# Upgrade MS Access Database to SQL Database

This should be completed on your master computer.

Preparation:

1. Unarchive all forms in access so they are in one database.

   - This could take hours depending upon the number of archived forms.

   - FYI: Largest data.mdb after unarchiving is 354,824 KB.

Let's Get Started:

2. Run the latest Baseline on the Master Computer.

3. You will simply choose the | Next > | button at each screen except for the screenshot below.

   - *Special Note:* When you get to the screen below, you will want to make sure you check the box labeled Advanced Install. This option will put scripting files in the locations for us to use later in this document.
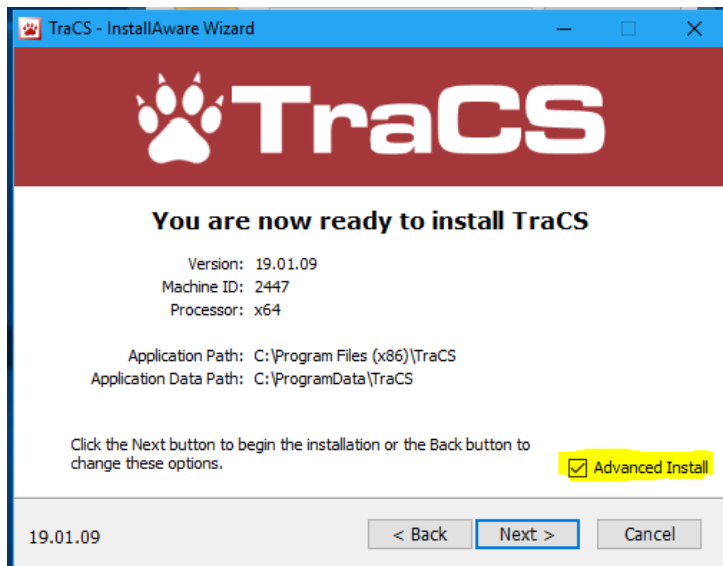

Reset Pack Level on Master.

4. Delete the files/folders in the **C:\ProgramData\Tracs\TraCSClientUpdate** folder.

5. Delete the DistributionLog.xml File **C:\ProgramData\Tracs\Settings** folder.

6. Delete the whole TraCSPack line in the RegistryKeyName.ini file

   - C:\Program Files\TraCS\RegistryKeyName.ini or

   - C:\Program Files (X86)\TraCS\RegistryKeyName.ini

   - Example: TraCS Pack=WIPack130226b

   - Should look like below. Do not change the TraCS= line in your file.

```
RegistryKeyName.ini - Notepad
File  Edit  Format  View  Help
[RegistryKey]
Name=TraCS
[UpdateVersionID]
TraCS=10.05.03
```
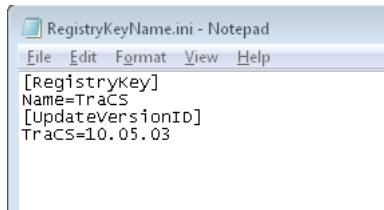
Reset and Setup Master Computer to be a SQL Database - Task 1.4(c)

7. Setup SQL Server Databases

- The most common issue is not setting up the SQL permissions for the TraCS User ID SQL Server
- Once done with the migration if forms still won't save to SQL database try using the SQL Server SA user
- Step 4 is commonly skipped. Make sure it's done.

Please note that the Badger TraCS Help Desk does not perform SQL Server administration services. Your agency must be responsible for SQL Server administration and maintain the required skill set. The help desk's knowledge is limited to the information presented here.

A. Start SQL Server Management Studio (SSMS).

B. Create the following databases.
   - tracs_support
   - tracs_data
   - tracs_log
   - tracs_users

Transact-SQL Script
USE master
GO
CREATE DATABASE tracs_support
GO
CREATE DATABASE tracs_data
GO
CREATE DATABASE tracs_log
GO
CREATE DATABASE tracs_users

C. Secure the TraCS databases created.
   a. Set up a user id and password in SQL Server that will be used for all TraCS generated SQL commands. The user ID needs the following permissions for SQL Server databases:
      - **Select, insert, delete**, and **update** permissions for all tables in the TraCS databases
      - **Create table, alter table, create column**, and **alter column** (for successful pack installation and migration of users)
   - **Alter database** (for successful pack installation)

D. Create the needed tables in the **tracs_log** database using the "log" SQL script. The script will be in:

   C:\ProgramData\TraCS\Baseline Files\Scripts\Baseline Log Total SQLServer.sql

   Note: a common error is to run the script against the default database, which is typically not the tracs_log database. Either change the default database in SSMS to tracs_log or add the following lines to the script before running it—

   USE [tracs_log]

   Go
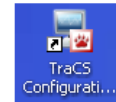
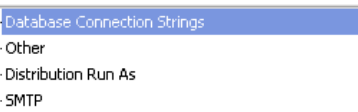E. Double click the shortcut for the TraCS Configuration Manager, located on your desktop.

