



# Software Applications

## KELTON MeterManager™ Server Installation Manual

### **Abstract**

This document is the Installation guide for KELTON Fiscal Metering Management Package  
(KELTON MeterManager)

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## 1.0 Revision Control

Rev	Issue date	Description	Prep.	App.
0		Develop Document	MH	
1	May 2013	Issued	IB	MH
2	Aug 2016	Updated to reflect SQL 2008 obsolescence	MH	MH
3	Sept 2016	Reformatted	INB	JON
4	Nov 2017	Reformatted	KW	JON
5	Jul 2018	Updated branding applied	WM	JS

## 2.0 Introduction

### Scope

This document outlines the steps required to install the following KELTON Software Application:  
KELTON MeterManager™ Server V1.6.x (or higher) (formerly FM<sup>2</sup>P™.net)

### Hardware Specification

The minimum recommended specification a personal computer (PC) for installing KELTON MeterManager Software Applications is:

- Processor: Core i3 (or higher)
- Memory RAM: 4 GB
- Hard Drive space: 50 GB

### Software Specification

The following operating systems are supported:

- Windows 7 Professional x86 (32-Bit) & x64 (64-Bit)
- Windows 8.1 x86 (32-Bit) & x64 (64-Bit)
- Windows 10 x86 (32-Bit) & x64 (64-Bit)

### Database

KELTON MeterManager uses a SQL database that can be installed on SQL Server 2008 or higher.

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

### Prerequisites

All prerequisites required for installing the software are included on the installation disk and will be installed where required.

## 3.0 KELTON MeterManager Server Installation

### Previous Versions

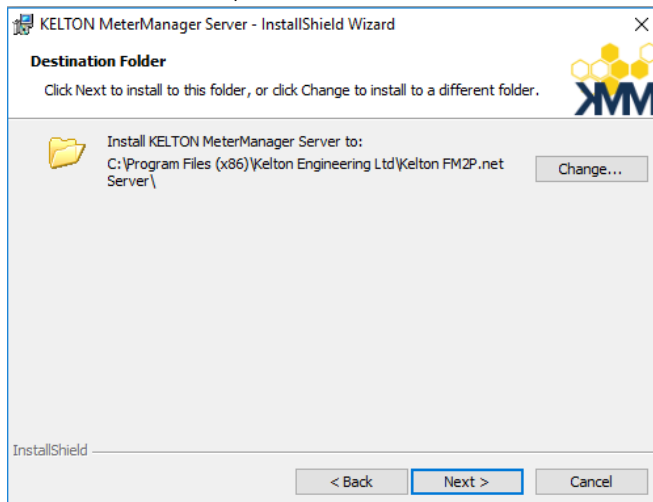
If a version of KELTON MeterManager Server is already installed which is lower than V1.4.0 this must be uninstalled prior to installing the new version. If the installation is an upgrade from Version 1.4.0 or higher then update when prompted by the installer.

## Run Setup

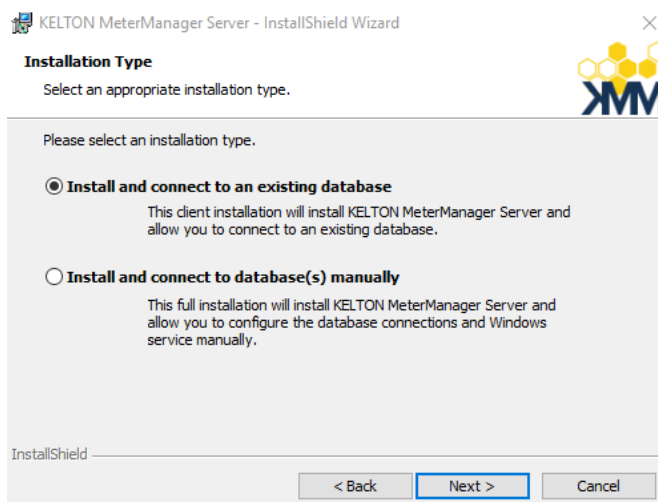
The file *setup.exe* should be run as an Administrator with *Elevated Privileges* by right-clicking and selecting the *Run as administrator* option.

