

PNNL-30250

HBET V2.0 Installation Manual

August 2020

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Pacific Northwest National Laboratory
Richland, Washington 99354

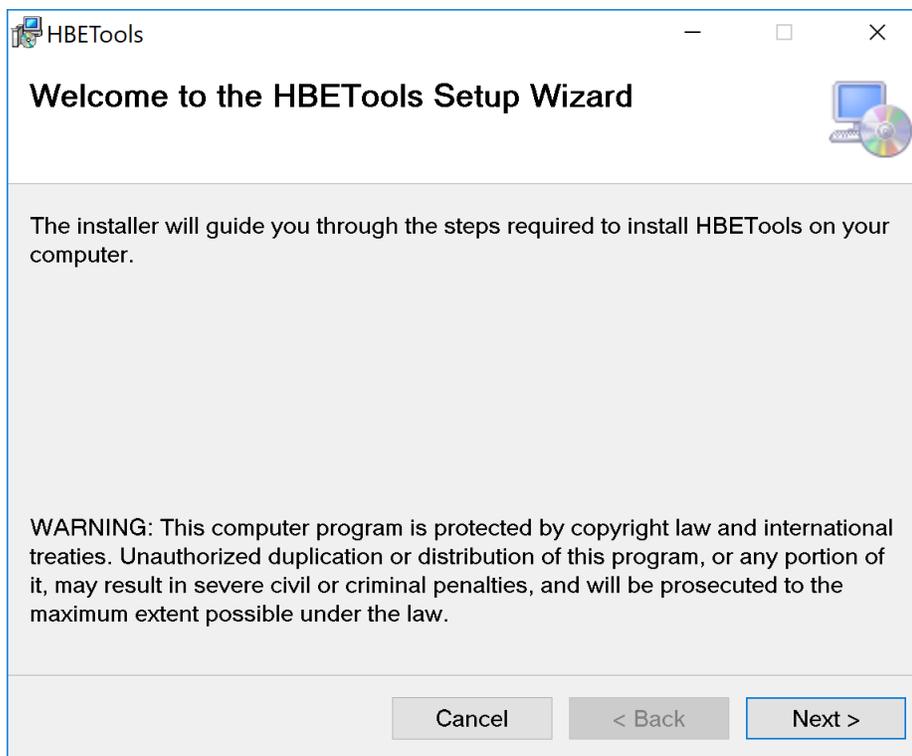
HBET V2.0 Installation Manual

January 5, 2021

To upgrade from a previous version, please go to page 36 directly.

Fresh installation:

1. Unzip HBET_V2_Installer.zip
2. Double click setup.exe and follow screenshots below to install HBET. Choose “Yes” if the system asks “Do you want to allow this app to make changes to your device?”



HBETools

Select Installation Folder

The installer will install HBETools to the following folder.

To install in this folder, click "Next". To install to a different folder, enter it below or click "Browse".

Folder:

Install HBETools for yourself, or for anyone who uses this computer:

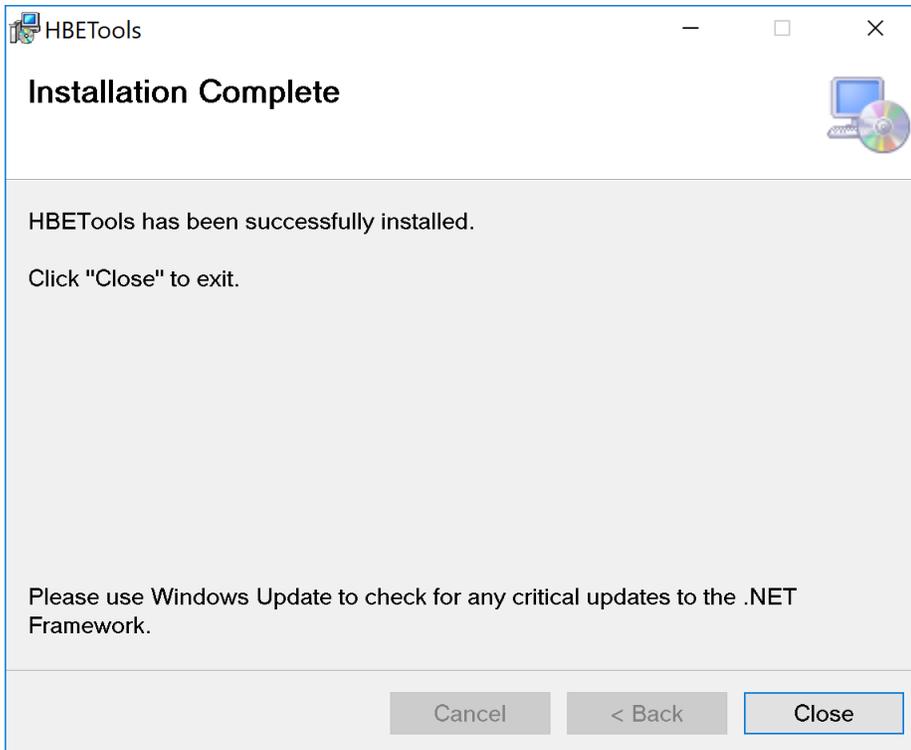
Everyone
 Just me

HBETools

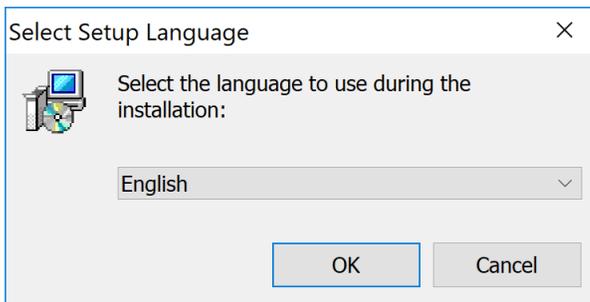
Confirm Installation

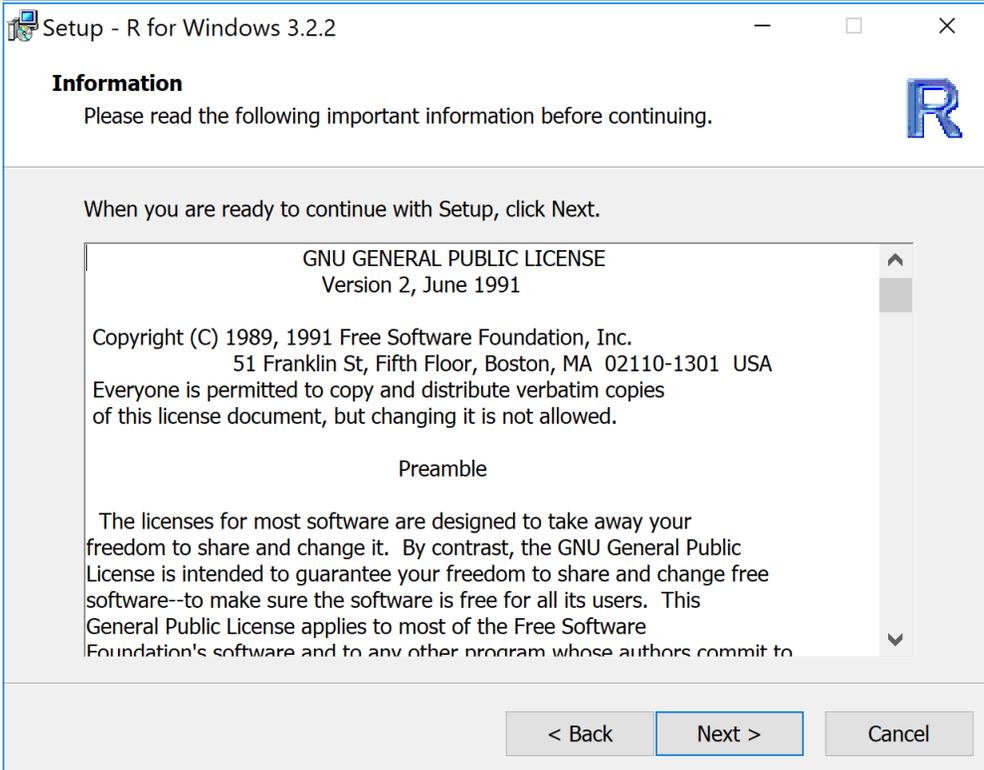
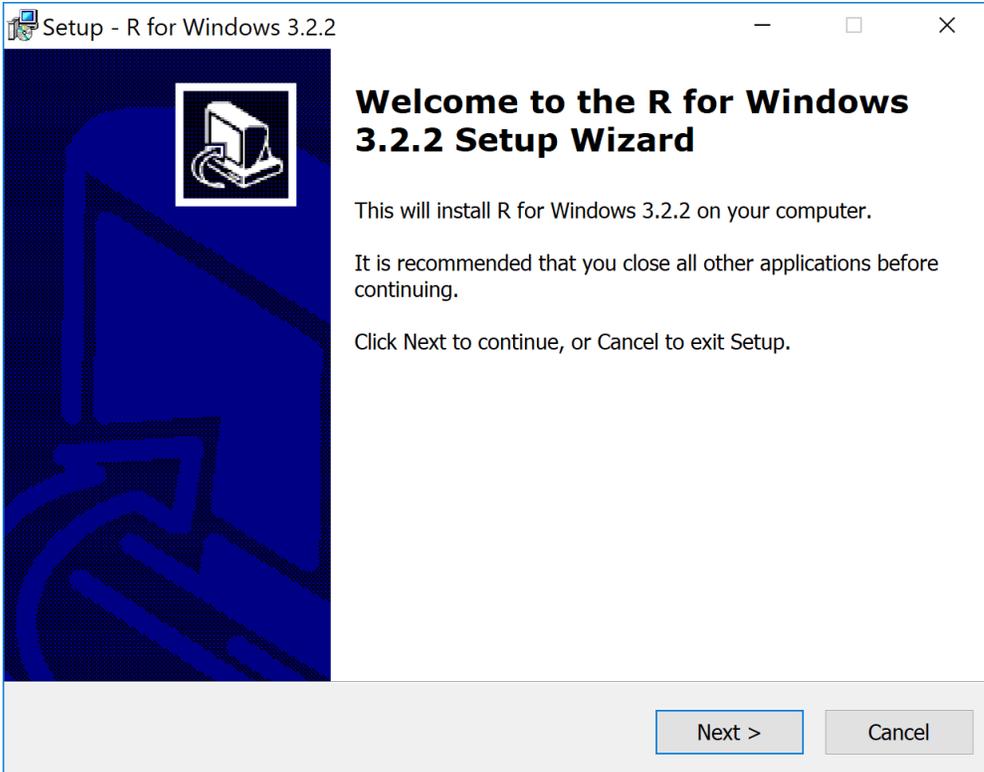
The installer is ready to install HBETools on your computer.