Note: if shortcut for the configuration manager is missing, open the Windows start menu, navigate to All Programs | TraCS and click the TraCS Configuration Manager.

F. Sign in with account 00001, password **tracs**.
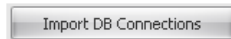
G. Click **Setup** tab.

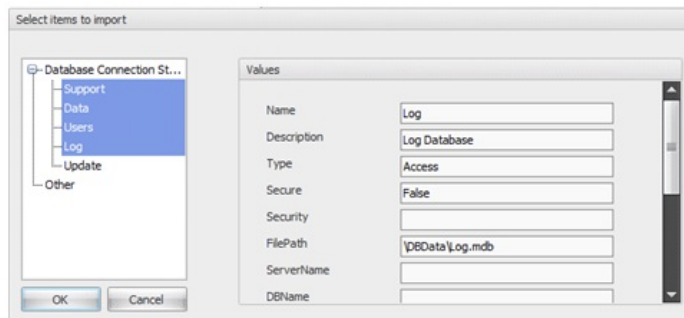H. Click the **Database Connections** button.

I. Select **Database Connection Strings**.

J. Click **Import DB Connections**.

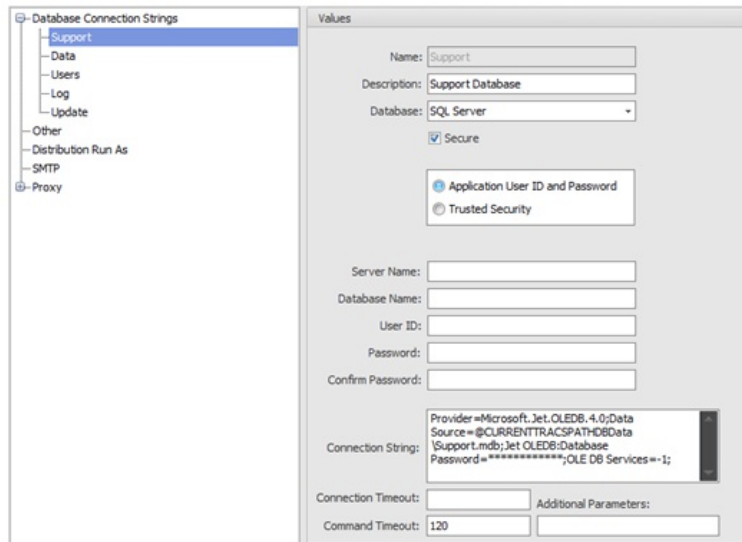   i. Expand the **database connection string** item.

   ii. Select the **Support, Data, Users**, and **Log** entries. (Use the key to select multiple entries at the same time.)

   iii. Click **OK**.

K. Edit the database connection for the **Support** database.

   i. Expand the **Database Connection Strings** item.

ii. Select **Support**.

iii. Change the **Database** to **SQL Server**.

iv. Choose **Application User ID and Password**.

v. In the **Server Name** field, enter the name of the server hosting the SQL server databases. This is the same as the Data Source in the connection string.

vi. In the **Database Name** field, enter **tracs_support**. This will populate the Catalog portion of the connection string.

vii. Enter the user ID and password needed to access the database.

viii. Click **Test** to verify the connection string.

L. Edit the database connection for the data database.

i. Select **Data** under the **Database Connection Strings** item.

ii. Change the **Database** to **SQL Server**.

iii. Choose **Application User ID and Password**.

 Note: The database connection configuration editor also contains an option for trusted security, also known as "Windows Authentication." We do not recommend this setting. Using trusted security implies that each user may also interact with the TraCS databases outside of the TraCS program because SQL Server permissions have been granted on the individual user's account. Application User ID and Password is more secure.

i. In the **Server Name** field, enter the name of the server hosting the SQL server databases. This is the same as the Data Source in the connection string.

ii. In the **Database Name** field, enter **tracs_data**. This will populate the Catalog portion of the connection string.

iii. Enter the user ID and password needed to access the database.

iv. Click **Test** to verify the connection string.

