MaintSmart 5.0 Enterprise Edition Installation Guide

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What is MaintSmart Enterprise Edition?

- All of the features of previous MaintSmart versions

- Version 5.0 supports MS SQL Server 2005, 2014, 2012, 2014 databases and MS Access 2000 databases

(**NOTE**: Access is not required to use MaintSmart nor does MaintSmart Access drivers interfere with existing installs of Access.

Typical Resource Consumption

Hard drive space requirements	Depend upon previously installed components but range from 292-675 MB.
CPU usage	4%-7% at idle 20%-37% loading a screen 53%-55% loading first report (Crystal Reports) 64% loading "Hot Sheet"
Memory usage	34188K open to home screen 50000K open one screen 73000K open 2 screens 98000K opening report components 110000K + multiple screens

System Requirements

Client Workstation Requirements

Operating System	Windows: XP, 2003, 2008, Vista, Win 7 (32bit/64 bit) Win 8-8.1, Win 10 on a stand-alone computer. MaintSmart Software has not been certified or tested to run in a Terminal Server or Citrix environment.
RAM Memory	Minimum 2 GB RAM memory. 4+ GB of RAM or greater is recommended.
Processor	Minimum 1.5 GHz processor, 2+GHz. or better is recommended. Single or dual processors.
Disk Space	Minimum 475-610 MB of free disk space for standalone. Minimum 475 MB of free disk space for client workstation and 500 MB (version 5.0) for server when using on a network.
Display	Minimum 15 inch monitor using 800x600 resolution. Program windows resize automatically for various resolutions and monitor sizes above the minimums. 1024x768 resolution is recommended.
Drive	CD-ROM drive for installation.

Server Requirements (MS Access)

Operating System	Windows: XP, 2003, Vista, 2008, Win 7 (32 bit/64 bit), Win 8-8.1, Win 10
RAM Memory	Minimum 2 GB RAM memory. 4+GB of RAM or greater is recommended.
Processor	Minimum 1.5 GHz processor , 2+ GHz. or better is recommended. Single or dual processors.
Disk Space	Minimum 100-500MB of free disk space for database.
Display	Minimum 15 inch monitor using 800x600 resolution. Program windows resize automatically for various resolutions and monitor sizes above the minimums. 1024x768 resolution is recommended.
Drive	CD-ROM drive for installation.

Server Requirements (MS SQL Server)

Please visit the Microsoft web site for SQL Server requirements:
http://msdn.microsoft.com/en-us/library/ms143506.aspx
For Microsoft system requirements for SQL Server 2005-2014 Microsoft Corporation Support should be consulted with. A general summery is presented here (however the below requirements are not representative of all system requirements and all versions of SQL Server

Operating System	Windows: XP, 2003, Vista, 2008, Win 7 (32 bit/64 bit), Win 8-8.1, Win 10
RAM Memory	Minimum 2GB RAM memory. 4 GB of RAM or greater is recommended.

Processor	Minimum 1 GHz MHz Intel Pentium , 1.4GHz. or better is recommended. Single or dual processors.
Disk Space	Minimum 270-500 MB of free disk space for standalone. Minimum 125 MB of free disk space for client workstation and 100 MB (version 5.0) for server when using on a network. Optimally fast.
Display	Minimum 15 inch monitor using 800x600 resolution. Program windows resize automatically for various resolutions and monitor sizes above the minimums. 1024x768 resolution is recommended.
Drive	CD-ROM drive for installation.

Installation (see page 7-12 for step by step instructions)

There are several steps in implementing MaintSmart Enterprise Edition at your site.
1. Set Up the database (Applies only to SQL Server 2005-2014). Recommend free SQL Server 2008 R2 (express).
2. Install the application (if upgrading from MaintSmart 4.1 uninstall MaintSmart 4.1 first)
3. Connect the application to the database
4. Load data into the database

Set Up the Database (below instructions use pictures from SQL Server 2005)

SQL Server only. This task is usually performed by a **SQL database administrator**, although anyone with the necessary SQL Server permissions may do it. It is assumed that the person creating the database is familiar with SQL Server and its utilities and has the necessary permissions. NOTE: the below illustrations may not depict your specific version of SQL Server. Open SQL Management Studio and create a new database.

There are three main tasks that must be completed to set up the MaintSmart database:

1.) create the database on an MS SQL Server (2005-2014)
2.) create the MaintSmart schema within the database by running the scripts provided.
3.) possibly create a SQL Server User Login to use for connecting to the database

Create the database on an MS SQL Server
1. Open SQL SQL Server Management Studio
2. Select the server on which to create the MaintSmart database
3. In the tree-view right click on "Databases" and select "New Database…"
4. In the new database dialog enter the name you want the database to have. Many companies have naming conventions that must be followed. Although any name will do, it is best to not use names containing spaces.
5. On the "Data Files" tab make sure the database can grow by checking "Automatically grow file" and allowing "Unrestricted file growth" or entering a suitably large value for

"Restrict file growth". If desired set the Initial Size to something larger that the default 10 MB or more. See the following example (below)

6. Click "OK" and the database will be created

Create the MaintSmart schema and add default data within the database

A. Open Microsoft SQL Server Management Studio.

B. Run the following six (6) scripts from the MaintSmart setup package in the order listed. These scripts are on the CD in the "*DatabaseScripts*" folder. Otherwise install the MaintSmart program first then find these scripts in the *"C:\Program Files (x86)\MaintSmart Software\MaintSmart Enterprise **5.0**\DatabaseScripts"* folder.

   1. Tables.sql

   2. UserDefinedFunctions.sql

   3. Views.sql

   4. StoredProcs.sql

   5. Load.sql

   6. Translator.sql

   If you will NOT be importing data from an existing MaintSmart database, then run the script LoadForNoImport.sql
   Each script must run without errors. There may be warnings regarding field length when running the Tables.sql script. These may be ignored and will have no effect on the database.

C. Connect to the MaintSmart database that was created.

NOTE: It is necessary to install the application on a workstation to get the script files if you install from a download. These scripts are in the *DatabaseScripts* subdirectory of the MaintSmart install folder. Otherwise obtain scripts from CD or contact MaintSmart Support and we'll email the scripts to you.

## Create a SQL Server User Login to use for connecting to the database
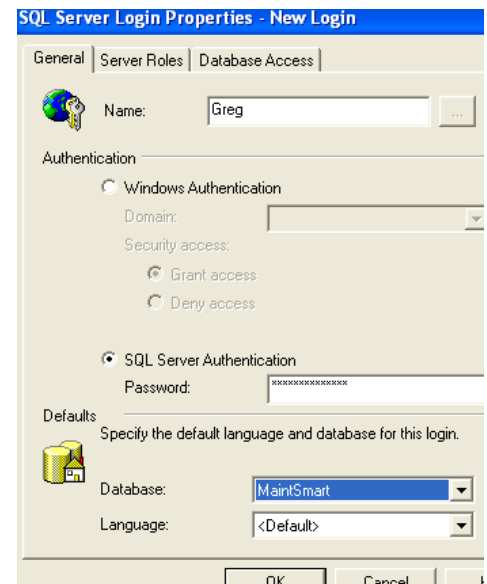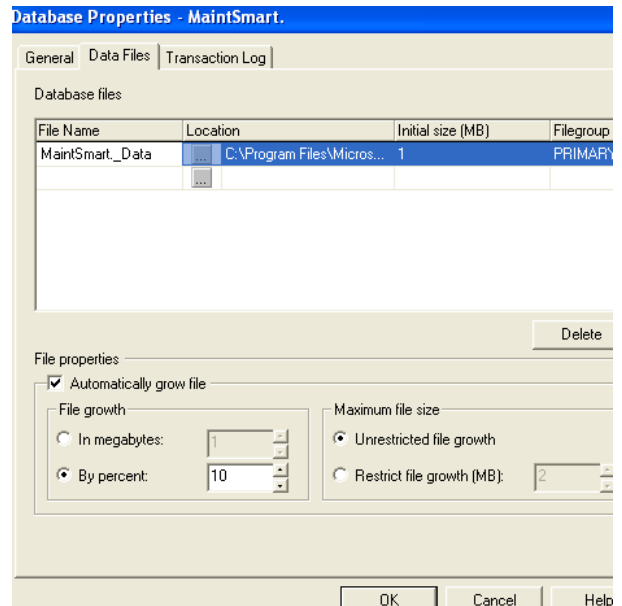
If you want MaintSmart to log into SQL Server using Windows Integrated Security and have it use the database owner permissions you can skip this section. Now, there are two steps necessary to allow a connection to the database to be made if you will not be using Windows Integrated Security. That is, if you will be logging into SQL Server with a user ID and password.