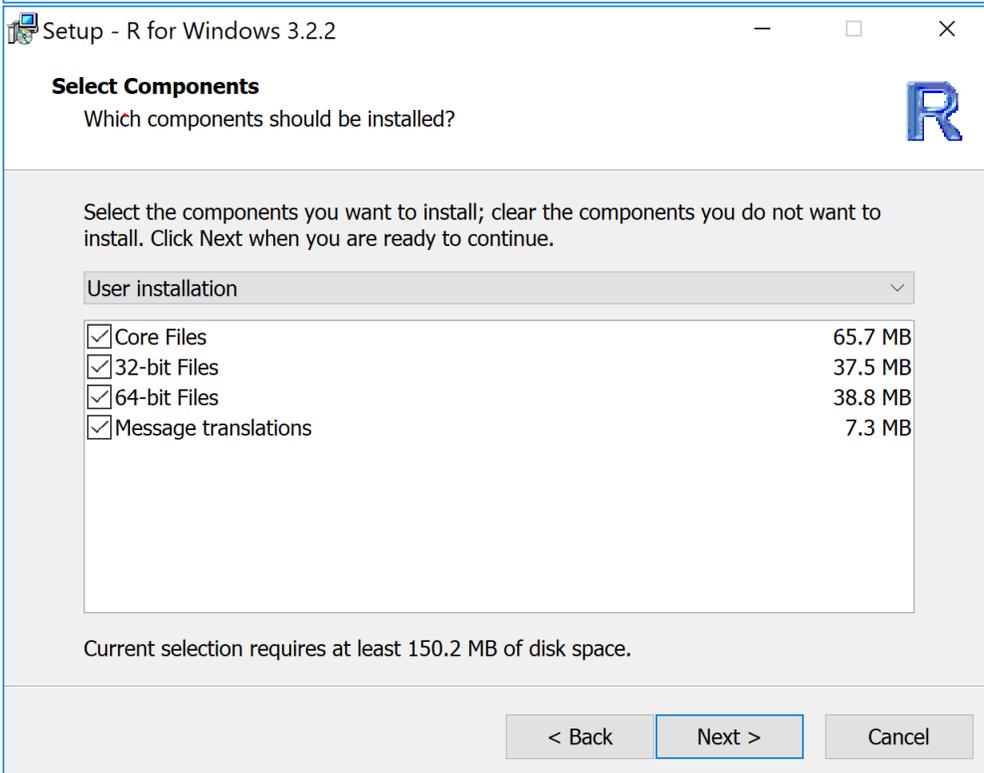
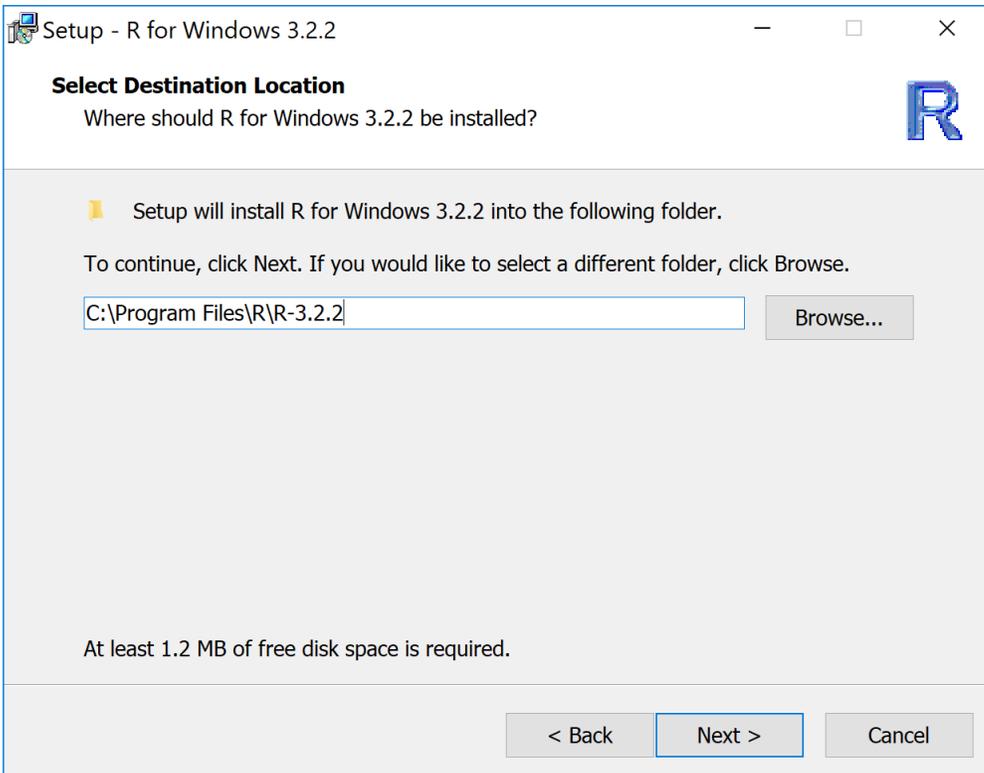
Click "Next" to start the installation.

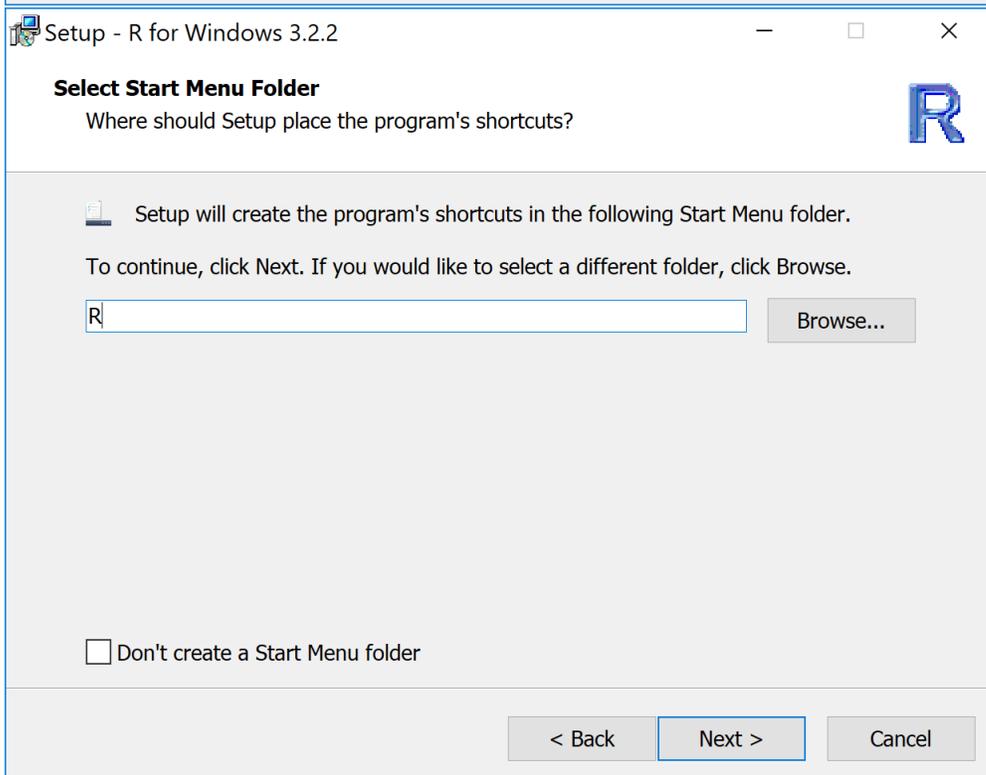
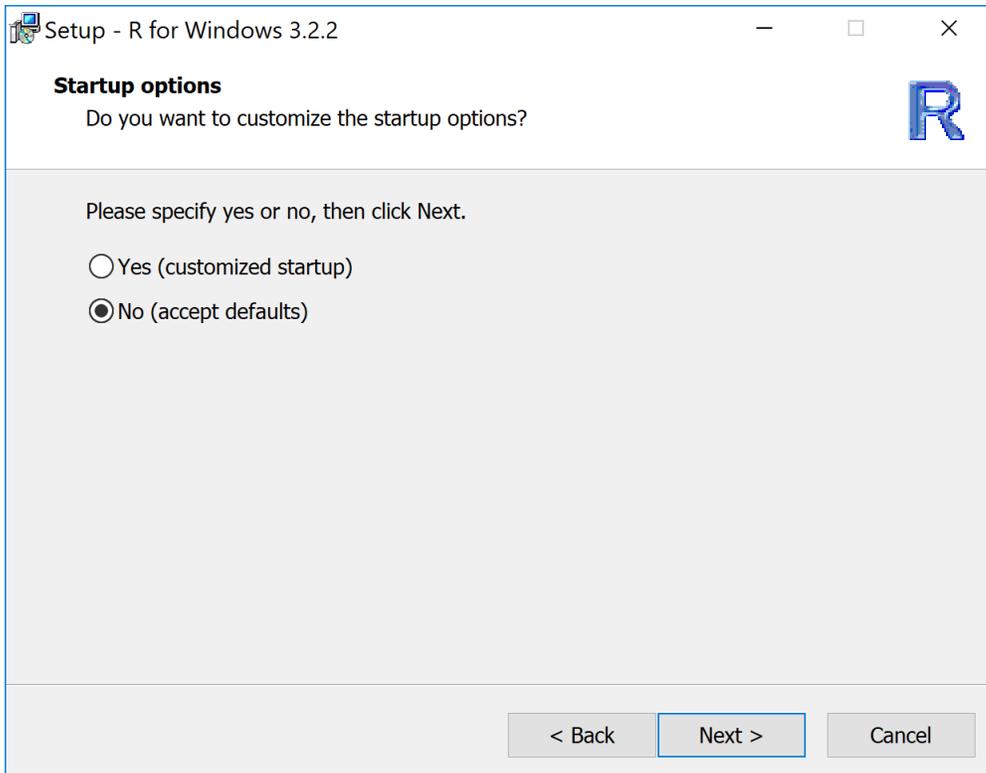


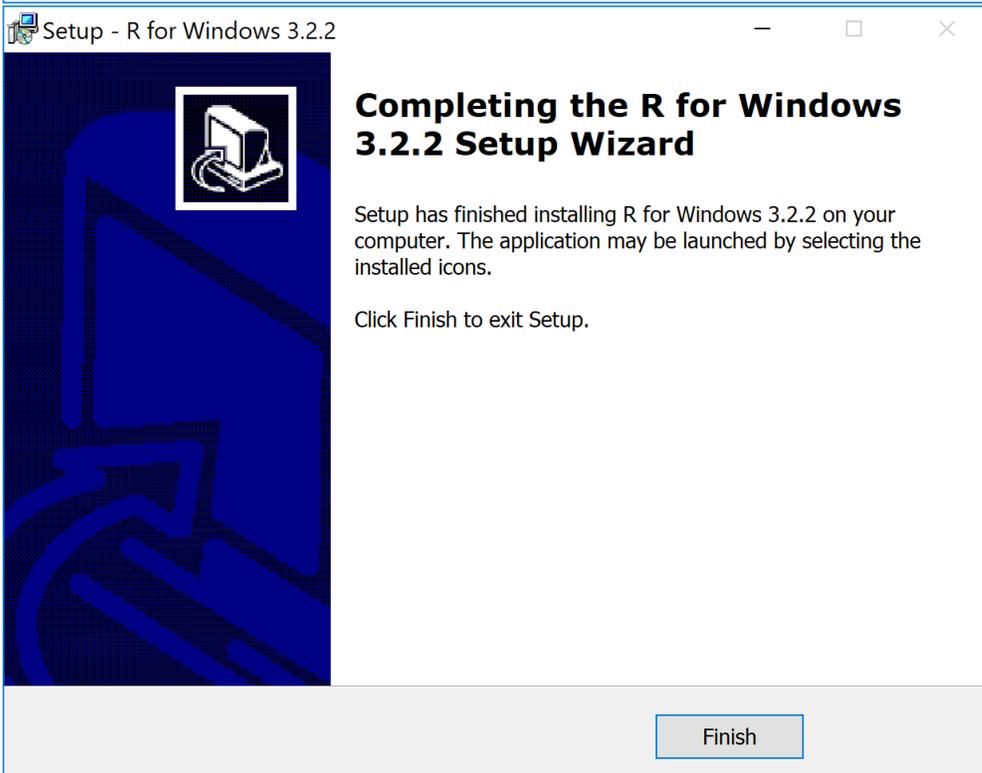
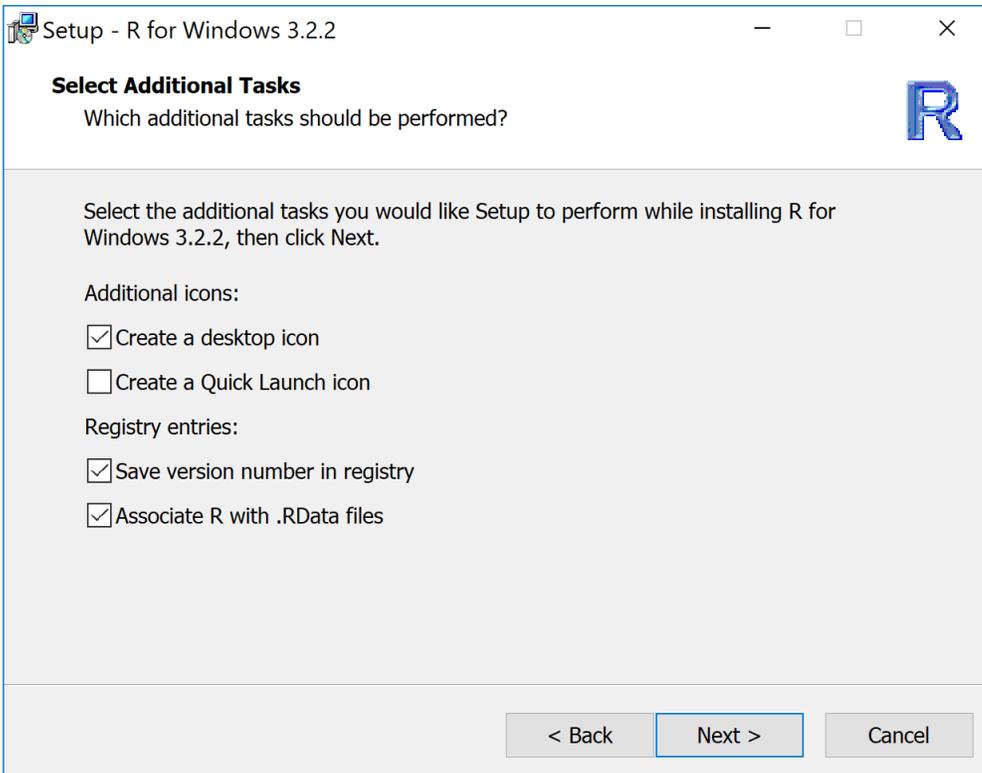
3. Double click R-3.2.2-win.exe and follow screenshots below to install the R code support. Choose "Yes" if the system asks "Do you want to allow this app to make changes to your device?"



