



MasterLink R510.4 Installation Guide
80-1062 | V2.0 | 2018

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1 About MasterLink

MasterLink R510.4 provides a single software package to configure, calibrate and access data from gas volume correctors. The software's intuitive dashboard enables users to quickly determine the overall health status of instruments. Employing standardized terminology, it makes it easy to configure and calibrate instruments, import data, and generate reports and graphs, thereby eliminating time-consuming manual effort.

The MasterLink R510.4 software employs a dashboard based design philosophy enabling users to get a one-shot status of connected devices. A gas industry first, the software can connect to the device using a choice of short-range wireless communication protocols. Its dashboard displays information about alarms, battery voltage, audit trail, configuration integrity, firmware status, time sync and live data. This helps the user understand the current condition of the connected device from a holistic point of view.

The MasterLink R510.4 software addresses the increasing adoption of mobile devices for functions like checking the health of field devices, downloading reports, instrument calibration and other activities once performed exclusively on a laptop. The software offers versatile wireless connectivity and is compatible with the latest versions of both the iOS and Android operating systems.

1.1 Features

MasterLink allows users to:

- Define dashboard data (auto) download settings
- Provides a wizard based calibration approach
- Enable SSL encrypted communication with site Over the Air (OTA)
- Enable BLE security
- Secure critical site data
- Download audit, event and alarm log data
- Generate reports such as:
 - Item report
 - Site report
 - Calibration report
 - Short List report
 - Audit Trail reports
 - Event Log report
 - Alarm Log report
 - Activity Log report
 - Cellular Log report
 - Diagnostic Log report

- Perform Database Administrative tasks such as
 - CSD (Comma Separated Data) Conversion
 - Import/Export instrument data
 - Import/Export site data
- Perform instrument and modem firmware updates
- Capture live data and plot graphs
- Plot graph over Audit Trail data
- Perform role based user administration for MasterLink
- Administer access privileges for device level functions by sending user table
- Configure communication settings
- Perform offline log-in configuration and send to instrument when connected

1.2 Security Considerations

- It is recommended to use the Cloud Link 4G modem in integrated mode with EC 350 for better Bluetooth security during pairing
- For data protection, it is recommended to provide full privileges to the *ProgramData\Honeywell\MasterLink* folder only to appropriate MasterLink users
- All files transferred to an Android device for use by MasterLink must be deleted after use to ensure that there is no data loss / leak
- It is recommended to keep the Android phone or iPhone used for MasterLink updated with the security patches released by the respective platforms
- It is also recommended to enable SSL for secure communication with MasterLink R510.4

2 Installation

This chapter describes the installation of MasterLink software.

2.1 Interoperability with SuiteSQL

MasterLink R510.1 can coexist with Suite SQL.

New MasterLink R510.1 can be used with either SQL database Server or SQLite database.

If a single data source is preferred with an existing MasterLink SQL installation, please choose SQL Server as a database option during MasterLink R510.1 installation.

2.2 Before you install

Here are the recommended system specifications:

Stand Alone Central Server Configuration

| Component | Requirement |
|------------------|--|
| CPU | Quad Core and above |
| RAM | 8 GB and above |
| Disk Space | 80 GB and above |
| Operating System | Windows Server 2012 – SP1 (Standard, Essentials) : 64 bit Windows Server 2012 R2 –SP1 (Standard, Essentials) : 64 bit Windows Server 2016 (Standard, Essentials) : 64 bit |
| Database | SQL Server 2008 R2 (Standard, Enterprise) : 32 bit SQL Server 2012 (Standard, Enterprise) : 32 bit SQL Server 2014 (Standard, Enterprise) : 32 bit SQL Server 2008 R2 (Standard, Enterprise) : 64 bit SQL Server 2012 (Standard, Enterprise) : 64 bit SQL Server 2014 (Standard, Enterprise) : 64 bit SQL Server 2016 (Standard, Enterprise) : 64 bit SQL Server 2017 (Standard, Enterprise) : 64 bit |
| Web Server | Internet Information Server (IIS) 8.0 |

Database Server Configuration

| Component | Requirement |
|-----------|---------------------|
| CPU | Quad Core and above |

| Component | Requirement |
|------------------|--|
| RAM | 8 GB and above |
| Disk Space | 80 GB and above |
| Operating System | Microsoft Windows 2008 Standard Edition 32 bit Microsoft Windows 2008 Standard Edition 64 bit Microsoft Windows 2008 R2 Standard Edition 32 bit Microsoft Windows 2008 R2 Standard Edition 64 bit Windows Server 2012 – SP1 (Standard, Essentials) : 64 bit Windows Server 2012 R2 –SP1 (Standard, Essentials) : 64 bit Windows Server 2016 (Standard, Essentials) : 64 bit |
| Database Server | SQL Server 2008 R2 (Standard, Enterprise) : 32 bit SQL Server 2012 (Standard, Enterprise) : 32 bit SQL Server 2014 (Standard, Enterprise) : 32 bit SQL Server 2008 R2 (Standard, Enterprise) : 64 bit SQL Server 2012 (Standard, Enterprise) : 64 bit SQL Server 2014 (Standard, Enterprise) : 64 bit SQL Server 2016 (Standard, Enterprise) : 64 bit SQL Server 2017 (Standard, Enterprise) : 64 bit |

Note: If you are using a database instance on your network, you need to have domain user permission.

Application/ Web Server Configuration

| Component | Requirement |
|------------------|---|
| CPU | Quad Core and above |
| RAM | 8 GB and above |
| Disk Space | 80 GB and above |
| Operating System | Windows Server 2012 – SP1 (Standard, Essentials) : 64 bit Windows Server 2012 R2 –SP1 (Standard, Essentials) : 64 bit Windows Server 2016 (Standard, Essentials) : 64 bit |
| Web Server | Internet Information Server (IIS) 8.0 |

Client Configuration

| Component | Requirement |
|------------------|--|
| CPU | Dual Core and above |
| RAM | 4 GB and above |
| Disk Space | 40 GB and above |
| Operating System | <p>Windows 7 – SP2 / Convenience rollup (Professional, Enterprise, Ultimate) : 32bit, 64 bit</p> <p>Windows 8 – (Core, Pro, Enterprise) : 32bit, 64 bit</p> <p>Windows 8.1 – (Core, Pro, Enterprise) : 32bit, 64 bit</p> <p>Windows 10 – (latest build 2 months before release) : 32bit, 64 bit</p> <p>Windows Vista Standard Edition 32 bit</p> |

Mobile Recommendations

| | |
|---------|--|
| Android | <p>Android OS 4.3x, 4.4.0-4.4.4, 5.0.0-5.0.2, 5.1.x, 6.0</p> <p>RAM: 1 GB onwards Memory: 8 GB onwards</p> <p>Processor Speed: Dual-core 1 GHz onwards</p> <p>Communication BLE compatible</p> <p>General availability of Mail Client required</p> |
| iOS | <p>OS 7.1.x, 8.4.x, 9.1.x, 10.1.x</p> <p>Memory: 8 GB onwards</p> <p>Screen Size: 3.5 inches onwards</p> <p>RAM: 1 GB onwards</p> <p>Communication BLE capability</p> <p>General availability of Mail Client required</p> |

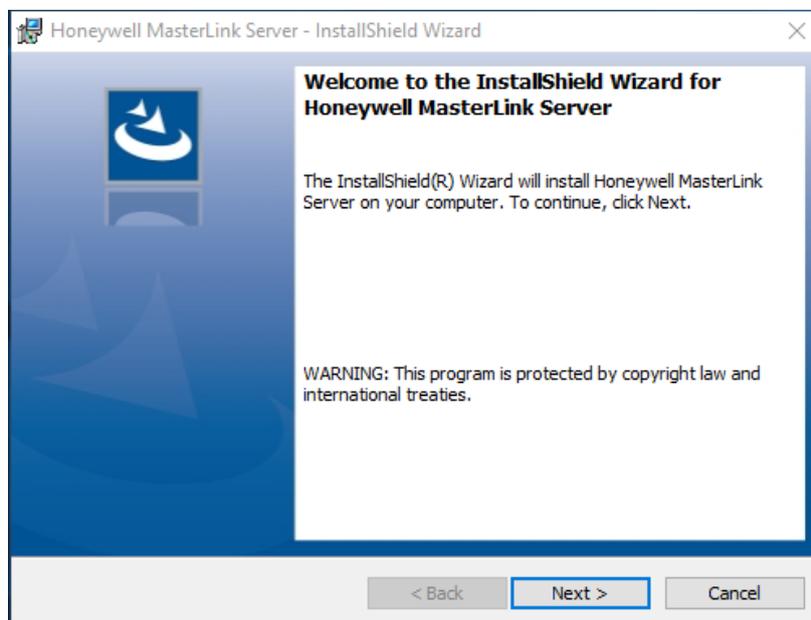
2.3 MasterLink Server Installation

Prerequisites:

Administrative Privileges are required to install the application.

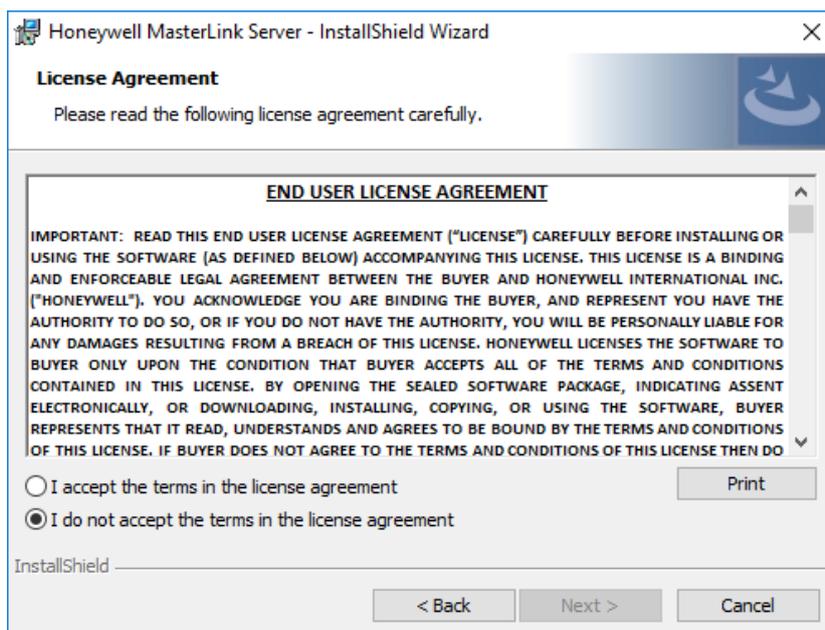
To Install MasterLink Server:

1. Launch the installer. The *MasterLink - InstallShield Wizard* appears.

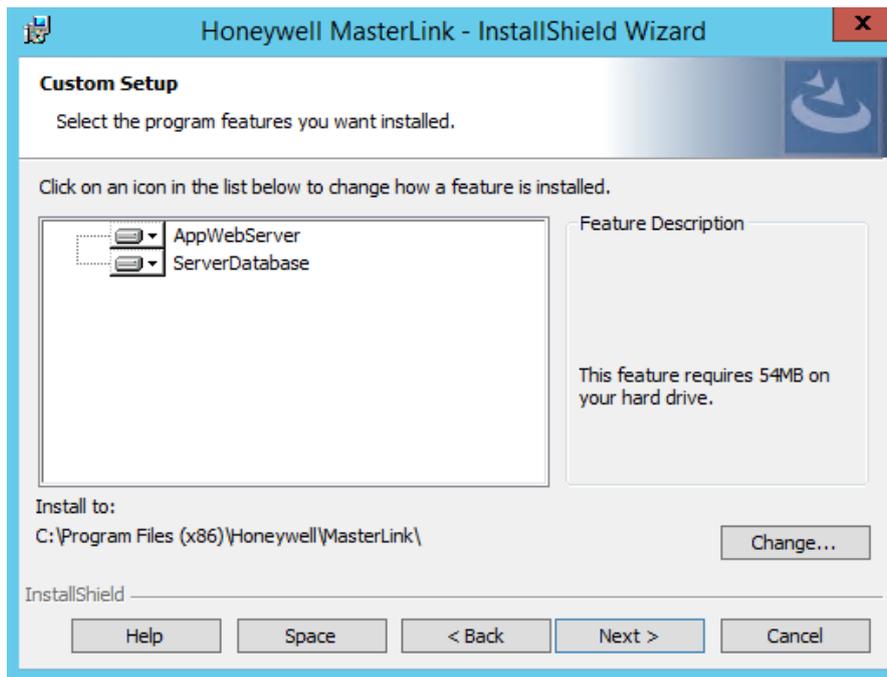


Click **Next**. The *License Agreement* page appears.

