Prerequisite
Installation of
SQL server express 2022

Contents

1. Introduction 3
   - Description 3
   - Limitations 3
   - Install Instructions 3
2. Create a back up 3
3. Instructions 4
   - Download the installation files 4
   - Installation steps 4
   - LicenseTerms 7
   - Global Rules 7
   - Install Rules 8
   - Azure Extension for SQL server 8
   - Feature selection 9
   - Instance Configuration 10
   - Server Configuration 10
   - Database Engine Configuration 11

   Tab Server Configuration 11

   Tab Data Directories 12

   Tab TempDB 12

   Tab Memory 13

   Tab User Instances 13

   Tab Filestream 14
   - Complete Final step 15
4. TM1000 Database connection 16

   Database Settings 16

   Database creation 17

   Database Restore 18
5. Remove SQL server installation 19
   - Windows settings 19
6. Overall summary: 20

1. Introduction

This document helps you in installing or re-installing SQL Server 2022 Express edition providing the required configuration for using with the TM1000 software.

- ***Description***

Microsoft SQL Server 2022 Express is a free, feature-rich editions of SQL Server that is ideal for learning, developing, powering desktop, web & small server applications, and for redistribution by ISVs.

- Supported Operating Systems
  - Windows 10, Windows 11
- Processor
  - Intel - compatible processor with a minimum speed of 1 GHz or a faster processor
- RAM
  - Minimum 512MB
- Hard Disk Space
  - 4.2 GB of Disk Space

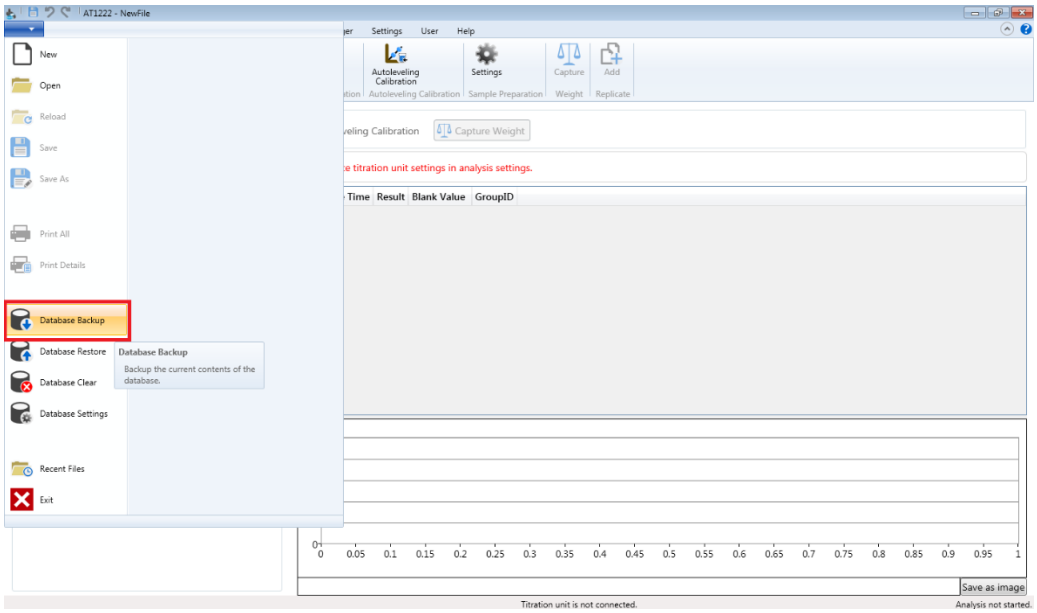
- ***Limitations***
  - Microsoft SQL Server Express supports 1 physical processor, 1 GB memory, and 10 GB storage

- ***Install Instructions***

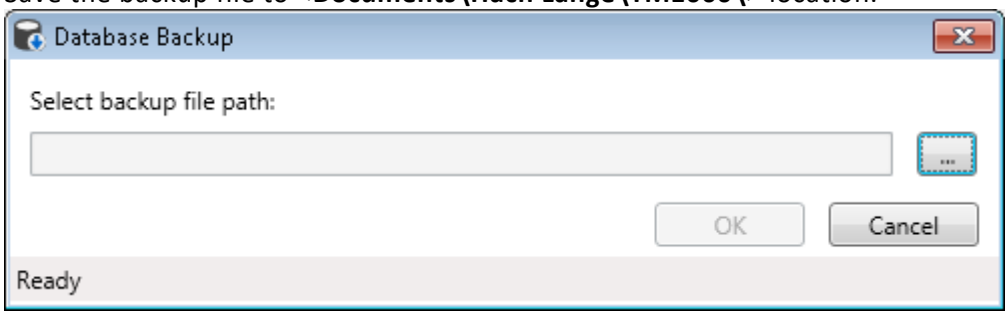
Download the SQL Server 2022 Express installer (SQLServer2022-SSEI-Expr)
https://download.microsoft.com/download/5/1/4/5145fe04-4d30-4b85-b0d1-39533663a2f1/SQL2022-SSEI-Expr.exe
When executed, it will present options to perform an installation or download media only. The following will guide you to select the relevant choices.

2. Create a back up

To prevent any loss of data, save the present database, you need to create a backup of the database of the TM1000.
Go to TM1000 application, click on Database Backup option in file menu.



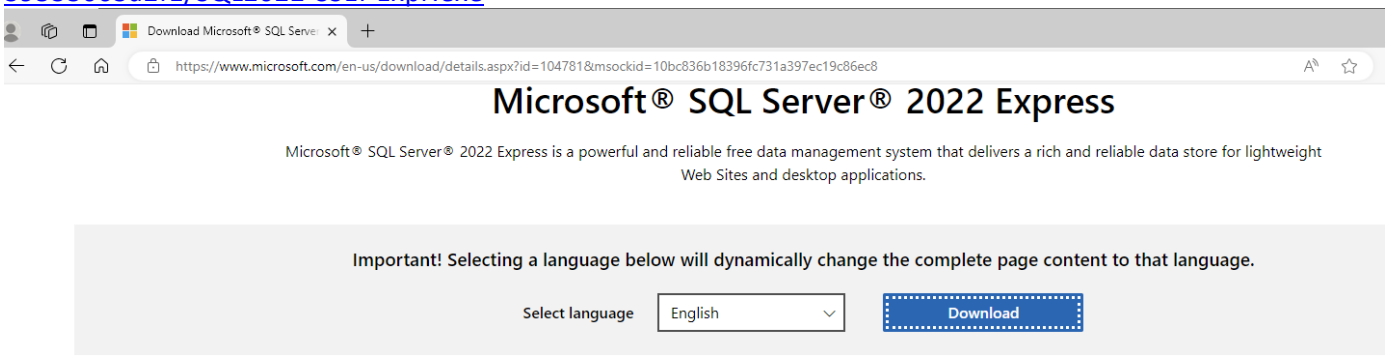
Save the backup file to <**Documents\Hach Lange\TM1000\>** location.



3. Instructions

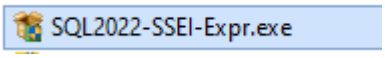
- ***Download the installation files***

From the web page https://download.microsoft.com/download/5/1/4/5145fe04-4d30-4b85-b0d1-39533663a2f1/SQL2022-SSEI-Expr.exe

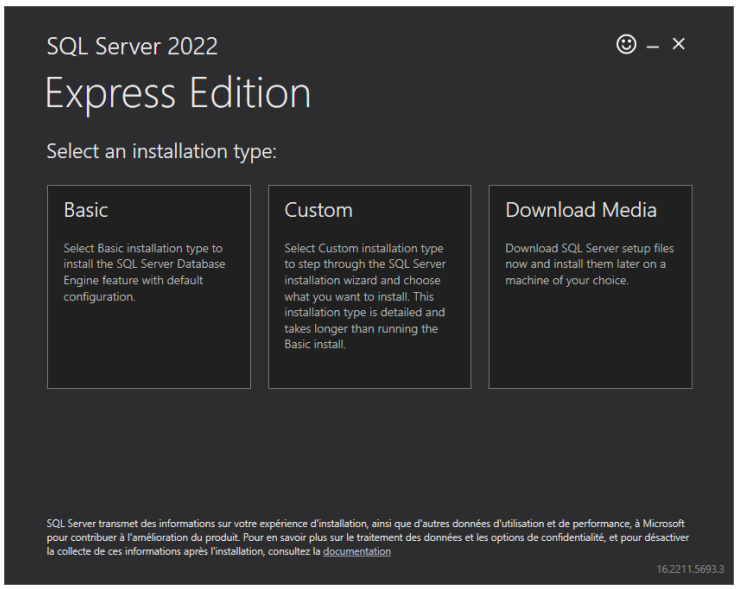


- ***Installation steps***

In the download folder

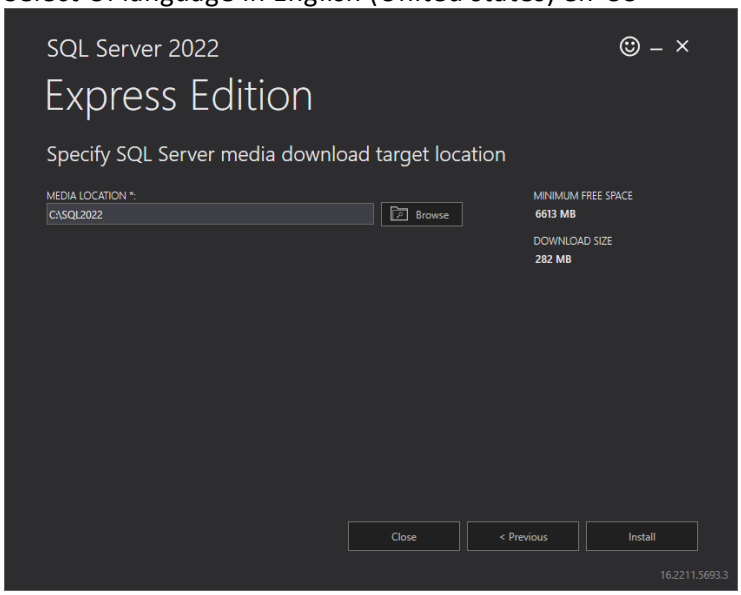


launch the installation program in admin mode.