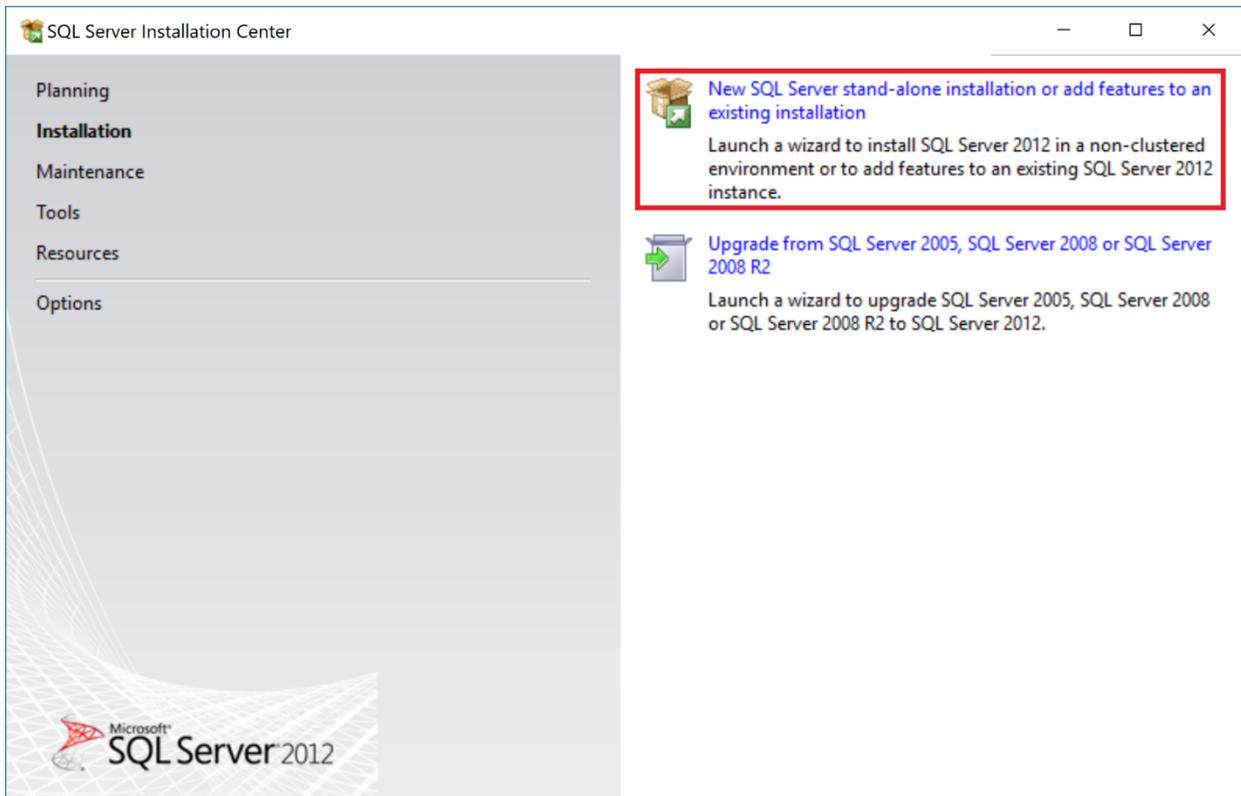


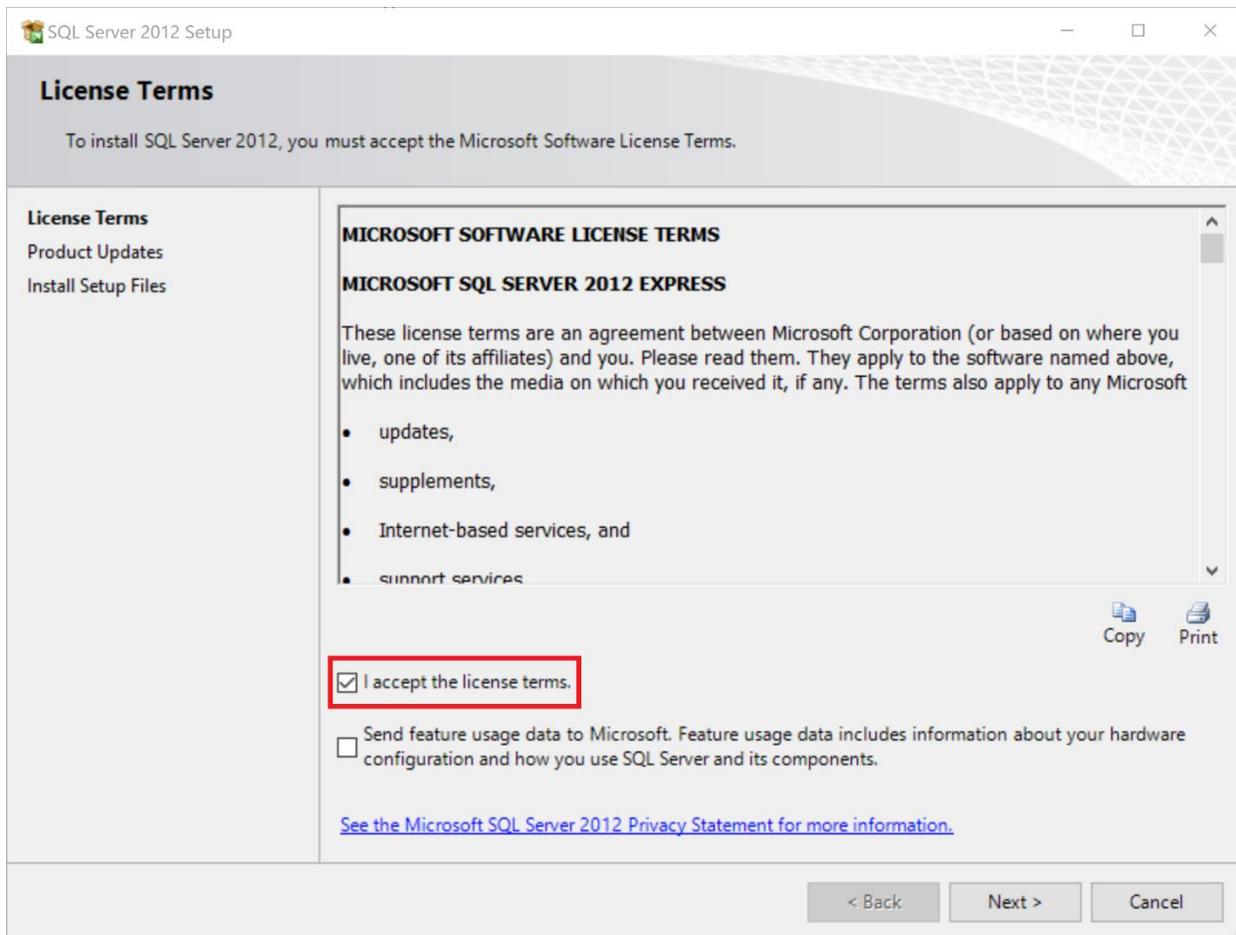






4. Double click SQLEXPRT_x64_ENU.exe and follow screenshots below to install SQL Server Express and SQL Server Management Studio. Choose “Yes” if the system asks “Do you want to allow this app to make changes to your device?”





SQL Server 2012 Setup

Product Updates

Always install the latest updates to enhance your SQL Server security and performance.

License Terms
Product Updates
Install Setup Files

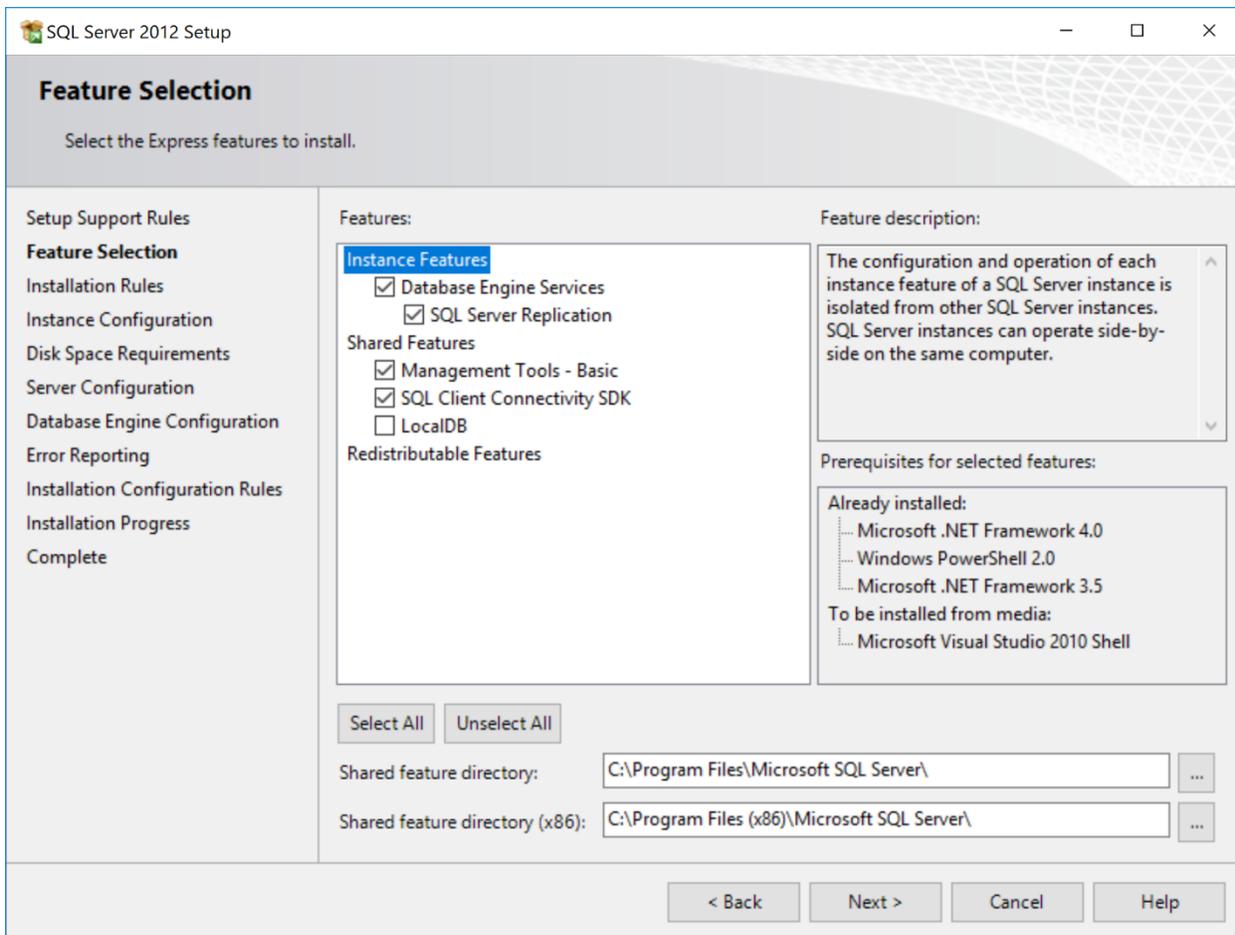
Include SQL Server product updates

| Name | Size (MB) | More Information |
|----------------------------------|-----------|----------------------------|
| SQL Server 2012 SP1 Setup Update | 14 | KB 2674319 |
| | | |

1 updates (14 MB) found online.
The Setup updates (14 MB) will be installed when you click Next.

[Read our privacy statement online](#)
[Learn more about SQL Server product updates](#)

< Back Next > Cancel



SQL Server 2012 Setup

Instance Configuration

Specify the name and instance ID for the instance of SQL Server. Instance ID becomes part of the installation path.

Default instance
 Named instance:

Instance ID:

Instance root directory: ...

SQL Server directory: C:\Program Files\Microsoft SQL Server\MSSQL11.SQLEXPRESS

Installed instances:

| Instance Name | Instance ID | Features | Edition | Version |
|---------------|-------------|----------|---------|---------|
| | | | | |

SQL Server 2012 Setup

Server Configuration

Specify the service accounts and collation configuration.