2. Click *I accept the terms in the license agreement* and then click **Next**. The *Feature Selection* page appears.



3. Unselect Client and Select both AppWebServer and ServerDatabase feature from the list and then click **Next**.

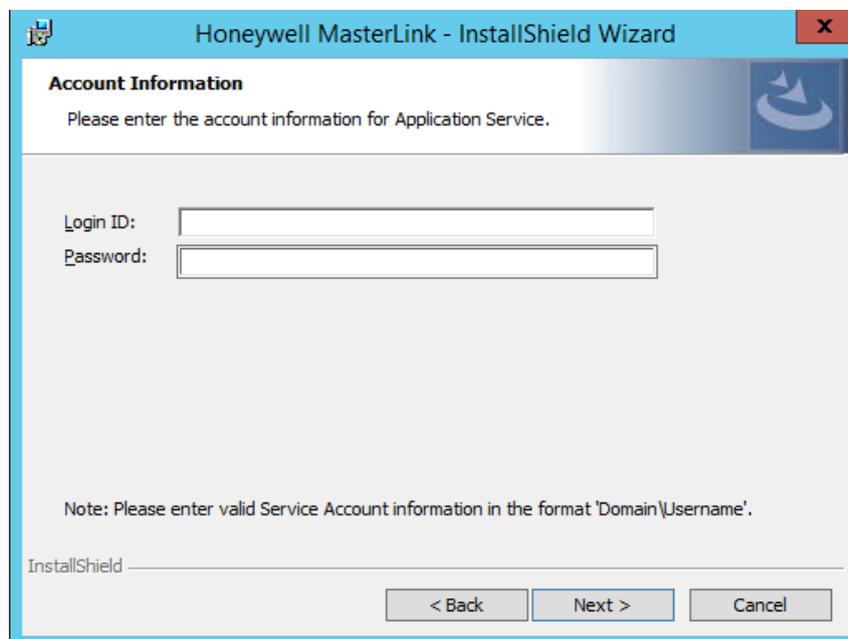


The *Login account information* page appears.

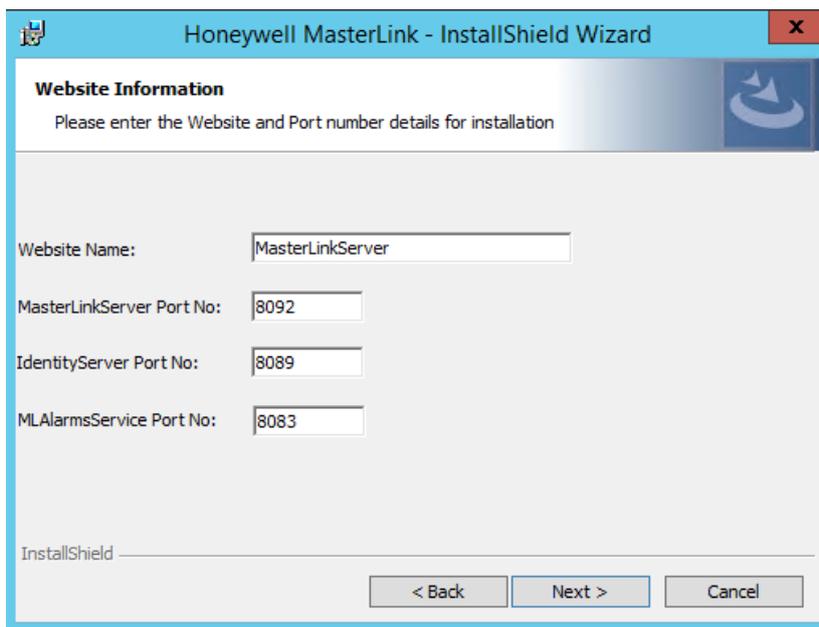
Note : AppWebServer and ServerDatabase can be installed in separate servers (same network).

4. Login with your administrator credentials and then click **Next**.

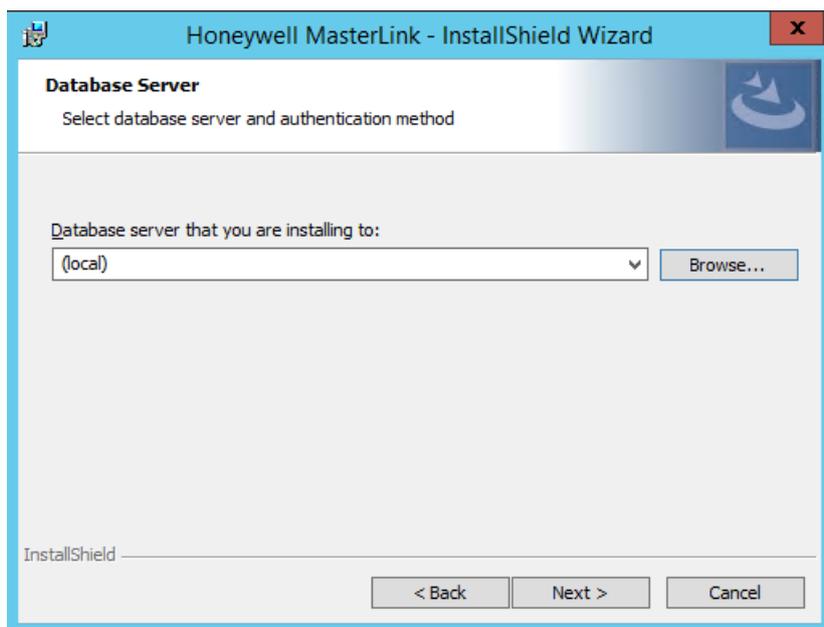
The *Website and Port Number details for Installation* page appears.

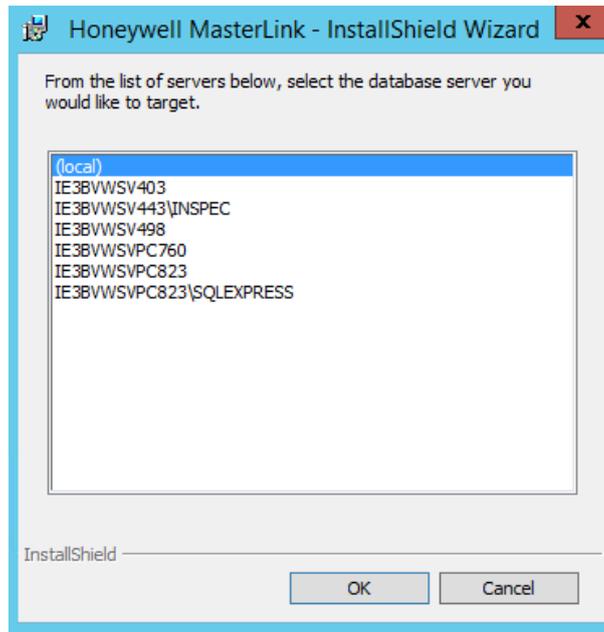


5. Provide the Website Name and valid Port numbers and then, click **Next**.



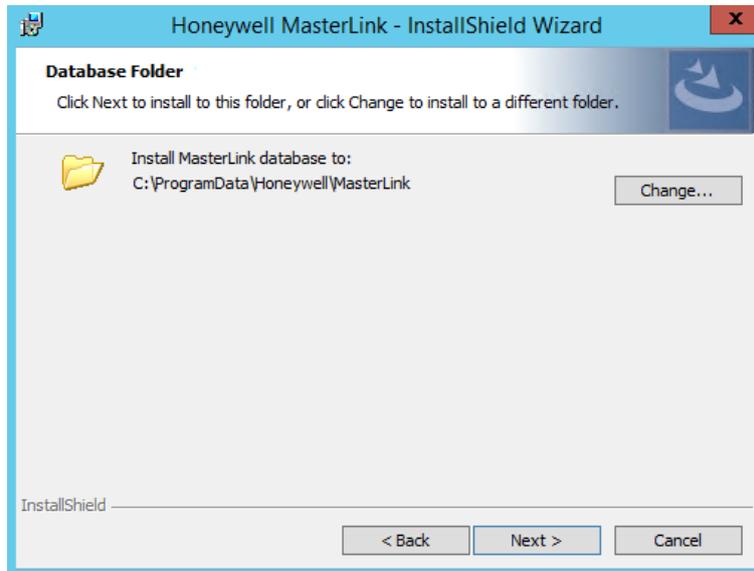
6. You can browse and select a database on your network.



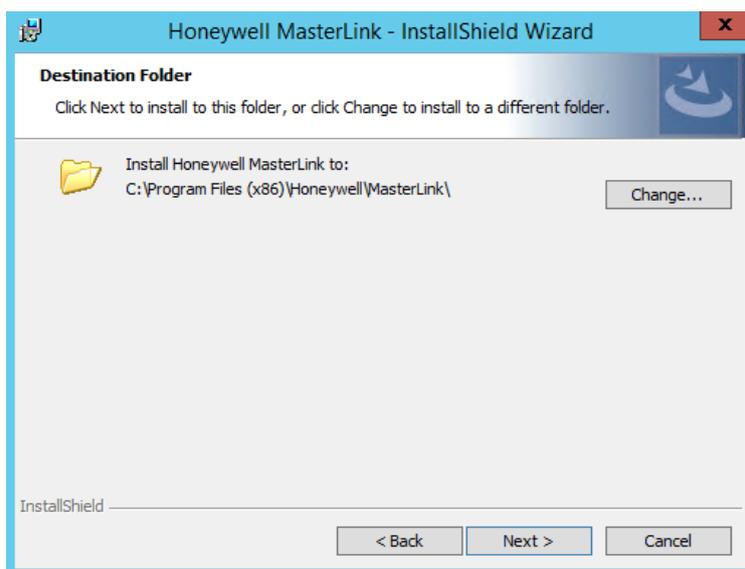


Note: If you are using a database instance on your network, you need to have domain user permission.

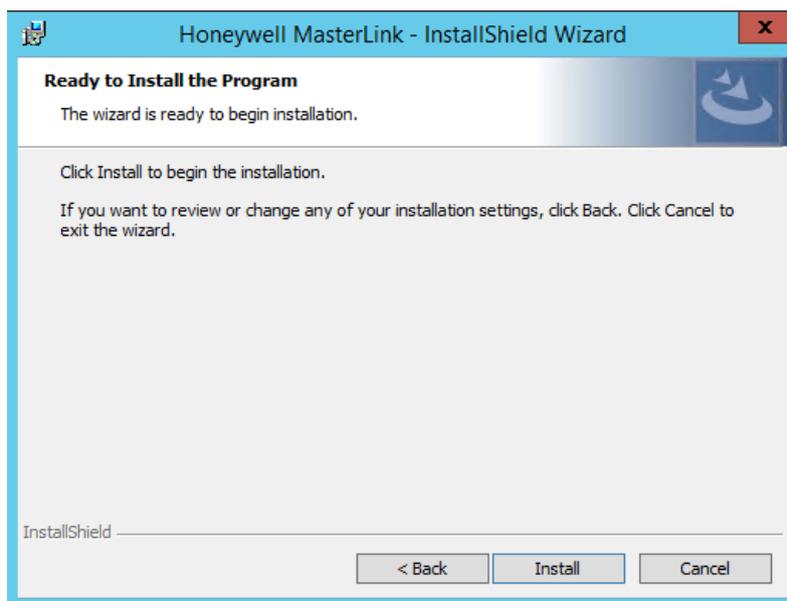
8. Click **Next**. The *Database Folder* page appears. Browse and select the folder where you want to install MasterLink database files.