## Select Location for Application

After accepting the licence agreement, an opportunity to change the location where the software is to be installed will be provided. KELTON recommends accepting the default location.



## Select Database Options



There are two options available for the installation:

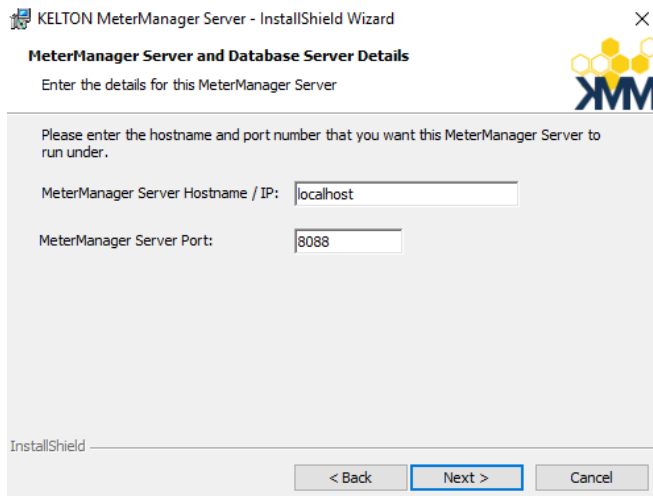
### Install and Connect to an Existing Database

If a database is already installed on a server, select this option and a new database will not be created. This is the option to use if KELTON has supplied a configured database previously.

### Install and Connect to Database(s) Manually

This option will not step through the process of connecting to the database.

## Server Details



The selected computer on which the KELTON MeterManager Server software is installed can be Physical or Virtual but does not require a 'Server' Operating System.

### KELTON MeterManager HOSTNAMES/IP

The KELTON MeterManager Hostname/IP entry should be unchanged.

### KELTON MeterManager Server Port

The KELTON MeterManager Server Port can be changed if required, but generally the default would be used unless it conflicts with a port which is already assigned.

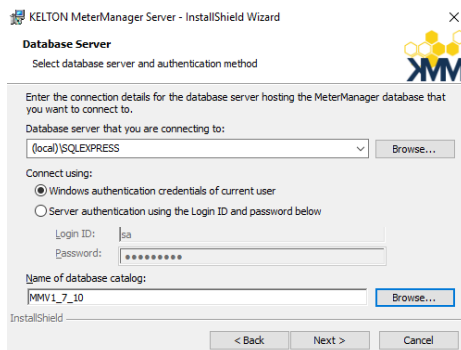
## Choose Database Server

### New Database

Browse to the selected database server to create the new database and enter the name for the database to be created.

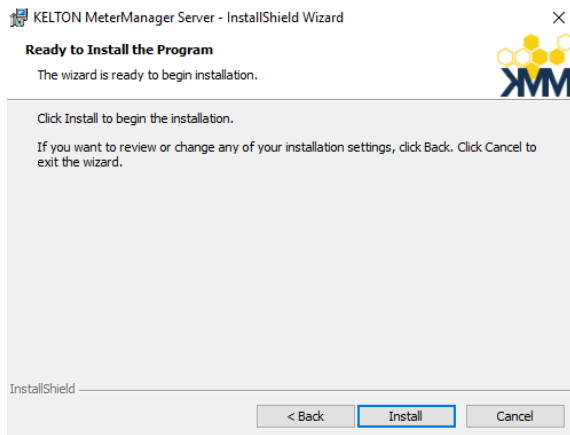
### Existing/Configured Database

If in Section 3 it was decided to connect to an existing database, this screen will enable the selection of the database to connect to.



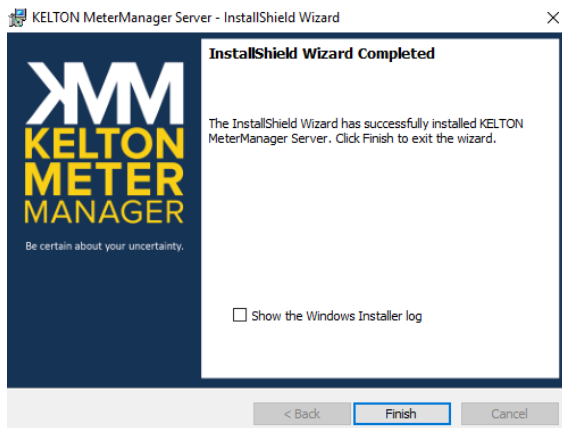
## Install

The KELTON MeterManager Server application is ready to be installed.