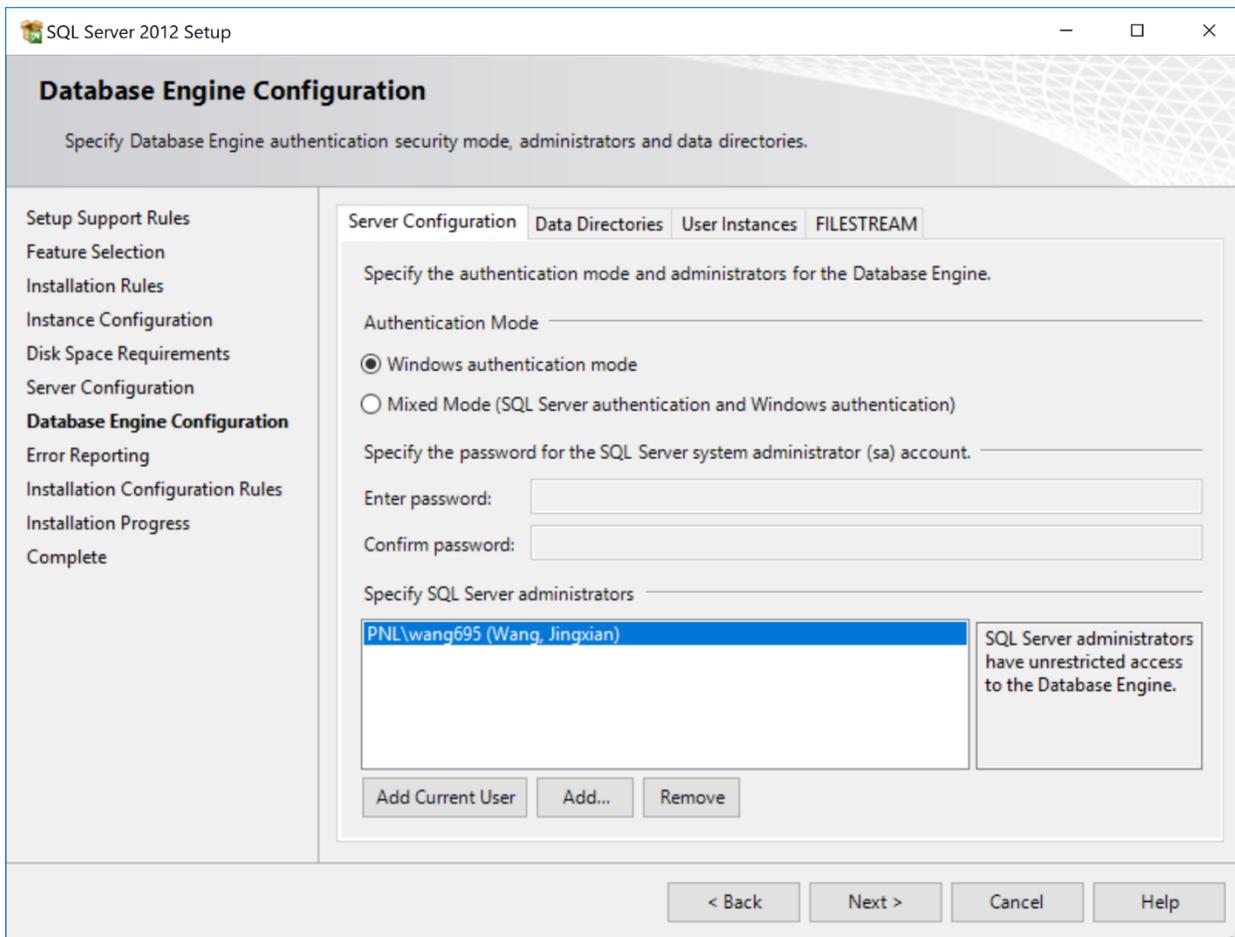
- Setup Support Rules
- Feature Selection
- Installation Rules
- Instance Configuration
- Disk Space Requirements
- Server Configuration**
- Database Engine Configuration
- Error Reporting
- Installation Configuration Rules
- Installation Progress
- Complete

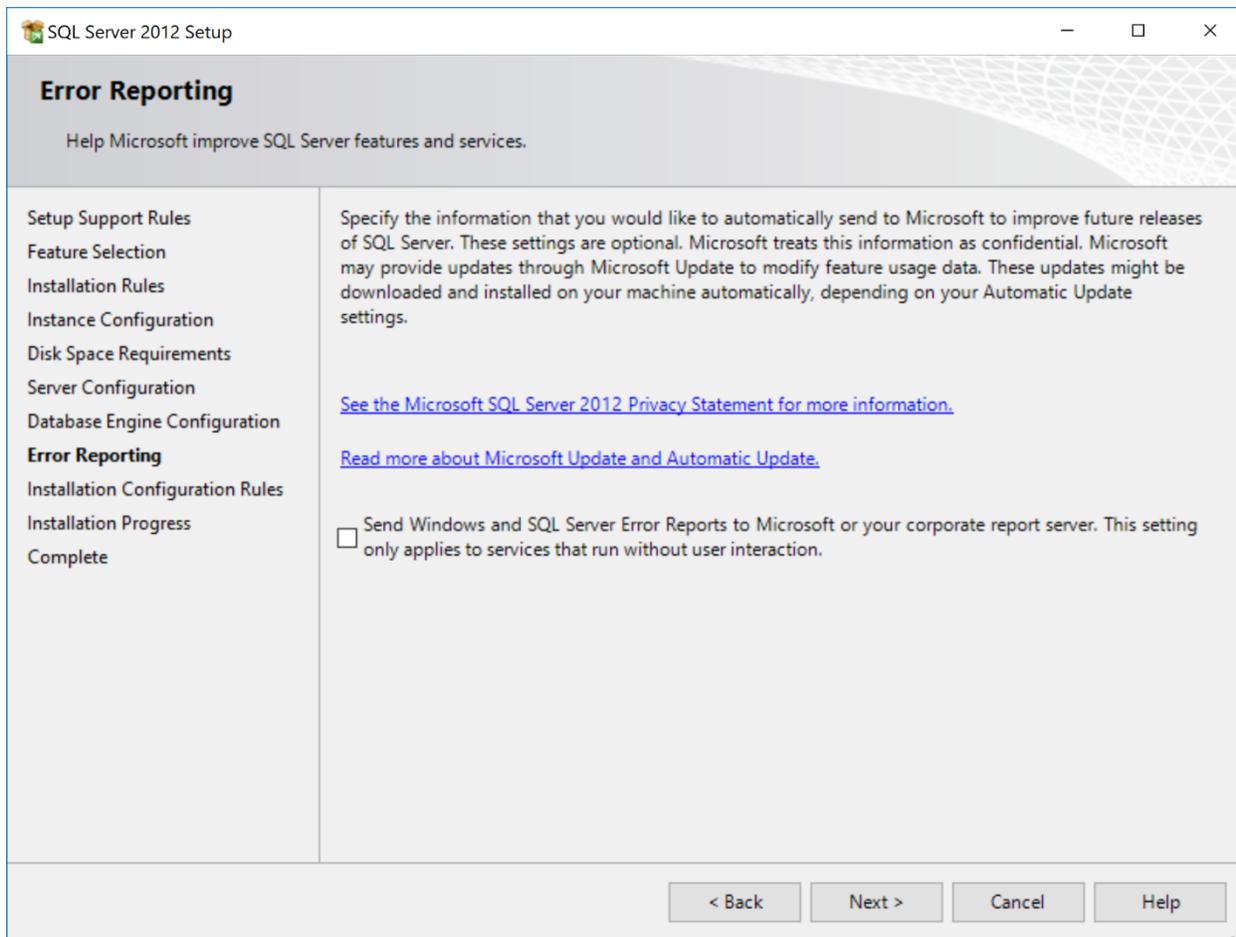
Service Accounts Collation

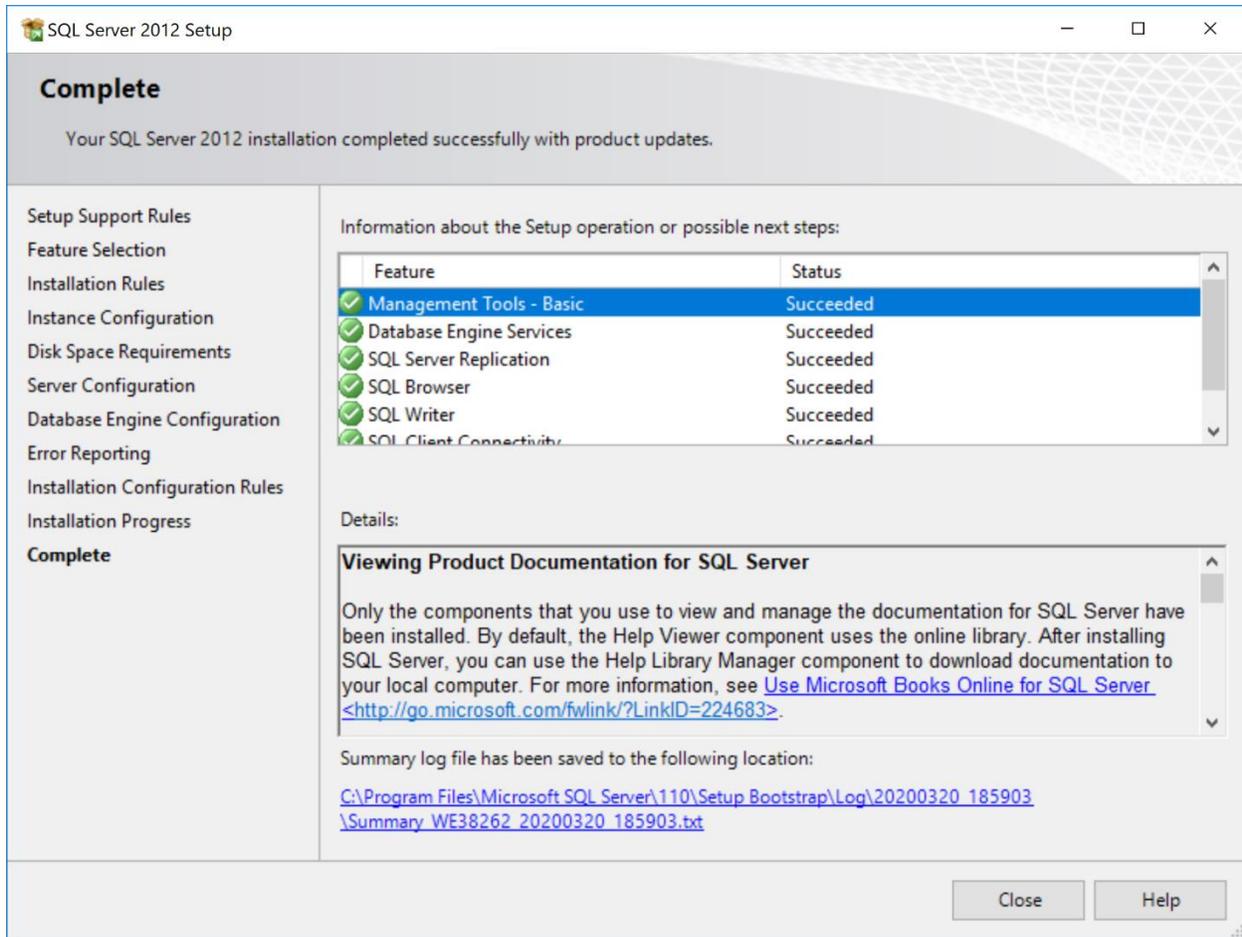
Microsoft recommends that you use a separate account for each SQL Server service.

| Service | Account Name | Password | Startup Type |
|----------------------------|------------------------|----------|--------------|
| SQL Server Database Engine | NT Service\MSSQLSQL... | | Automatic |
| SQL Server Browser | NT AUTHORITY\LOCAL ... | | Disabled |

