

KELTON MeterManager™

Server Installation Manual

This document outlines the server installation process for KELTON MeterManager™.

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1 Revision Control

Rev	Issue date	Description	Prepared	Approved
1	May 2013	Initial release	IB	MH
1.1	Aug 2016	Updated to reflect SQL 2008 obsolescence	MH	MH
1.2	Sept 2016	Reformatted	INB	JON
1.3	Nov 2017	Reformatted	KW	JON
1.4	Jul 2018	Updated branding applied	WM	JS
1.5	Sept 2020	Updated 1.8.1	WM	JM
1.6	April 2021	Updated 1.8.2	RJS	JM
1.7	May 2023	Updated for 2.1.0	AN	DL
2.3.1	Feb 2026	Reformatted and updated as per release, new branding applied	AN	DL
2.4.0	29/07/26	Updated as per release.	AP	AN

2 Introduction

This document outlines the steps required to install KELTON MeterManager Server.

2.1 Hardware Specification

The minimum recommended specification for a personal computer (PC) running the KELTON MeterManager Server is as follows:

Processor:	Core i3 (or higher)
Memory RAM:	16 GB (24 GB or higher recommended for optimal performance)
Hard Drive space:	120 GB

2.2 Software Specification

The KELTON MeterManager Server is compatible with Windows 10, Windows 11 and Windows Server 2016 (or higher) operating systems, with both 32-bit and 64-bit versions available.

2.3 Database

KELTON MeterManager uses a SQL database that can be installed on SQL Server 2019 or higher.

If a database is being installed locally Microsoft® SQL Server® Express can be used. The latest version can be downloaded free of charge from the Microsoft website.

2.4 Prerequisites

If you are using OPC which is not installed on the same server, you may need to install OPCEnum. This is a requirement for OPC server detection and not a Kelton MeterManager requirement. Refer to the "KMM OPC Guide" for more information.

All prerequisites required for installing KELTON MeterManager will be provided by Kelton Support.