1. Create the Login and assign a password
2. Give the correct permissions to the Login

Create the Login and assign a password
In the SQL SQL Server Management Studio tree-view right-click on Security/Logins and select "New Login…" Enter the login name, password, and set the default database to the MaintSmart database you created to be.
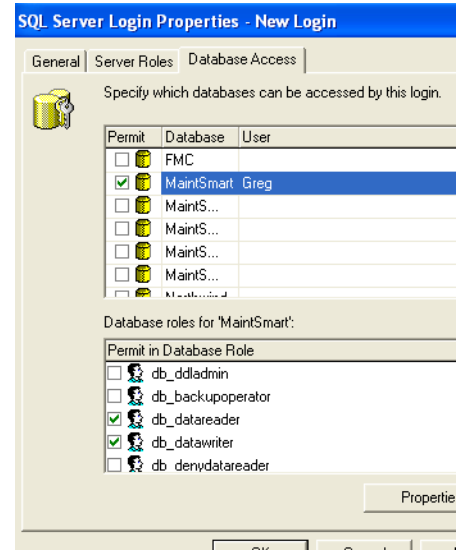
Give the correct permissions to the Login

Give the Login the db_datareader and db_datawriter roles in the MaintSmart database.
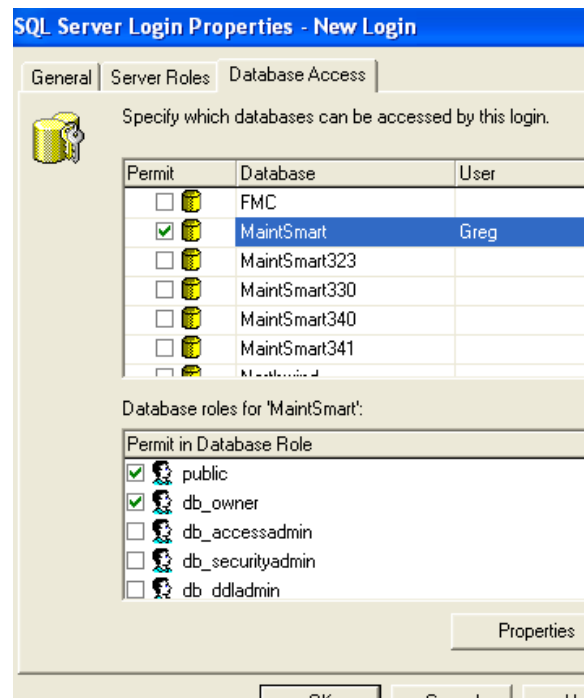
You will also need to: either give the Login the db_owner role.

or else
execute the stored procedure admGrantExecute in the MaintSmart database. This can be done in the SQL Server Query Analyzer by executing the following statement:
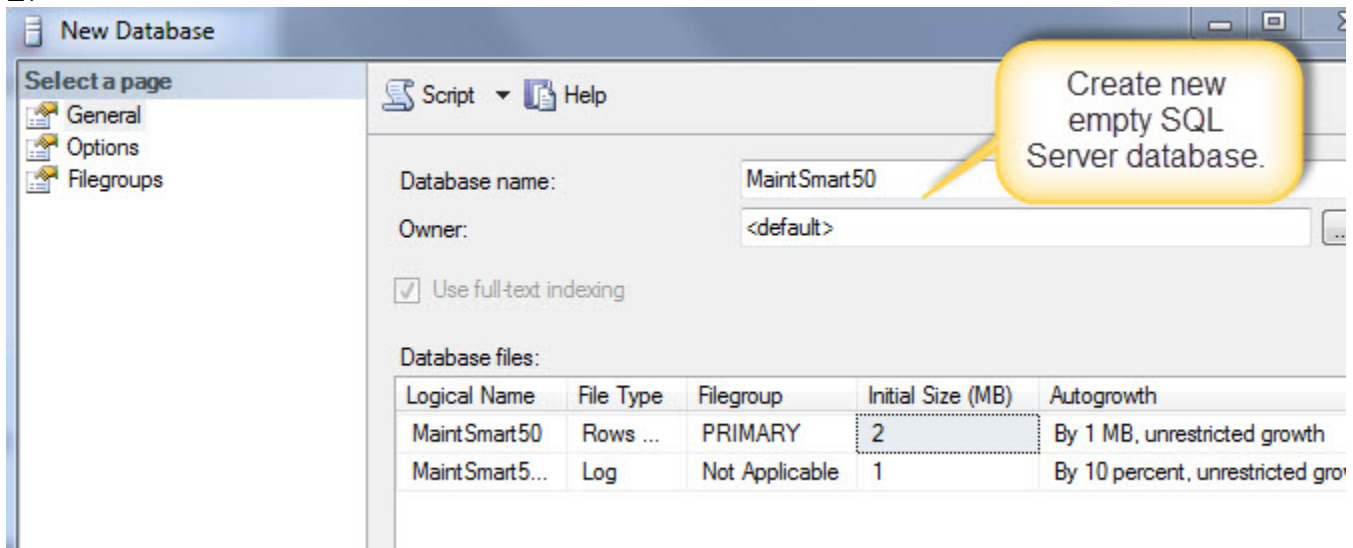
> *exec admGrantExecute <login name>*

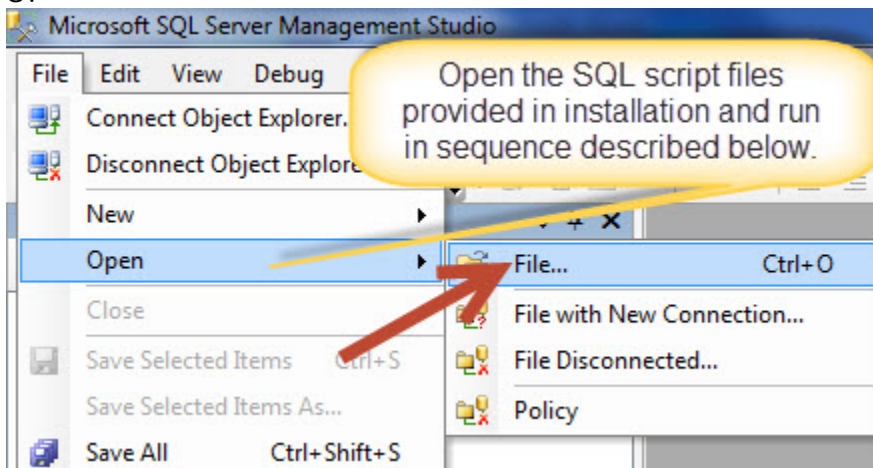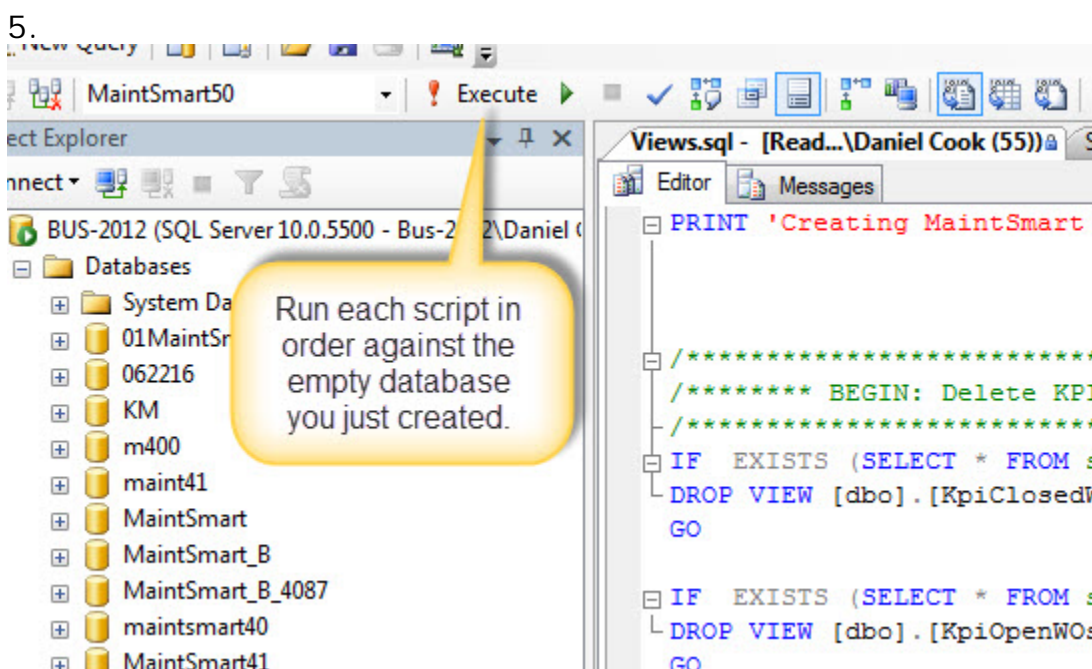Be sure to fill in the login name you created in place of "<login name>".

1.

2.

> Create new empty SQL Server database.

3.

> Open the SQL script files provided in installation and run in sequence described below.

4.

Name	Date modified	Type
Load.sql		
LoadForNoImport.sql		
StoredProcs.sql		
Tables.sql		
Translator.sql		
UserDefinedFunctions.s		
Views.sql		

1.Tables
2. UserDefinedFunctions
3. Views
4. StoredProcs
5. Load
5A. LoadForNoImport (only if never used MaintSmart before NOT for imports.)
6. Translator

5.

MaintSmart50   Execute

Views.sql - [Read...\Daniel Cook (55))

Editor   Messages

PRINT 'Creating MaintSmart

/***********************
/******* BEGIN: Delete KPI
/***********************
IF EXISTS (SELECT * FROM s
DROP VIEW [dbo].[KpiClosedW
GO

IF EXISTS (SELECT * FROM s
DROP VIEW [dbo].[KpiOpenWOs
GO

BUS-2012 (SQL Server 10.0.5500 - Bus-2 2\Daniel
Databases
System Da
01MaintSr
062216
KM
m400
maint41
MaintSmart
MaintSmart_B
MaintSmart_B_4087
maintsmart40
MaintSmart41