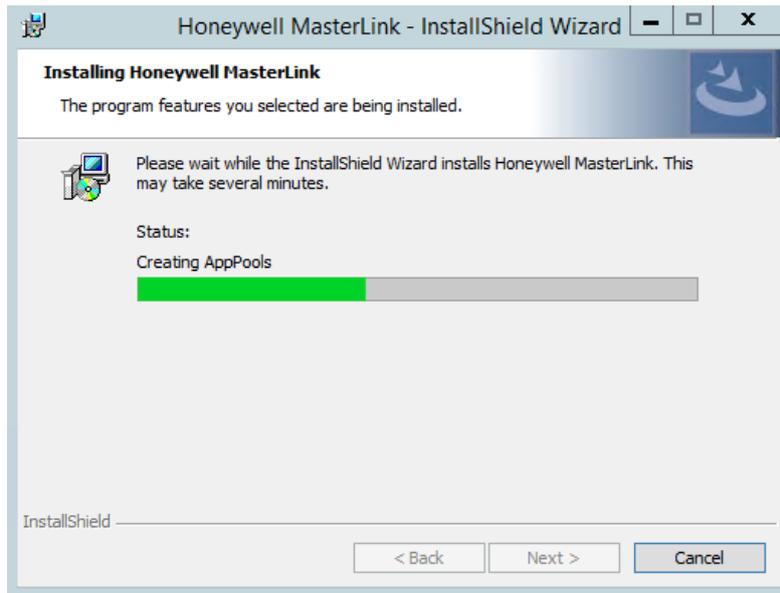
9. Click **Next**. The *Destination folder* page appears, displaying information about the default destination folder.



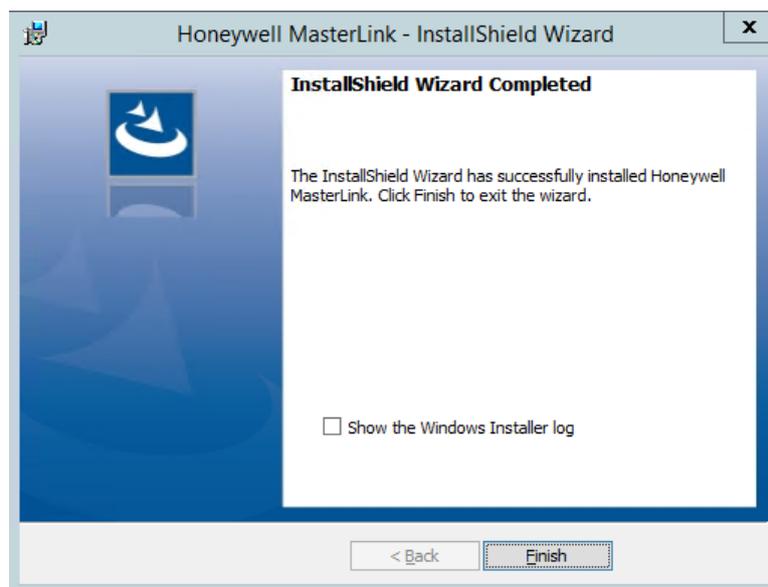
10. Click **Next**. The *Ready to install the Program* page appears.



11. Click **Install** to continue.



12. Finally, click **Finish** to complete.



Note: Select the check box to view the Installer log.

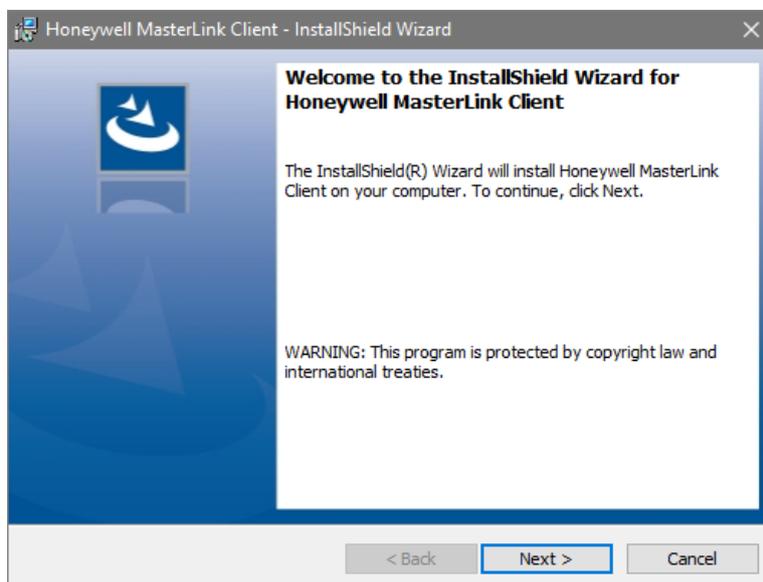
2.4 MasterLink Client Installation

Prerequisites:

Administrative Privileges are required to install the application.

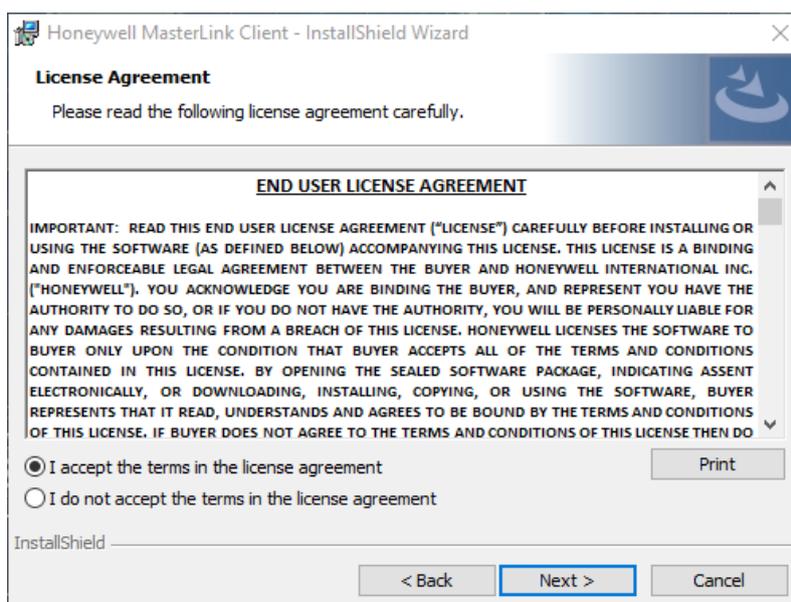
To Install MasterLink Server:

1. Launch the installer. The *MasterLink - InstallShield Wizard* appears.



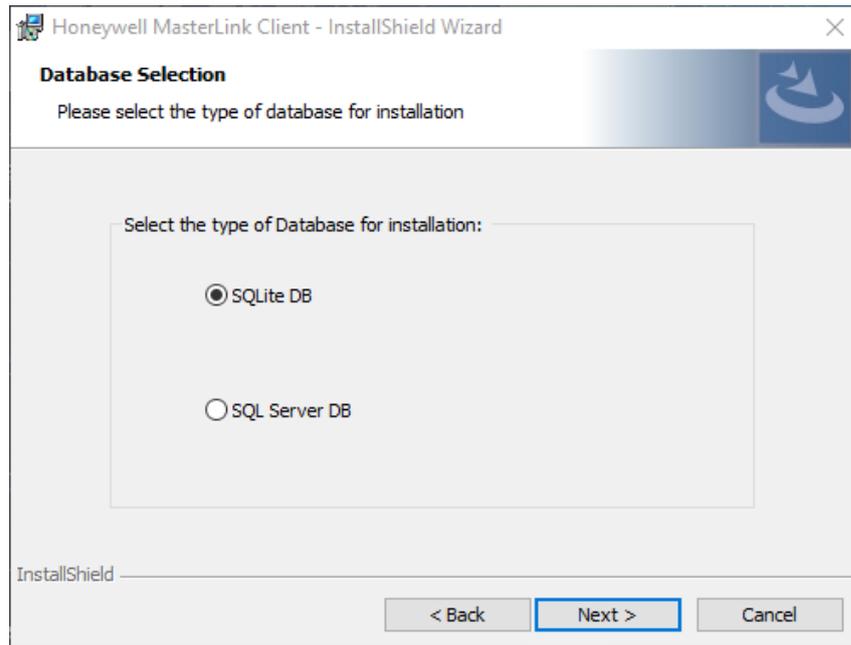
Click **Next**. The *License Agreement* page appears.

2. Click *I accept the terms in the license agreement* and then click **Next**. The *Feature Selection* page appears.



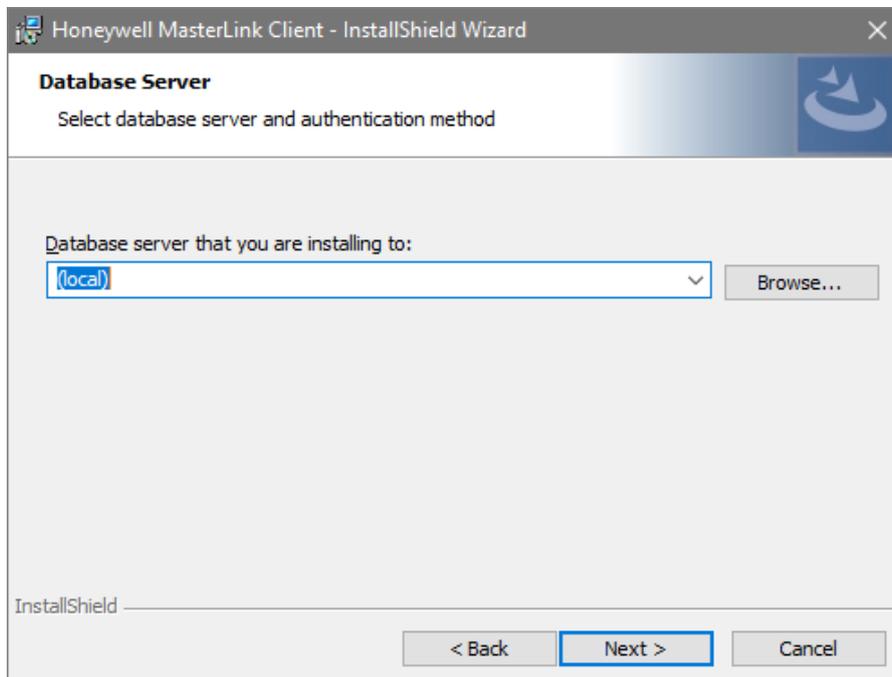
3. Select the type of Database for installation - SQLite(default) or SQL Server.

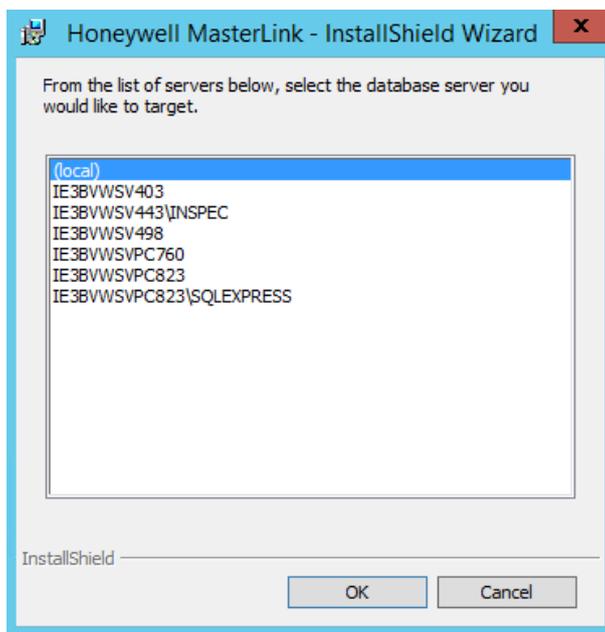
Click Next to continue.