### Confirmation of a Successful Installation

The window below is displayed when the installation has successfully been completed.



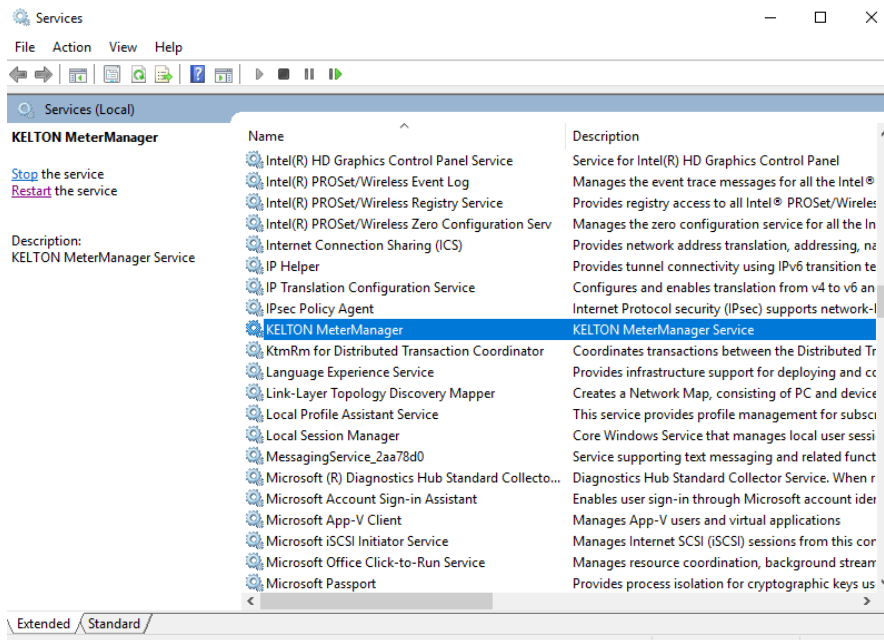
This is confirmed by the creation of a Windows Service 'KELTON MeterManager Service', which is started automatically on the selected machine.

The Windows Service is covered in the following sections.

### Confirm Service Status

Once this window is displayed, open the Services Management Console and check that the 'KELTON MeterManager Service' has started.

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



## Complete the Installation of your KELTON MeterManager System

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

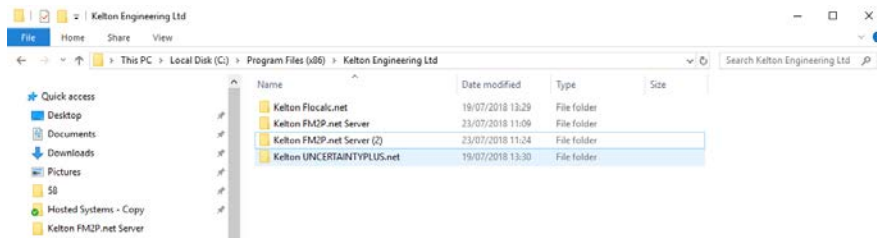
## 4.0 Multiple KELTON MeterManager Services on the Same KELTON MeterManager Server Computer

### General

Multiple instances of KELTON MeterManager Server can be hosted on the same KELTON MeterManager Server computer, each to point to different databases, as shown below.

### Copy the Server Installation Folder

Copy the folder KELTON MeterManager Server. This can be renamed as desired to identify the name of the specific site / database.