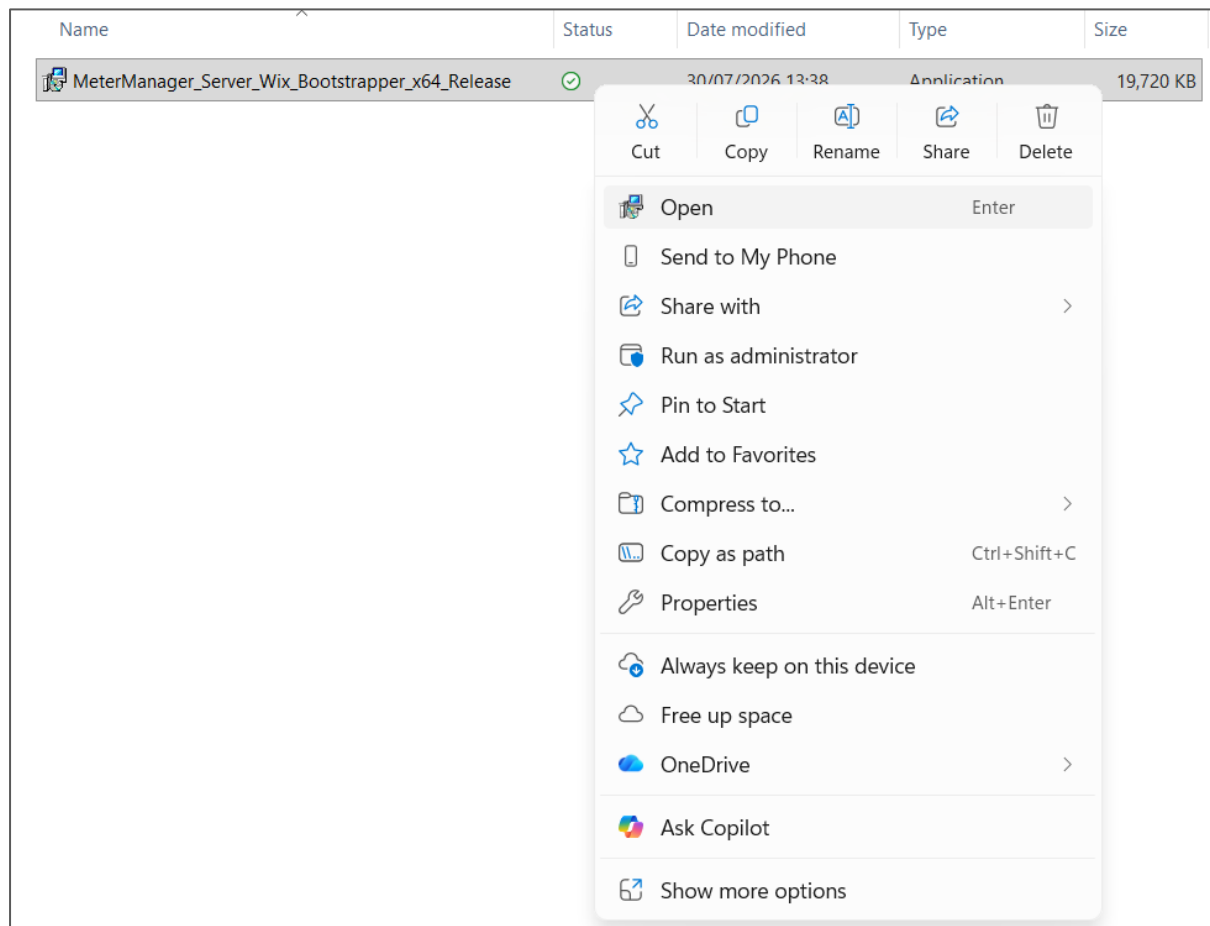
3 Installation

3.1 Previous Versions

Any previous versions of KELTON MeterManager must be fully uninstalled prior to installing a new version.

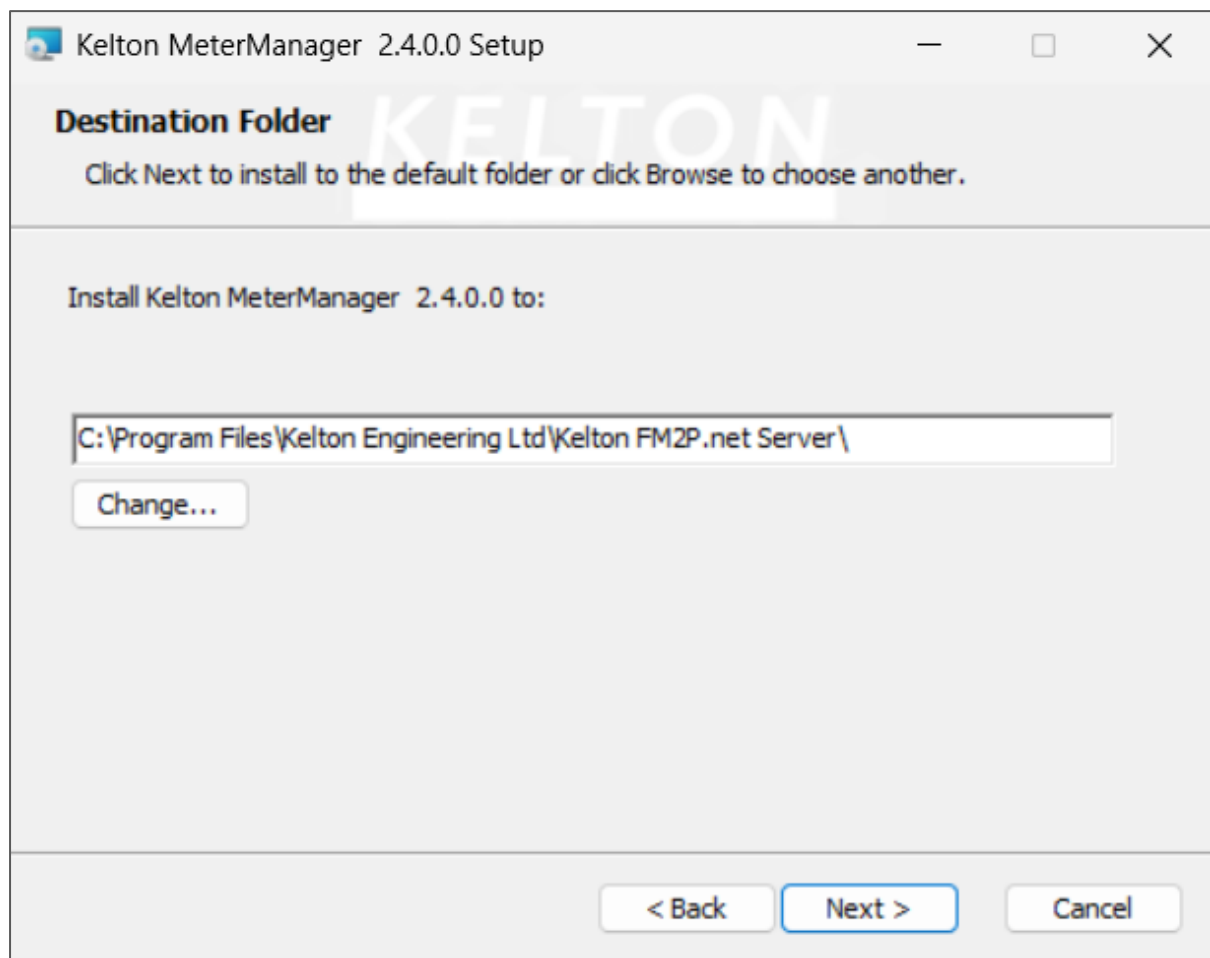
3.2 Run Setup

Run the .exe file as below then select *Install* to commence with the installation.