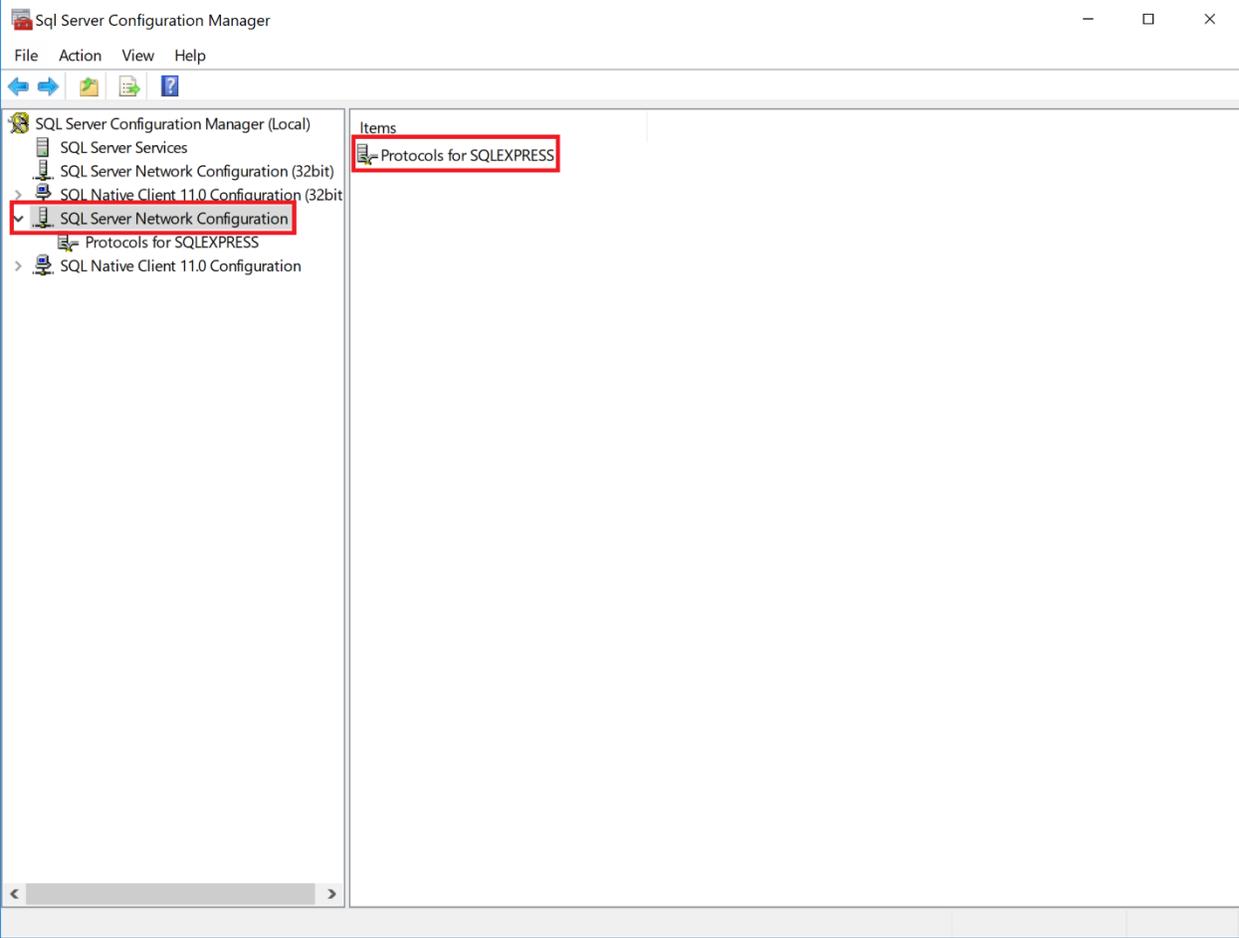
< Back Next > Cancel Help

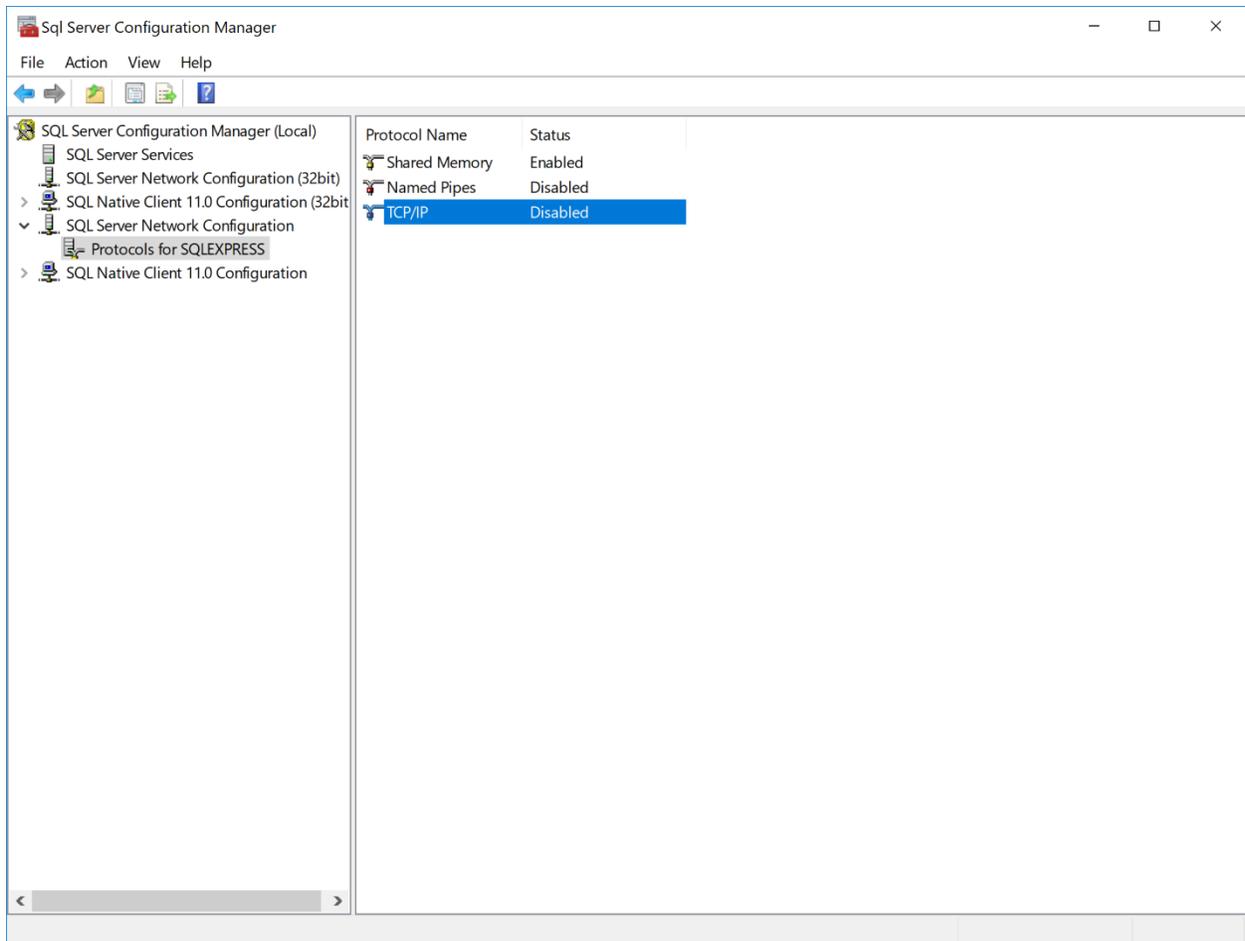




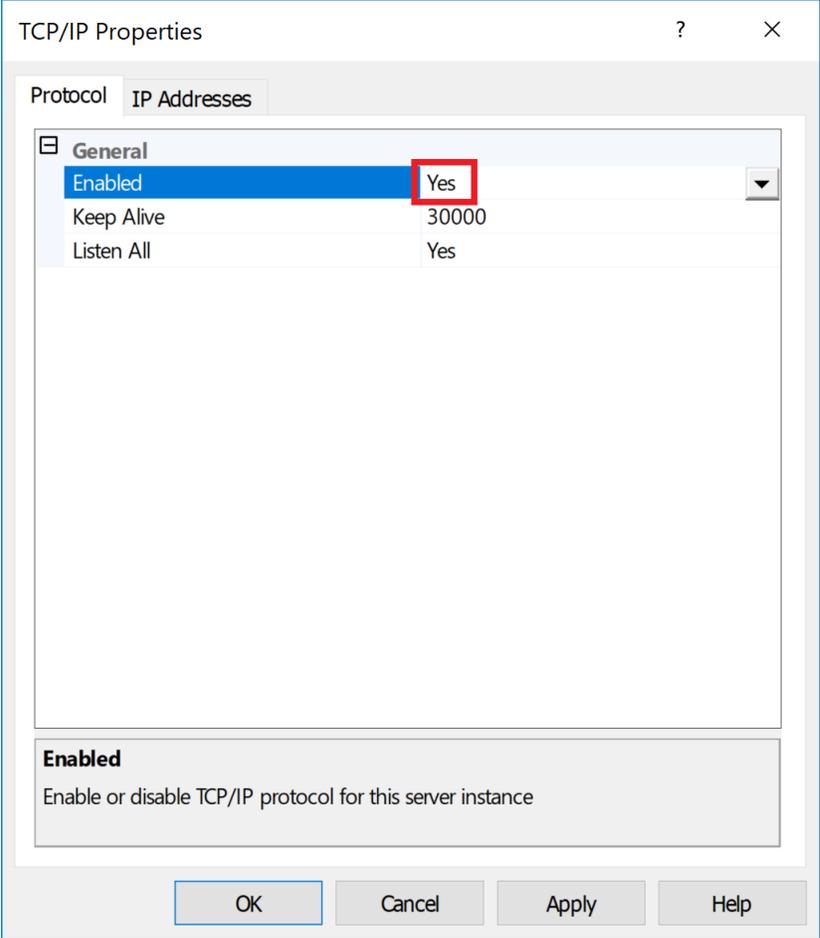


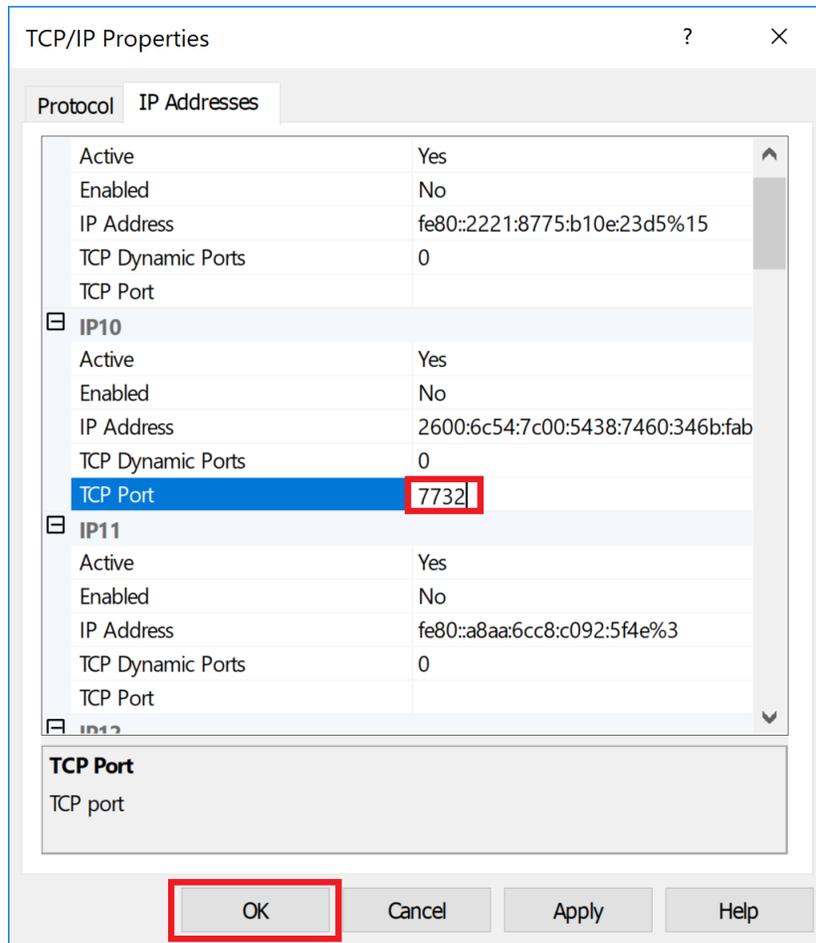
5. Open SQL Server Configuration Manager from Start > Microsoft SQL Server 2012 > SQL Server Configuration Manager and follow instructions below.
 - a. Select SQL Server Network Configuration > Protocols for SQLEXPRESS > TCP/IP to open the TCP/IP Properties window.