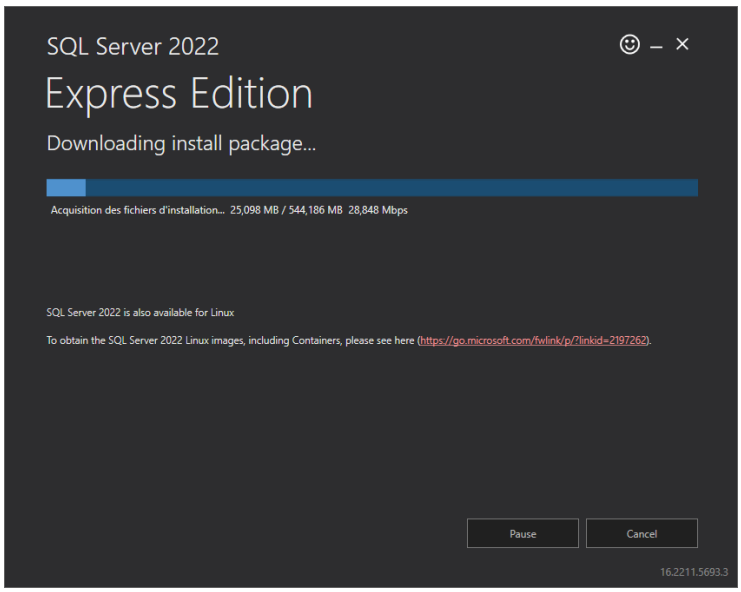


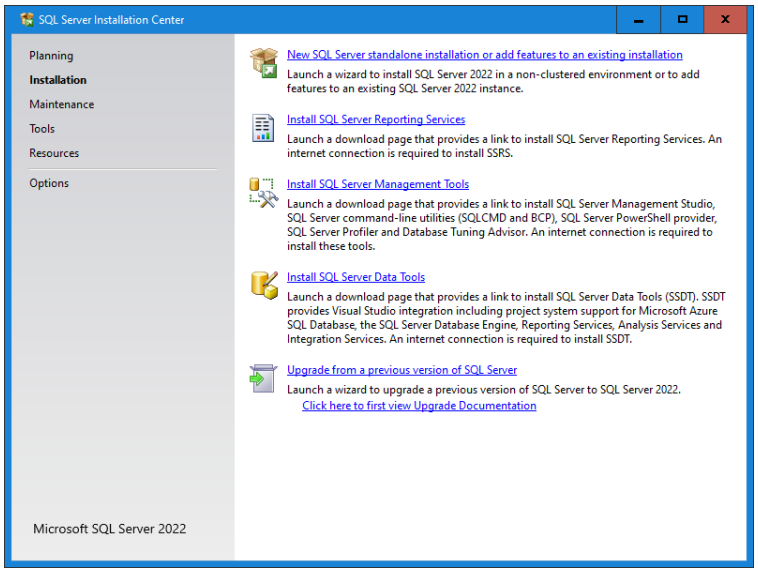
Select **Custom.**

Select UI language in English (United states) en-US

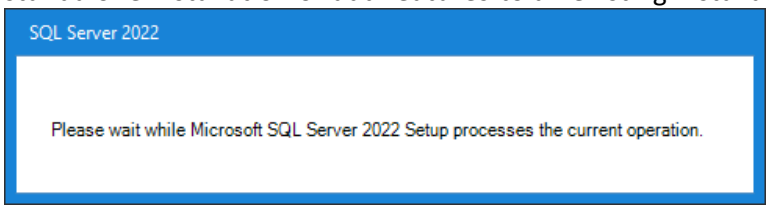


Validate the default folder for the download in pressing “Install”

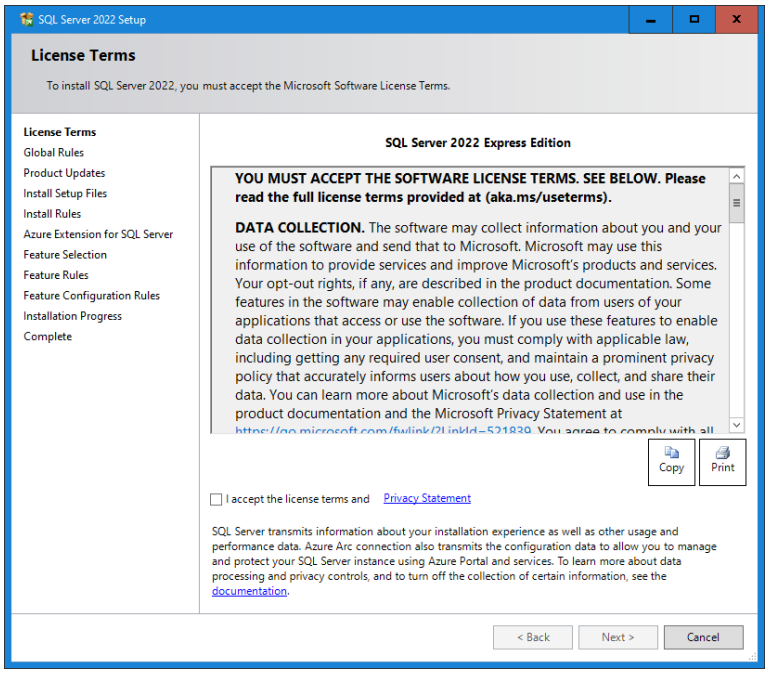




Select the first choice: “New SQL Server standalone installation or add features to an existing installation”.



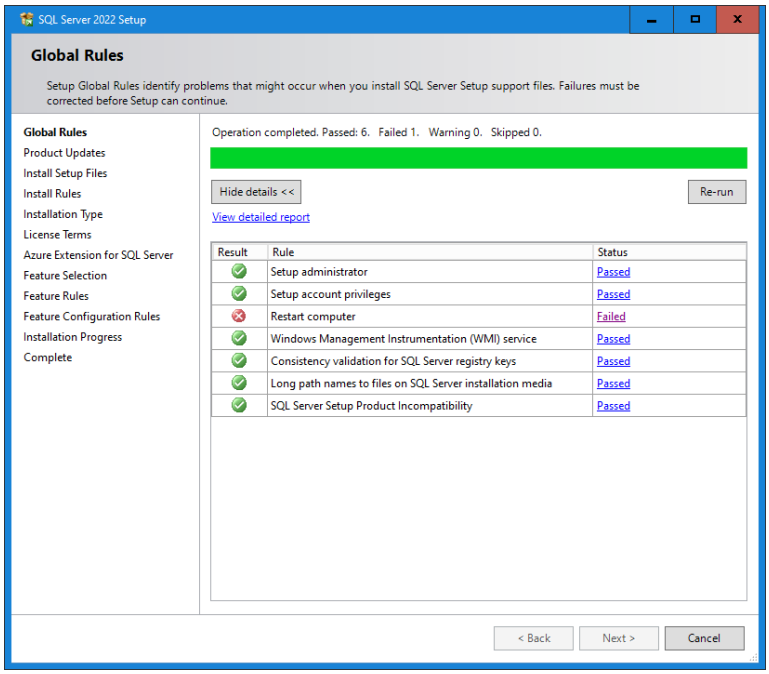
- ***LicenseTerms***



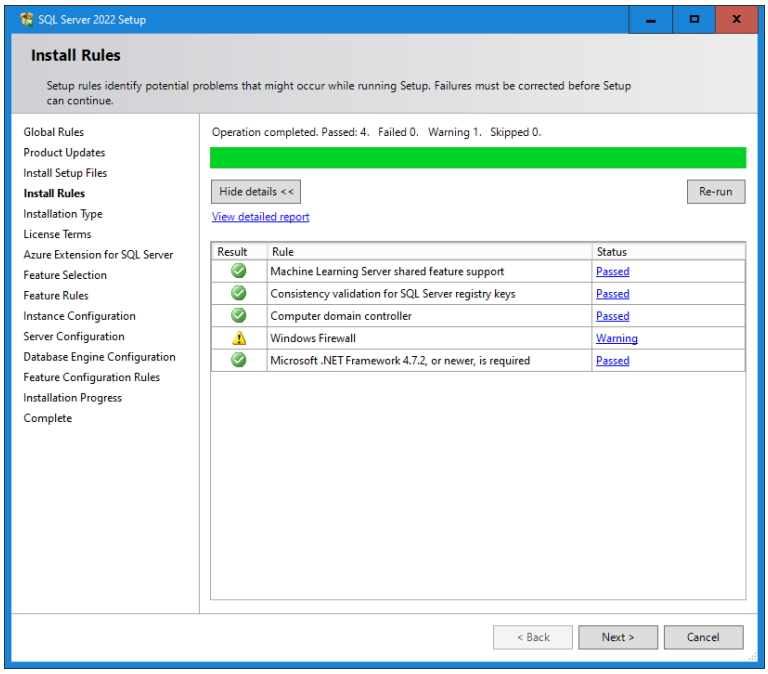
Check the box to accept the software license agreement and press next

In case an error occurs, the following window is displayed, then follow the instruction.