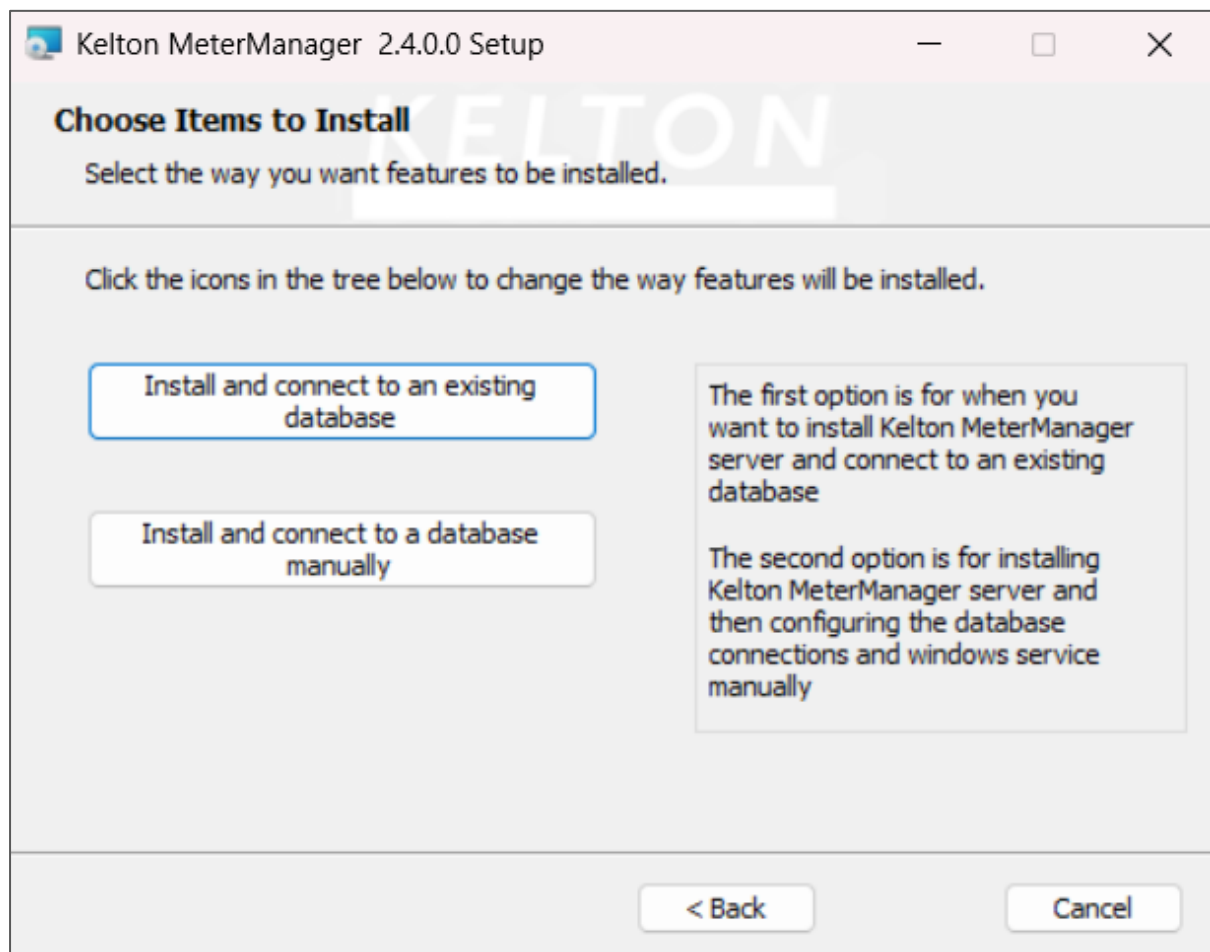
3.3 Select Location for Application

After accepting the licence agreement, an opportunity to change the installation location will be provided. The default location is recommended.



3.4 Select Database Options

There are two options available for installing and connecting to a database.