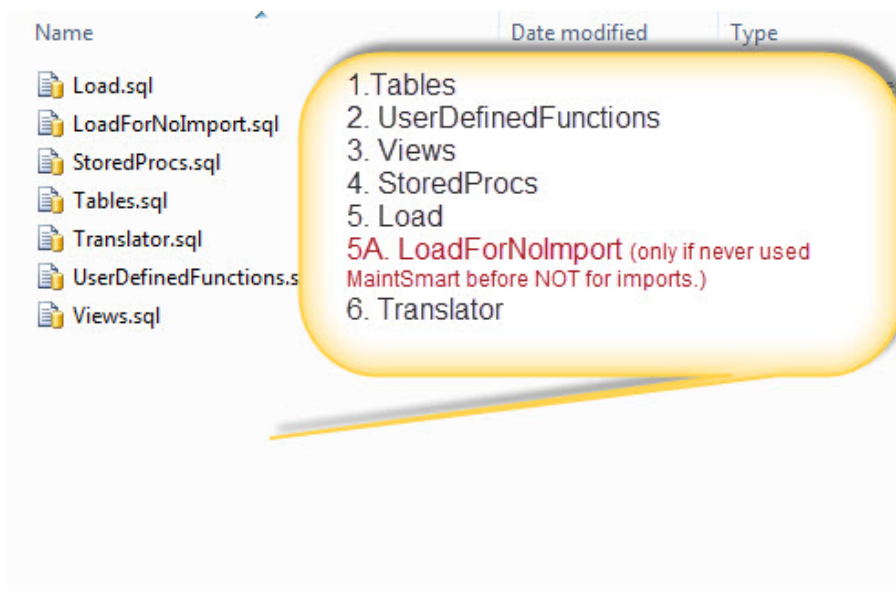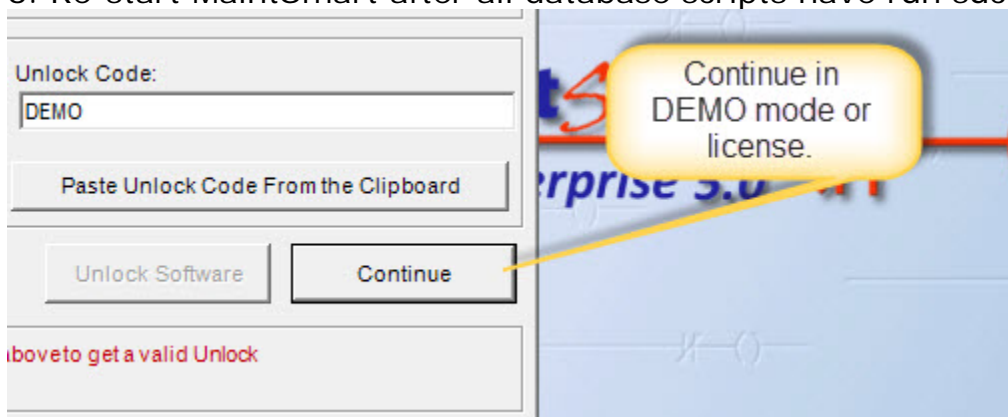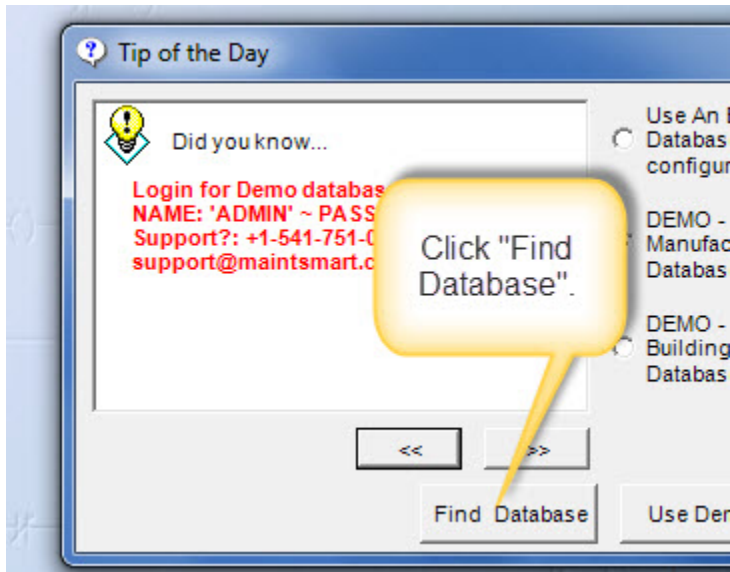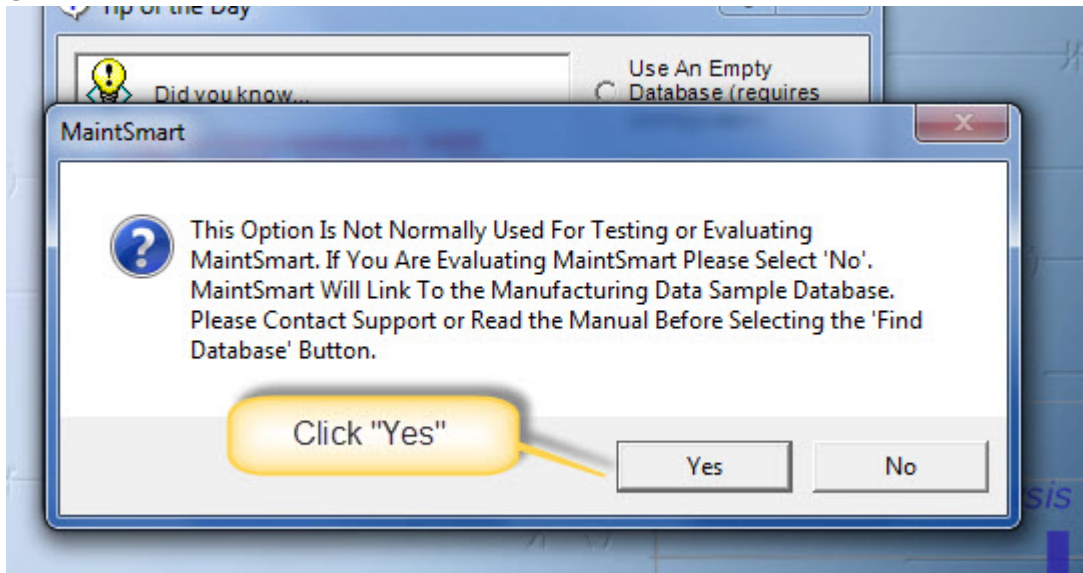Run each script in order against the empty database you just created.

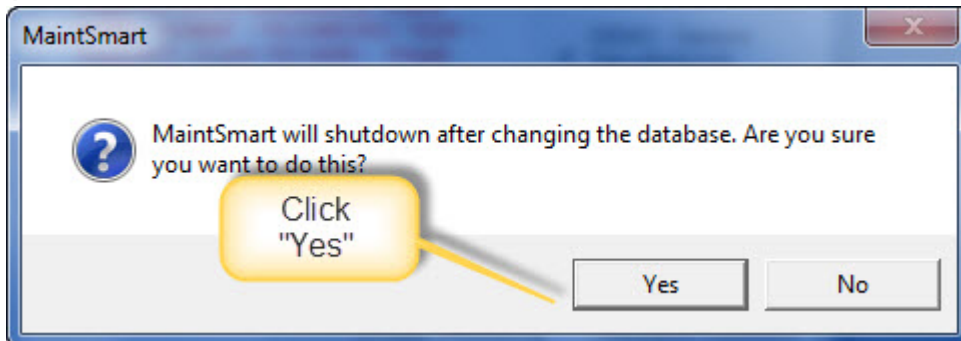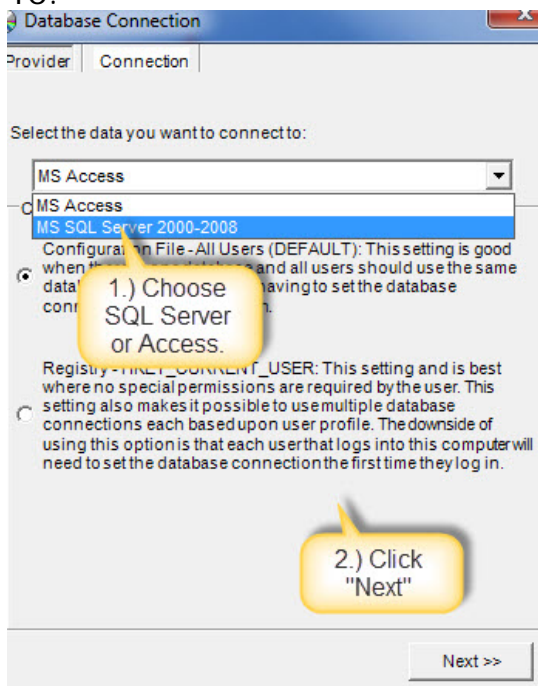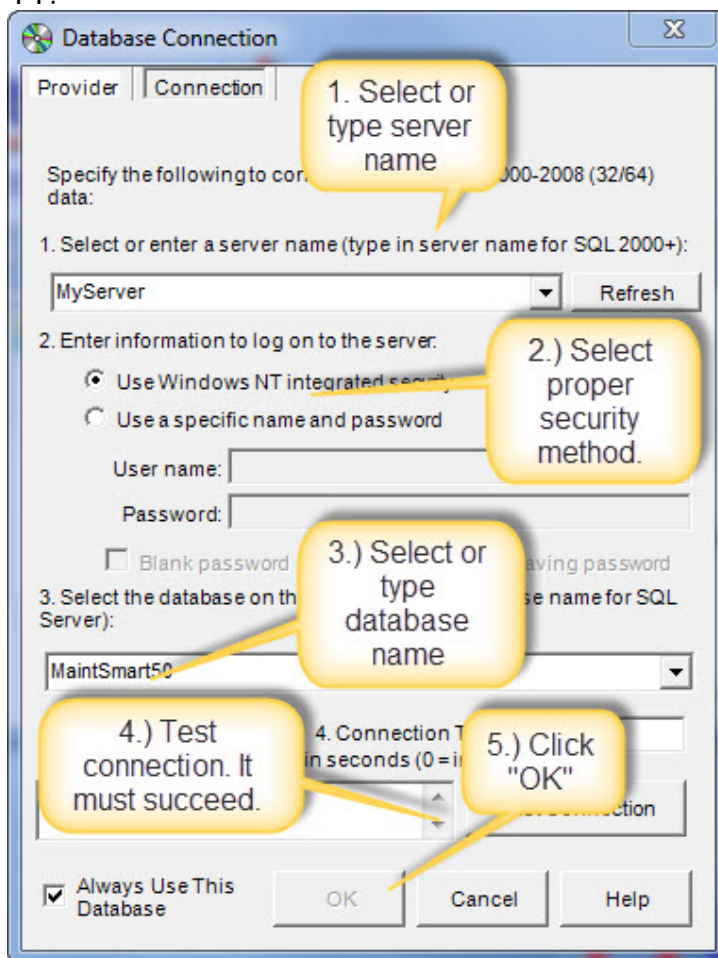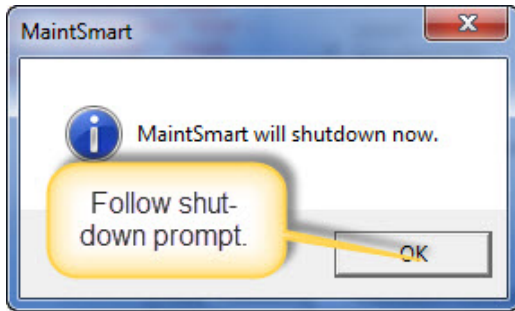6. Re-start MaintSmart after all database scripts have run successfully.