- ***Global Rules***

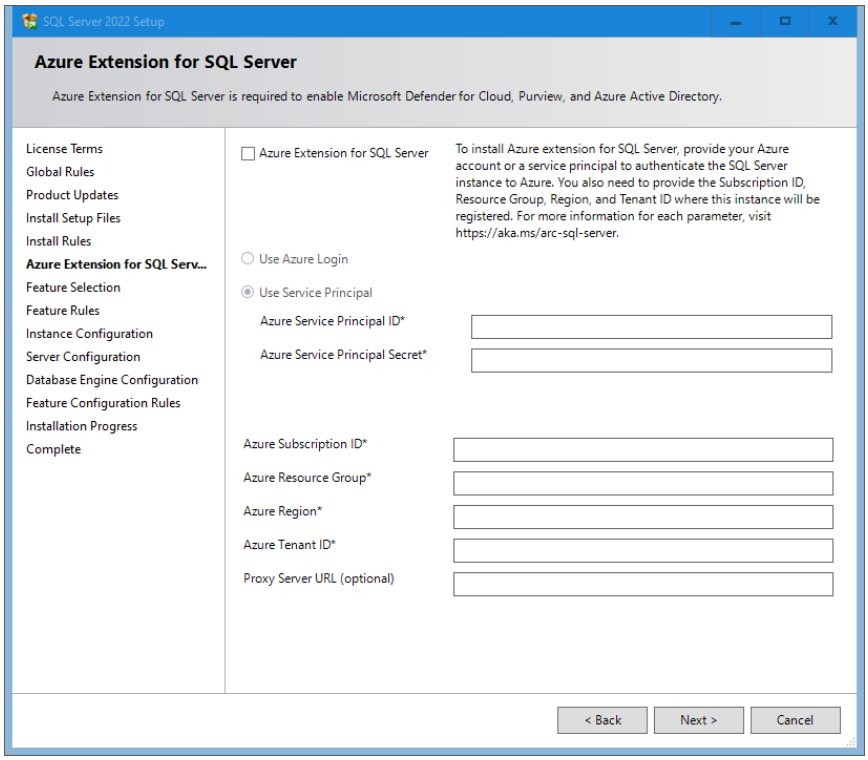


- ***Install Rules***



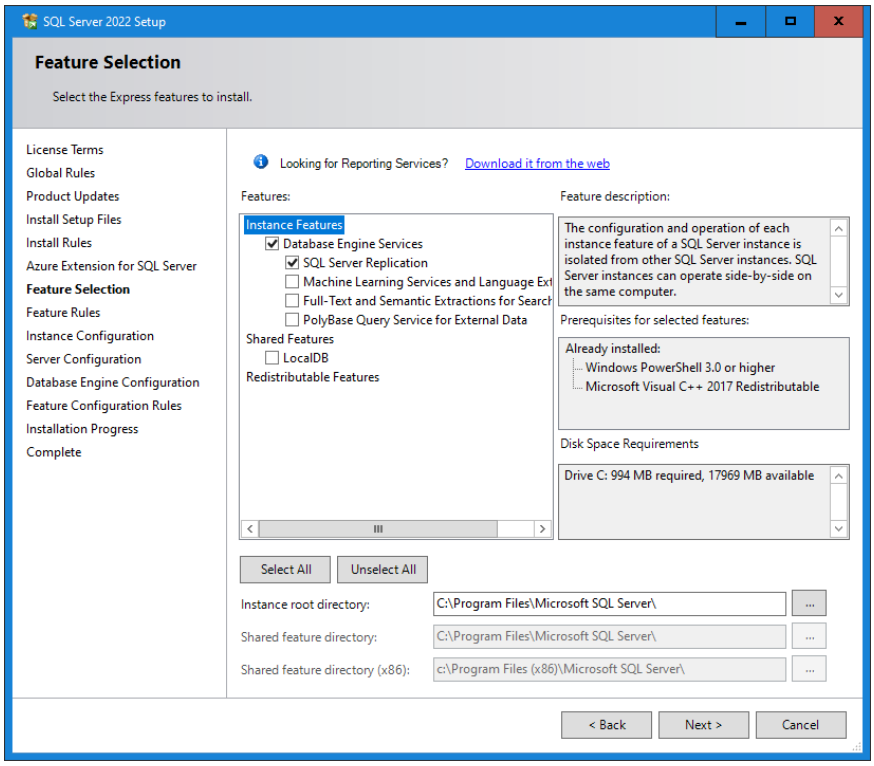
Then press “Next”

- ***Azure Extension for SQL server***



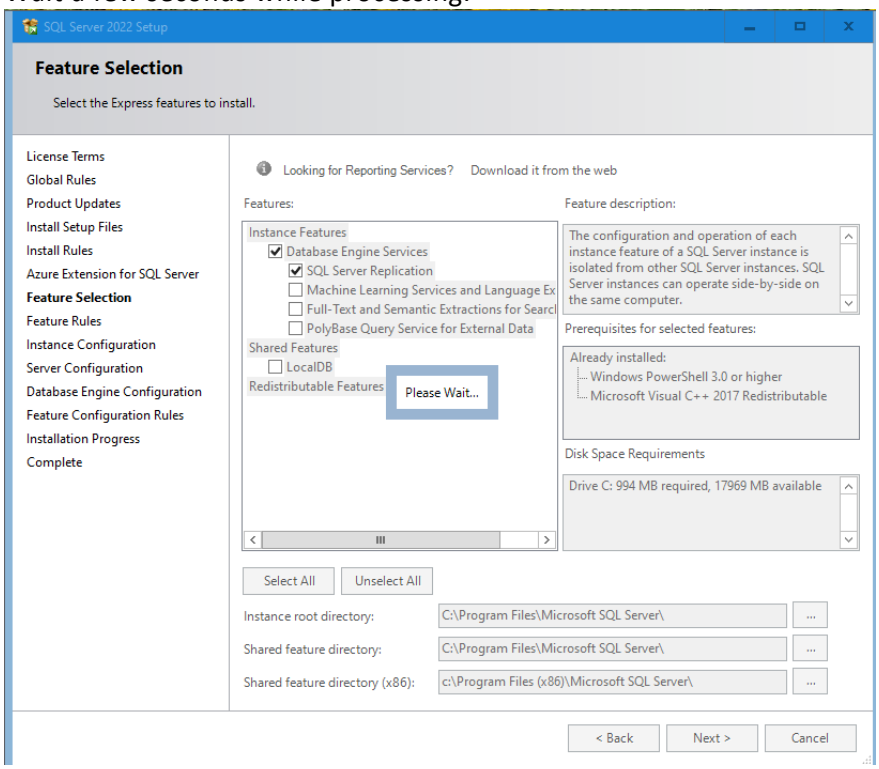
De-select the Azure extension for SQL Server and press next

- ***Feature selection***

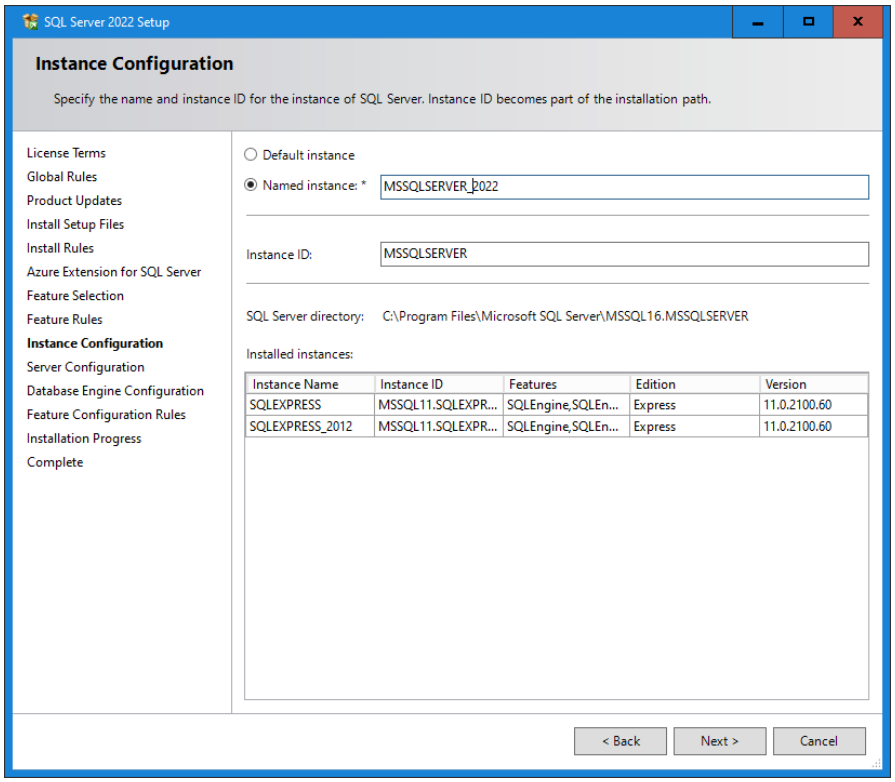


Keep only the choices: “Database engine services” and “SQL server replication”. Keep the default installation folder.

Wait a few seconds while processing.

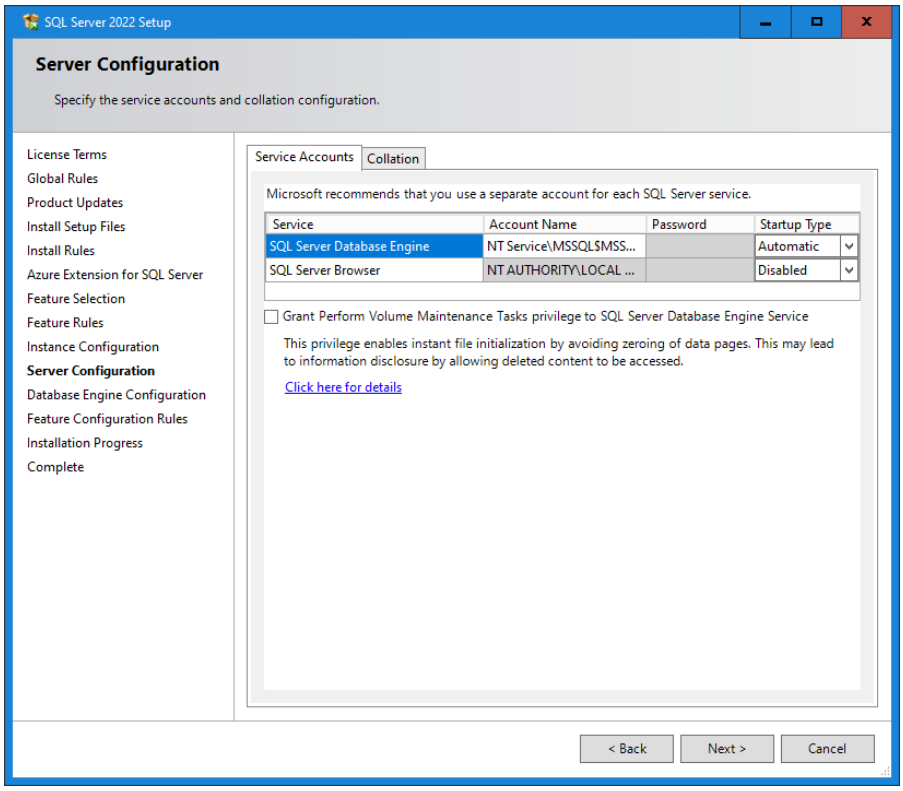


- ***Instance Configuration***



Select Name instance and enter the name of the database you want to use. This name must be entered in the TM1000 database configuration.