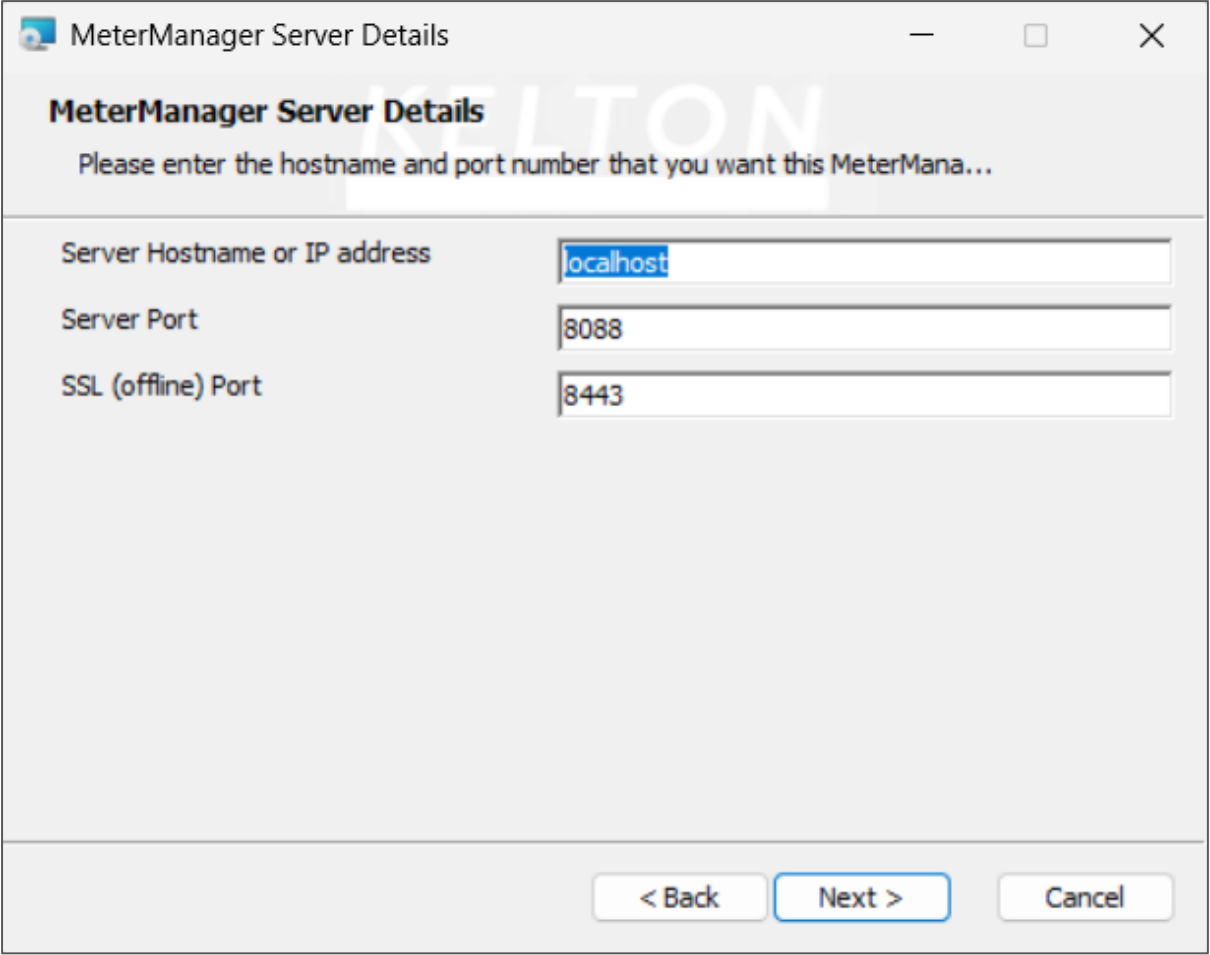
3.4.1 Install and Connect to an Existing Database

This option will allow you to connect to existing database already installed on a server.

The KELTON MeterManager Server can be installed locally on a physical computer or on a virtual machine deployed on the cloud.

The KELTON MeterManager Hostname or IP address should be unchanged for a local installation. A hostname or IP address will be required otherwise.

The default Server and SSL (Offline) ports are 8088 and 8443 respectively. In most installations, the default port should be used unless it conflicts with a port already in use or if multiple KMM instances exist.



The screenshot shows a Windows-style dialog box titled "MeterManager Server Details". The title bar includes a blue icon, the text "MeterManager Server Details", and standard window controls (minimize, maximize, close). The main content area has a header section with the title "MeterManager Server Details" and a subtitle "Please enter the hostname and port number that you want this MeterMana...". Below this, there are three input fields: "Server Hostname or IP address" with the value "localhost", "Server Port" with the value "8088", and "SSL (offline) Port" with the value "8443". At the bottom of the dialog, there are three buttons: "< Back", "Next >" (which is highlighted with a blue border), and "Cancel". A large, semi-transparent "KELTON" watermark is visible in the background of the dialog.

Field	Value
Server Hostname or IP address	localhost
Server Port	8088
SSL (offline) Port	8443

Enter the Database Server Name and select either *Using Windows Authentication* or *Using SQL Server Authentication* which will enable the Username and Password entries.

Enter the Database Name as presented in the SQL Server then select *Test Connection* to verify communication has been established.