Unlock Code:
DEMO

Paste Unlock Code From the Clipboard

Unlock Software   Continue

above to get a valid Unlock

Continue in DEMO mode or license.

7.

Tip of the Day

Did you know...

Login for Demo database
NAME: 'ADMIN' ~ PASS
Support?: +1-541-751-0
support@maintsmart.c

Click "Find Database".

Use An
Database
configur

DEMO -
Manufac
Databas

DEMO -
Building
Databas

<<   >>

Find Database   Use Der

8.

Tip of the Day

Did you know...

Use An Empty
Database (requires

MaintSmart

This Option Is Not Normally Used For Testing or Evaluating MaintSmart. If You Are Evaluating MaintSmart Please Select 'No'. MaintSmart Will Link To the Manufacturing Data Sample Database. Please Contact Support or Read the Manual Before Selecting the 'Find Database' Button.

Click "Yes"

Yes   No

9.

MaintSmart

MaintSmart will shutdown after changing the database. Are you sure you want to do this?

Click "Yes"

Yes   No

10.

11.

12.

MaintSmart will shutdown now.

Follow shut-down prompt.

OK

13.

Do you want to load data into your empty database by im[...] an existing MaintSmart database?
If not, you will be prompted to begin entering data manu[...]

Starting with no data

If using the MaintSmart import tool to migrate old data

Yes   No
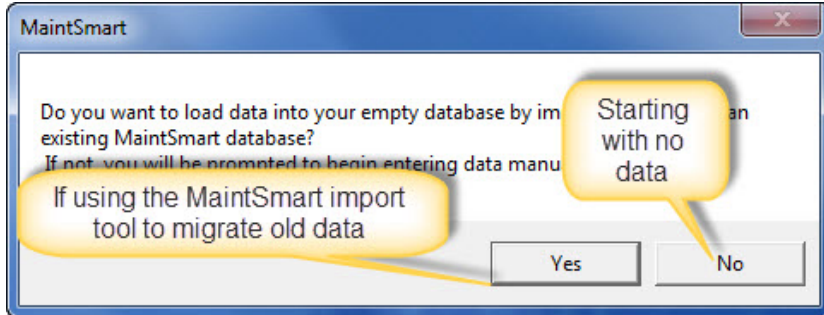
14. If starting new with MaintSmart and NOT importing data from older version.

Initial Program Configuration

File   Options   Help

Step 1: Enter your company/organization name. The 'Company' can contain many top-level entities. Each of these contain their own data (step [...]

Company Name:
My Company

Step [...] situa[...] the o[...] main[...]

If new install and NO data to import. Populate fields for "seeding" the database. Create initial administrator user and password.

[...]ment heirarchies and one maintenance related equipment heirarchy. Name these to describe yo[...] at any time. Examples for a building maintenance situation might be "Complex", "Building", "Flo[...] [...]tenance heirarchy. Additionally the maintenance heirarchy may be used to implement "zone-

[...]irarchy #1 Top-Level (plant, complex, fleet):
Plant

Heirarchy #2-A (Process, building, make):
Process

Heirarchy #2-B (Work area/Location):
Work Area/Location

Heirarchy #3 (Line, department, floor, model):
Line

Equipment   Equipment   Equipment   Equipment   Equipment

Step 3: Please enter a number between 100 and 999. This number will be used throughout the program to identify your plant or other user-defined to[...] entity ie: building, school, fleet, etc. Enter address data in the appropriate boxes.

Plant Code: Plant Address: Plant City or Identifier:
100   123 Ferguson Ave.   AnyTown

State: Postal Code: Maintenance Technician Description:
OR   97420   Engineer

Step 4: Please enter the user name and password for the main administator of this program. DO NOT LOSE THIS USER NAME/ PASSWORD COMBINATION! CASE SENSITIVE.

Administrator User Name (up to 12 chars.) Password: (4-8 chars)   Re-Enter Password:
ADMIN   Save

15. If upgrading from older MaintSmart version and importing data to new version (5.0).

16. Copy data from old to new database.

# Install the application (system administrator login required)

If upgrading MaintSmart 5.0 from 4.1 then you will need to first uninstall the MaintSmart 4.1 program AFTER ensuring that the database is properly backed up.

The application must be installed on each workstation from which it will be used. Run the setup program ("MaintSmart Enterprise.exe") from the downloaded installation package. Folow the prompts as depicted below

The "Complete" option will install all program and database files onto your computer. If you will be using Access and want multiple users to share the database, then you will

need to share the Access database file or copy it to a server where all the users have permissions. If you will be using SQL Server, then the scripts needed to create the SQL Server database will be copied along with all other installed files (*C:\Program Files (x86)\MaintSmart Software\MaintSmart Enterprise 5.0\DatabaseScripts*) .