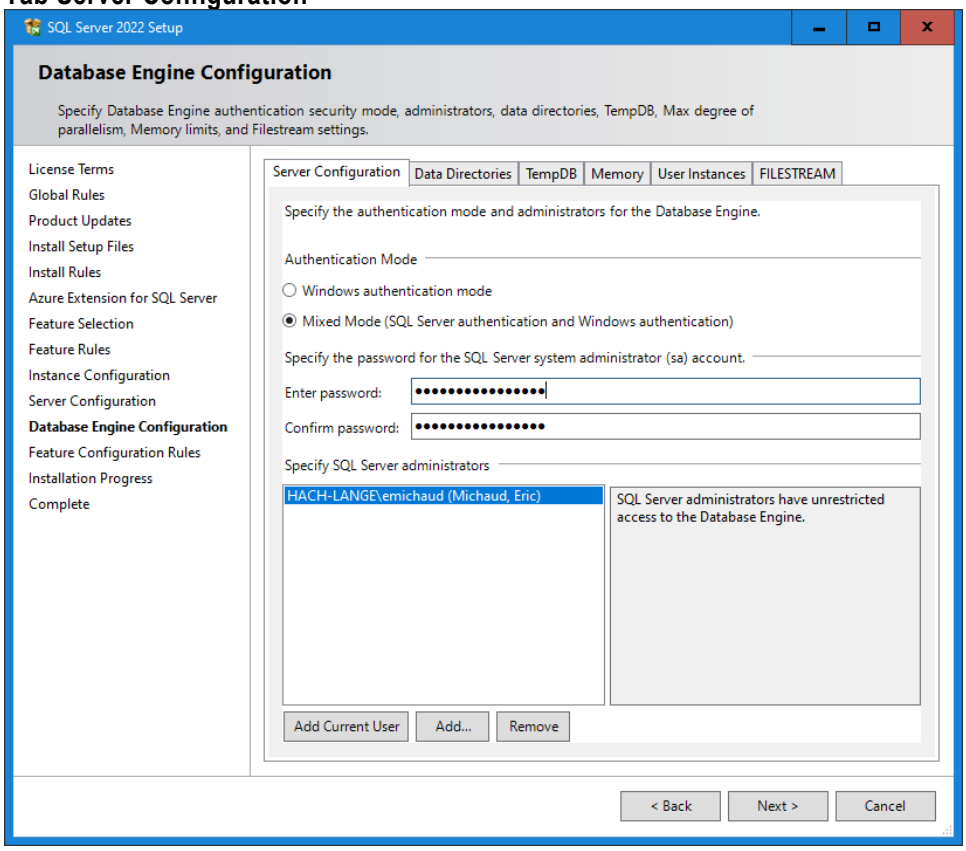
- ***Server Configuration***



Press Next

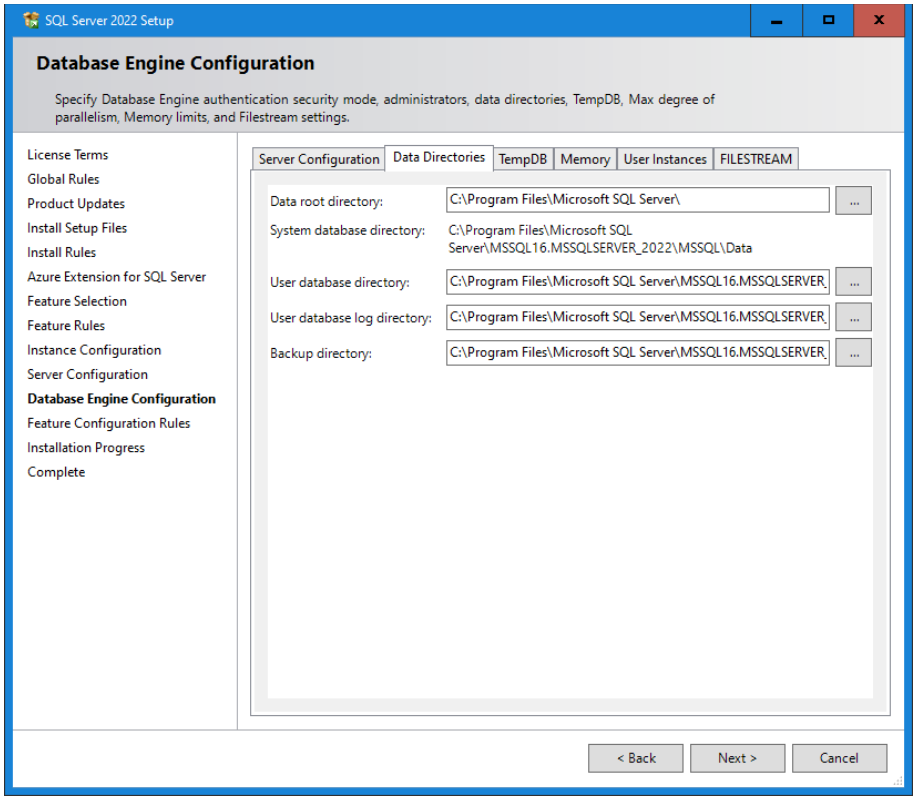
- ***Database Engine Configuration***

Tab Server Configuration



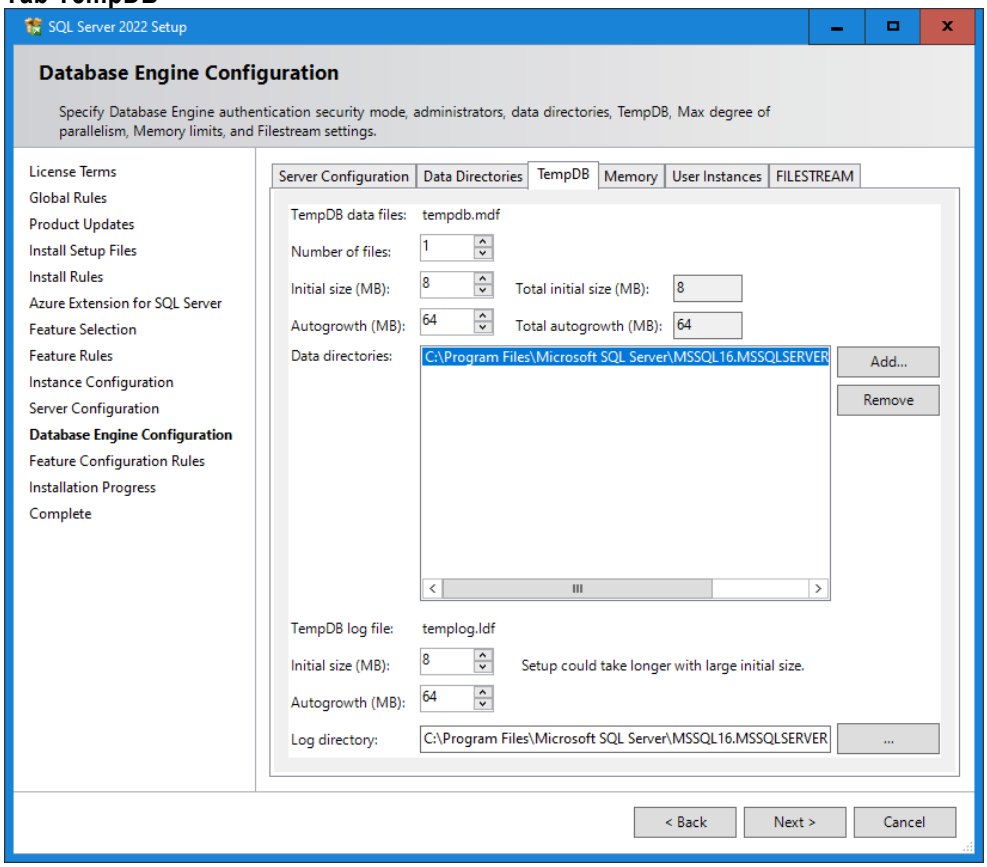
Select mixed mode (SQL server authentication and Windows authentication) Please note that the password must comply with the security rules e.g, HachLange_TM1000 (capital numbers and not alphabetic characters). In the TM1000 database configuration, this corresponds the credentials : name = sa and this password.

