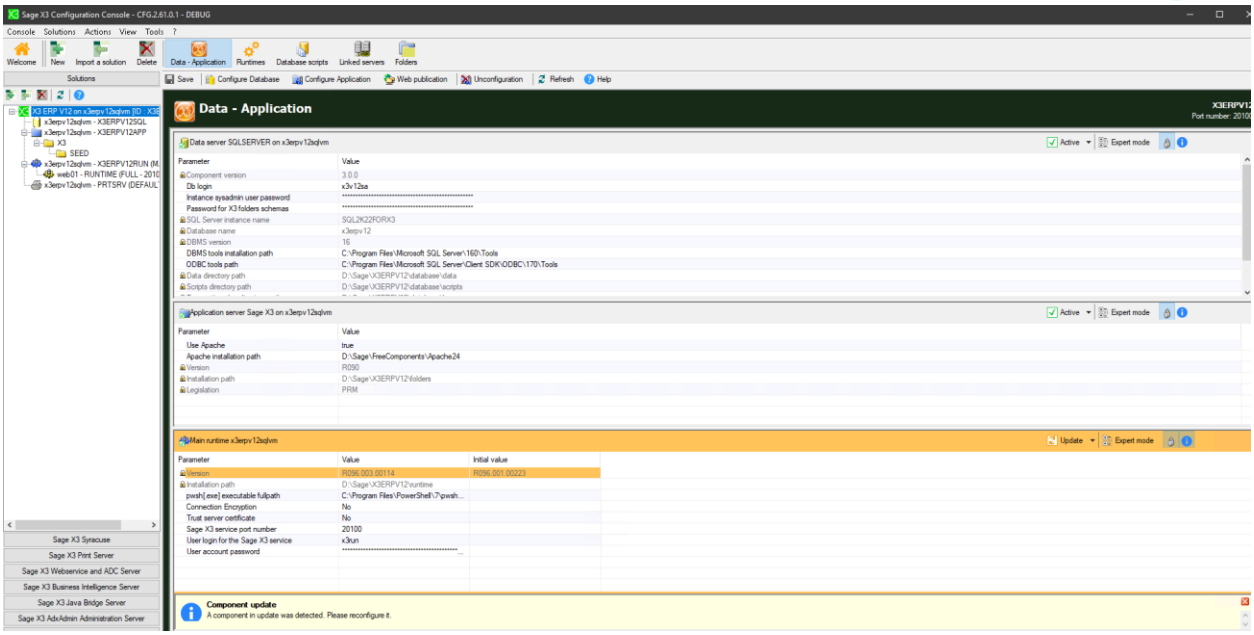




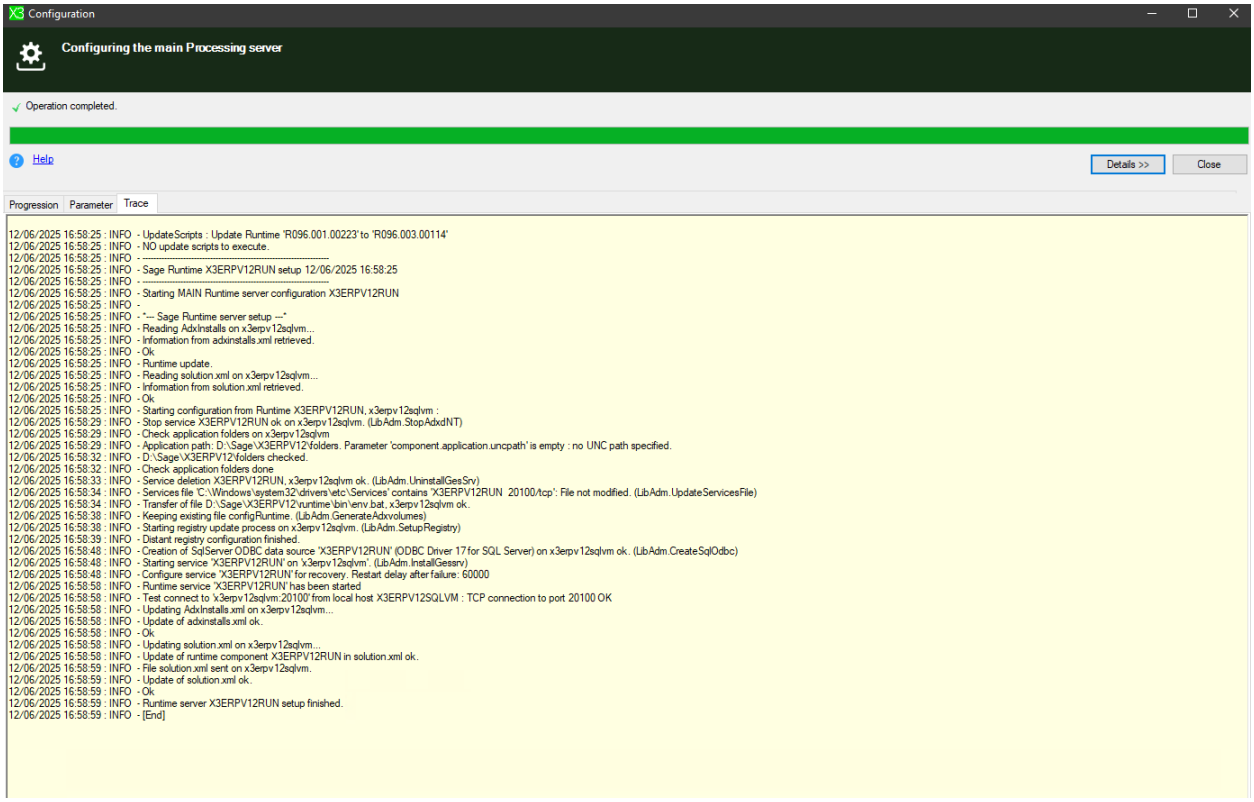
Configure the classic components in X3 Console