Begin by downloading the MaintSmart 5.0 setup program from either http://www.maintsmartftp.com/MaintSmartEnterprise50.exe or http://www.maintsmartftp.com/setup.exe (results in MaintSmart Enterprise.exe) file on a workstation. Double left mouse-click the downloaded file to start installation.
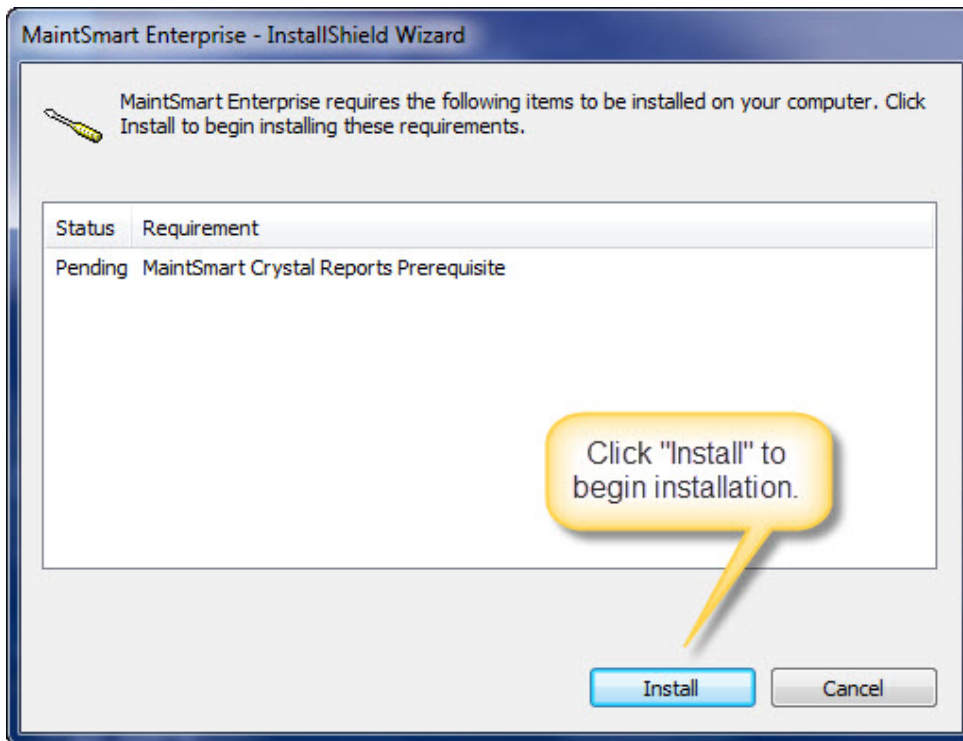
Click 'OK (x2 in some cases)'.
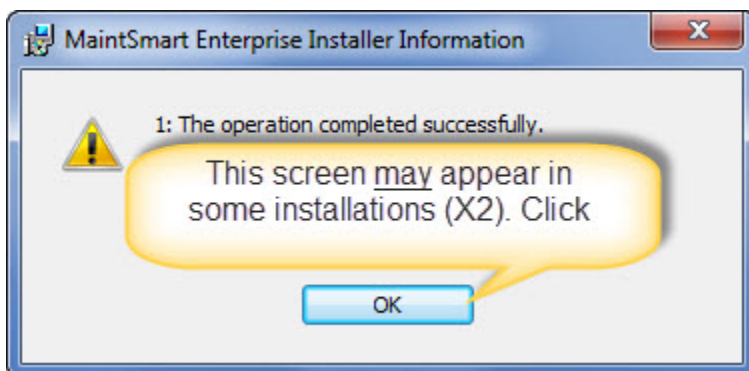
Click 'Next'.
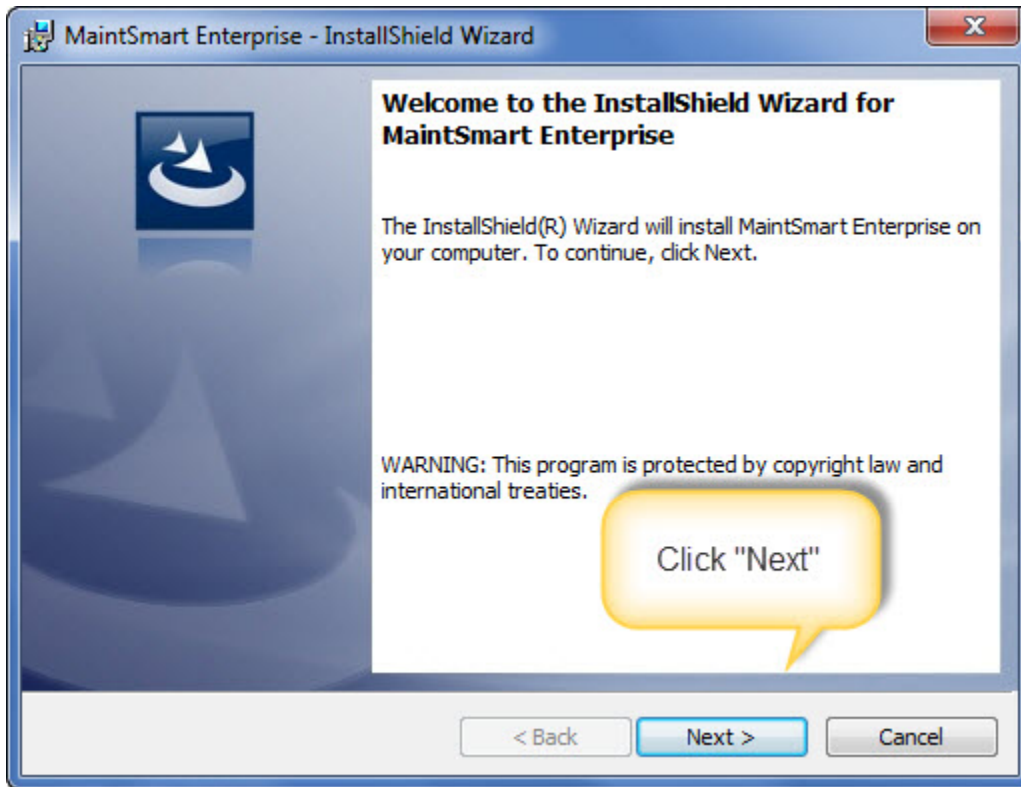
Agree to license.
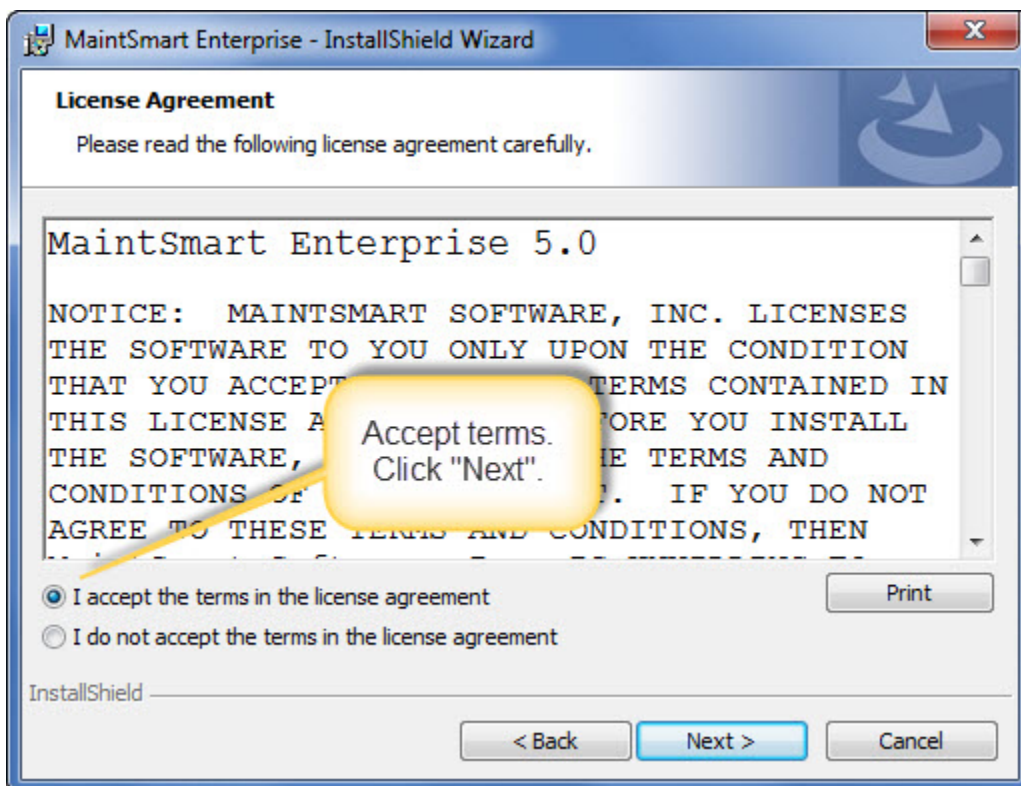
Change program installation folder if required (not recommended).
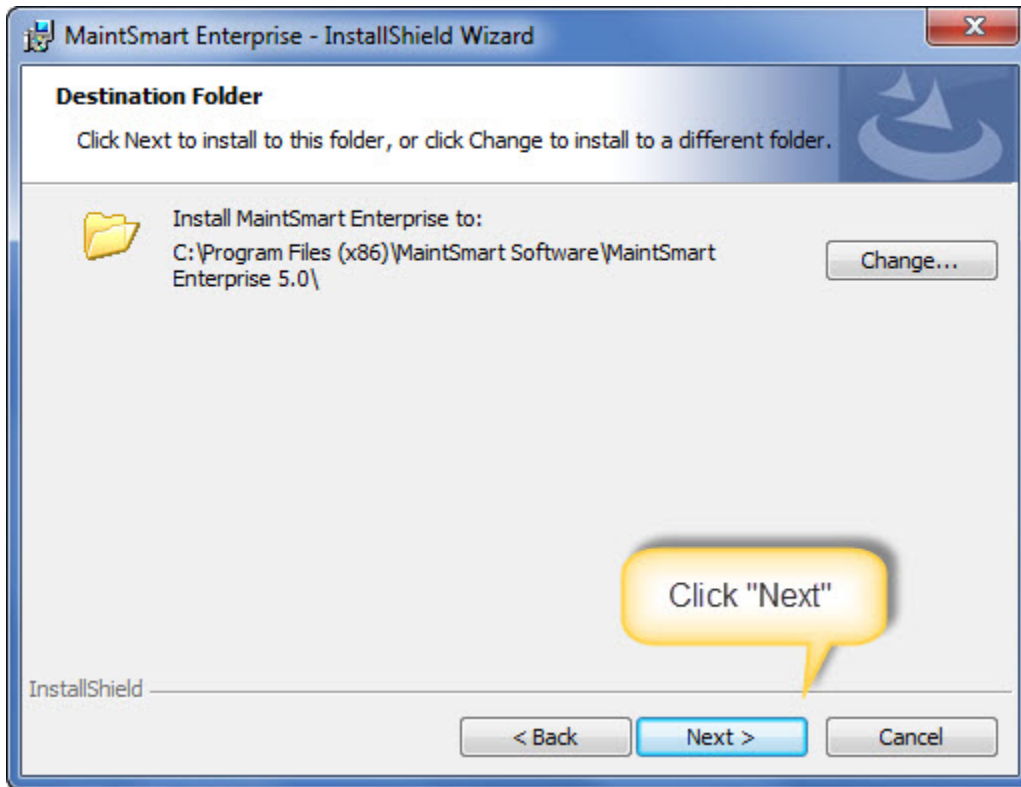
Click 'Install' and follow any additional prompts though to completion of the installation.
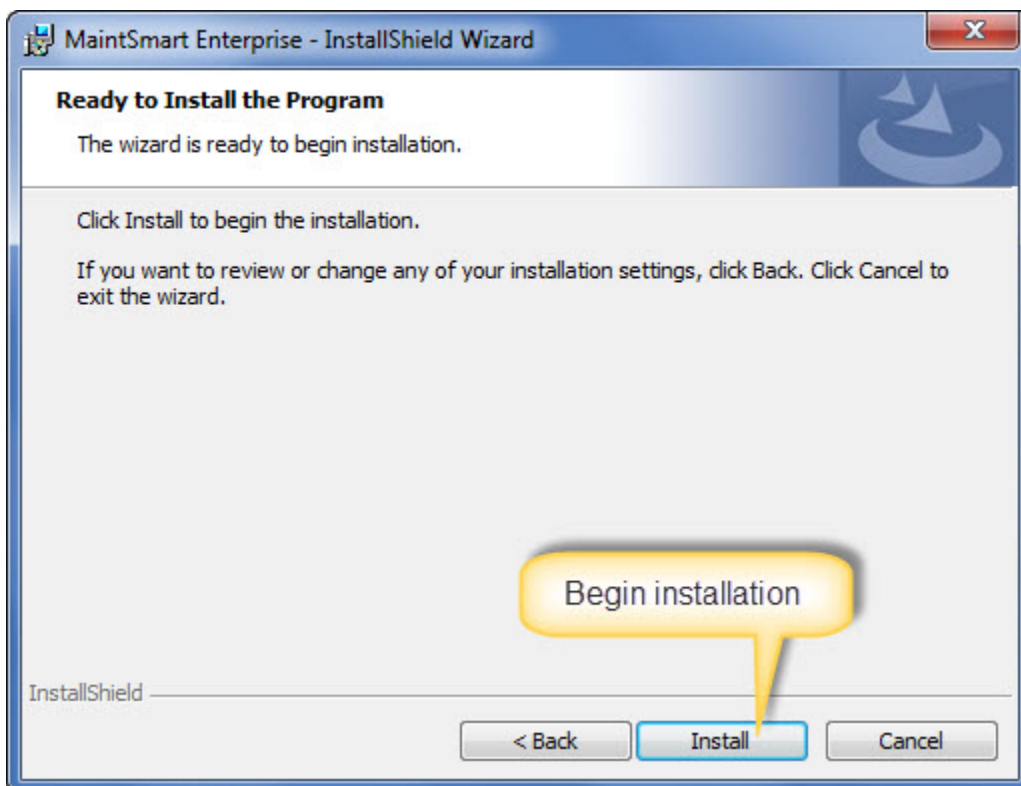
MaintSmart program files installation completed. You are now ready to connect MaintSmart (application) to the database.
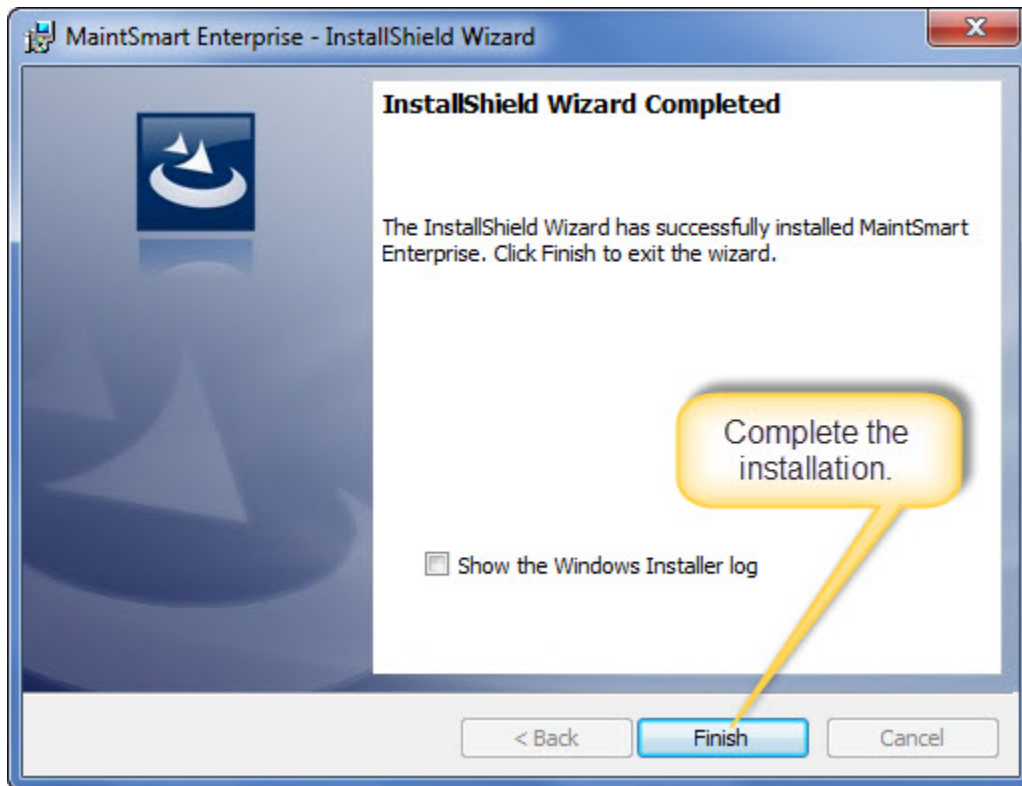
## Connect the Application to the Database
SQL Server 2005-2014