Tab Data Directories



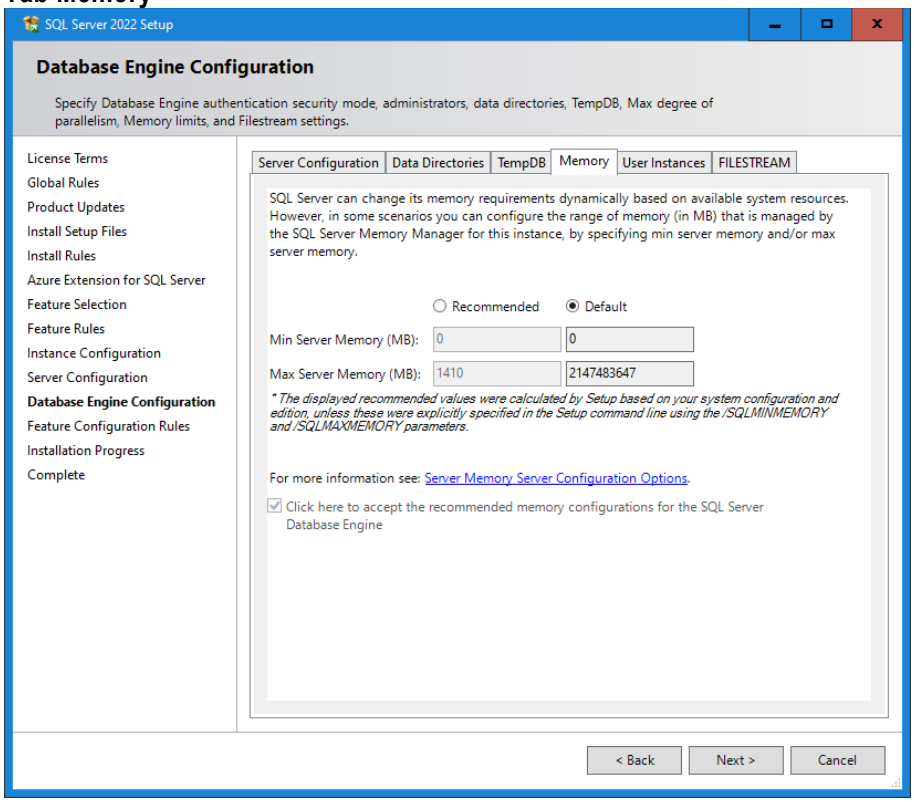
No change in the tab Data Directories

Tab TempDB



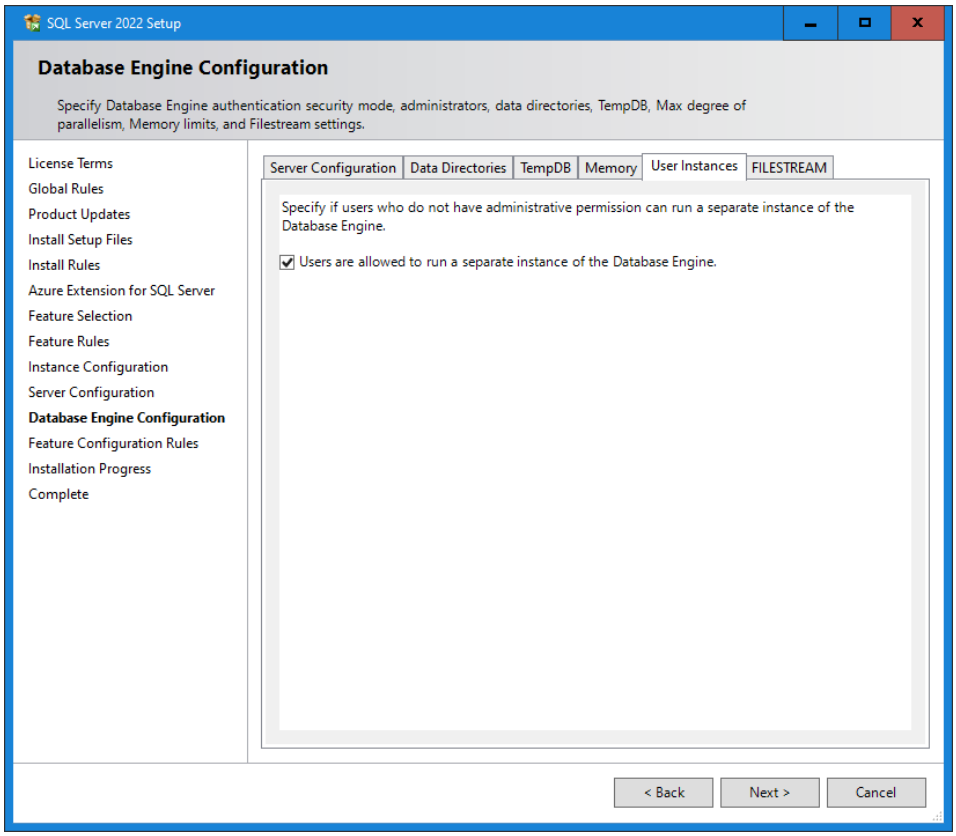
No change under the tab TempDB.