Connecting to the database server

Connecting to the database server

Enter authentication information

Database server name: (local)\SQLExpress

Connecting to the server:

☒ Using Windows Authentication

☐ Using SQL Server Authentication

Username:

Password:

Database Name: TestDb

Test connection < Back Next > Cancel

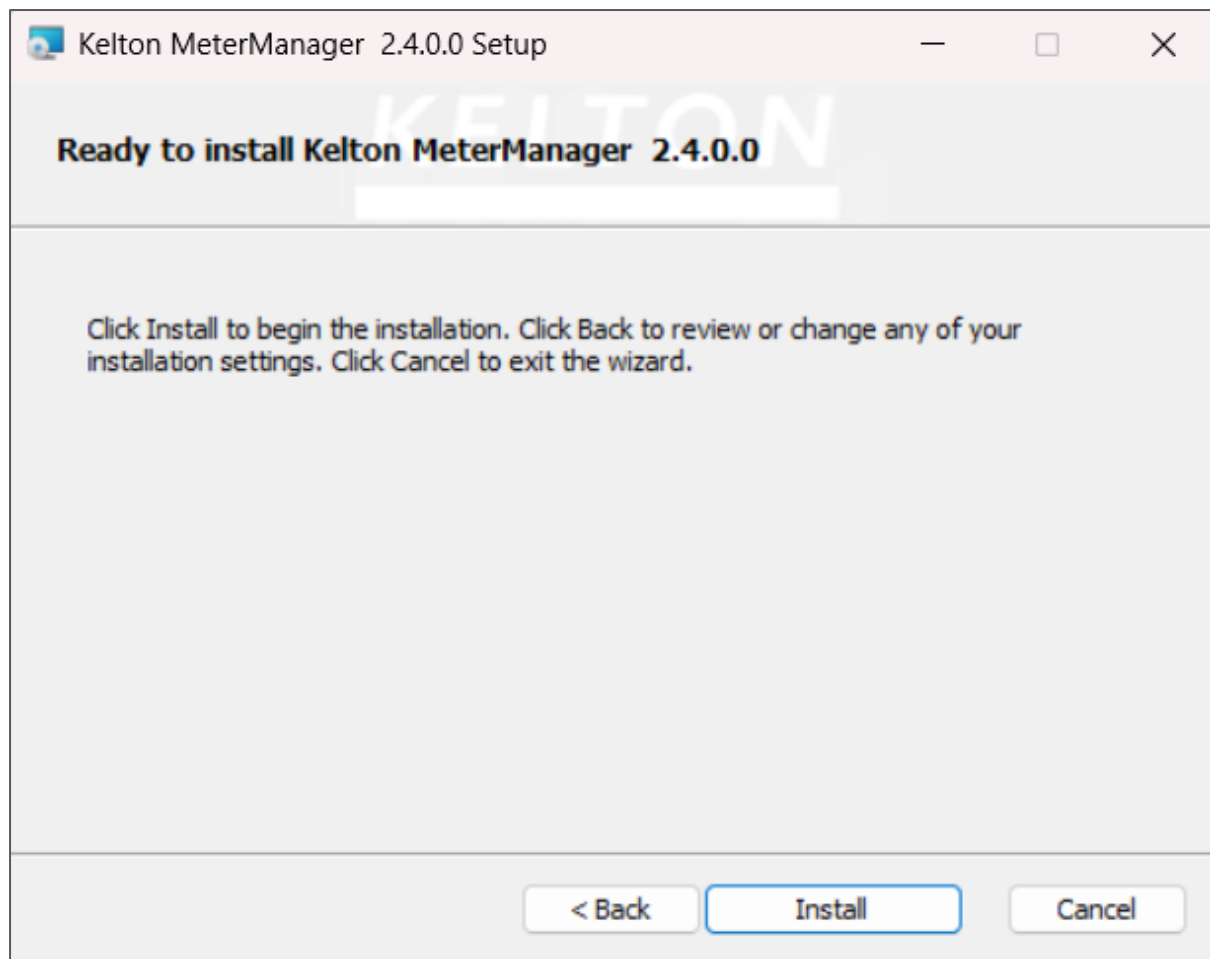
3.4.2 Install and Connect to Database(s) Manually

This option will not step through the process of connecting to the database and the database connections and configuration file will need to be configured manually.

3.5 Completion

Select **Install** to finalise the Installation. Once the Installation has completed successfully, select **Finish** then **Close**.

To complete the installation of your KELTON MeterManager System, please refer to the KELTON MeterManager Client Installation Manual.