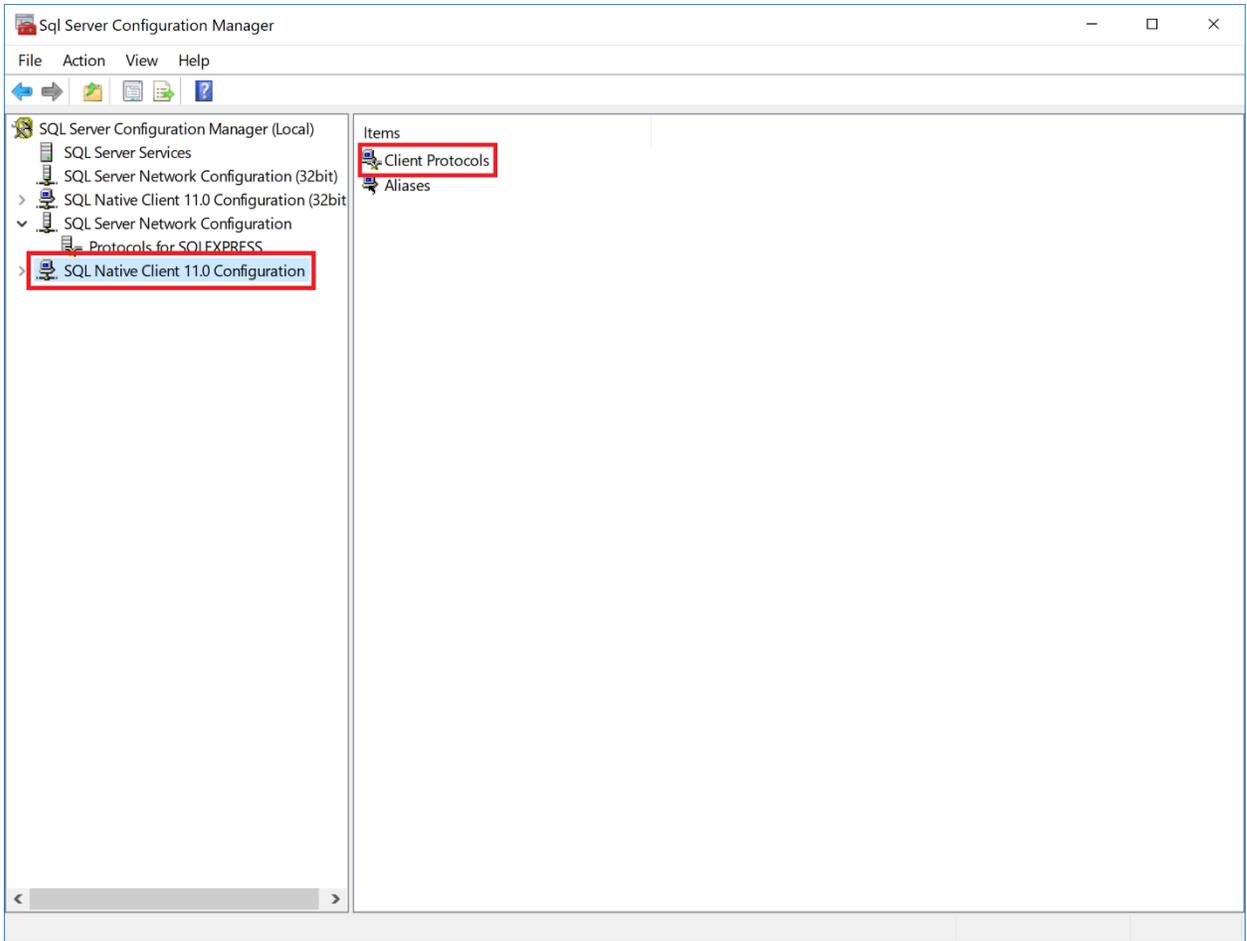


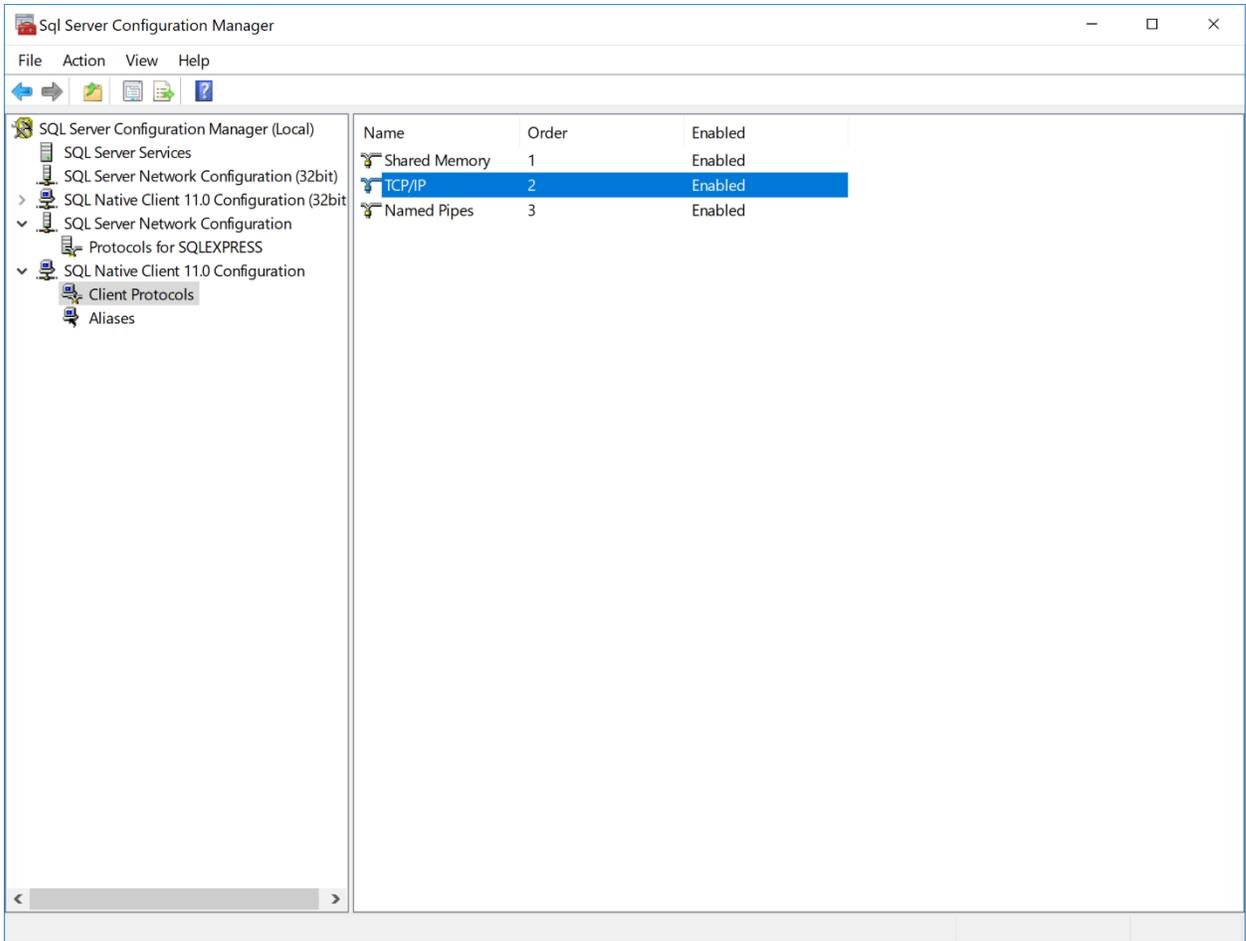
b. In the Protocol tab, select Yes to Enabled; in the IP Address Tab, assign TCP Port to 7732.



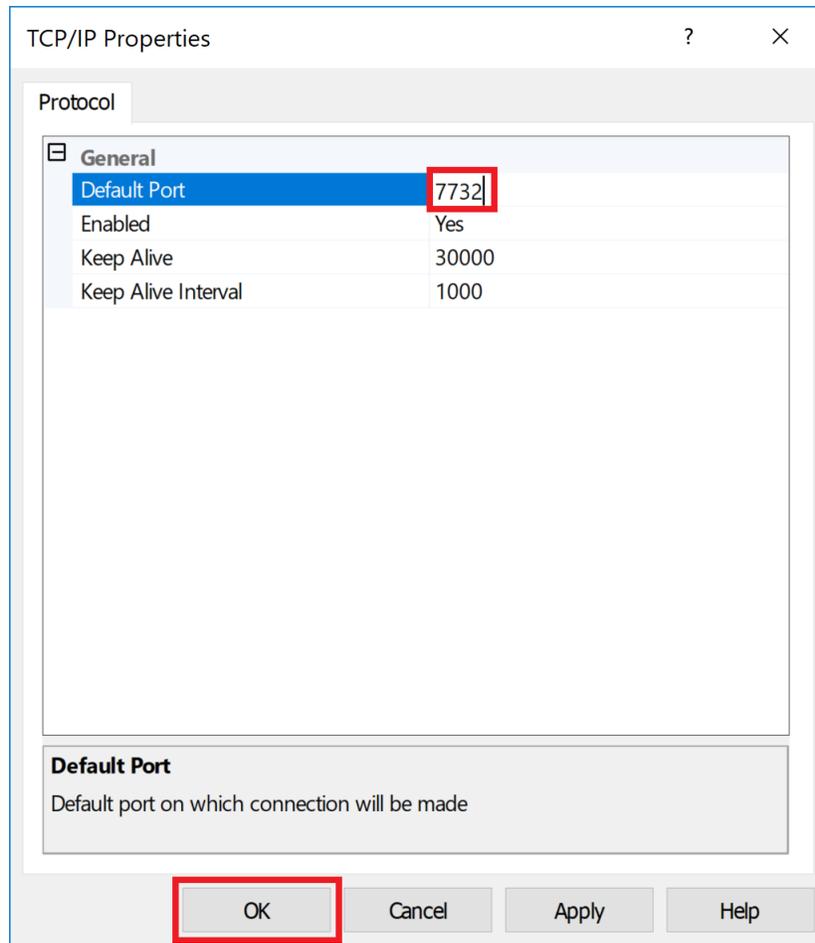


- c. Select SQL Native Client 11.0 Configuration > Client Protocols > TCP/IP to open the TCP/IP Properties window.





d. Change Default Port to 7732.



- e. Select SQL Server Service > SQL Server and click Restart in the Action menu.

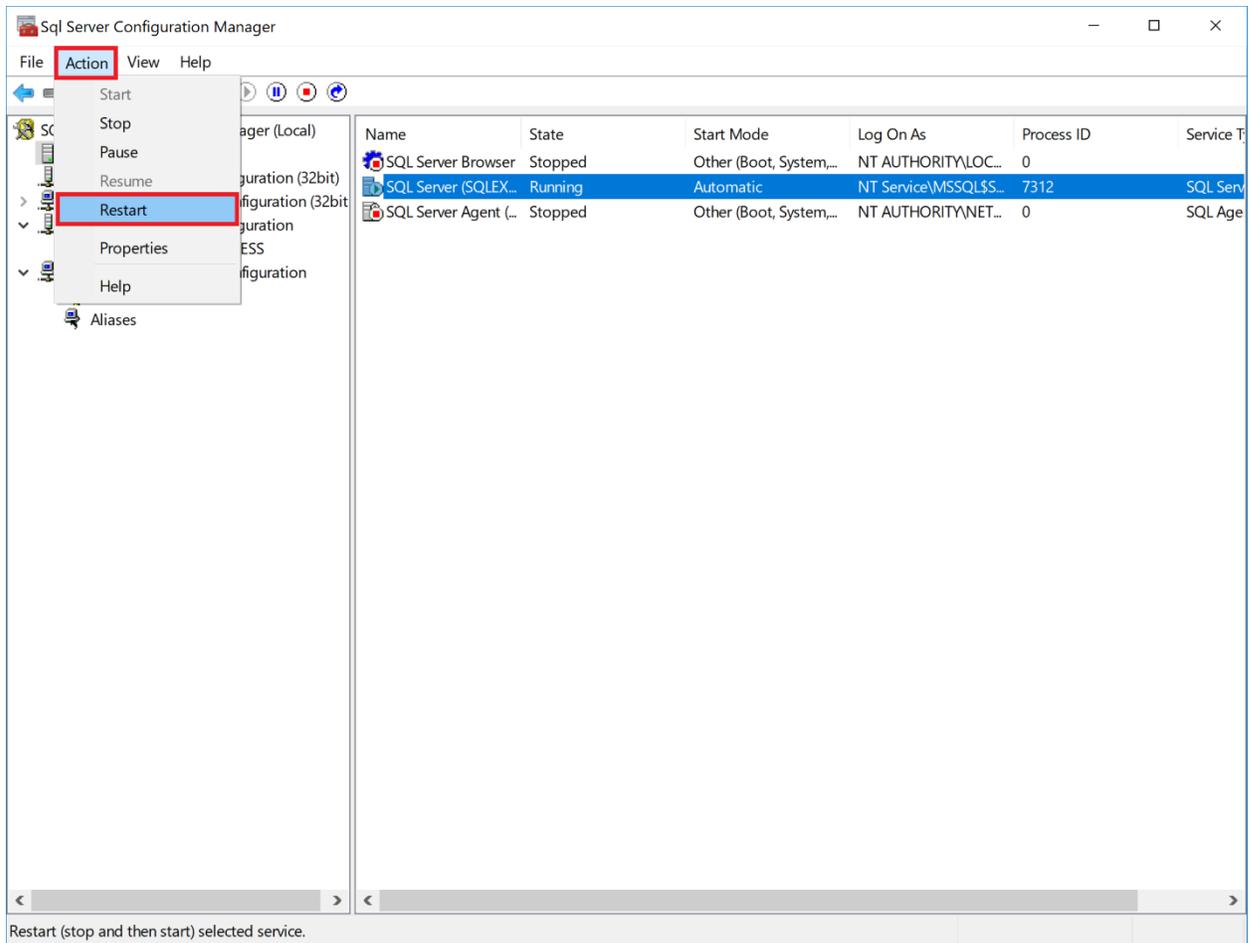
Sql Server Configuration Manager

File Action View Help

SQL Server Configuration Manager (Local)

- SQL Server Services
- SQL Server Network Configuration (32bit)
- SQL Native Client 11.0 Configuration (32bit)
- SQL Server Network Configuration
 - Protocols for SQLEXPRESS
- SQL Native Client 11.0 Configuration
 - Client Protocols
 - Aliases

| Name | State | Start Mode | Log On As | Process ID | Service T |
|------------------------|---------|------------------------|------------------------|------------|-----------|
| SQL Server Browser | Stopped | Other (Boot, System... | NT AUTHORITY\LOC... | 0 | |
| SQL Server (SQLEX... | Running | Automatic | NT Service\MSSQL\$S... | 7312 | SQL Serv |
| SQL Server Agent (...) | Stopped | Other (Boot, System... | NT AUTHORITY\NET... | 0 | SQL Age |



f. Close SQL Server Configuration Manager.

6. Select Windows Defender Firewall from Start > Control Panel > Windows Defender Firewall and follow instructions below.

a. In Advanced settings, select Inbound Rules, click New Rule in the right panel and follow screenshots below.

Windows Defender Firewall

Control Panel Home

Allow an app or feature through Windows Defender Firewall

Change notification settings

Turn Windows Defender Firewall on or off

Restore defaults

Advanced settings

Troubleshoot my network

Help protect your PC with Windows Defender Firewall

Windows Defender Firewall can help prevent hackers or malicious software from gaining access to your PC through the internet or a network.

For your security, some settings are managed by your system administrator.