### Edit the 'Server1' Configuration File

In the new (copied) folder edit the file Server1.config

Two edits are required

- Change the port number
- Change the database connection string

```

server1.config - Notepad
File Edit Format View Help
<?xml version="1.0"?>
<configuration>
  <configSections>
    <sectionGroup name="fm2p">
      <section name="cronServices" type="System.Configuration.NameValueSectionHandler"></section>
    </sectionGroup>
    <section name="hibernate-configuration" type="NHibernate.Cfg.ConfigurationSectionHandler, NHibernate"></section>
    <section name="log4net" type="log4net.Config.Log4NetConfigurationSectionHandler, log4net"></section>
  </configSections>
  <startup>
    <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.0"/></supportedRuntime>
  </startup>
  <appSettings>
    <add key="BaseUrl" value="http://localhost:8088/"></add>
    <add key="IAuthenticationProvider" value="Kelton.Administration.Data.NH.NHAuthenticationProvider, Kelton.Administration.Data.NH"></add>
    <add key="IKeltonPrincipalProvider" value="Kelton.Administration.Data.NH.NHKeltonPrincipalProvider, Kelton.Administration.Data.NH"></add>
  </appSettings>
  <fm2p>
    <cronServices>
      <add key="ActiveDirectoryImportUsers" value="1.00:00:00"></add>
      <add key="KlogOpcRuleMonitor" value="0.00:01:00"></add>
      <add key="KlogRuleMonitor" value="0.00:01:00"></add>
      <add key="KtracProveMaxDayExceededMonitor" value="1.00:00:00"></add>
      <add key="KtracProveOpcMonitor" value="0.00:01:00"></add>
      <add key="KtracProveOpcMonitor" value="0.00:00:00"></add>
    </cronServices>
  </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=KE-VSQL01-VH1;Initial Catalog=TS8105;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">

```

The Port Number requires to be altered; as does the SQL Server and Database entries to which connection is to be made; as indicated above.

**NOTES:**

- Opening Notepad with the *Run as administrator* switch as this will allow the edits to be made and saved in-situ.
- Alternatively, first copy this file to a different location to make the edit and copy the file back into place.

**Create a New KELTON MeterManager Server Service**

This requires the following command to be run from a command prompt with *Elevated Privileges* using the *Run As administrator* option as described below:

- Start -> All Programmes -> Accessories.
- Right-click the *Command Prompt* entry.
- Select the *Run As Administrator* option.
- Then enter the details as shown below.

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

For example:

sc create MeterManagerserver2 binpath= "C:\Program Files\Kelton Engineering Ltd\Kelton FM2P.net Server(2)\WindowsWcfServiceHost.exe" displayname= "Kelton MeterManager.net Facility 2"

Where:

<InstanceName>

This is a unique identifier for each service



<ServiceName>.

This is the path to the *WindowsWcfServiceHost.exe* file in the relevant copy of the installation folders which is in this case as detailed below:

C:\Program Files\Kelton Engineering Ltd\Kelton FM2P.net Server(2)\WindowsWcfServiceHost.exe

<DisplayName>.

This is a meaningful name for the service after it is created. In this case the value “Kelton MeterManager Facility 2” is used.

### Confirm the New Service is Installed

Confirm the service is installed by opening the services section under ‘Computer Management’. It is also possible to start the service and choose the start-up type.

### Uninstalling Services

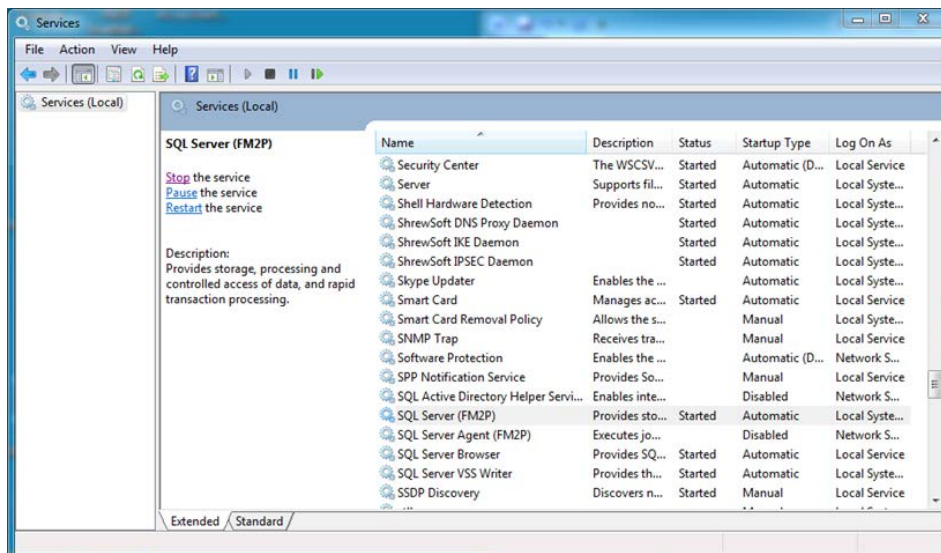
Services can be uninstalled using the ‘sc delete’ command if required.