Launch X3 Console

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

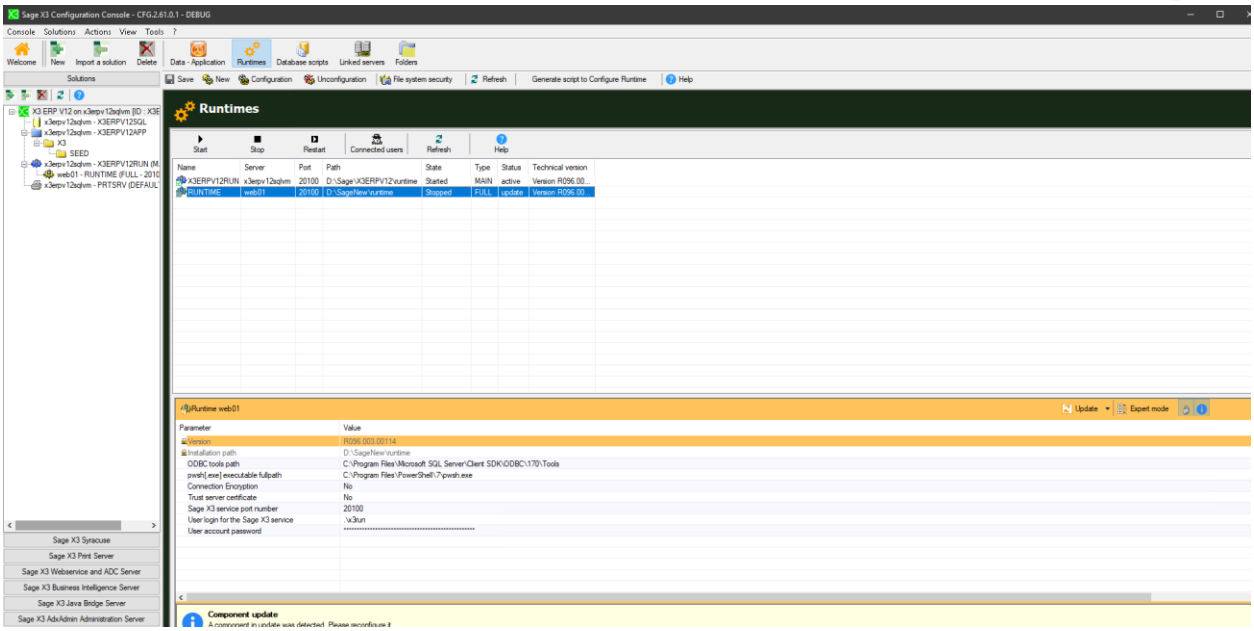


CONFIGURE APPLICATION
Confirm=YES