Domain networks Connected

Networks at a workplace that are attached to a domain

Windows Defender Firewall state: On

Incoming connections: Block all connections to apps that are not on the list of allowed apps

Active domain networks: PNNL

Notification state: Do not notify me when Windows Defender Firewall blocks a new app

Private networks Not connected

Guest or public networks Connected

Networks in public places such as airports or coffee shops

Windows Defender Firewall state: On

Incoming connections: Block all connections to apps that are not on the list of allowed apps

Active public networks: MySpectrumWiFi8E 5G

Notification state: Do not notify me when Windows Defender Firewall blocks a new app

See also

Security and Maintenance

Network and Sharing Center

Windows Defender Firewall with Advanced Security

File Action View Help

Windows Defender Firewall with Advanced Security

- Inbound Rules**
- Outbound Rules
- Connection Security Rules
- Monitoring

| Name | Group | Profile | Enabled |
|--|-------|---------|---------|
| _PNNL/Computers : Example Description (Pr... | | All | No |
| _PNNL/Computers : Example Description (Pr... | | All | No |
| Microsoft Lync | | Domain | Yes |
| Microsoft Lync | | Domain | Yes |
| Microsoft Lync Ucmapi | | Domain | Yes |
| Microsoft Lync Ucmapi | | Domain | Yes |
| Microsoft Office Outlook | | Domain | Yes |
| Origin 2019b (32 Bit) | | All | Yes |
| Origin 2019b (64 Bit) | | All | Yes |
| PNNL/Computers : DHCPv4 Client (UDP-In) | | All | Yes |
| PNNL/Computers : DHCPv6 Client (UDP-In) | | All | Yes |
| PNNL/Computers : Multicast (IGMP-In) | | All | Yes |
| PNNL/Computers : Ping (ICMPv4-In) | | All | Yes |
| PNNL/Computers : Ping (ICMPv6-In) | | All | Yes |
| PNNL/Computers/Clients : Communication : ... | | All | Yes |
| PNNL/Computers/Clients : Communication : ... | | All | Yes |
| PNNL/Computers/Clients : Communication : ... | | All | Yes |
| PNNL/Computers/Clients : Communication : ... | | All | Yes |
| PNNL/Computers/Clients : Communication : ... | | All | Yes |
| PNNL/Computers/Clients : Communication : ... | | All | Yes |
| PNNL/Computers/Clients : Communication : ... | | All | Yes |
| PNNL/Computers/Clients : Communication : ... | | Domain | Yes |
| PNNL/Computers/Clients : File Services : AFS ... | | Domain | No |
| PNNL/Computers/Clients : Remote Assistanc... | | Domain | Yes |
| PNNL/Computers/Clients : Remote Assistanc... | | Domain | Yes |
| PNNL/Computers/Clients : Remote Desktop (...) | | Domain | Yes |
| PNNL/Computers/Clients : Remote Desktop (...) | | Domain | Yes |
| PNNL/Computers/Clients : Remote Manage... | | All | Yes |
| PNNL/Computers/Clients : Remote Manage... | | Domain | Yes |
| PNNL/Computers/Clients : Remote Manage... | | Domain | No |
| PNNL/Computers/Clients : Remote Manage... | | Domain | No |
| PNNL/Computers/Clients : Remote Manage... | | Domain | Yes |
| PNNL/Computers/Clients : Remote Manage... | | Domain | No |

Actions

- Inbound Rules**
- New Rule...
- Filter by Profile
- Filter by State
- Filter by Group
- View
- Refresh
- Export List...
- Help

New Inbound Rule Wizard

Rule Type

Select the type of firewall rule to create.

Steps:

- Rule Type
- Protocol and Ports
- Action
- Profile
- Name

What type of rule would you like to create?

Program
Rule that controls connections for a program.

Port
Rule that controls connections for a TCP or UDP port.

Predefined:
AllJoyn Router
Rule that controls connections for a Windows experience.

Custom
Custom rule.

< Back **Next >** Cancel

New Inbound Rule Wizard ×

Protocol and Ports

Specify the protocols and ports to which this rule applies.

Steps:

- Rule Type
- Protocol and Ports
- Action
- Profile
- Name

Does this rule apply to TCP or UDP?

TCP

UDP

Does this rule apply to all local ports or specific local ports?

All local ports

Specific local ports:

Example: 80, 443, 5000-5010

New Inbound Rule Wizard ×

Action

Specify the action to be taken when a connection matches the conditions specified in the rule.

Steps:

- Rule Type
- Protocol and Ports
- **Action**
- Profile
- Name

What action should be taken when a connection matches the specified conditions?

- Allow the connection**
This includes connections that are protected with IPsec as well as those are not.
- Allow the connection if it is secure**
This includes only connections that have been authenticated by using IPsec. Connections will be secured using the settings in IPsec properties and rules in the Connection Security Rule node.
Customize...
- Block the connection**

< BackNext >Cancel

New Inbound Rule Wizard ×

Profile

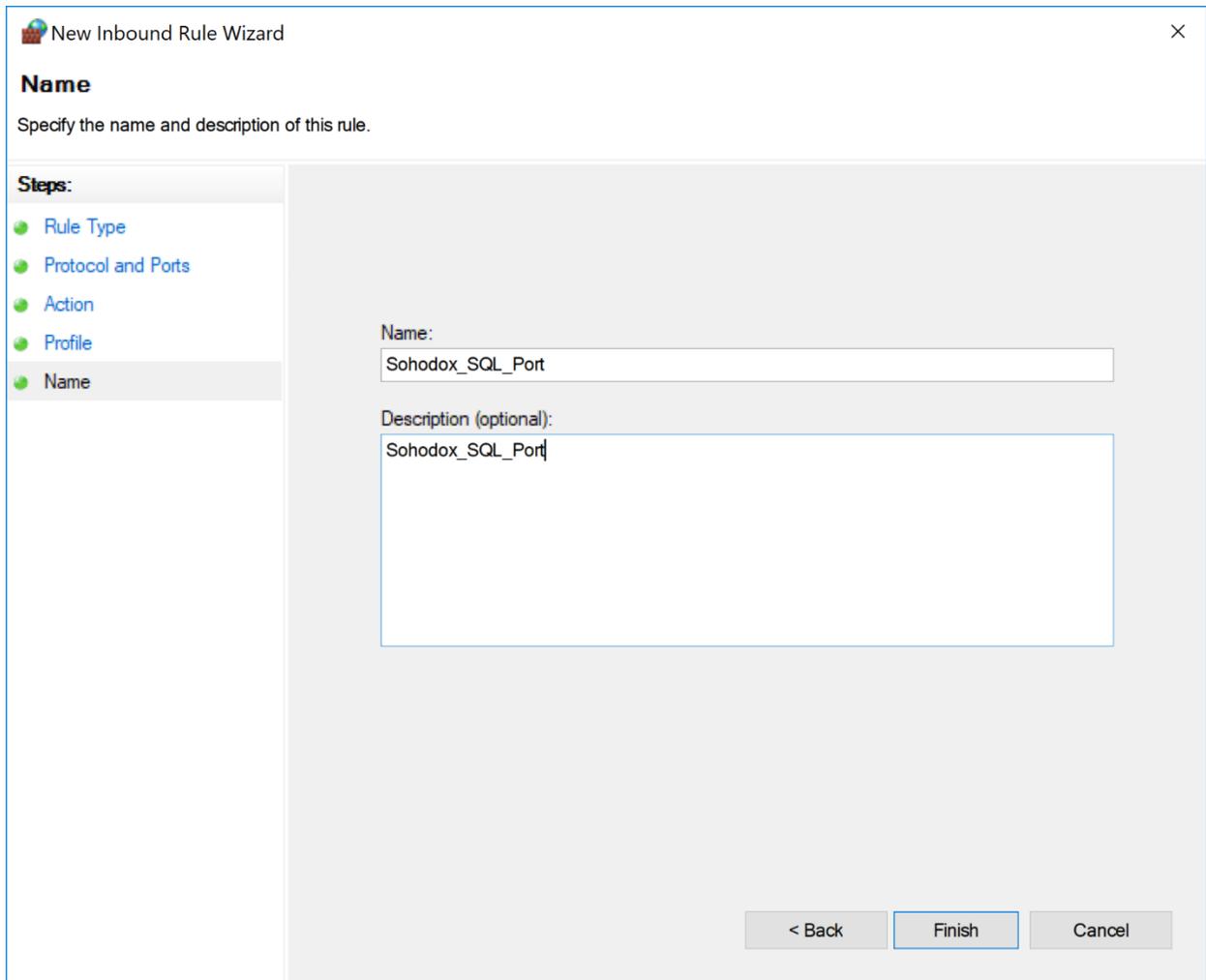
Specify the profiles for which this rule applies.

Steps:

- Rule Type
- Protocol and Ports
- Action
- Profile
- Name

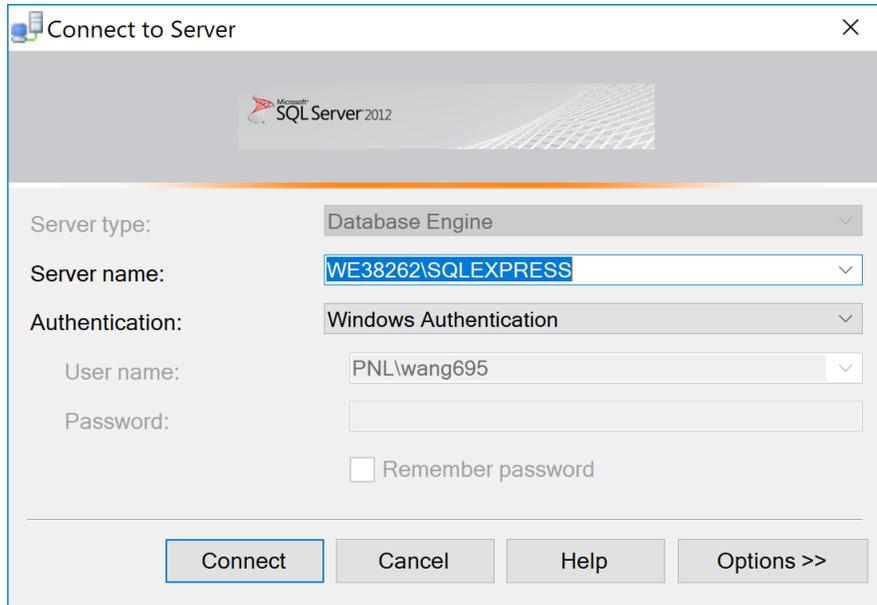
When does this rule apply?

- Domain**
Applies when a computer is connected to its corporate domain.
- Private**
Applies when a computer is connected to a private network location, such as a home or work place.
- Public**
Applies when a computer is connected to a public network location.

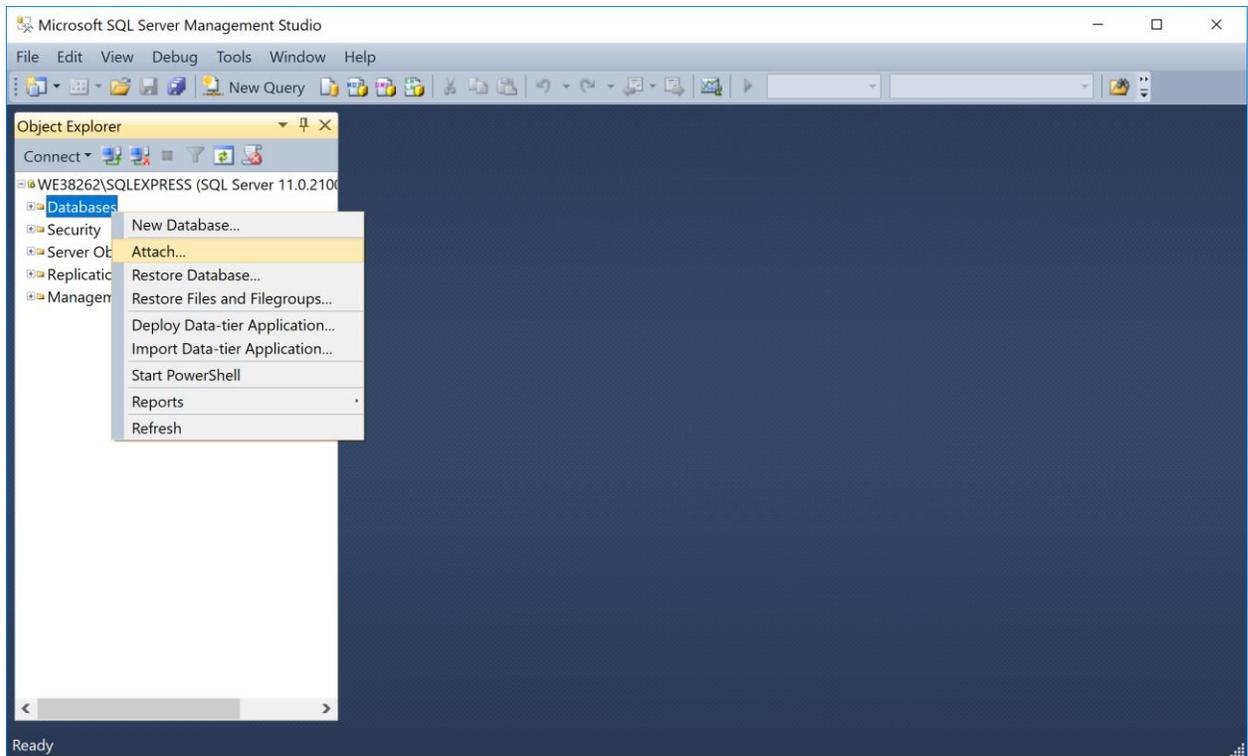


b. Close Window Defender Firewall.