The first time you run MaintSmart Enterprise Edition you will need to tell it how to connect to the database. You will see the following message warning you that MaintSmart will shut down after you select the database connection. Click the "Yes" button to proceed.
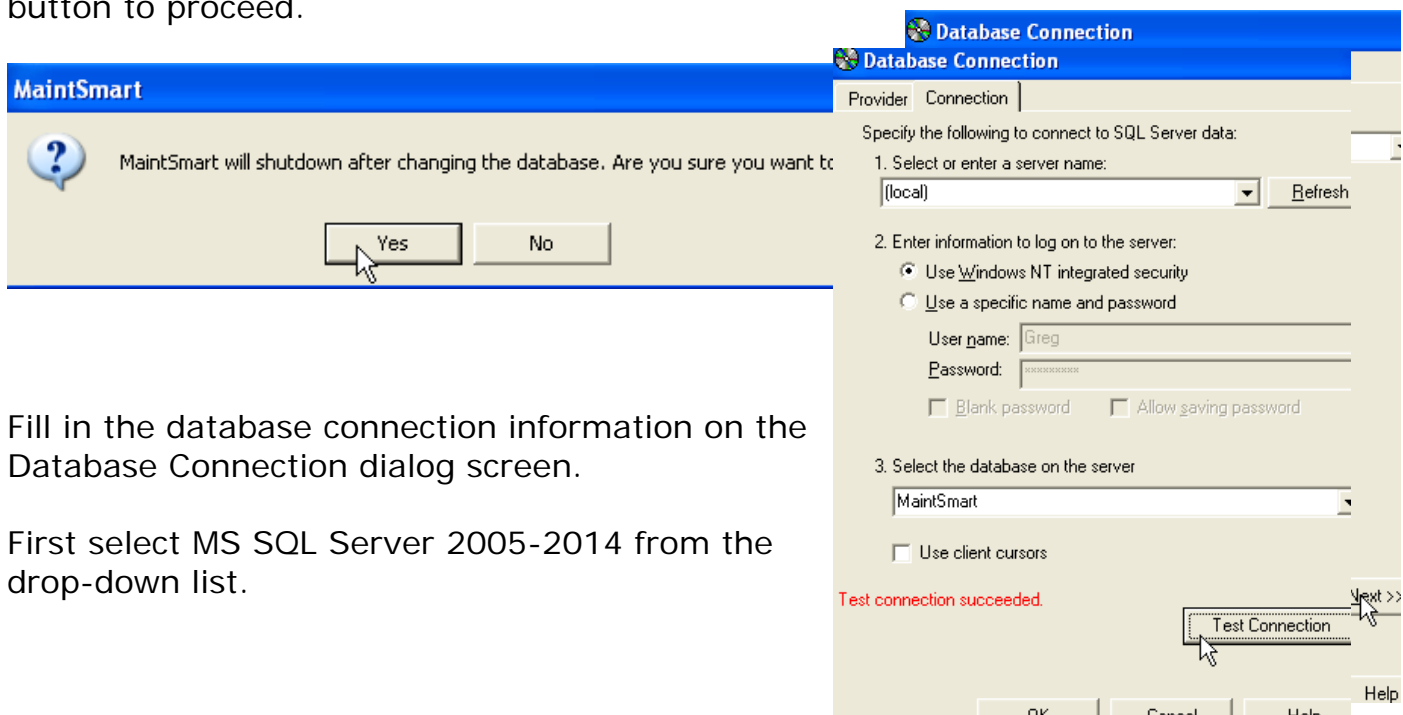
Fill in the database connection information on the Database Connection dialog screen.

First select MS SQL Server 2005-2014 from the drop-down list.

After supplying the necessary database connection information and testing the connection, click the "OK" button. MaintSmart will shut down and you can restart it from the Start menu.

NOTE: in some cases the server name and database name will not automatically populate the drop-down boxes on this screen. If this occurs simply copy/paste or directly type the names into the appropriate boxes manually.

If the connection test fails then some of the information entered is incorrect. *See you SQL Server system administrator to verify that you save the correct information. In all cases this will be the result of incorrect login information or inadequate permissions on the SQL Server database.*

MS Access

The first time you run MaintSmart Enterprise Edition you will need to tell it how to connect to the database. You will see the following message warning you that MaintSmart will shut down after you select the database connection. Click the "Yes" button to proceed.
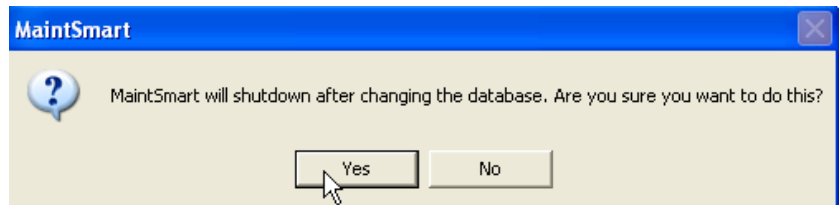
Fill in the database connection information on the Database Connection Wizard. In a standard installation you can find your MaintSmart databases in **C:\Program Files\MaintSmart Software\MaintSmart Enterprise 5.0\Access Databases** There are four MS Access database files that are installed with MaintSmart:

File	Purpose
MaintSmart.mdb	Empty database - Use for entering new data manually from MaintSmart.
MaintSmart_B.mdb	Building Maintenance demo database (sample data included)
MaintSmart_M.mdb	Manufacturing demo database (sample data included)
MaintSmartMT_50XXX.mdb	Empty database - Use only for importing into from existing MaintSmart database

Whichever database file you decide to use, you should make a backup copy of it before you start using it so you can start over if you wish.
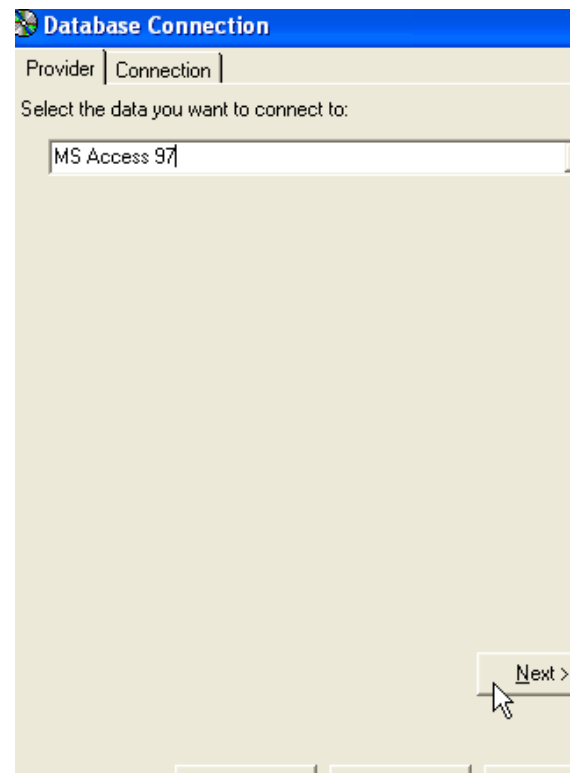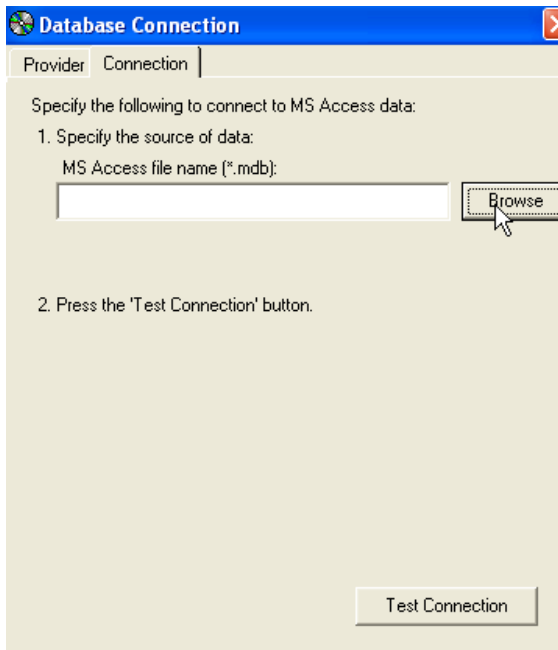
After supplying the necessary database connection information and testing the connection, click the "OK" button. MaintSmart will shut down and you can restart it from the Start menu.