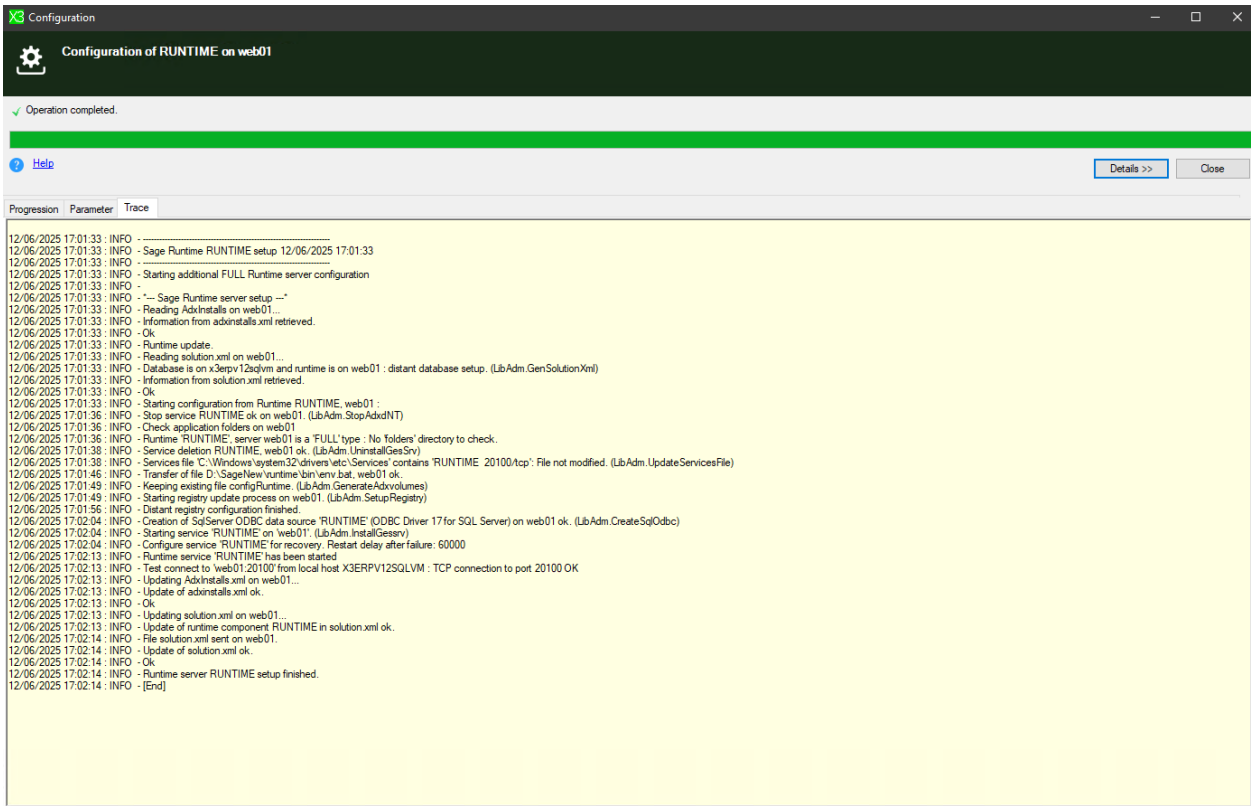


RUNTIMES

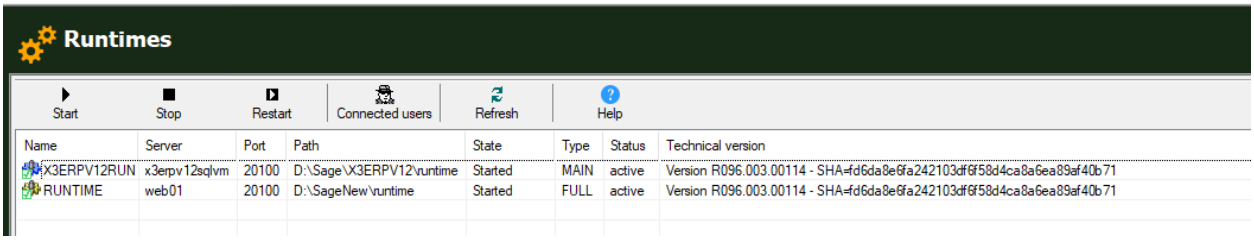
©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.