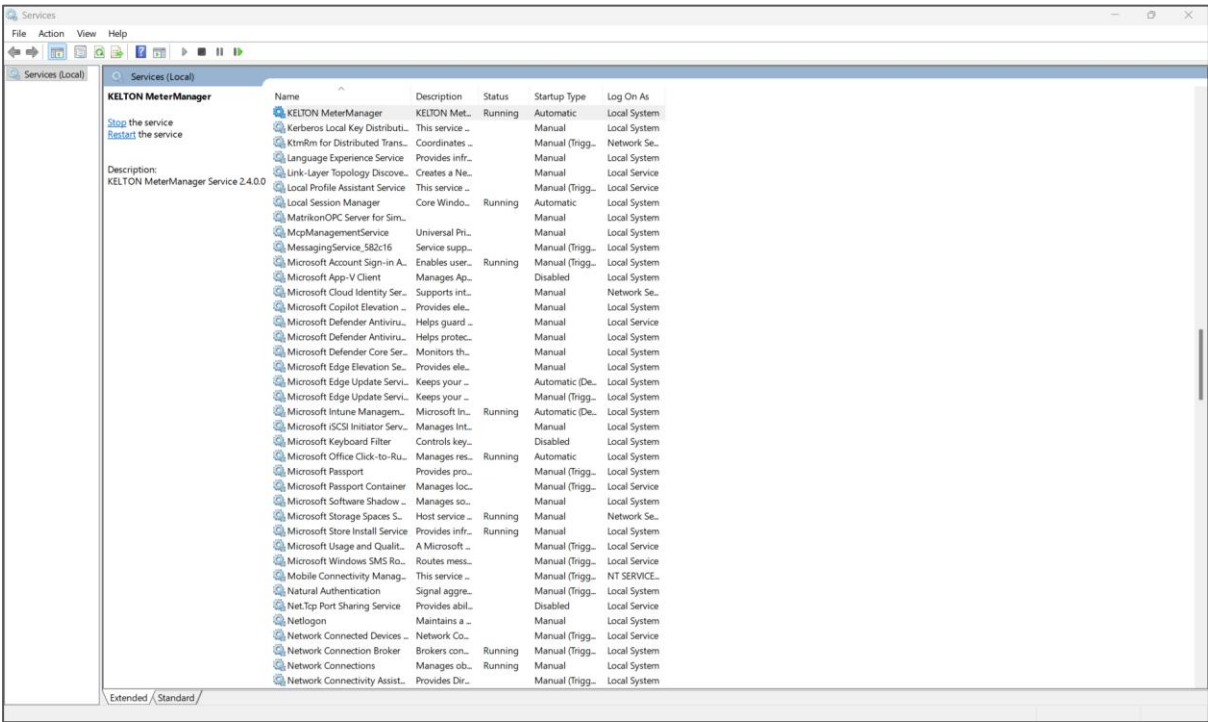


3.6 Confirm Service Status

The Windows Service KELTON MeterManager Service will be created on successful completion of the installation.

Verify the KELTON MeterManager Service has started before using the software.

Note: KELTON MeterManager needs to be run as an account which has read/write access to the database.

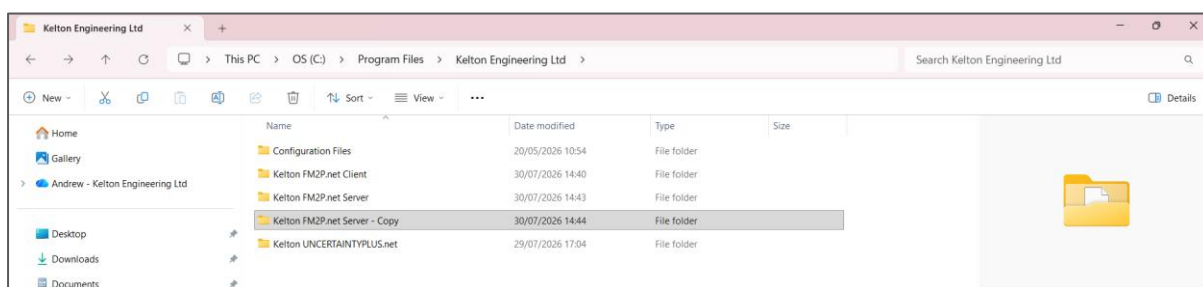


4 Configuring Multiple Services

Multiple instances of KELTON MeterManager Server can be hosted on the same server computer. Each instance can be configured to connect to a different database.

4.1 Copy the Server Installation Folder

Copy the Server installation folder and paste this alongside the original. This can be renamed as desired to identify the name of the specific site or database.



4.2 Edit the Server1.config File

In the new (copied) folder, open the **Server1.config** file and update the following settings:

1. Update the port numbers to ensure they do not conflict with the existing service or other applications.
2. Update the database connection string so that the new instance points to the required database.

The fields that require changing are highlighted in the screenshots below.



```

</fm2p>
<hibernate-configuration xmlns="urn:hibernate-configuration-2.2">
  <session-factory>
    <property name="generate_statistics">false</property>
    <property name="dialect">NHibernate.Dialect.MsSql2008Dialect</property>
    <property name="connection.provider">Kelton.Base.Service.ConnectionProviderHibernate, Kelton.Base</property>
    <property name="proxyfactory.factory_class">NHibernate.ByteCode.Castle.ProxyFactoryFactory, NHibernate.ByteCode.Castle</property>
    <property name="connection.driver_class">NHibernate.Driver.SqlClientDriver</property>
    <property name="connection.connection_string">Data Source=localhost\\sqlserver;Initial Catalog=TestDB;Trusted_Connection=True;</property>
    <property name="connection.isolation">ReadCommitted</property>
    <property name="show_sql">false</property>
  </session-factory>
</hibernate-configuration>

<log4net>
  <appender name="DebugStatements" type="log4net.Appender.ConsoleAppender">

```

Notes:

- If you are unable to save changes directly to the file due to insufficient permissions, open Notepad using *Run as administrator* and then edit the file.
- Alternatively, copy this file to a temporary location, make the required changes, save the file and then copy it back to its original location.