If the connection test fails then some of the information entered is incorrect. See you SQL Server system administrator to verify that you have the correct connection information.

Load Data Into the Database
There are two scenarios that may occur for businesses starting to use MaintSmart Enterprise Edition:

- Using MaintSmart for the first time
- Upgrading from previously versions (4.1xxx and earlier) of MaintSmart

Using MaintSmart For the First Time
When you start MaintSmart after you have established a database connection to a valid, empty MaintSmart database you will see the initial configuration screen. You can now start entering data through MaintSmart's user interface.
SQL Server Only: In this case you should have previously run the script file LoadForNoImport.sql as described in the section entitled "Create the MaintSmart schema within the database"

Warning: Back up your existing Access/SQL Server database before importing. It will be changed by the import, although it will still be usable by your old MaintSmart application.

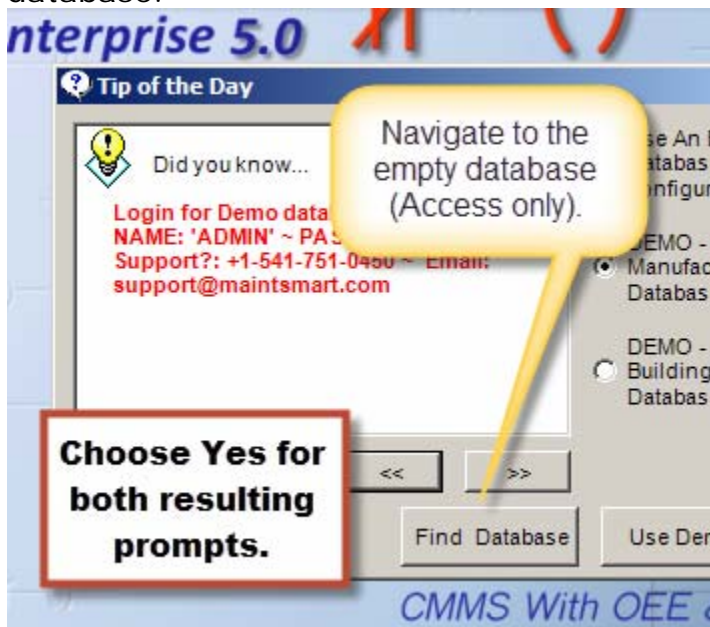**Upgrading From Versions (4.1x) of MaintSmart**
If you have been using a previous version of MaintSmart, using an MS Access database (4.1 or higher) you can import the data from your existing database into the new Enterprise Edition database. Below are the steps needed to import data from MaintSmart 4.1 to MaintSmart 5.0.

Due to possible corruption of your existing Access database, some data may not import. If this happens, you will see messages for each database table for which a data problem occurred. You can get help from MaintSmart technical support resolving data issues. If you need help, it will be necessary to provide technical support with a copy of your original MS Access database.

Upgrading From Versions (4.0x and earlier) of MaintSmart
Upgrade the MaintSmart 4.0 database to MaintSmart 4.1 then upgrade the MaintSmart 5.0 database using the MaintSmart 4.1 database as the source database. Alternatively supported users you may consult with MaintSmart support for imports to MaintSmart 5.0 using a source database 4.0 or lower. Below shows the Access database option.
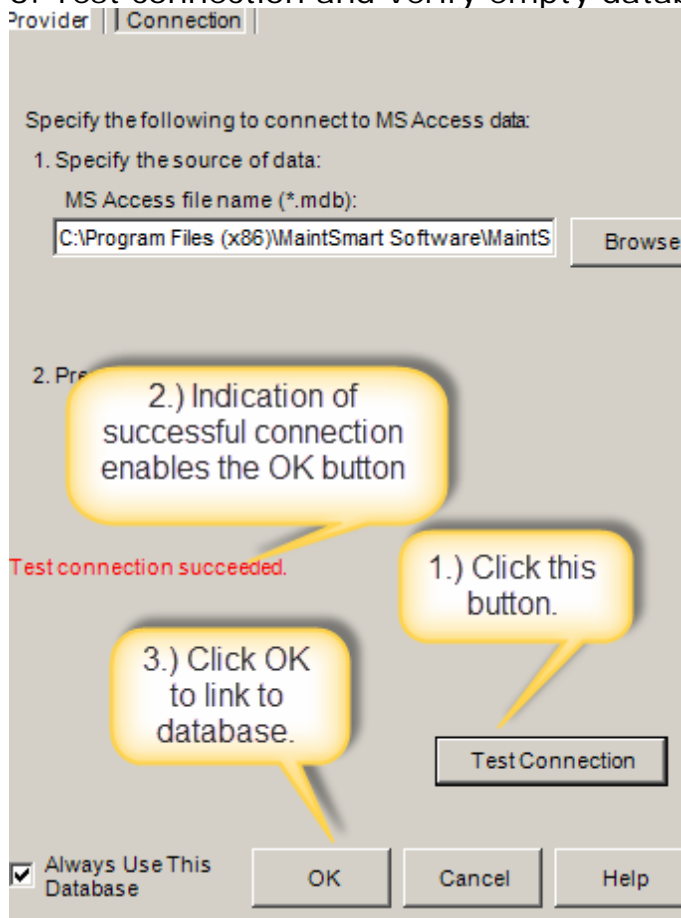
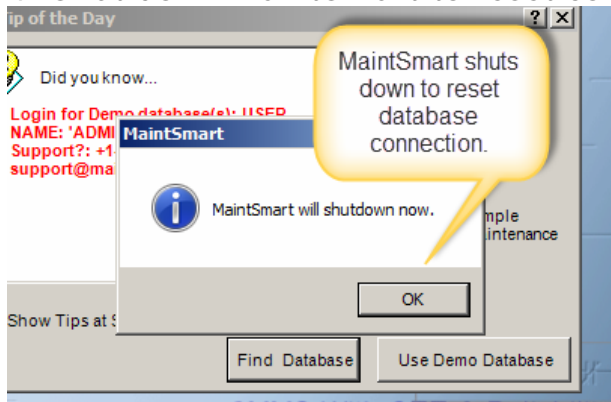1. Choose "Find Database" option then navigate to a completely empty MaintSmart database.

2. Choose the empty MaintSmart 5.0 Access database.

MaintSmartMT_41xx.mdb	2/2/2017 11:15 AM	Microsoft Access Ap..
MaintSmartMT_50xx.mdb	1/25/2017 9:30 AM	Microsoft Access Ap..

Choose the empty database. This is designed to receive data from another MaintSmart database.

File name: MaintSmartMT_50xx.mdb   MS Access Database Files (*.md ▼)

Open ▼   Cancel
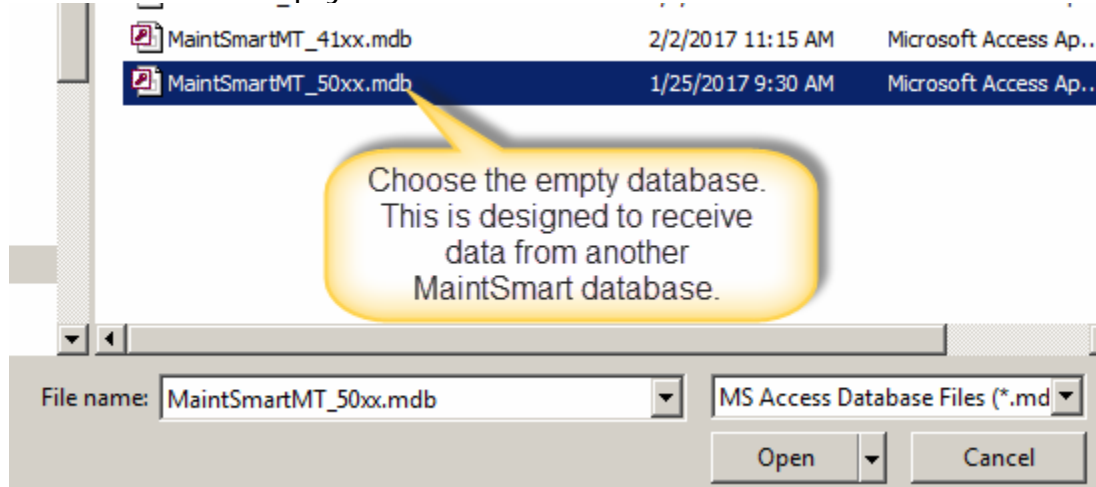
3. Test connection and verify empty database.

Provider | Connection

Specify the following to connect to MS Access data:

1. Specify the source of data:

MS Access file name (*.mdb):

C:\Program Files (x86)\MaintSmart Software\MaintS   Browse

2. Pre

2.) Indication of successful connection enables the OK button

Test connection succeeded.

1.) Click this button.

3.) Click OK to link to database.