SQLite DB is selected by default.

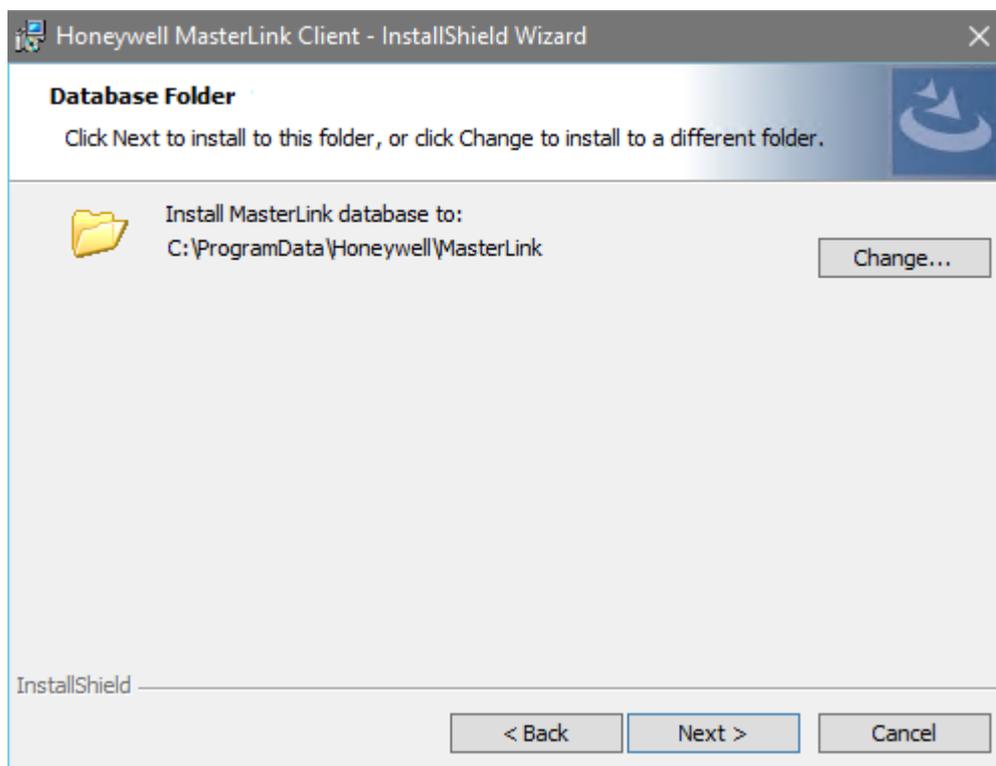
If you select SQL Server DB, then you need to browse and select a database on your network.



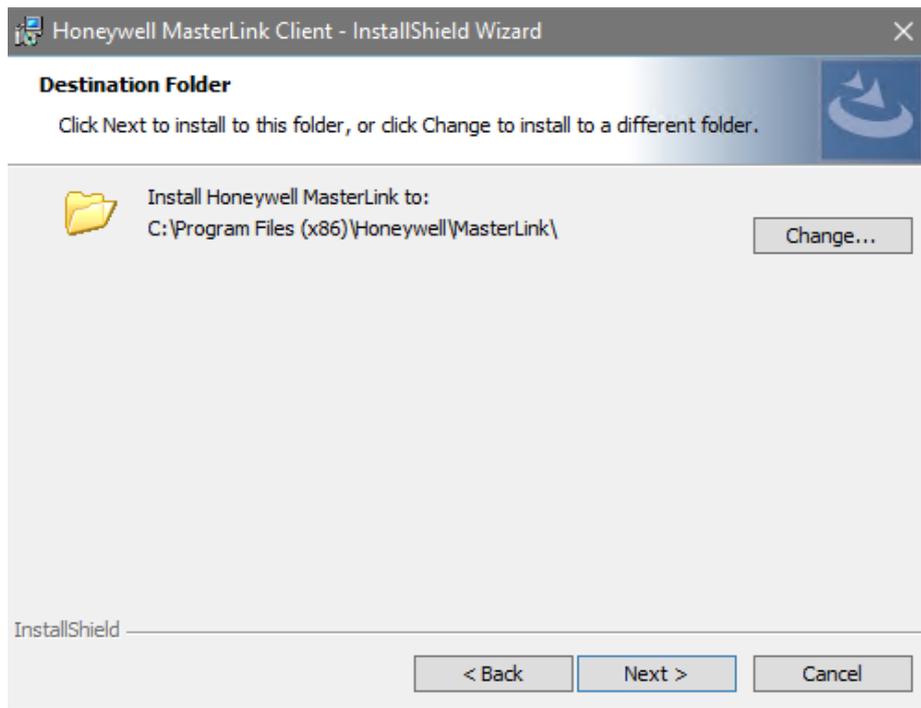


Note: If you are using a database instance on your network, you need to have domain user permission.

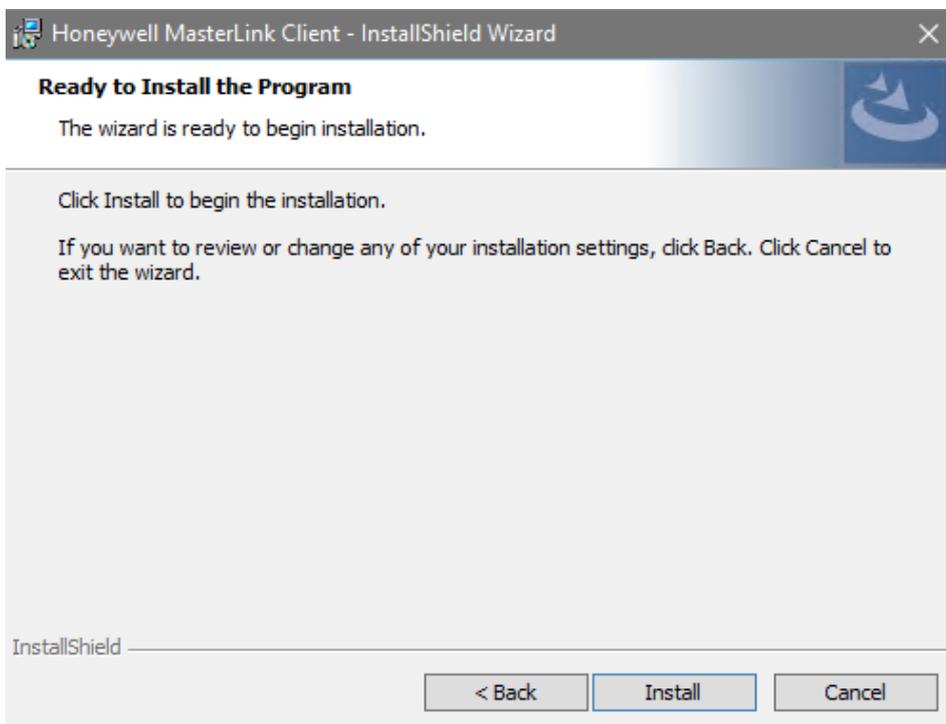
8. Click **Next**. The *Database Folder* page appears. Browse and select the folder where you want to install MasterLink database files.



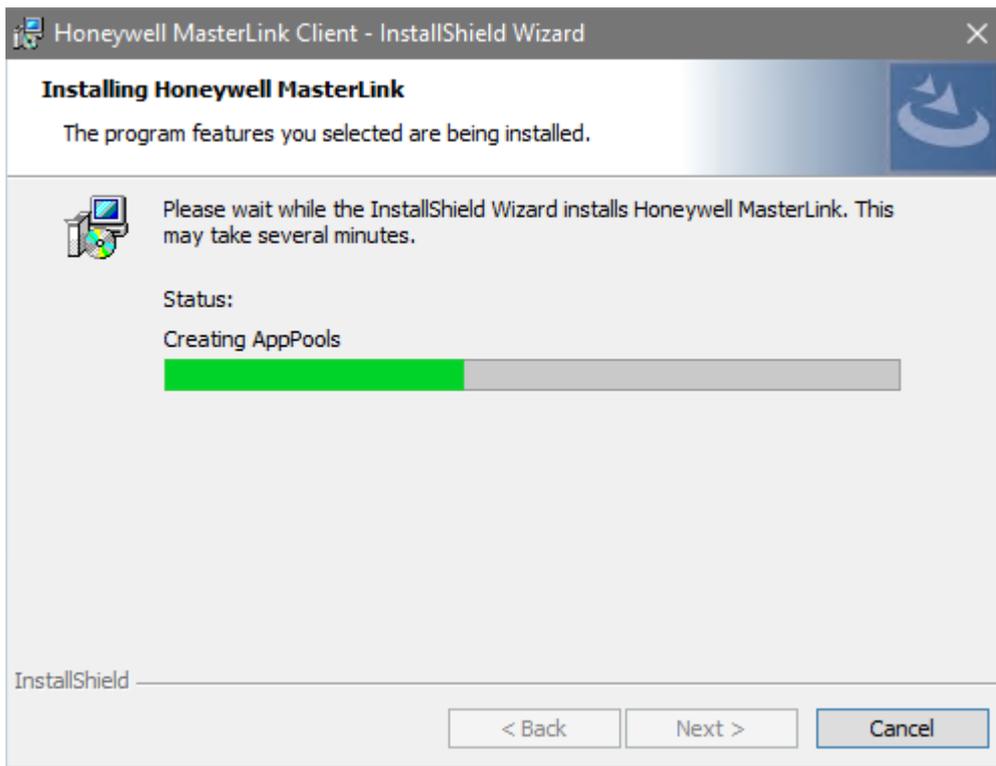
9. Click **Next**. The *Destination folder* page appears, displaying information about the default destination folder.



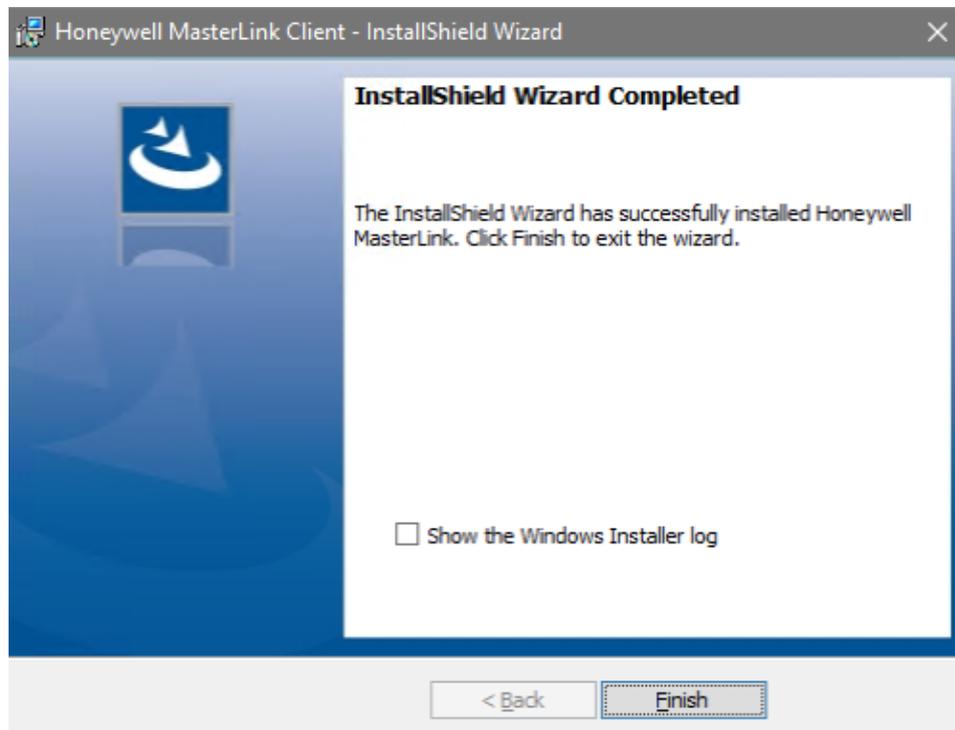
10. Click **Next**. The *Ready to install the Program* page appears.