## 5.0 Automatically Starting KELTON MeterManager Servers (Local Installations Only)

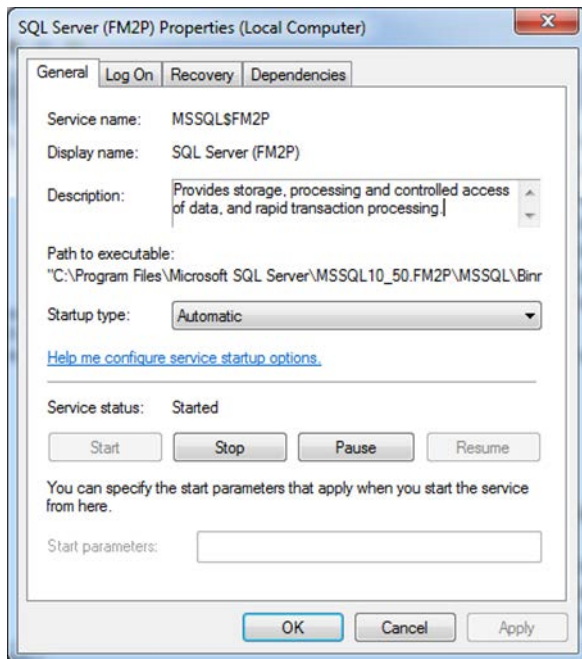
### General

In cases where the KELTON MeterManager server, KELTON MeterManager Client and KELTON MeterManager database are installed to run locally on the same PC, the following procedure can be followed to automatically start the KELTON MeterManager server when the computer is started.

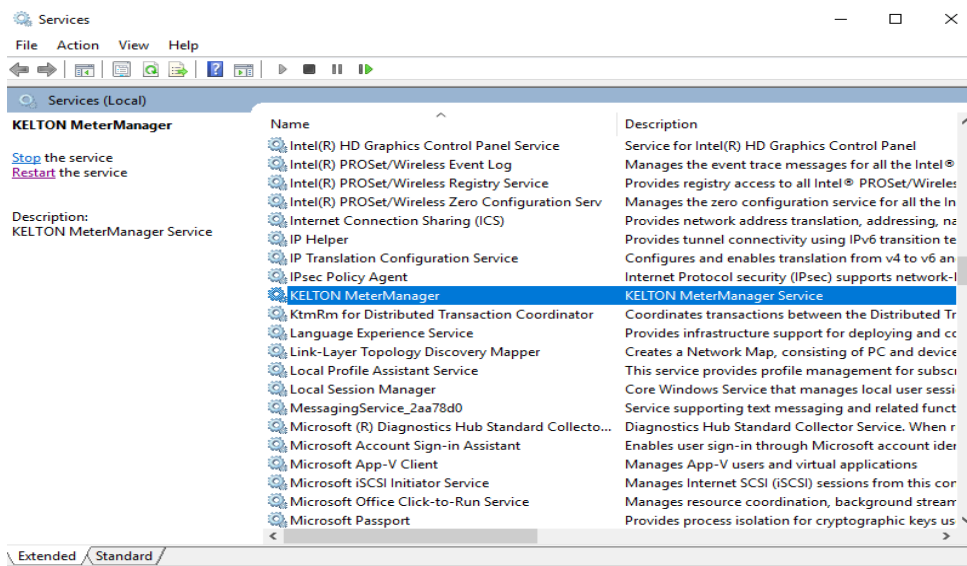
### Locate the KELTON MeterManager SQL Database Service