Test Connection

☑ Always Use This Database   OK   Cancel   Help

4. Shut down MaintSmart to reset connection.

5. Start MaintSmart 5.0. Prompt to load 4.1 data to empty 5.0 database appears.
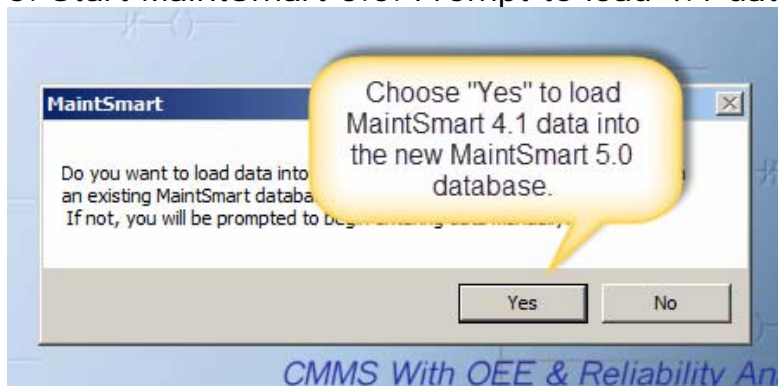
6. Connect then import 4.1 database to new empty 5.0 database. This should complete without errors. Check import log and if errors appear there then email MaintSmart support with import log attached as a .txt file. Next time MaintSmart 5.0 is connected the 5.0 database will be the source with all data imported from 4.1. The import only needs to be completed one time. Other workstations simply need the MaintSmart 5.0 program linked to the new database.
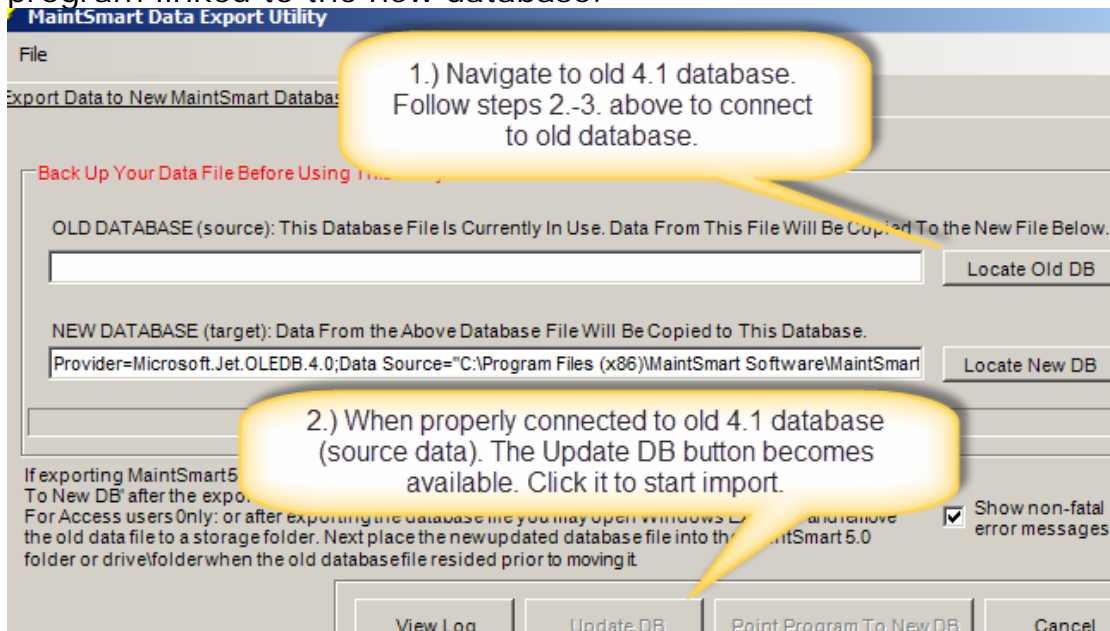
License MaintSmart (activation)

1.) Begin by either clicking the desktop shortcut (if available) or using the Start button Programs menu as depicted below:
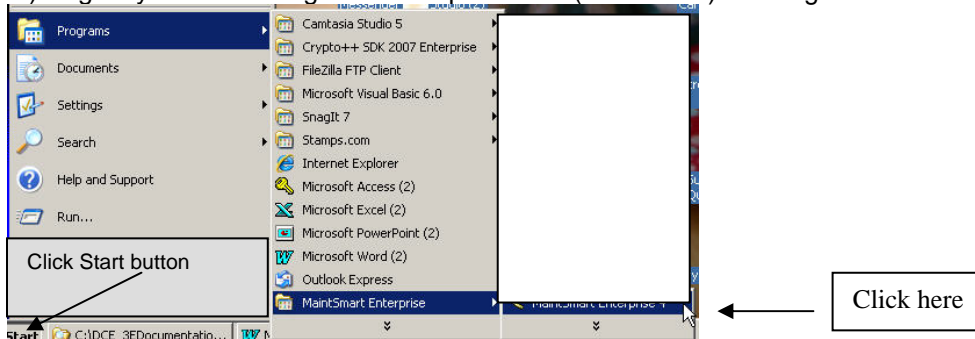
2.) Starting MaintSmart will cause the Demo screen to appear. NOTE: this is the full version of MaintSmart without any other limitations other than the trial period.
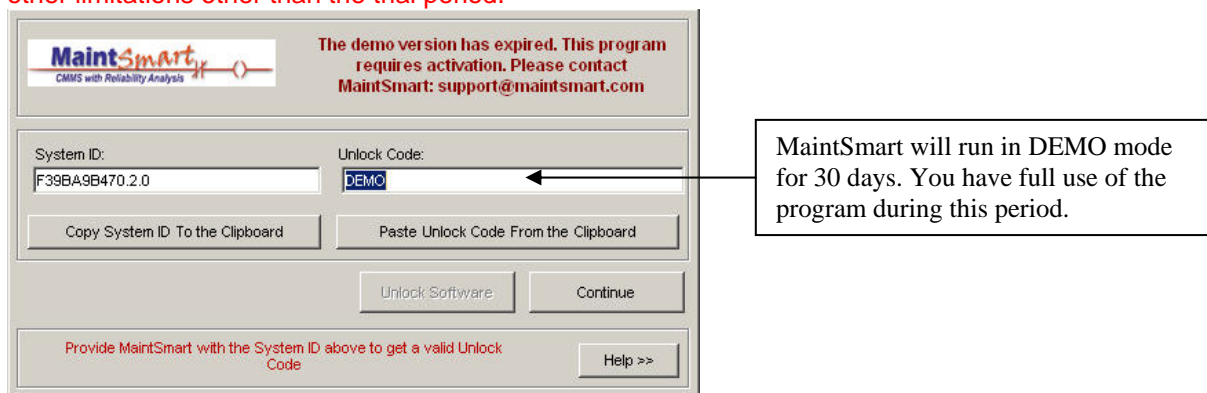
3.) You may continue using until the 30-day trial period expires. At this point, a registration screen will appear and you'll need to register MaintSmart to access the program thereafter.
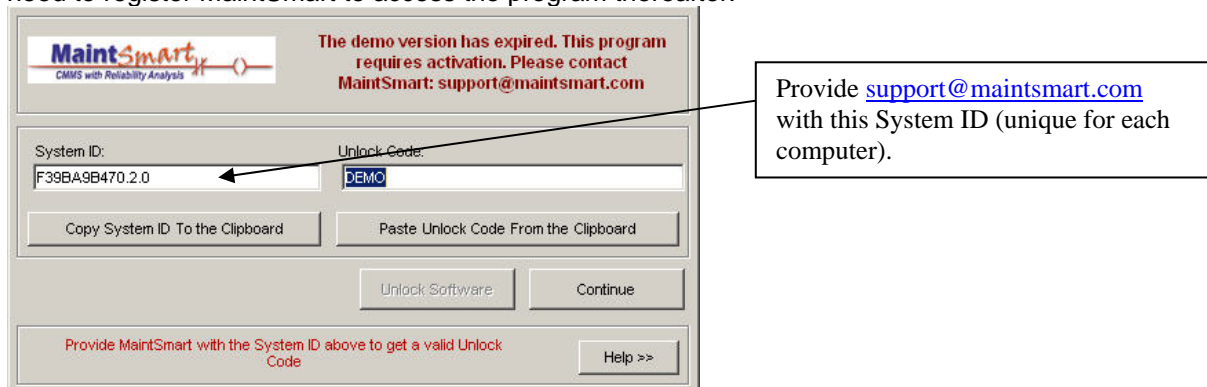
4.) Once MaintSmart receives the System ID an unlock code is created and sent back to you by email.

Copy (CTRL + C) the unlock code from the reply email then press the 'Paste Unlock Code From the Clipboard' button.

5.) Click the button labeled: 'Enter Unlock Code' once you have entered the correct unlock code. Entering the wrong unlock code may make it more difficult to register this computer so be sure to match the System ID with the proper Unlock code for that computer.

Once you have entered the correct Unlock Code for this computer press the 'Unlock Software' button.

Deactivating and Moving MaintSmart
Always deactivate MaintSmart before removing a computer from service OR uninstalling MaintSmart permanently. Failure to do so could result in a lost MaintSmart license.

1.) Go to Program Configuration screen and select menu item depicted below:
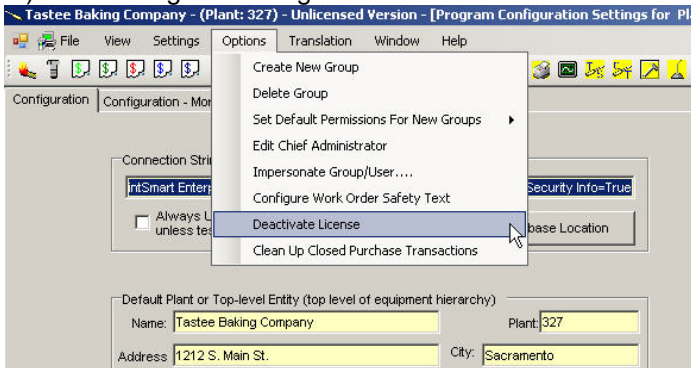
2.) Click "Deactivate License" then send in resulting codes to MaintSmart along with computer name. This will deactivate the license and make it available to another computer.

3.) Email the System ID, Computer Name and Deactivation Code to MaintSmart. This will release this license making it available to another computer.