Tab Memory



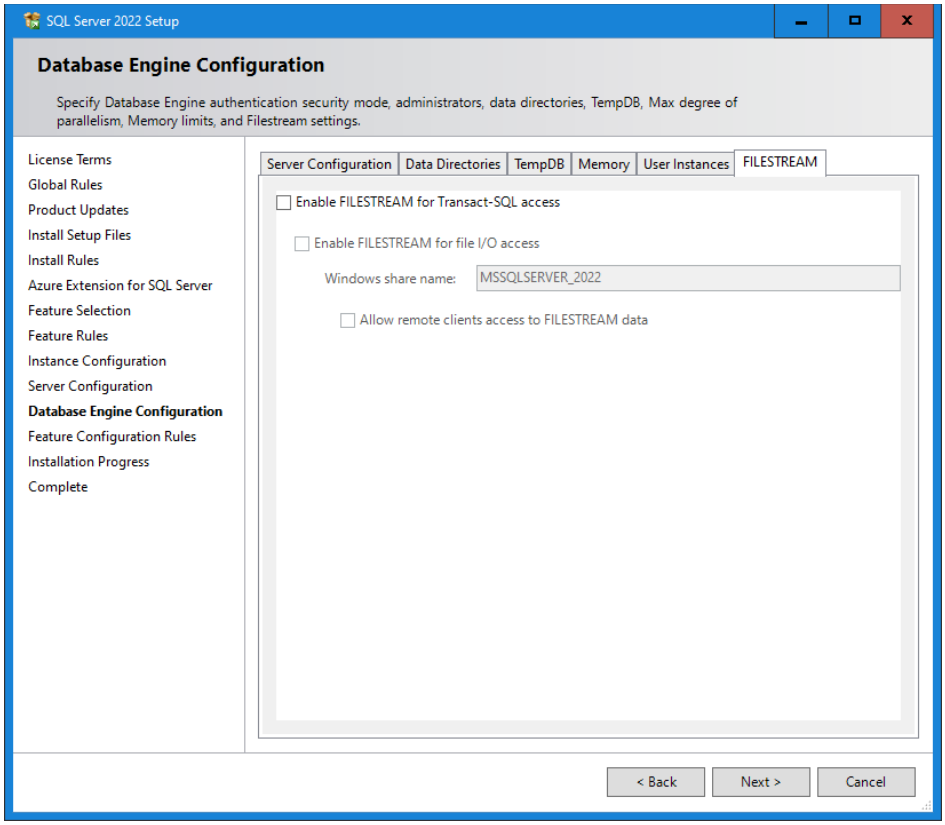
In the tab Memory no change

Tab User Instances

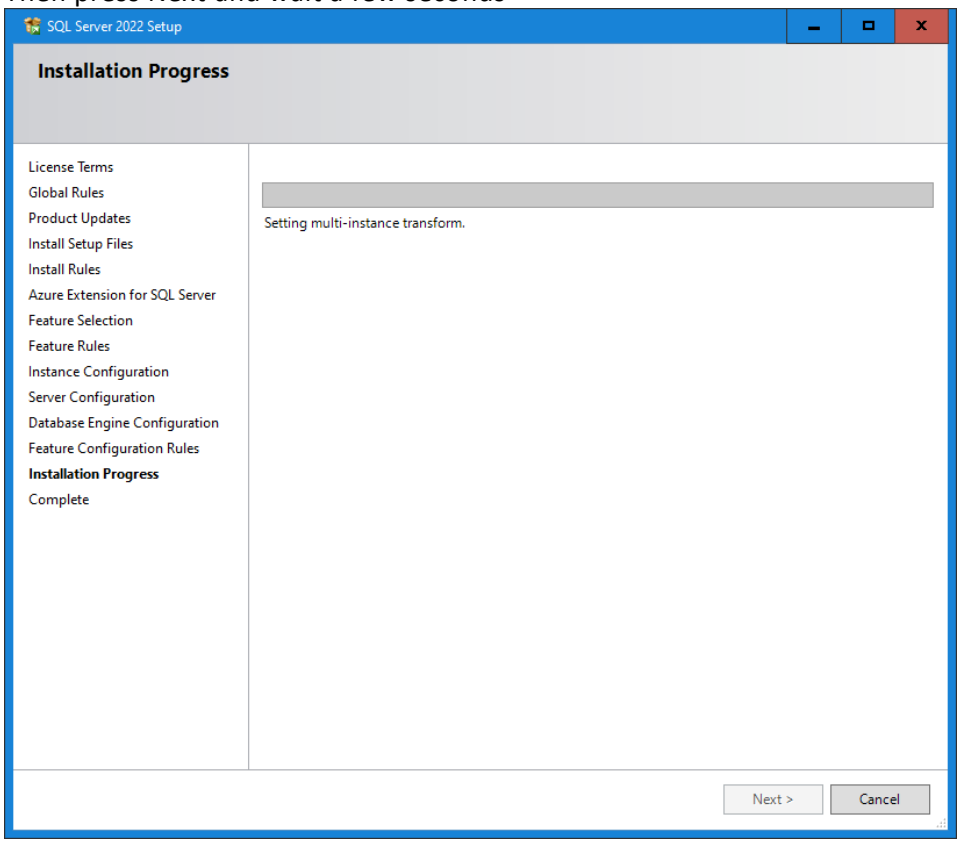


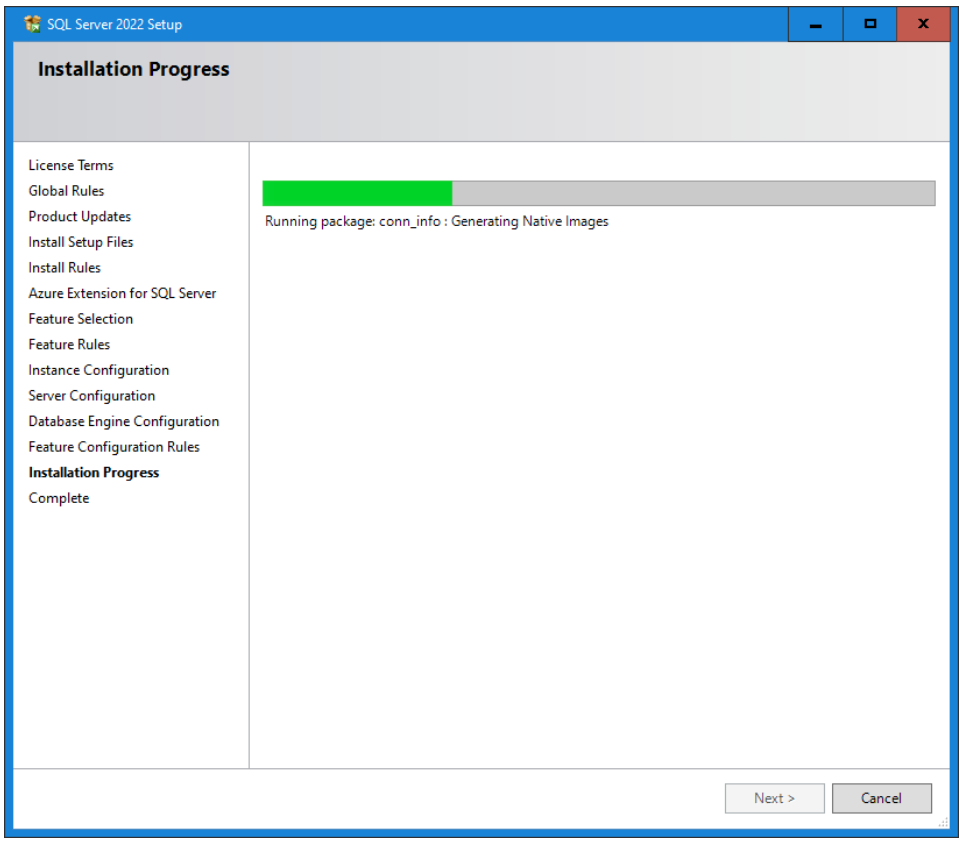
No change In the tab User Instances.

Tab Filestream

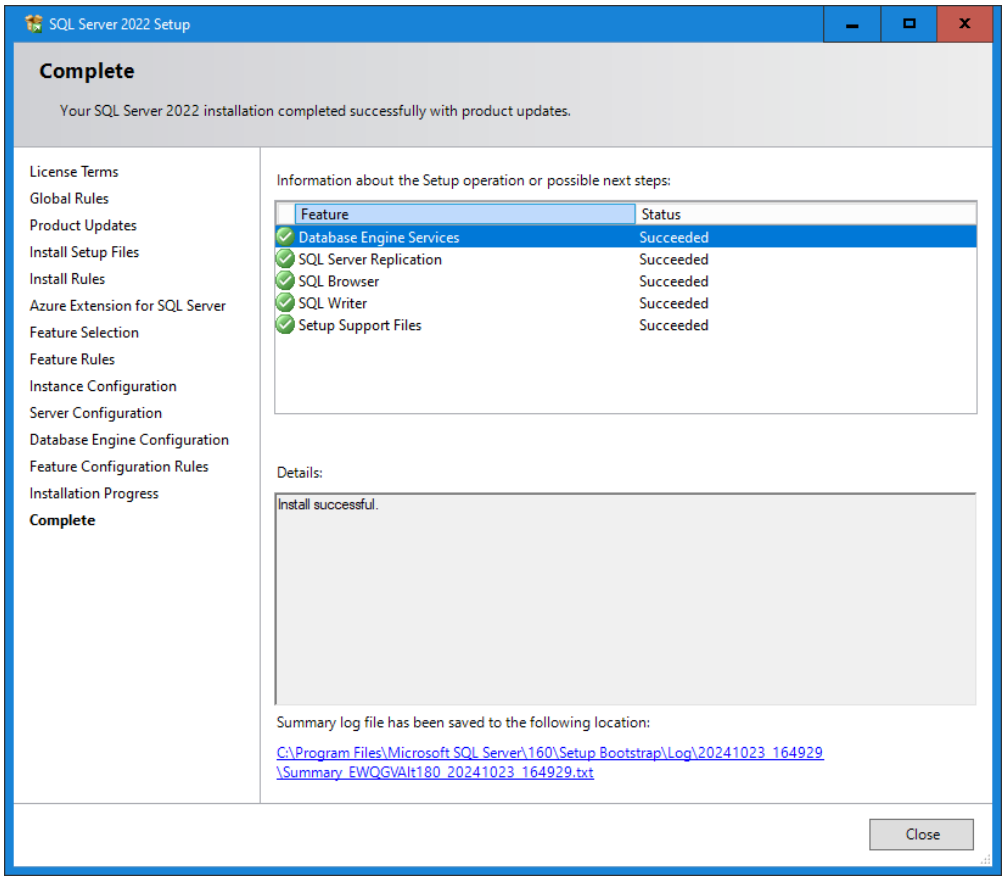


In the tab “FILESTREAM” no change.
Then press Next and wait a few seconds



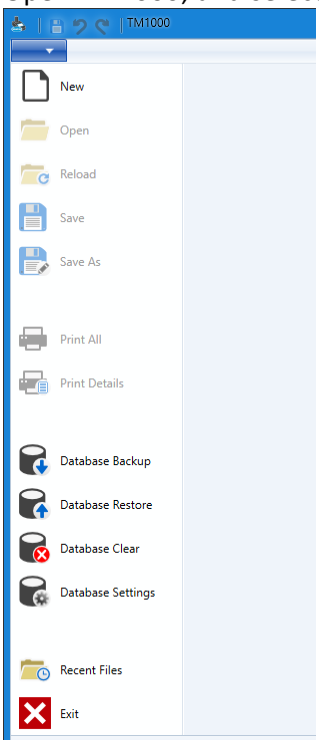


- ***Complete Final step***

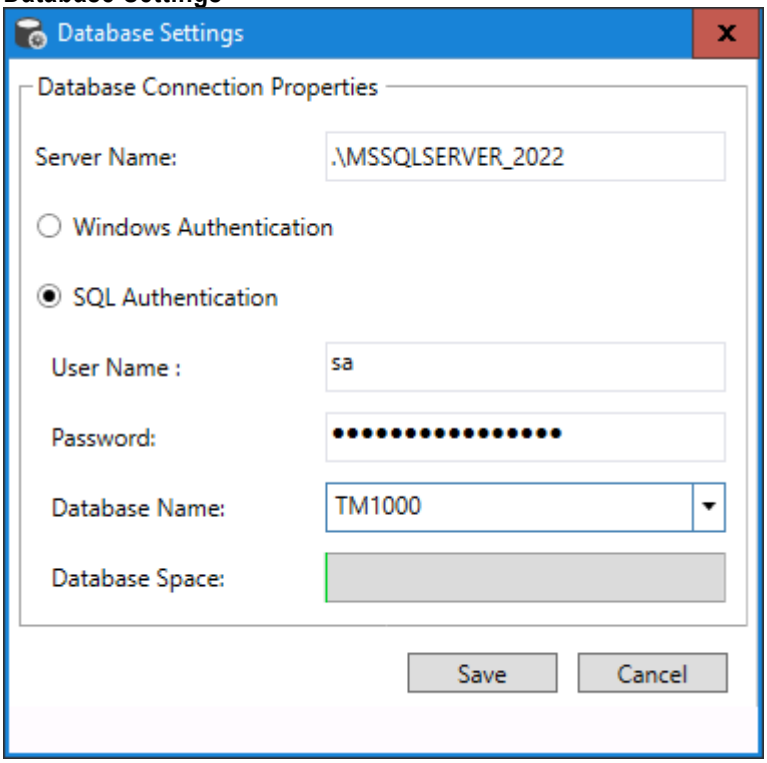


4. TM1000 Database connection

Open TM1000, and select Database Settings



Database Settings

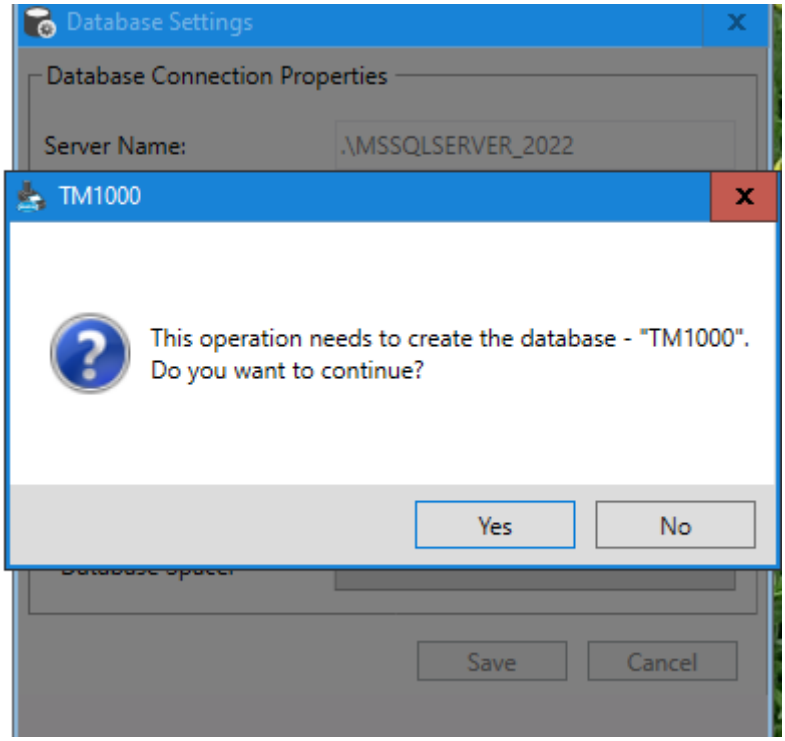


In the server name, enter the name provided in §• **Instance Configuration**
Select SQL Authentication
User name : sa
Password : provide the password given in the section § •Database Engine Configuration.