11. Click **Install** to continue.



12. Finally, click **Finish** to complete.



Note: Select the check box to view the Installer log.

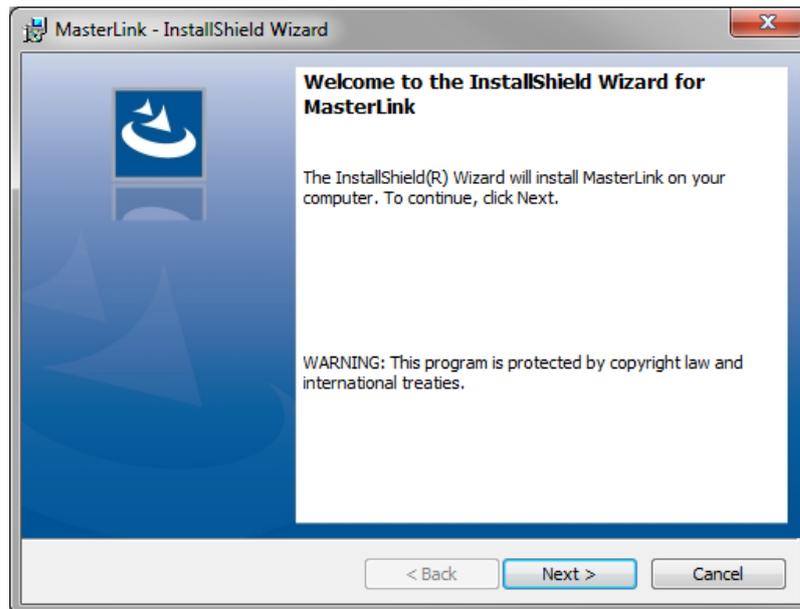
2.5 MasterLink Client Installation with SQL Server

Prerequisites:

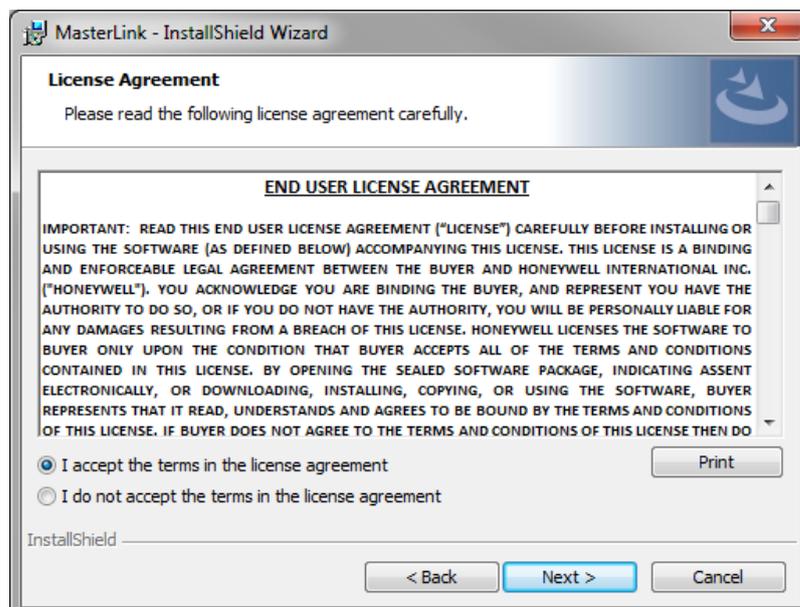
- If you are using SQL Server, then a SQL Server instance must be installed before installing MasterLink.
- Administrative Privileges are required to install the application.

To Install MasterLink Installation with SQL Server:

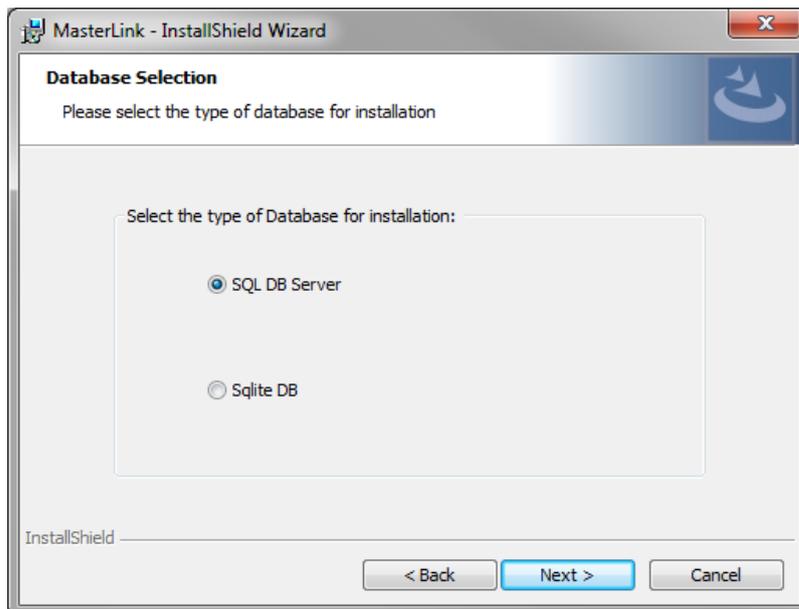
1. Launch the installer. The *MasterLink - InstallShield Wizard* appears.



2. Click **Next**. The *License Agreement* page appears.



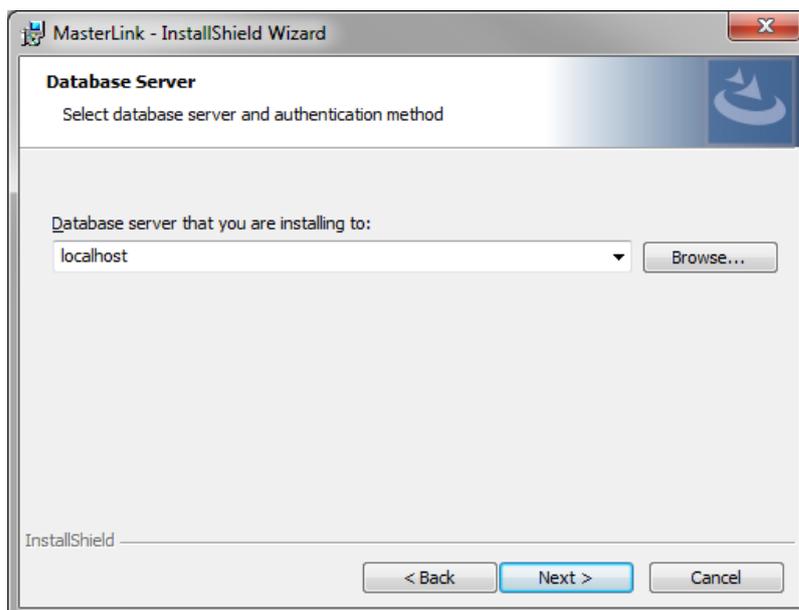
3. Click *I accept the terms in the license agreement* and then click **Next**. The *Database Selection* page appears.



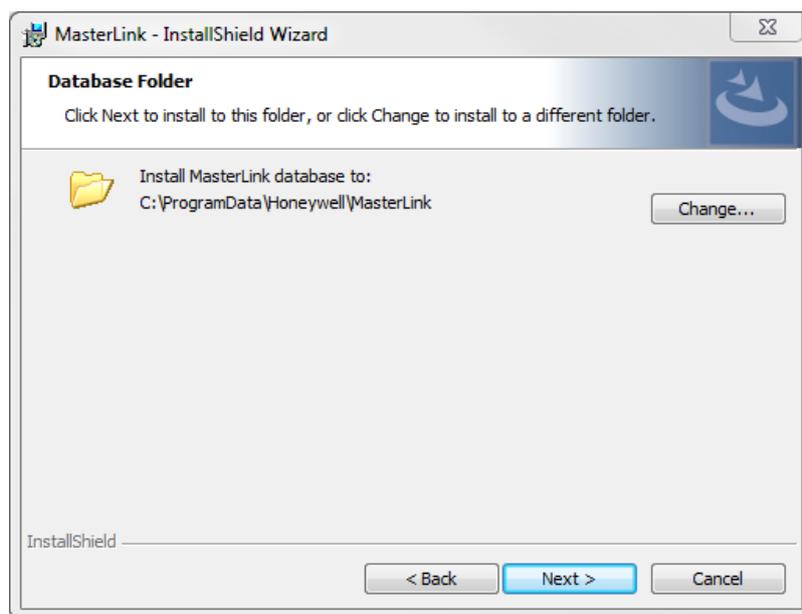
By default, *SQL DB Server* is selected.

If you choose to continue with a *SQL DB Server* for installation, then you will see the following page (as shown in step 4), where you need to select the database server instance.

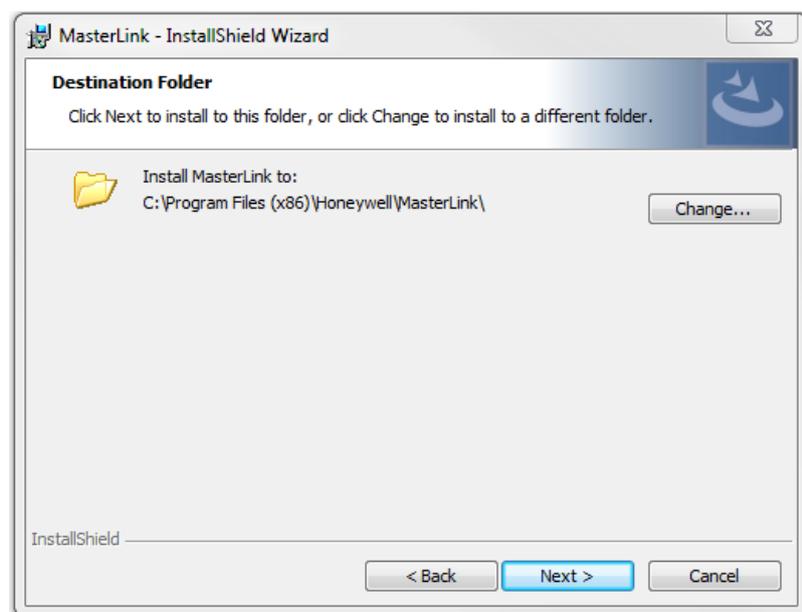
4. Click **Next** to continue. The *Database Server* page appears.