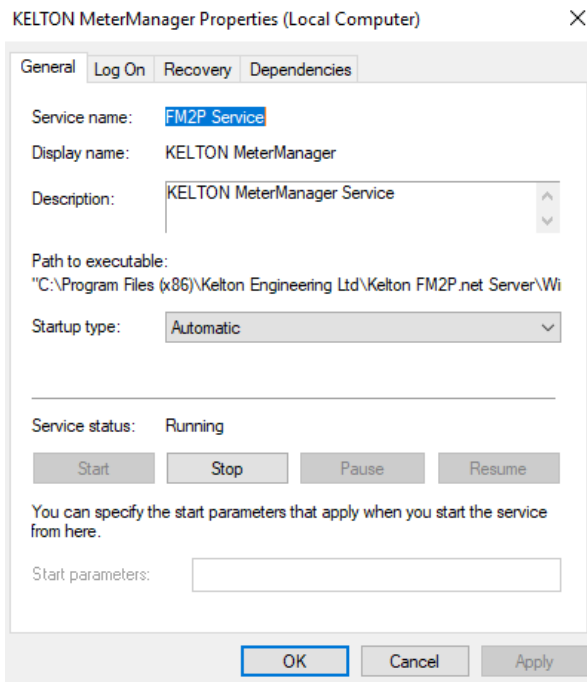


Review properties to determine the service name.



## Locate the KELTON MeterManager Service





### Modify the KELTON Service

Modify the Kelton MeterManager service so that it is dependent on the KELTON MeterManager SQL database service:

Run a command prompt with *Elevated Privileges* as detailed in Section 3

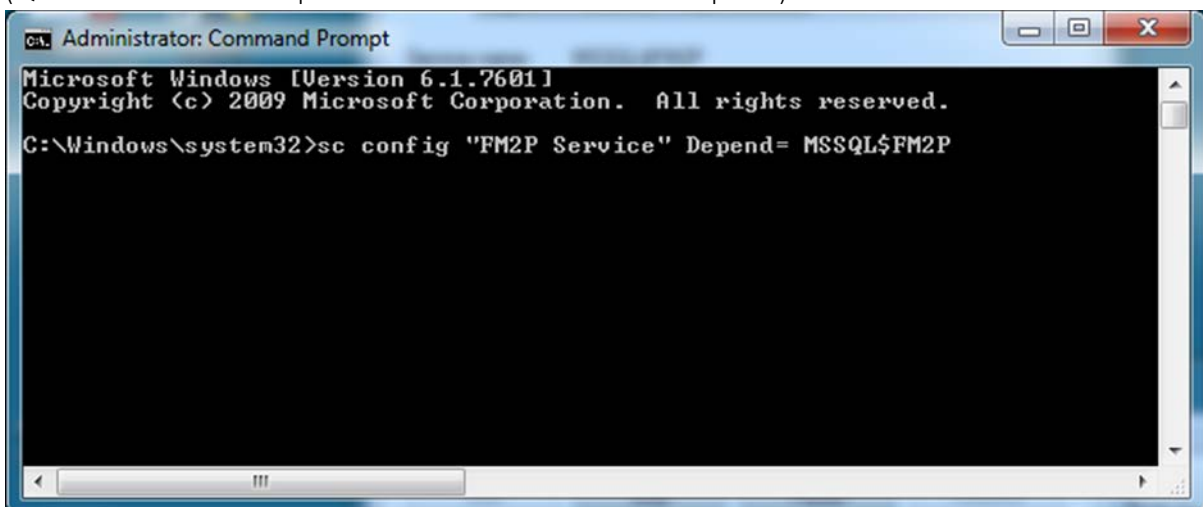
Type the following command:

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

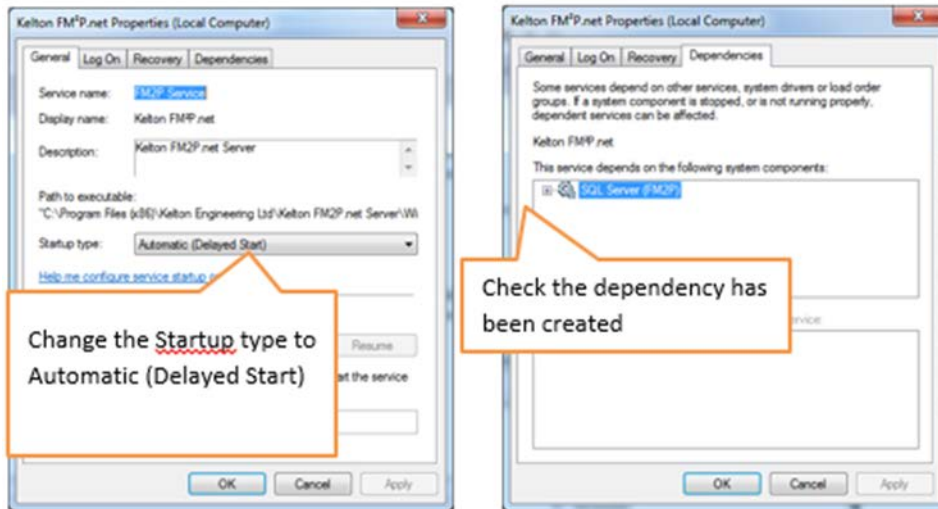
In this example it would be:

```
sc config "FM2P Service" Depend= MSSQL$FM2P
```

(Quotation marks are required if the server name contains spaces)



## Check the KELTON MeterManager Service Properties



## 6.0 Running Scripts on KELTON MeterManager Databases

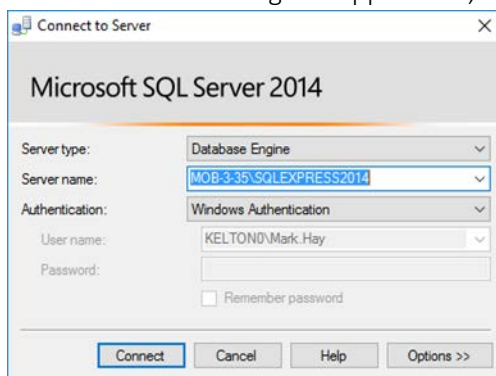
### Introduction

As new versions of KELTON MeterManager are released to include new features, changes to the structure (schema) of the database may be required. These changes can be applied by running scripts on the live database to cause minimal interruption to the application.

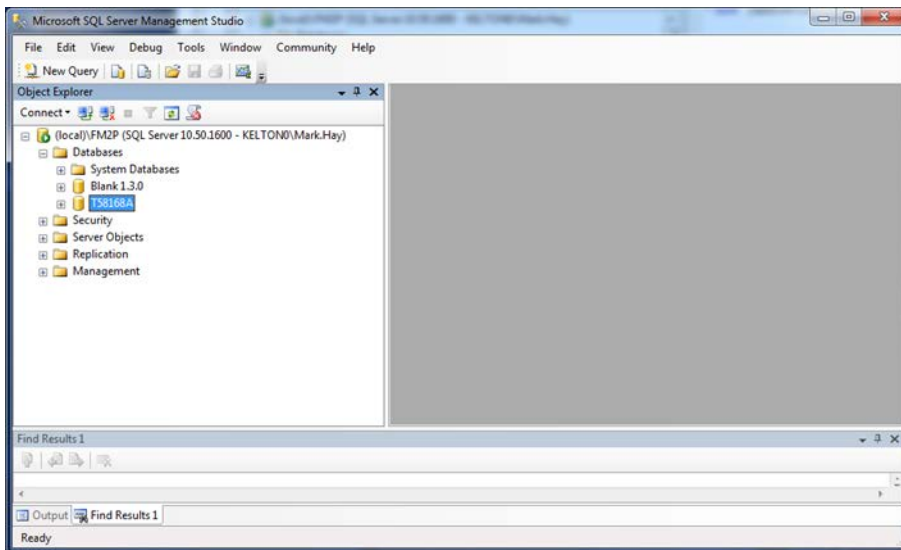
If the database is running on a corporate server, the script will be passed to your Database Administrator (DBA) who will be familiar with the process of running scripts on a SQL Database. This note is designed for cases where the database is installed locally and not managed by a DBA.