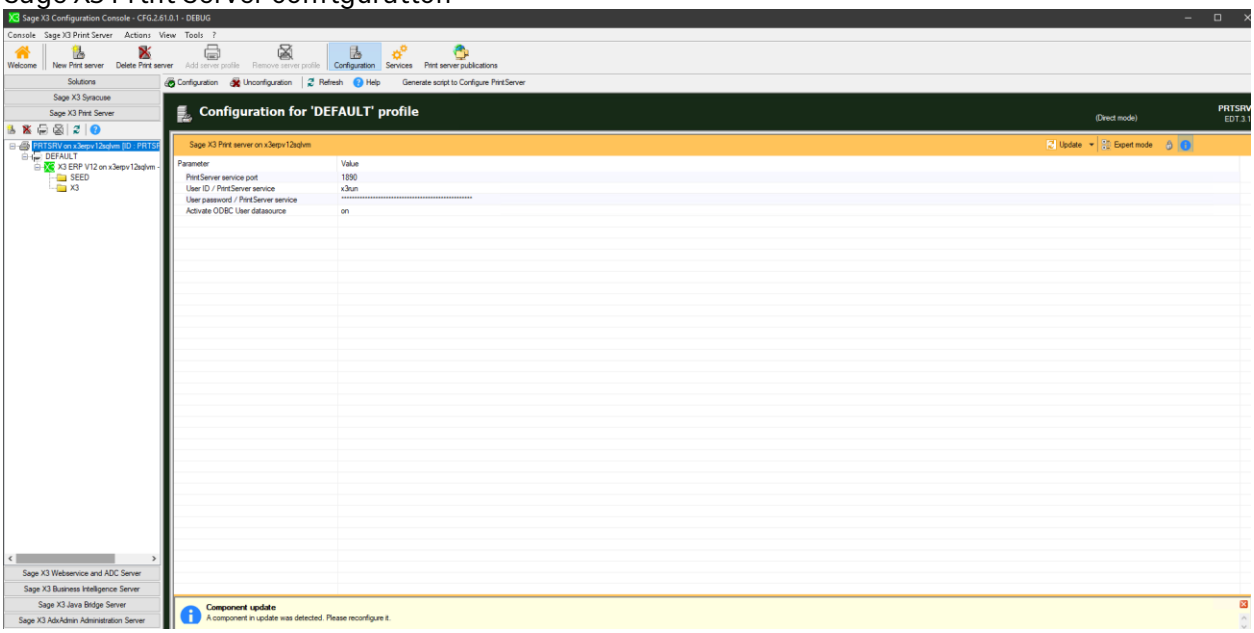
Select runtime named: RUNTIME
CONFIGURATION
Confirmation=YES