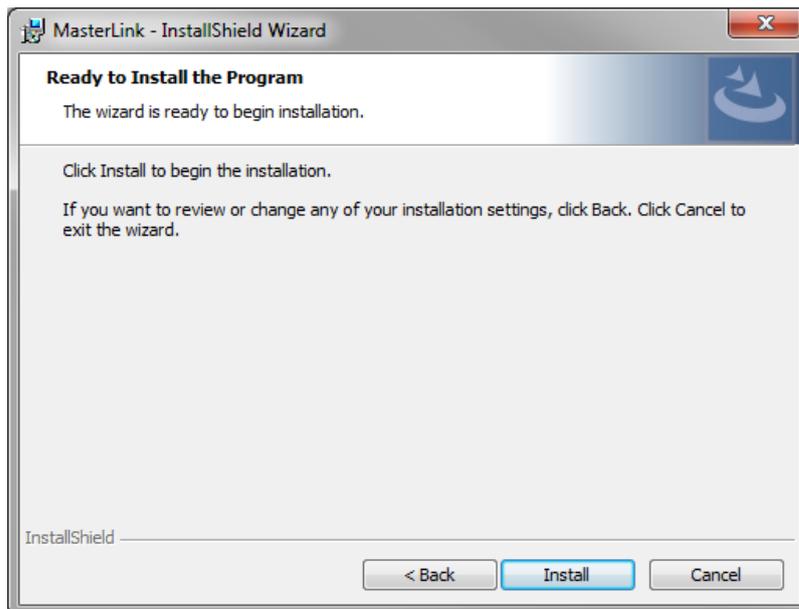
5. Click **Next**. The *Database Folder* page appears. Browse and select the folder where you need to install MasterLink and database files.



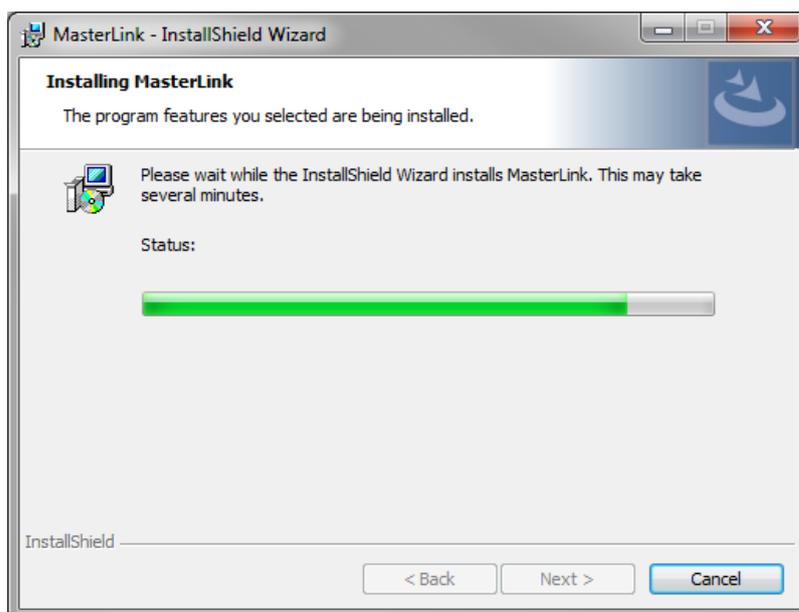
6. Click **Next**. The *Destination folder* page appears, displaying information about the default destination folder.



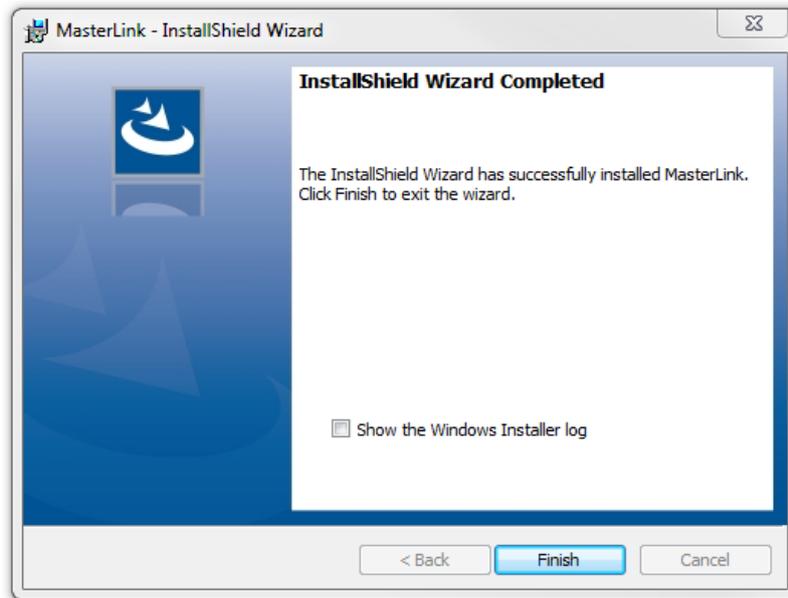
7. Click **Next**. The *Ready to install the Program* page appears.



8. Click **Install** to continue.



9. Finally, click **Finish** to complete.



Note: Select the check box to view the Installer log.

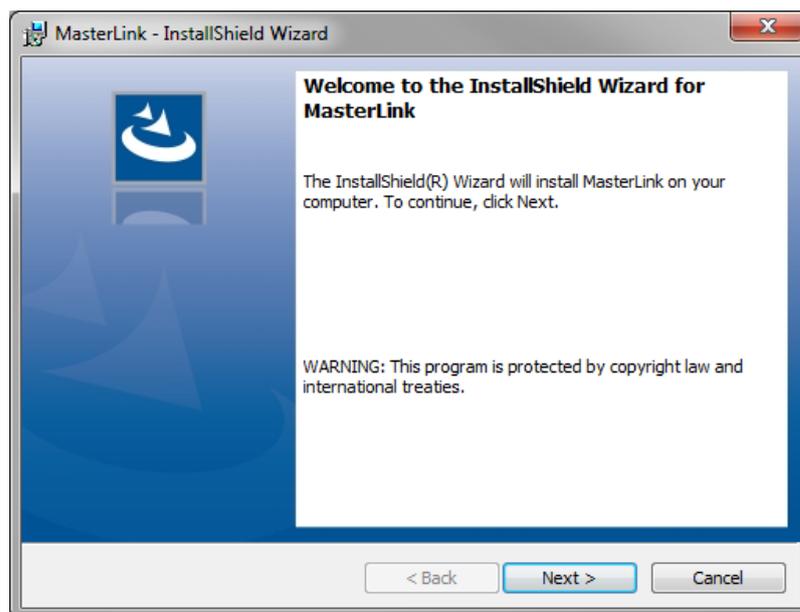
2.5.1 Installing MasterLink with remote SQL Server

Prerequisites:

If you are using SQL Server, then a SQL Server instance needs to be installed before installing MasterLink R510.4 on Windows 8/8.1 or higher machines.

To Install MasterLink with remote SQL Server

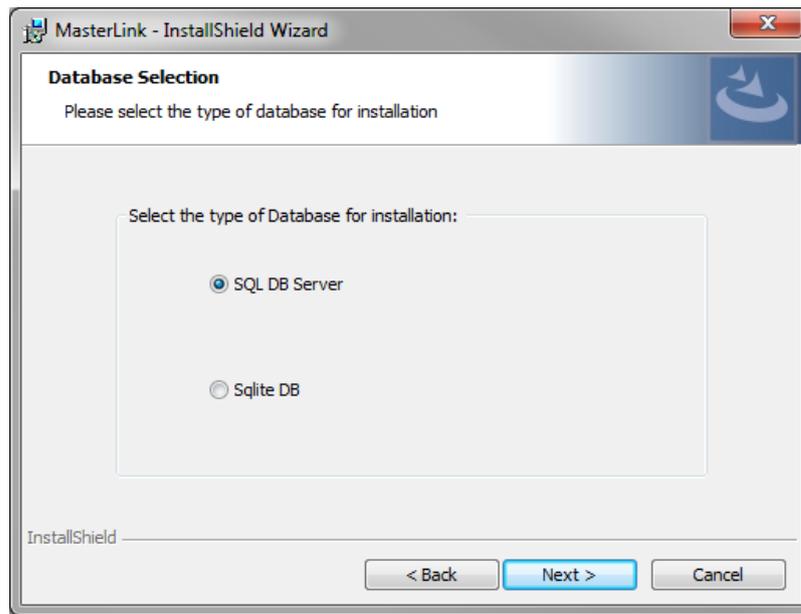
1. Right-click Setup file and then click *Run as administrator*. The *MasterLink - InstallShield Wizard* appears.



2. Click **Next**. The *License Agreement* page appears.

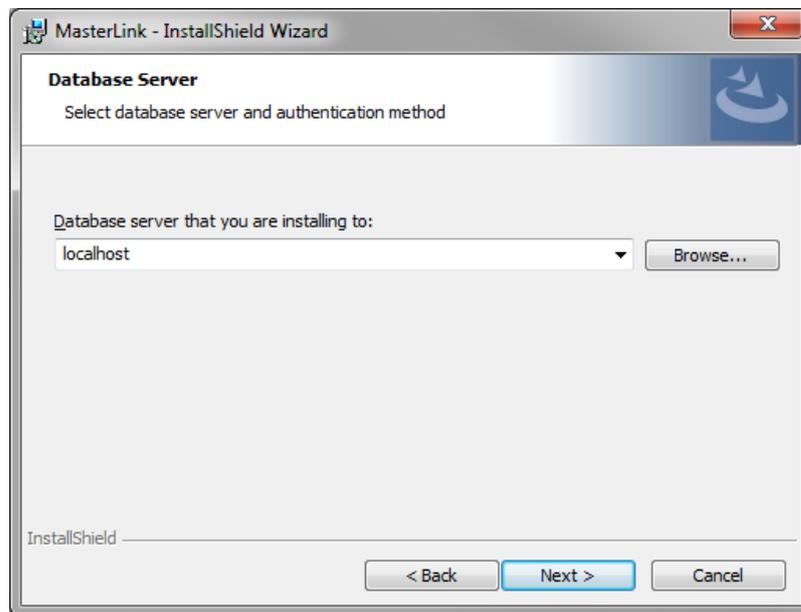


3. Click *I accept the terms in the license agreement* and then click **Next**. The *Database Selection* page appears.

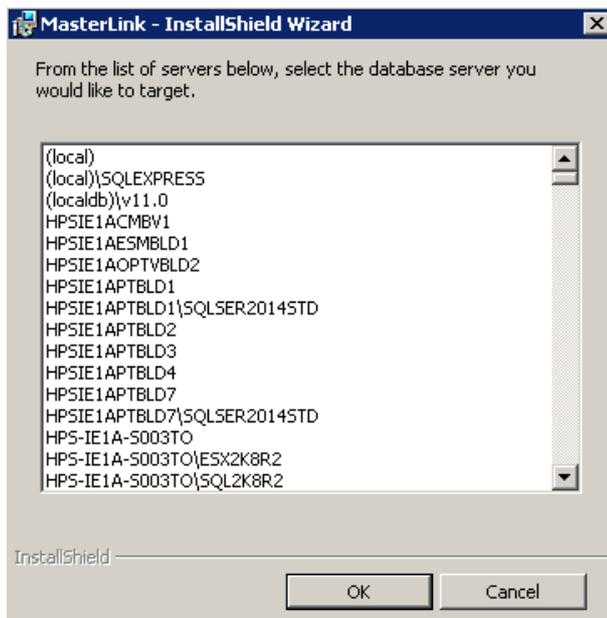


By default, *SQL DB Server* is selected. If you choose to continue with a *SQL DB Server* for installation, then you will see the following page (as shown in step 4), where you need to select the database server instance.