4.3 Create a New Service

A separate Windows service must be created for each additional KELTON MeterManager Server instance.

The command parameters are described below.

Parameter	Description	Example
<InstanceName>	This is a unique identifier used by Windows to identify each service. This value must be different for each KELTON MeterManager instance.	MeterManagerServer2
<ServicePath>	This is the path to the <i>WindowsWcfServiceHost.exe</i> file in the relevant copy of the installation folder.	C:\Program Files\Kelton Engineering Ltd\Kelton FM2P.net Server Facility 2\WindowsWcfServiceHost.exe
<DisplayName>	This is the service name displayed within the Windows Service list. The primary installation will show this as KELTON MeterManager	Kelton MeterManager Facility 2

After replacing the parameters with the appropriate values, use the following command to create the service:

sc create <InstanceName> binpath= <ServicePath> displayname= <DisplayName>

The following example creates a service for the Facility 2 server instance.

```
sc create MeterManagerServer2 binpath= "C:\Program Files\Kelton Engineering  
Ltd\Kelton FM2P.net Server Facility 2\WindowsWcfServiceHost.exe" displayname= "Kelton  
MeterManager Facility 2"
```

The command must be run from an elevated command prompt as described below:

- Navigate to C:\Windows\System32
- Right-click *cmd.exe*.
- Select *Run as administrator*
- If prompted by User Account Control, select *Yes*.
- Run the sc create command you have created.

4.4 Confirm the New Service is Installed

Open the Services console (*services.msc*) and confirm that the new service appears in the list. If required, start the service and configure its Startup type (for example, *Automatic*).

4.5 Uninstalling Services

If a service is no longer required, it can be removed using the following command:

```
sc delete <InstanceName>
```

For example: `sc delete MeterManagerServer2`

5 Automatic Service Startup for Local Installations

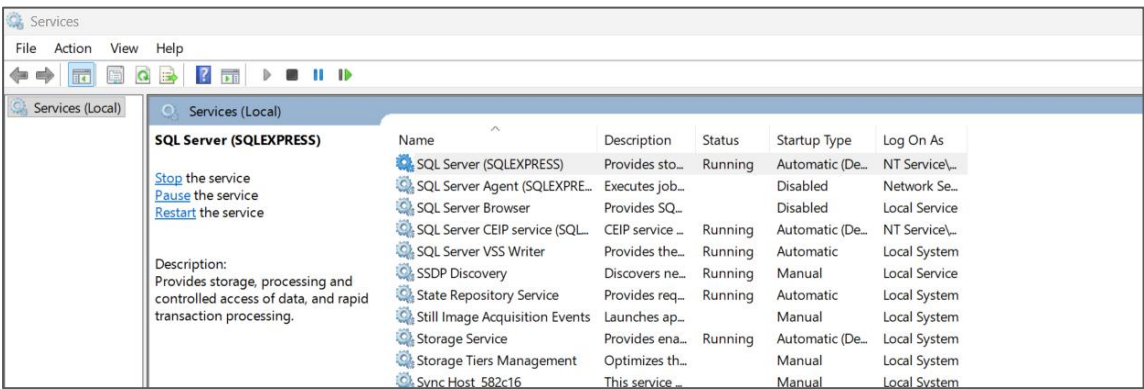
5.1 General

This procedure applies only when the KELTON MeterManager server, client, and SQL database are installed locally on the same PC.

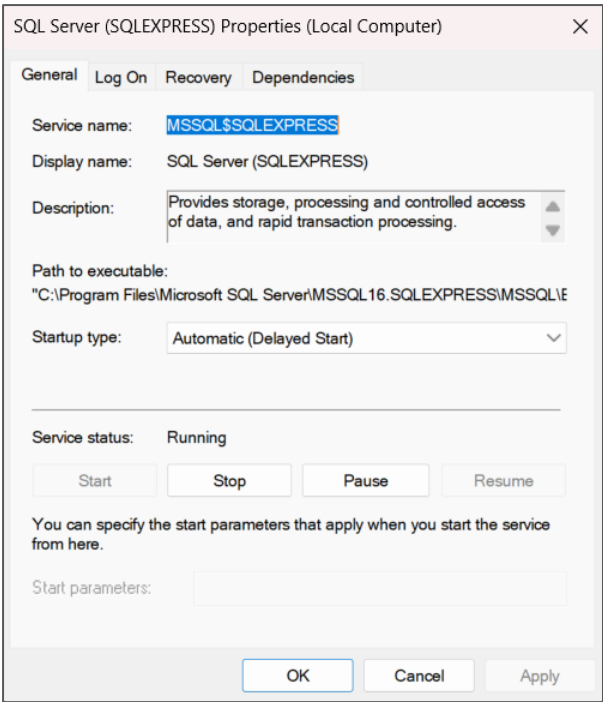
Following this procedure configures the KELTON MeterManager service to start automatically when the computer starts.