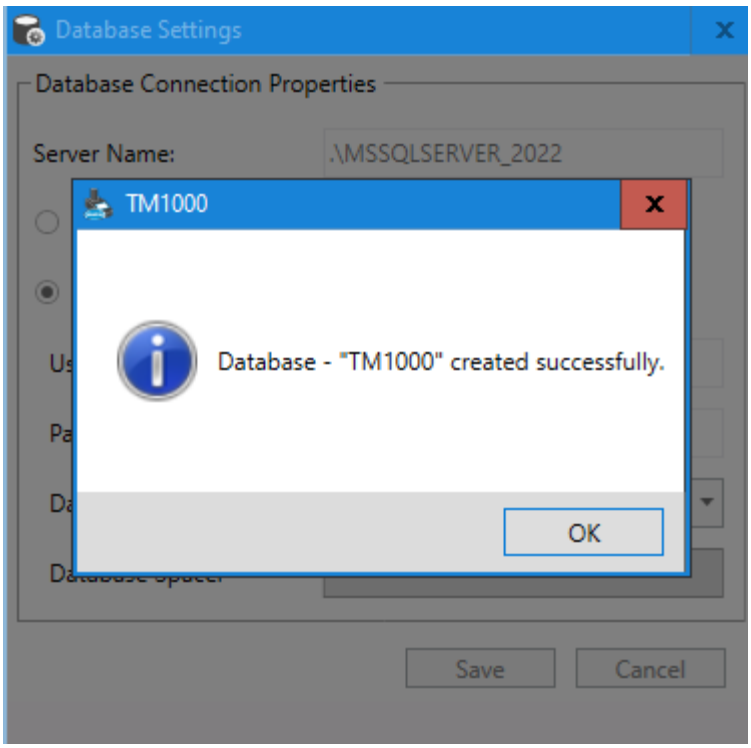
Database Name enter: TM1000
And press “**Save**”

In case the database could not be connected in the Server name field enter [Device name]\[instance name]
[Device name] is defined in **settings – about**
[instance name] is define in §• **Instance Configuration**

Database creation

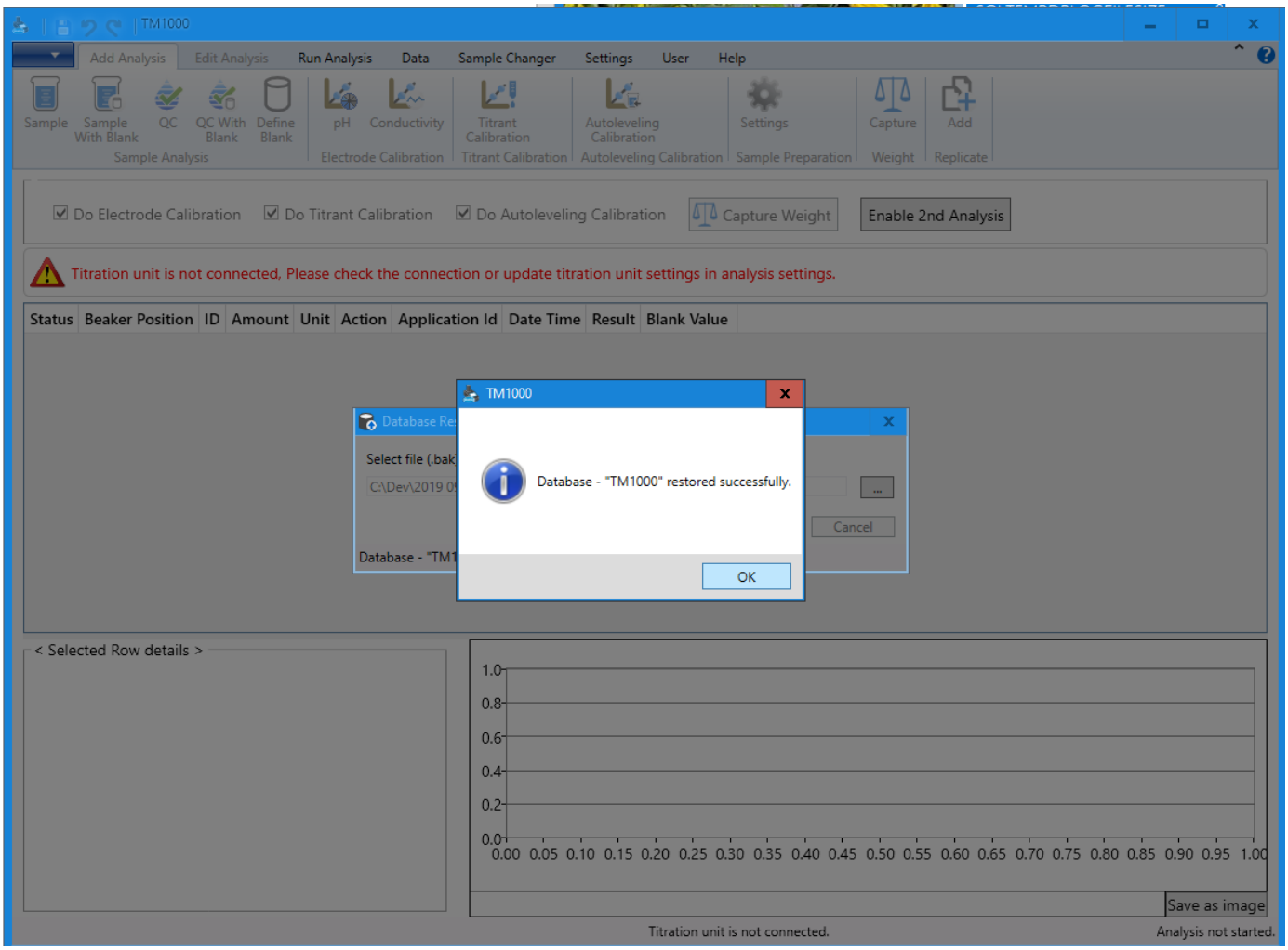


Press **yes**



Database Restore

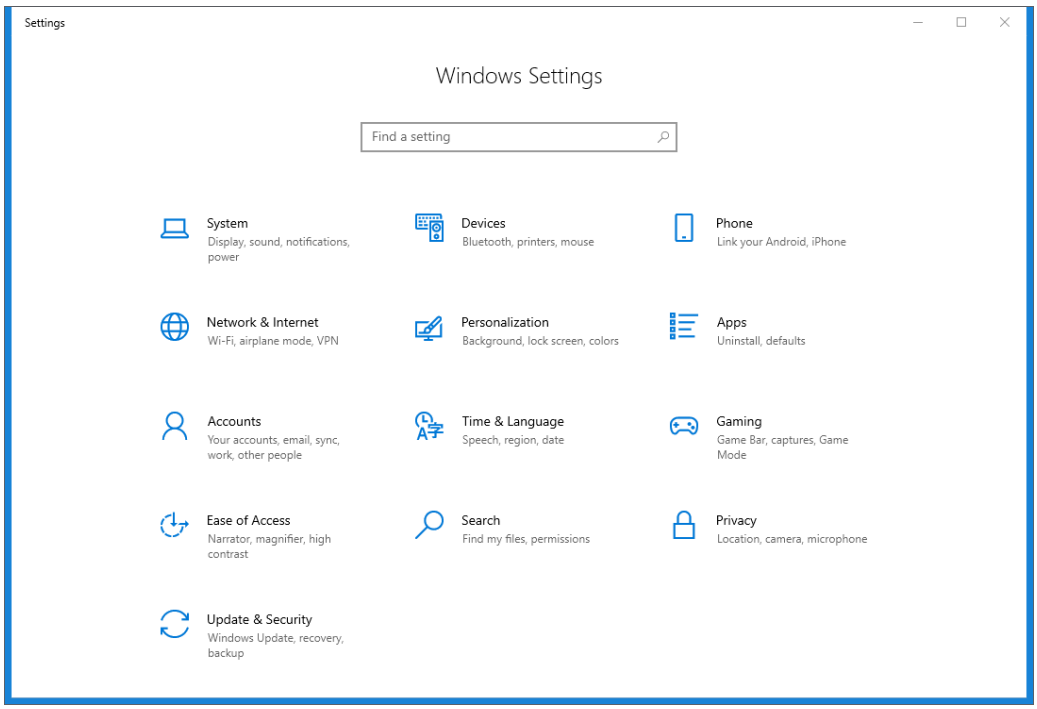
TM1000 offers you the possibility to restore the backed-up database created with a previous release of SQL server.