©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

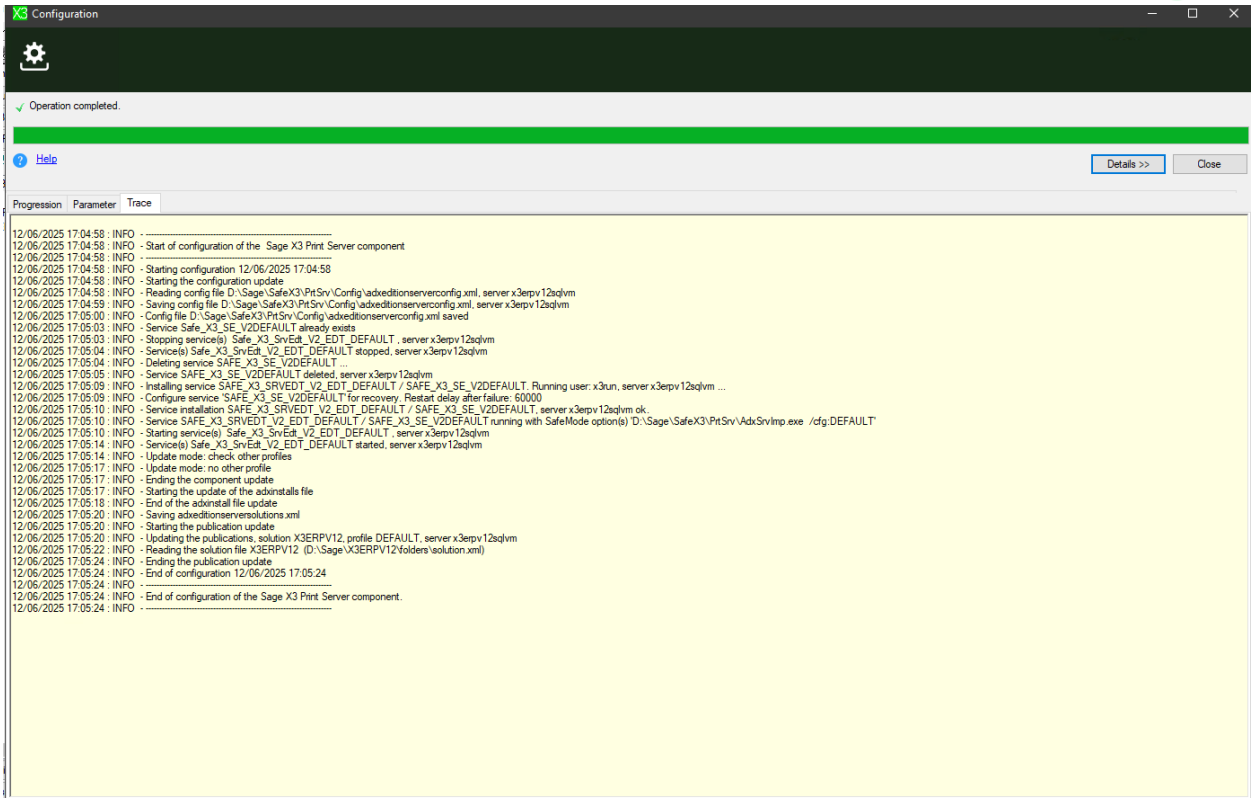


Sage X3 Print Server configuration

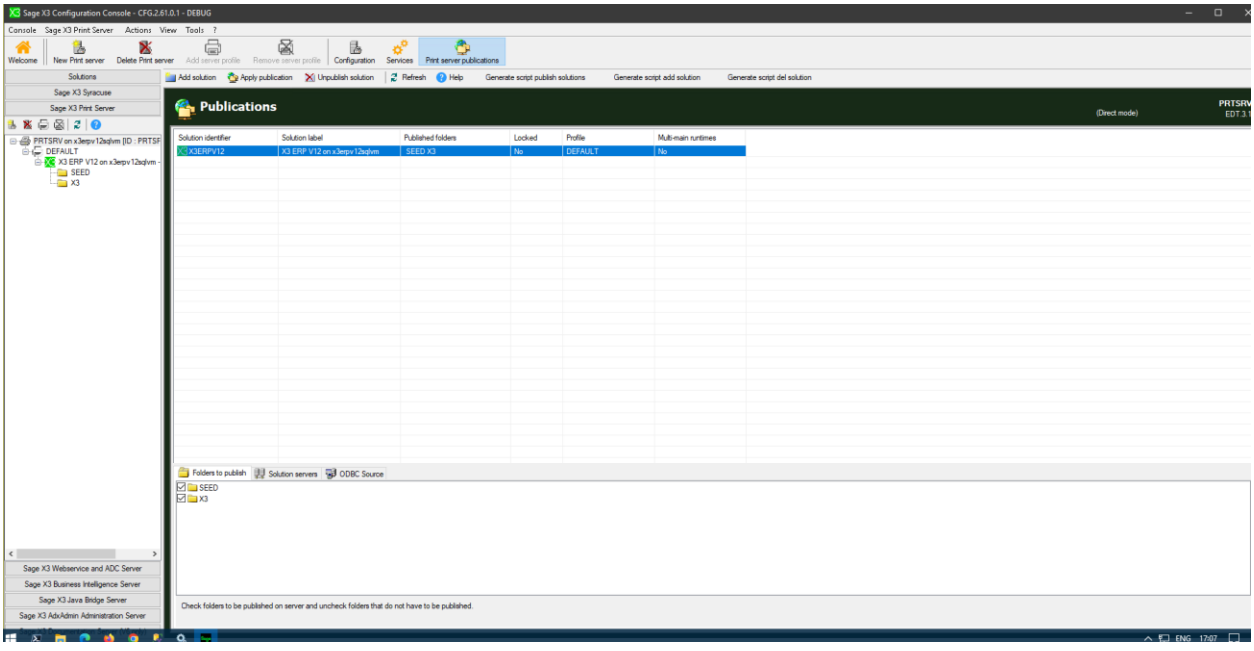


CONFIGURATION
Confirmation= YES

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.



PRINT SERVER PUBLICATIONS
Select X3ERPV12
APPLY PUBLICATION



©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

Upgrade Sage X3 patch level

Login to Sage X3 as ADMIN user

Navigate to Administration, Utilities, Update, Updates

ACTIONS, NEW UPDATE
Load the ZIP file “x3-patch-12.0.37_updated.zip”
ACTIONS, SAVE
ACTIONS, APPLY UPDATE

Testing

The steps are now complete, ready for you to start your testing!

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.

Conclusion

This “Build diary” document provides the steps for completing an in-place upgrade of 2023 R2 (12.0.34) to 2025 R1 (12.0.37) TEST system where there is an additional runtime server.

©2021 The Sage Group plc or its licensors. All rights reserved. Sage, Sage logos, and Sage product and service names mentioned herein are the trademarks of Sage Global Services Limited or its licensors. All other trademarks are the property of their respective owners.