### Microsoft SQL Management Studio

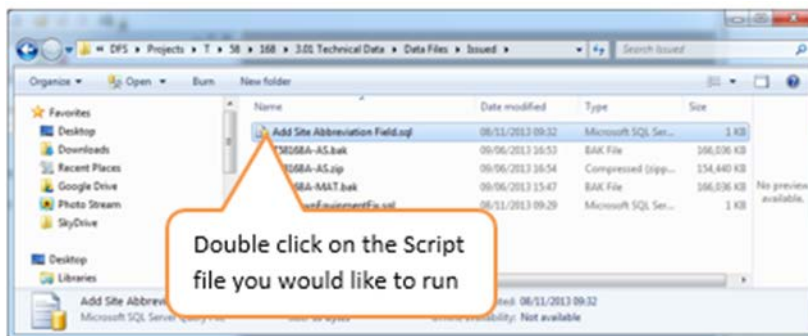
Microsoft SQL Management studio is a free application which can be downloaded from the Microsoft website. When running this application, a prompt will be provided to select a server.



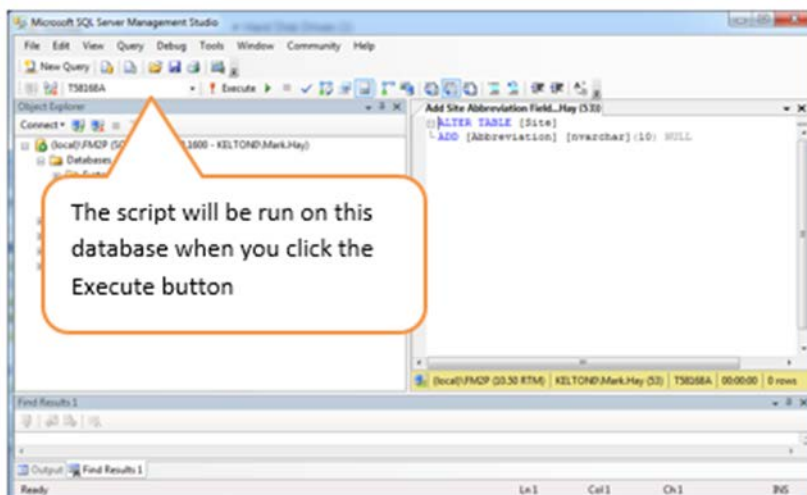
Click the *Connect* button to select the required database:



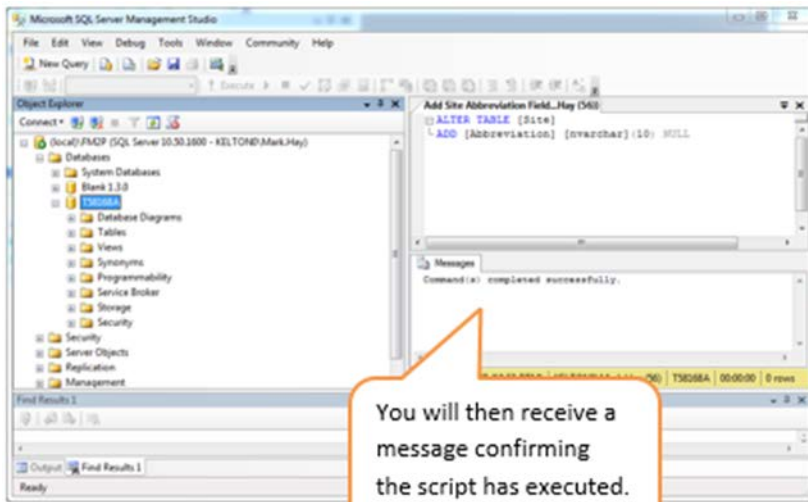
SQL Script files have the extension *.sql*



Double click on the Script file to be run and it will open in the SQL Studio window.



Check the correct database is displayed as shown above and click the *Execute* button.



Repeat the process for all scripts.