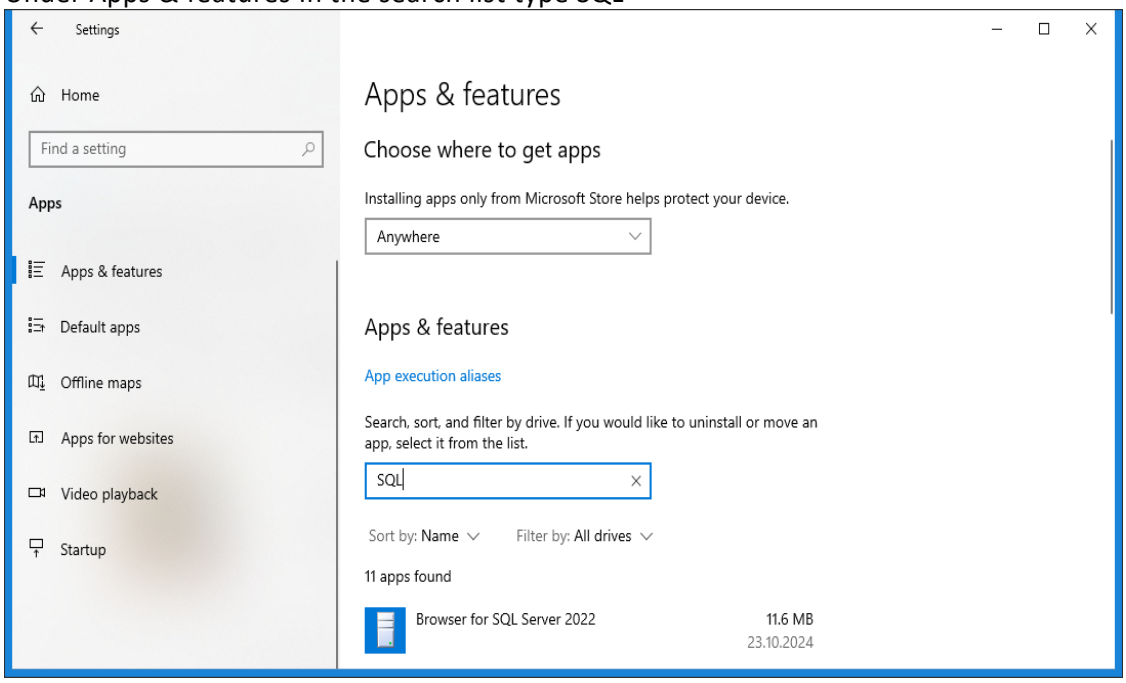
5. Remove SQL server installation

- ***Windows settings***

Open windows settings: type Settings in the search of the task bar and select Apps



Under Apps & features In the search list type SQL



Right clic and select Unistall and follow the instructions. This has to be done until no application with SQL 2022 appears in the list. Note that re-start of the computer could be required to fully remove every component.

6. Overall summary:

Here is an example of the installation summary generated at the end of the installation •Complete Final step You can retrieve the whole different settings of the SQL server installation.

Final result: Passed

Exit code (Decimal): 0
Start time: 2024-10-23 16:49:29
End time: 2024-10-23 17:38:33
Requested action: Install

Machine Properties:
Machine name: EWQGVALT180
Machine processor count: 20
OS version: Microsoft Windows 10 Enterprise (10.0.19045)
OS service pack:
OS region: United States
OS language: English (United States)
OS architecture: x64
Process architecture: 64 Bit
OS clustered: No

Product features discovered:
Product Instance Instance ID Feature Language Edition Version Clustered Configured
SQL Server 2012 SQLEXPRESS MSSQL11.SQLEXPRESS Database Engine Services 1033 Express Edition 11.0.2100.60 No Yes
SQL Server 2012 SQLEXPRESS MSSQL11.SQLEXPRESS SQL Server Replication 1033 Express Edition 11.0.2100.60 No Yes
SQL Server 2012 SQLEXPRESS_2012 MSSQL11.SQLEXPRESS_2012 Database Engine Services 1033 Express Edition 11.0.2100.60 No Yes
SQL Server 2012 SQLEXPRESS_2012 MSSQL11.SQLEXPRESS_2012 SQL Server Replication 1033 Express Edition 11.0.2100.60 No Yes

Package properties:
Description: Microsoft SQL Server 2022
ProductName: SQL Server 2022
Type: RTM
Version: 16
SPLevel: 0
Installation location: C:\SQL2022\ExpressAdv_ENU\x64\setup\
Installation edition: Express

Product Update Status:
None discovered.

Notice: Please read Microsoft SQL Server Software License Terms at aka.ms/useterms.

User Input Settings:
ACTION: Install
ADDCURRENTUSERASSQLADMIN: true
AGTSVCACCOUNT: NT AUTHORITY\NETWORK SERVICE
AGTSVCPASSWORD: *****
AGTSVCSTARTUPTYPE: Disabled
ASBACKUPDIR: Backup

```
ASCOLLATION:                Latin1_General_CI_AS
ASCONFIGDIR:                Config
ASDATADIR:                  Data
ASLOGDIR:                   Log
ASPROVIDERMSOLAP:           1
ASSERVERMODE:               TABULAR
ASSVCACCOUNT:               <empty>
ASSVCPASSWORD:              <empty>
ASSVCSTARTUPTYPE:           Automatic
ASSYSADMINACCOUNTS:         <empty>
ASTELSVCACCT:               <empty>
ASTELSVCPASSWORD:           <empty>
ASTELSVCSTARTUPTYPE:        0
ASTEMPDIR:                  Temp
AZUREARCPROXYSERVER:
AZUREBILLEDEDITION:
AZUREREGION:
AZURERESOURCEGROUP:
AZURESERVICEPRINCIPAL:
AZURESERVICEPRINCIPALSECRET:   *****
AZURESUBSCRIPTIONID:
AZURETENANTID:
BROWSERSVCSTARTUPTYPE:      Disabled
CONFIGURATIONFILE:
ENABLERANU:                 true
ENU:                        true
EXTSVCACCOUNT:              <empty>
EXTSVCPASSWORD:             <empty>
FEATURES:                   SQLENGINE, REPLICATION
FILESTREAMLEVEL:            0
FILESTREAMSHARENAME:        <empty>
FTSVCACCOUNT:               <empty>
FTSVCPASSWORD:              <empty>
HELP:                       false
IACCEPTSQLSERVERLICENSETERMS:  true
IACKNOWLEDGEENTCALLIMITS:   false
INDICATEPROGRESS:           false
INSTALLSHAREDDIR:           C:\Program Files\Microsoft SQL Server\
INSTALLSHAREDWOWDIR:        c:\Program Files (x86)\Microsoft SQL Server\
INSTALLSQLDATADIR:          <empty>
INSTANCEDIR:                C:\Program Files\Microsoft SQL Server\
INSTANCEID:                 MSSQLSERVER_2022
INSTANCENAME:               MSSQLSERVER_2022
ISMASTERSVCACCOUNT:         NT AUTHORITY\Network Service
ISMASTERSVCPASSWORD:        <empty>
ISMASTERSVCPORT:            8391
ISMASTERSVCSSLCERTCN:       <empty>
ISMASTERSVCSTARTUPTYPE:     Automatic
ISMASTERSVCTHUMBPRINT:      <empty>
```

```
ISSVCACCOUNT:               NT AUTHORITY\Network Service
ISSVCPASSWORD:               <empty>
ISSVCSTARTUPTYPE:            Automatic
ISTELSVCACCT:               <empty>
ISTELSVCPASSWORD:            <empty>
ISTELSVCSTARTUPTYPE:         0
ISWORKERSVCACCOUNT:          NT AUTHORITY\Network Service
ISWORKERSVCCERT:            <empty>
ISWORKERSVCMASTER:           <empty>
ISWORKERSVCPASSWORD:         <empty>
ISWORKERSVCSTARTUPTYPE:      Automatic
NPENABLED:                  0
PBDMSSVCACCOUNT:            <empty>
PBDMSSVCPASSWORD:            <empty>
PBDMSSVCSTARTUPTYPE:         0
PBENGSVCACCOUNT:            <empty>
PBENGSVCPASSWORD:            <empty>
PBENGSVCSTARTUPTYPE:         0
PBPORTRANGE:                <empty>
PID:                        *****
PRODUCTCOVEREDBYSA:          false
QUIET:                      false
QUIETSIMPLE:                false
ROLE:                       AllFeatures_WithDefaults
SAPWD:                       *****
SECURITYMODE:                SQL
SQLBACKUPDIR:               <empty>
SQLCOLLATION:               SQL_Latin1_General_CP1_CI_AS
SQLMAXDOP:                  0
SQLMAXMEMORY:                2147483647
SQLMINMEMORY:               0
SQLSVCACCOUNT:              NT Service\MSSQL$MSSQLSERVER_2022
SQLSVCINSTANTFILEINIT:       false
SQLSVCPASSWORD:             <empty>
SQLSVCSTARTUPTYPE:           Automatic
SQLSYSADMINACCOUNTS:         HACH-LANGE\emichaud
SQLTELSVCACCT:              NT Service\SQLTELEMETRY$MSSQLSERVER_2022
SQLTELSVCPASSWORD:           <empty>
SQLTELSVCSTARTUPTYPE:        Automatic
SQLTEMPDBDIR:               <empty>
SQLTEMPDBFILECOUNT:          1
SQLTEMPDBFILEGROWTH:         64
SQLTEMPDBFILESIZE:          8
SQLTEMPDBLOGDIR:             <empty>
SQLTEMPDBLOGFILEGROWTH:      64
SQLTEMPDBLOGFILESIZE:        8
SQLUSERDBDIR:               <empty>
SQLUSERDBLOGDIR:             <empty>
SUPPRESSPAIDEDITIONNOTICE:    false
```

SUPPRESSPRIVACYSTATEMENTNOTICE: false
TCPENABLED: 0
UIMODE: AutoAdvance
UpdateEnabled: true
UpdateSource: MU
USEMICROSOFTUPDATE: false
USESQLRECOMMENDEDMEMORYLIMITS: false

Configuration file: C:\Program Files\Microsoft SQL Server\160\Setup Bootstrap\Log\20241023_164929\ConfigurationFile.ini

Detailed results:
Feature: Database Engine Services
Status: Passed

Feature: SQL Server Replication
Status: Passed

Feature: SQL Browser
Status: Passed

Feature: SQL Writer
Status: Passed

Feature: Setup Support Files
Status: Passed

Rules with failures or warnings:

Global rules:
Warning IsFirewallEnabled The Windows Firewall is enabled. Make sure the appropriate ports are open to enable remote access. See the rules documentation at https://go.microsoft.com/fwlink/?linkid=2162127 for information about ports to open for each feature.

Rules report file: C:\Program Files\Microsoft SQL Server\160\Setup Bootstrap\Log\20241023_164929\SystemConfigurationCheck_Report.htm