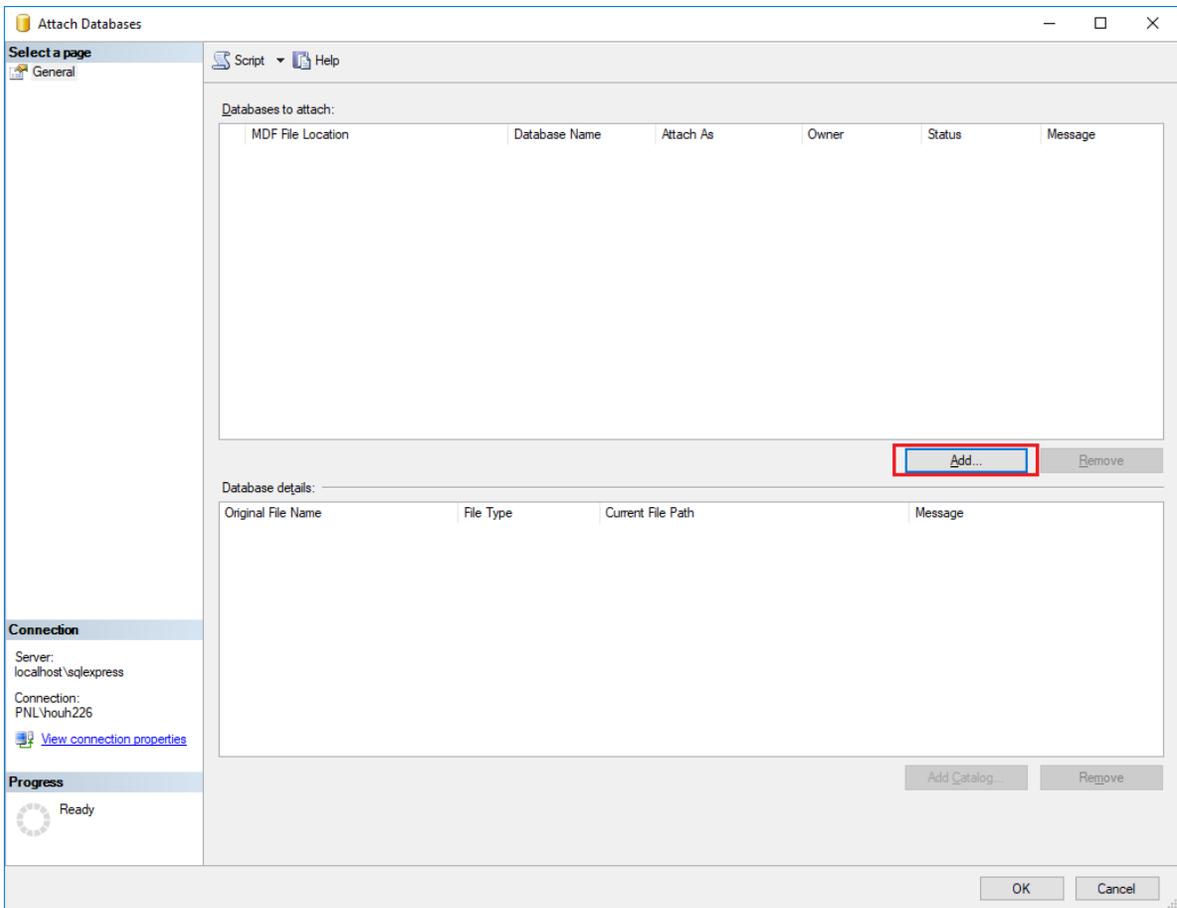
7. Restart computer.
8. Copy and paste "SensorFishDB.mdf" and "SensorFishDB_log.ldf" files from the unzipped HBET_V2_Installer file folder into "C:\Program Files\Microsoft SQL Server\MSSQL11.SQLEXPRESS\MSSQL\DATA".
9. Open Microsoft SQL Server Management Studio from Start > Microsoft SQL Server 2012 > SQL Server Management Studio and follow screenshots below to attach the Sensor Fish database.

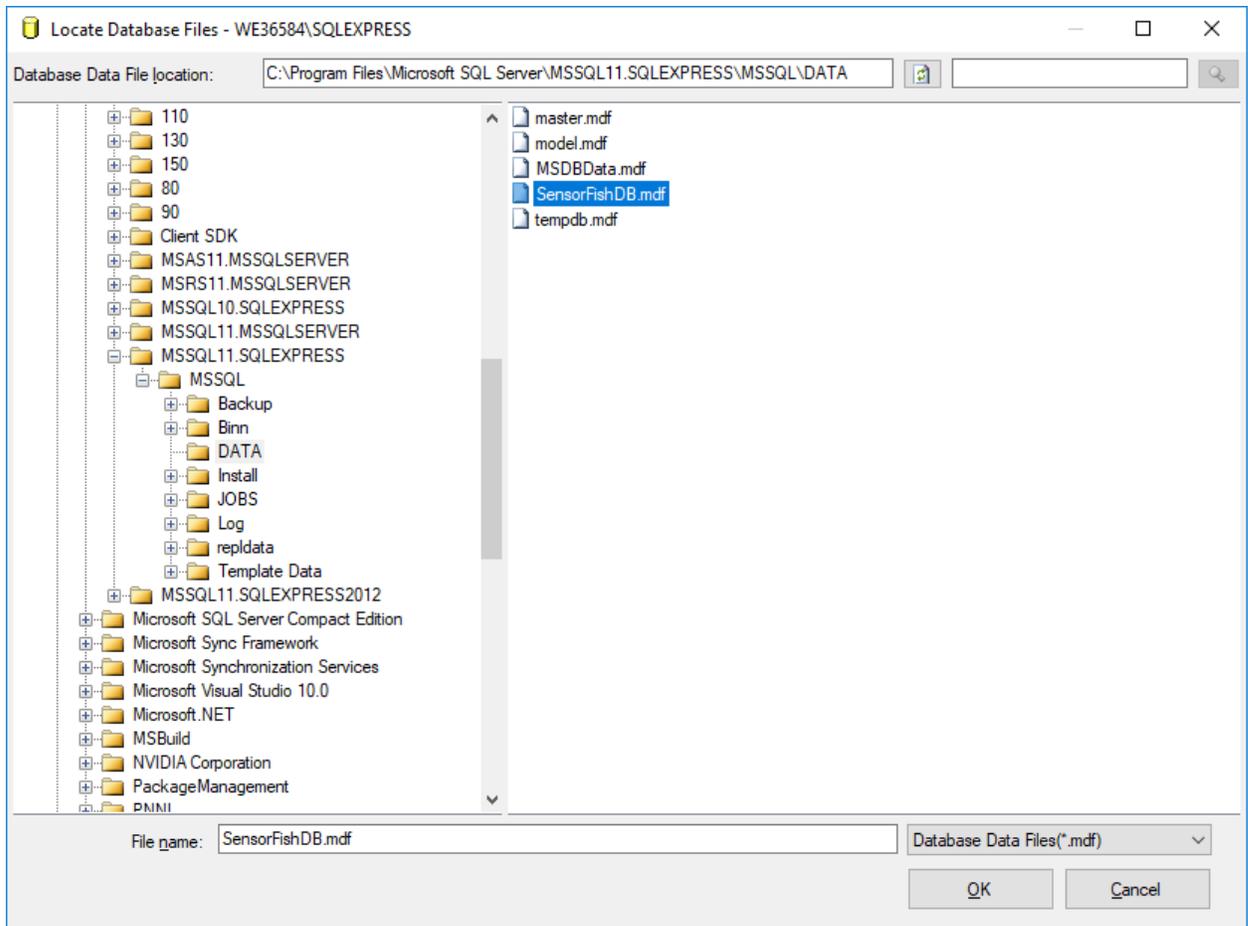


a. Connect to the server.

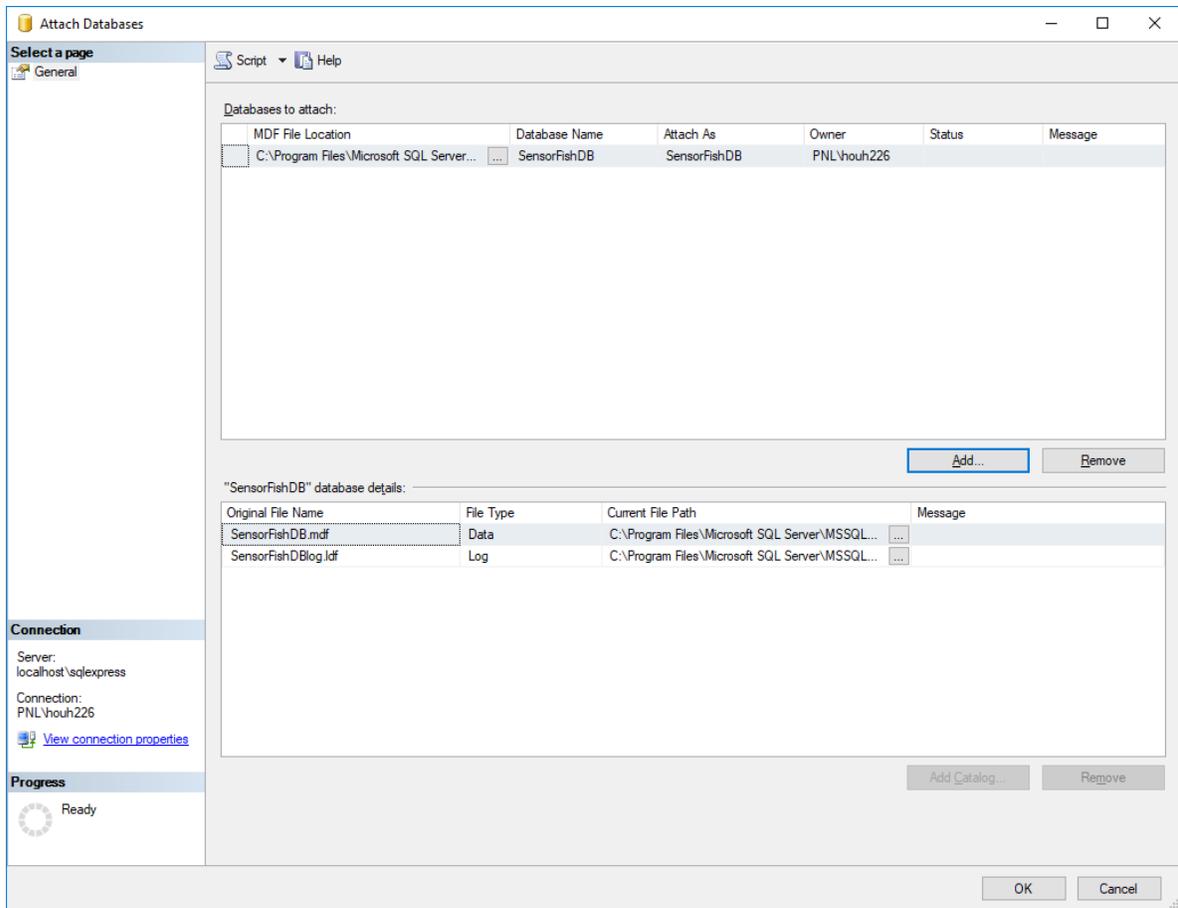


b. Right click Database and select Attach to open the following Attach Databases window.





- c. Select Add, choose the appropriate Selected path and enter the file name with expanded directory tree in File name to attach SensorFishDB.mdf.



- d. Return to the Attach Databases window, SensorFishDBlog.ldf will be added automatically in the database details.
- e. Click OK and close Microsoft SQL Server Management Studio.

10. Run the HBETools.exe application.

Upgrade from a previous version:

1. Uninstall the previously installed HBET;
2. Double click setup.exe to install the HBET; (By default, the installation folder: C:\Program Files (x86)\PNNL\HBETools);
3. Run HBETools.exe application;
4. Follow instructions on page 3.9 in HBET2.0UserGuide.pdf to export all studies uploaded after the previous installation.

The associated files will be in c:\temp folder. Each exported study will have a separate folder under c:\temp (i.e., c:\temp\teststudy);

And the field sheet file resides in each exported study folder (i.e., c:\temp\teststudy\teststudyfieldsheet.xlsx).

5. Detach the database SensorFishDB (SensorFishDB.mdf) following instructions below:

<https://docs.microsoft.com/en-us/sql/relational-databases/databases/detach-a-database?view=sql-server-ver15>

6. Attach the NEW database SensorFishDB (SensorFishDB.mdf which is included in this package) following instructions below:

<https://msdn.microsoft.com/en-us/library/ms190209.aspx>

***** Make sure to choose the database file SensorFishDB.mdf included in this package *****

7. Run the HBETools.exe application.
8. Follow instruction on page 3.5 in HBET2.0UserGuide.pdf to create corresponding study site, study name; then upload files that have been exported studies in step 4.

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