5.2 Locate the SQL Server Service

Locate the SQL Server Service being used for Kelton MeterManager.



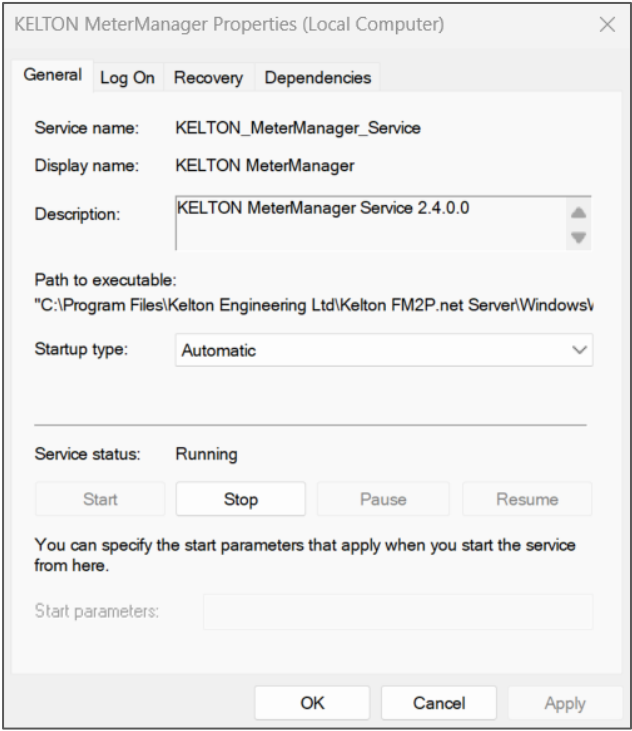
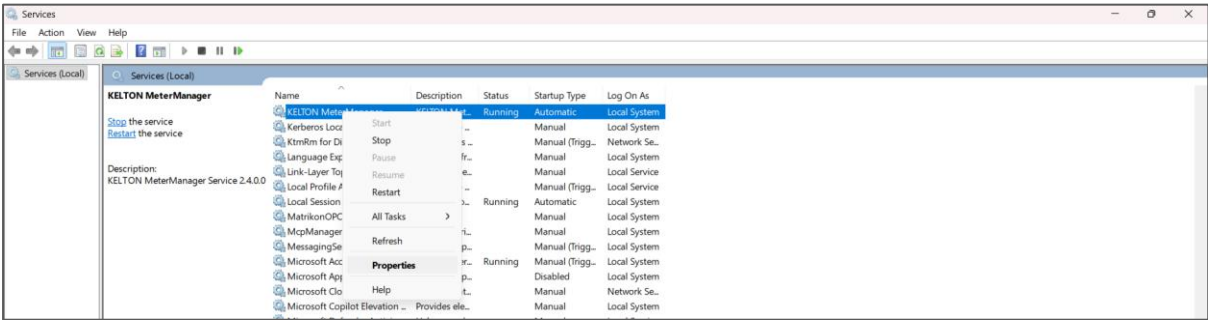
Right-click the service and select *Properties* to determine the service name.



5.3 Locate the KELTON MeterManager Service

Locate the KELTON MeterManager service.

Right-click the service and select *Properties* to determine the service name.



5.4 Configure the Service Dependency

Configure the Kelton MeterManager service to depend on the SQL Server service, by using the following command. Replace the service names with those identified above.

`sc config <MeterManager Server Service name> Depend= <MeterManager SQL service>`

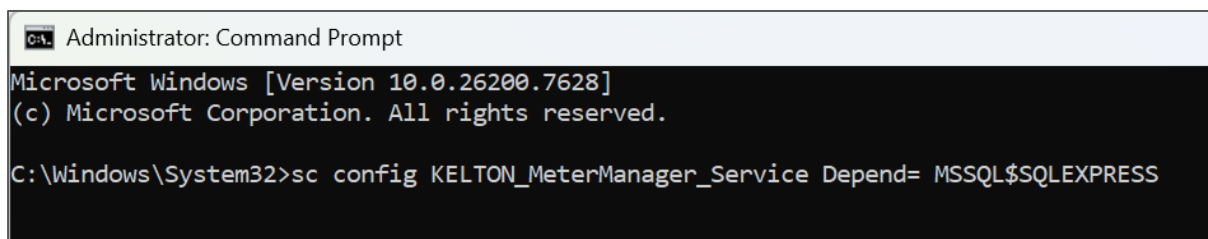
In this example it would be:

`sc config KELTON_MeterManager_Service Depend= MSSQL$SQLEXPRESS`

The command must be run from an elevated command prompt as described below:

- Navigate to `C:\Windows\System32`
- Right-click `cmd.exe`.
- Select *Run as administrator*
- If prompted by User Account Control, select *Yes*.
- Run the `sc config` command you have created.

Note: Quotation marks are required if the service name contains spaces.



5.5 Check the Service Properties