4. Click **Next**. The *Database Server* page appears.

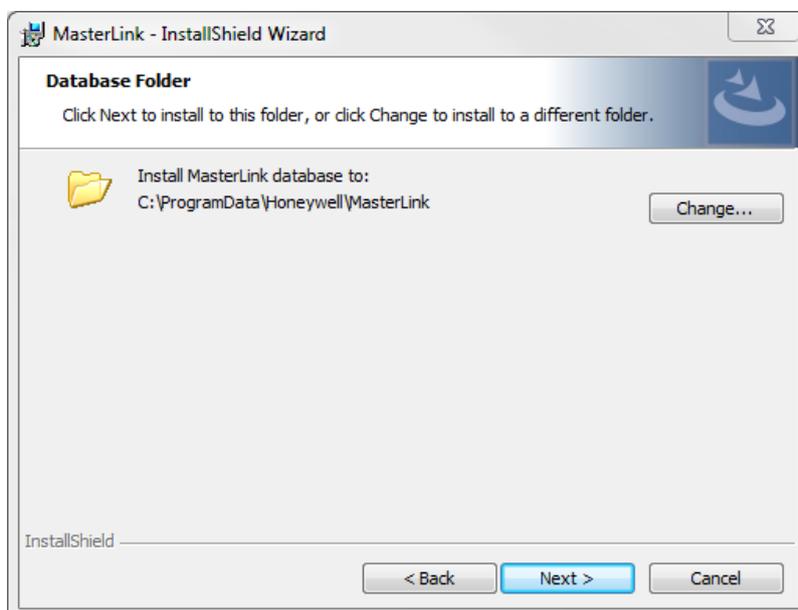


You can browse and select a database on your network.



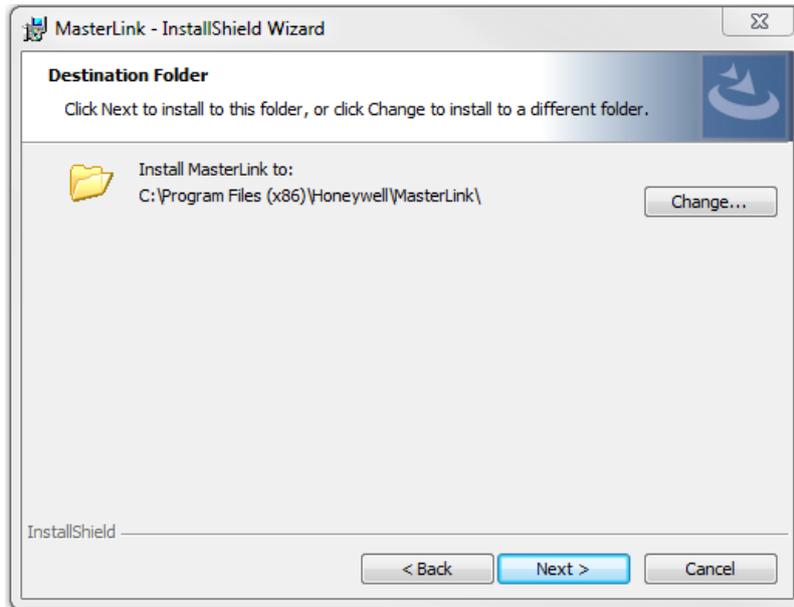
Note: If you are using a database instance on your network, you need to have domain user permission.

5. Click **Next**. The *Database Folder* page appears. Click on **Change** and enter the path on the remote machine where user intends to create the Database files. The path selected on remote machine should not exist on the machine where the installer is running

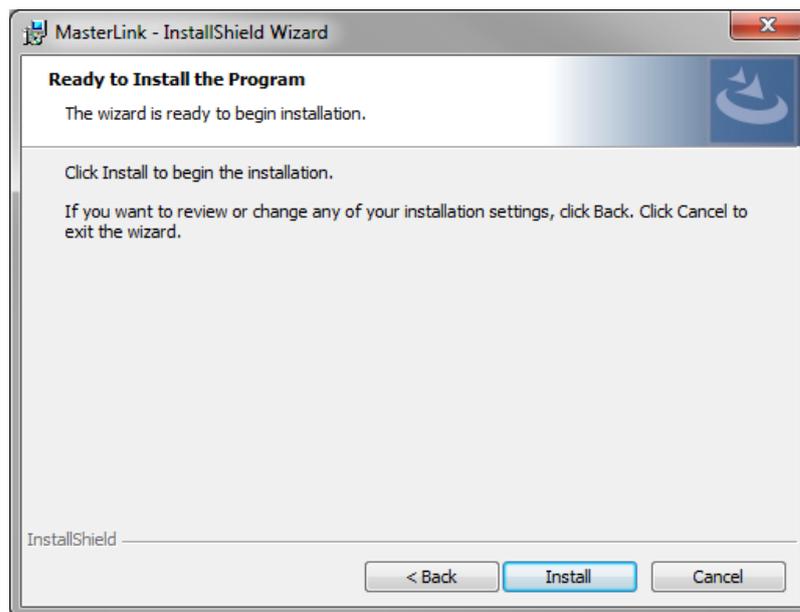


Note: The path selected on remote machine should exist on remote machine.

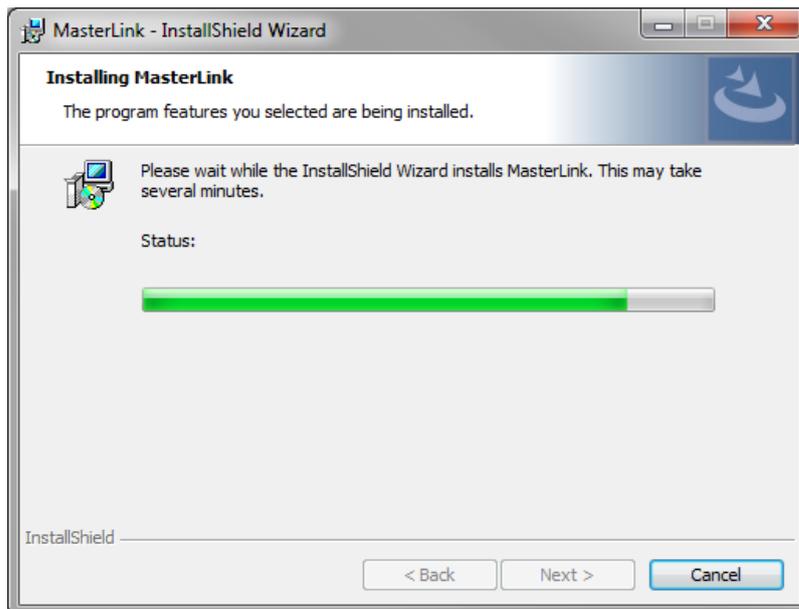
6. Click **Next**. The *Destination folder* page appears, displaying information about the default destination folder. The path selected on remote machine should not exist on current machine where installer is running



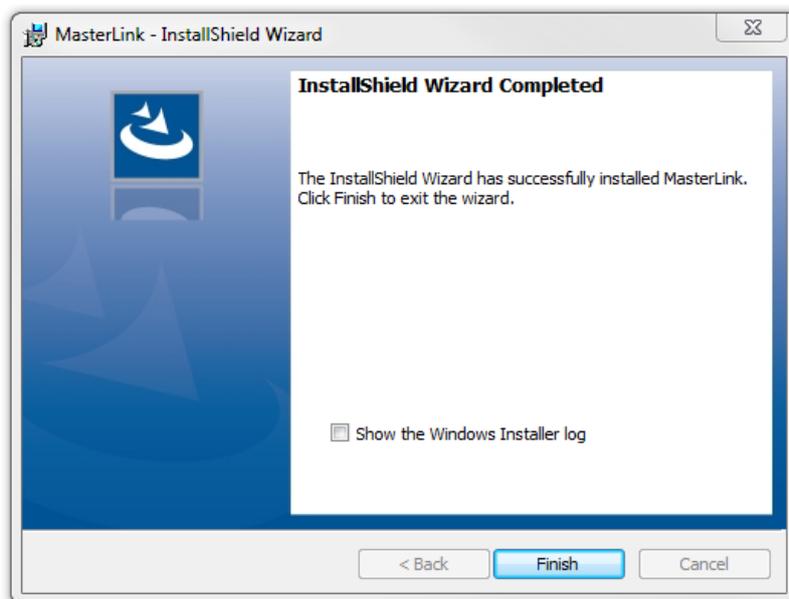
7. Click **Next**. The *Ready to install the Program* page appears.



8. Click **Install** to continue.



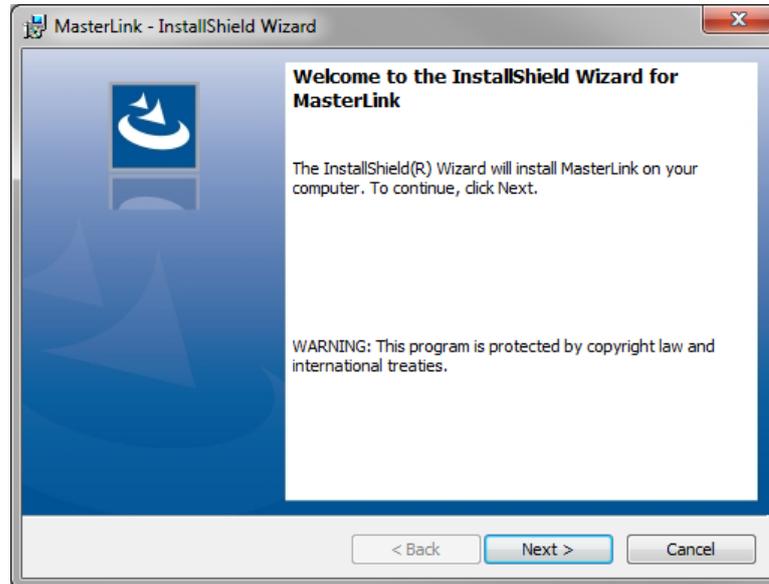
9. Click **Finish** to complete.



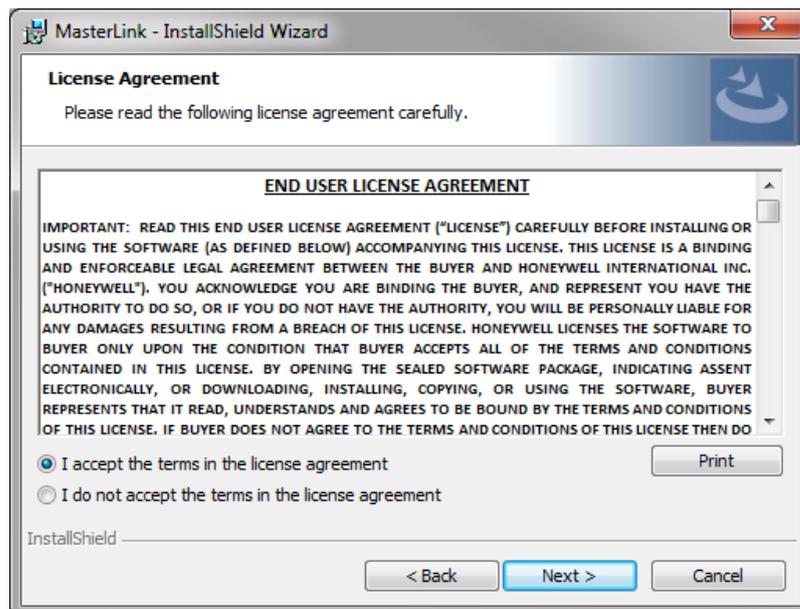
Note: Select the check box to view the Installer log.

2.6 Installing MasterLink with SQLite

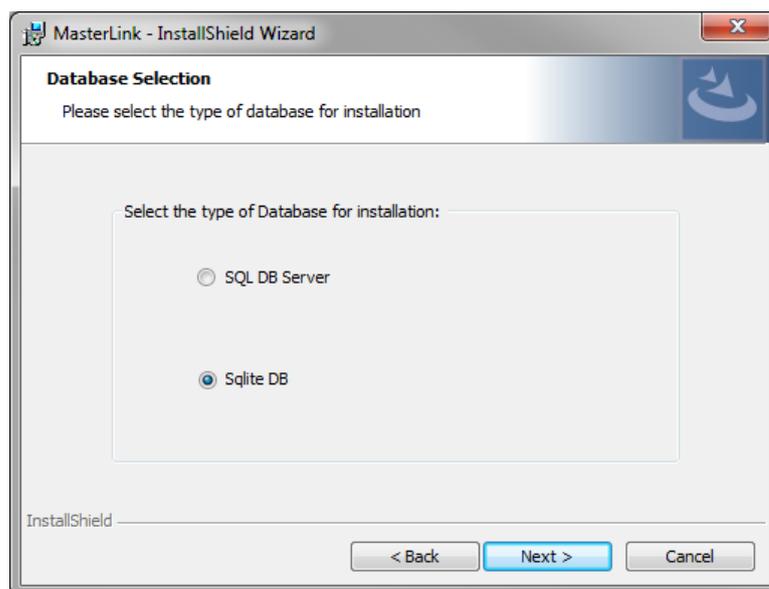
1. Right-click Setup file and then click *Run as administrator*. The *MasterLink - InstallShield Wizard* appears.



2. Click **Next**. The *License Agreement* page appears.

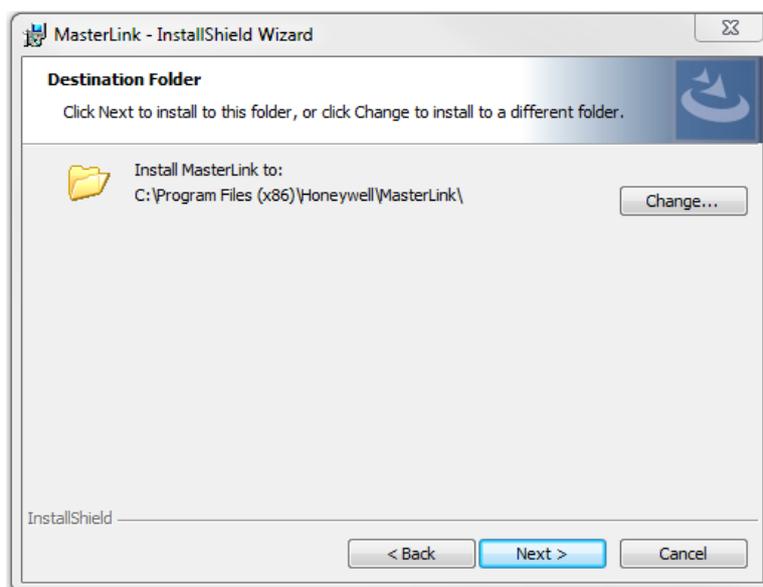


3. Click *I accept the terms in the license agreement* and then click **Next**. The *Database Selection* page appears.

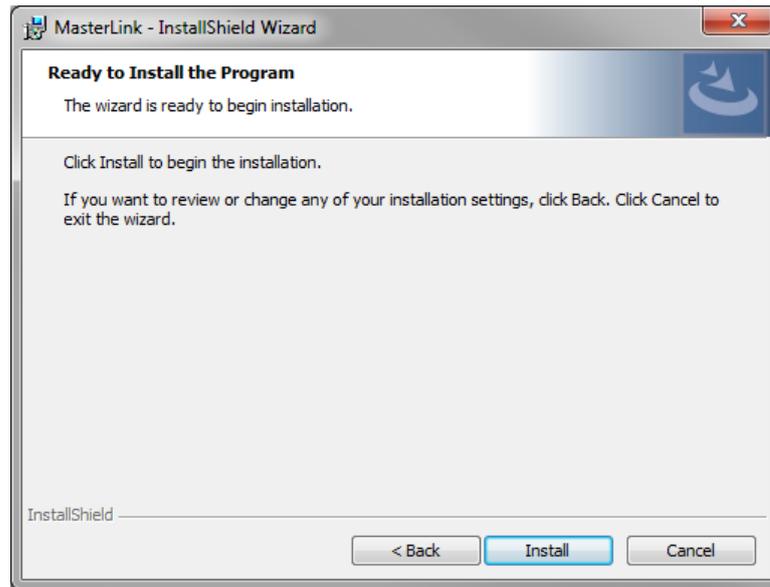


By default, SQL DB Server is selected. User is required to select SQLite DB.

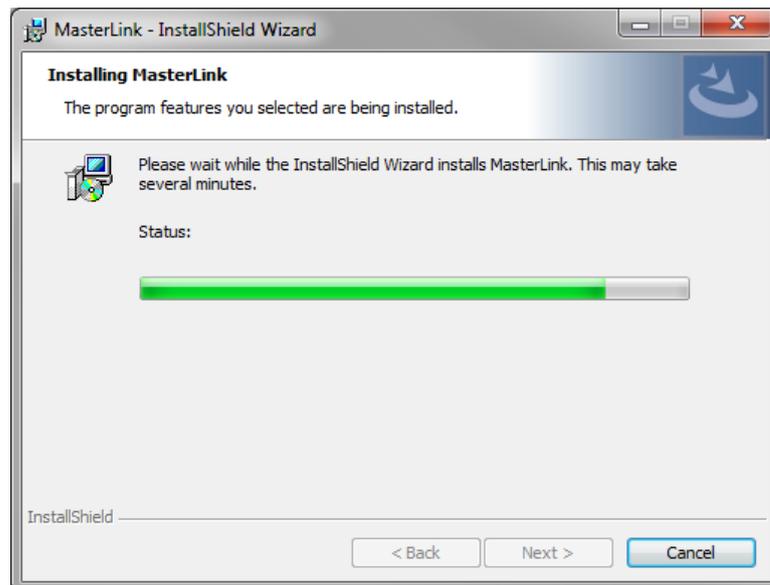
4. Click **Next**. The *Destination folder* page appears, displaying information about the default destination folder.



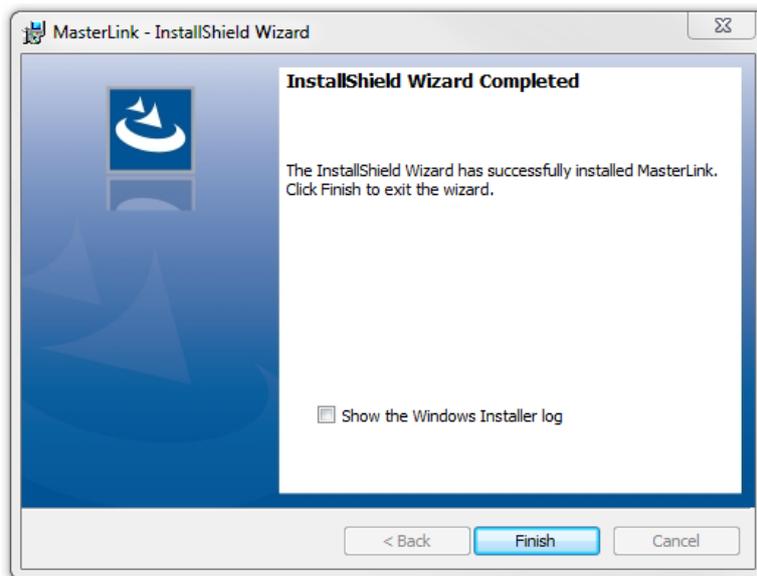
5. Click **Next**. The *Ready to install the Program* page appears.



6. Click **Install** to continue.



7. Click **Finish** to complete.

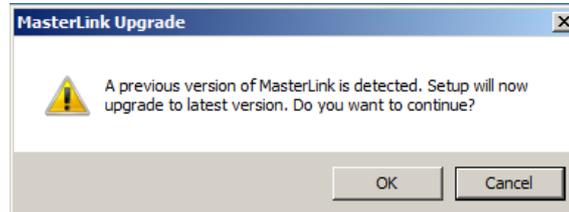


Note: Select the check box to view the Installer log.

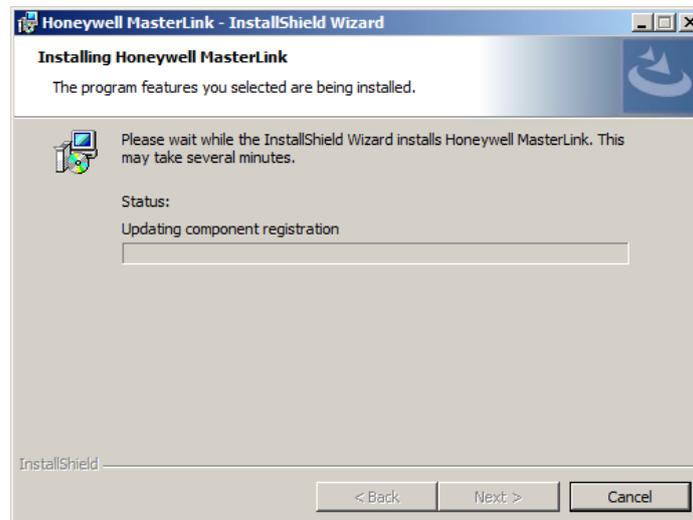
2.7 Upgrading MasterLink

To upgrade MasterLink R510.4 from R500.1 to R510.1:

1. On the machine where MasterLink R510.4 R500.1 is installed, launch the MasterLink R510.4 R510.1 installer. The following pop-up appears.



2. Click **OK**. The installation wizard continues with the upgrade process,



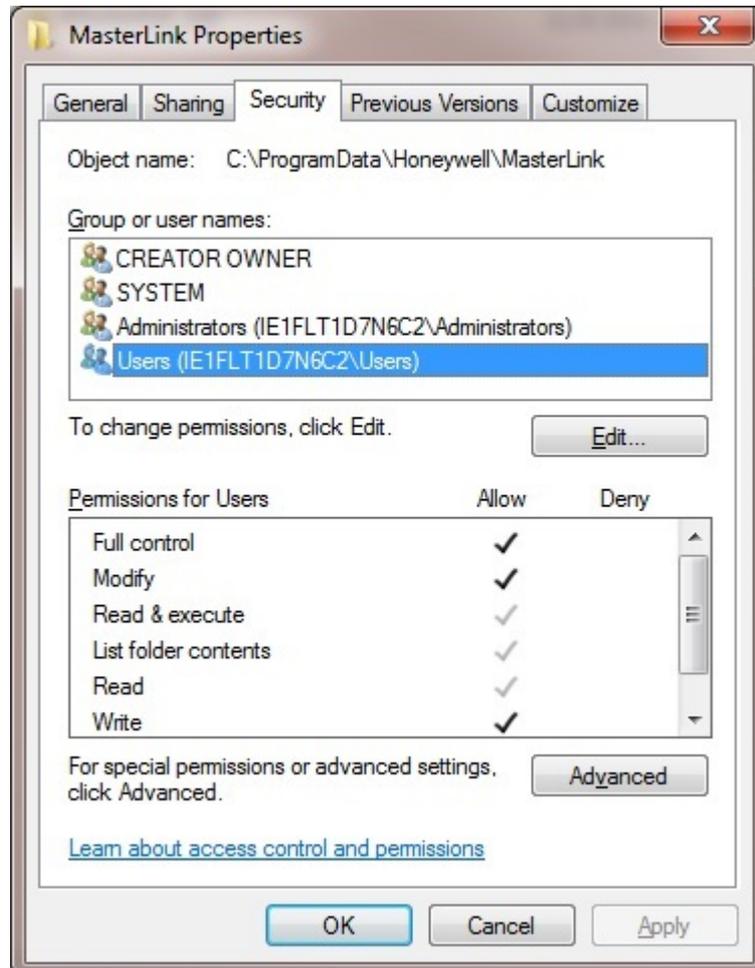
3. After the upgrade completes, the following page appears. Click **Finish** to complete the upgrade.





3 Post Installation Steps

1. To log on to MasterLink application, users need access to C:\ProgramData\Honeywell\Masterlink. By default, all users under Users group has the required privileges. If a user falls under any other user group, then administrator should give “Full Control” privileges on folder “C:\ProgramData\Honeywell\Masterlink” for that particular user group.



2. If SQL server is used as a database while installing the MasterLink application, then all users who will use the application must be provided DBO access on SUITE32 database.