M. Edit the database connection for the Users database

i. Select **Users** under the **Database Connection Strings** item.

ii. Change the **Database** to **SQL Server**.

iii. Choose **Application User ID and Password**.

iv. In the **Server Name** field, enter the name of the server hosting the SQL server databases. This should be the same as what you would enter for the Data Source portion of the connection string.

v. In the **Database Name** field, enter **tracs_users**. This will populate the Catalog portion of the connection string.

vi. Enter the user ID and password needed to access the database.

vii. Click **Test** to verify the connection string.

- Click **Apply** to save your work. (Important: If missed, next step will fail.)

N. Run a batch file to create the tables for tracs_users database:

O. **C:\Program Files (x86)\TraCS\Baseline Files\Distribution\Total\TraCS Baseline Total Users.bat**

P. The script to run will be in the TraCS network folder, in the DBData\SQLScripts folder. The name of the script will say:

   DistDBUpgradTraCS Baseline Total UsersDelta.sql

   From the SQL Server Management Studio software, run the script against the tracs_users database.

Q. Edit the database connection for the Log database.

i. Select **Log** under the **Database Connection Strings** item.

ii. Change the **Database** to **SQL Server**.

iii. Choose **Application User ID and Password**.

iv. In the **Server Name** field, enter the name of the server hosting the SQL server databases. This should be the same as what you would enter for the Data Source portion of the connection string.

v. In the **Database Name** field, enter **tracs_log**. This will populate the Catalog portion of the connection string.

vi. Enter the user ID and password needed to access the database.

vii. Click **Test** to verify the connection string.

Note: If you are using the SMTP or Proxy Server features, you will need to put those settings back in too. Refer to Steps 17 and 18 in the Installation Guide, to help configure these features.

R. Click **OK**.

S. Close the configuration manager.

Start Auto-Update on Master Computer - Task 1.5

8. Requirements: Master Computer needs to be connected to the Internet.

- Close the configuration manager if it is still open from the previous task.

- Register your master computer with Badger TraCS.

i. Start TraCS.

ii. TraCS will attempt to connect to the update server, but the update server does not yet know that your master computer should be authorized. When you get to the login screen, click **Cancel**.

iii. Send an e-mail to badgertracs@dot.wi.gov requesting that your master computer be authorized. Please include the Windows machine name for your master computer and the name of your agency.

A. After Badger TraCS has responded, authorizing your master computer, start TraCS again.
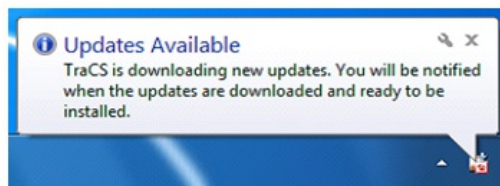
i. Start TraCS.
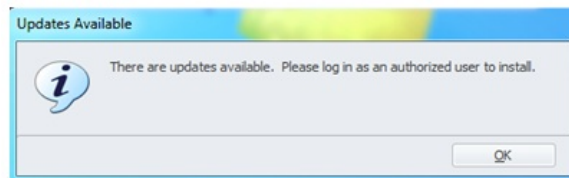
ii. Click **OK.**

iii. Log into TraCS using User **00001** and Password "**tracs**".
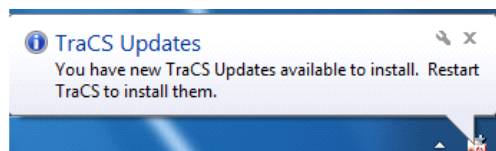
iv. Click Cancel on the Locate Device-Barcode Reader.
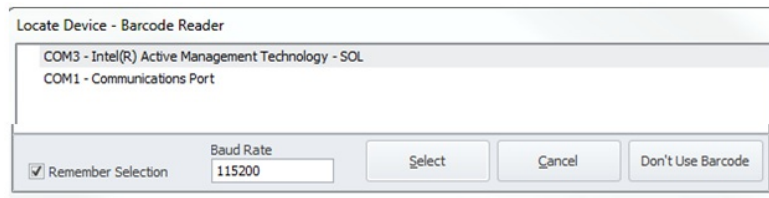
v. You will receive notifications in you Windows task bar that files are downloading.

vi. When you receive the notification that the download is complete, exit TraCS by clicking the

Cancel button on the log in screen.

vii. Start TraCS.

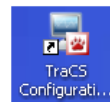**Updates Available**

There are updates available. Please log in as an authorized user to install.

OK
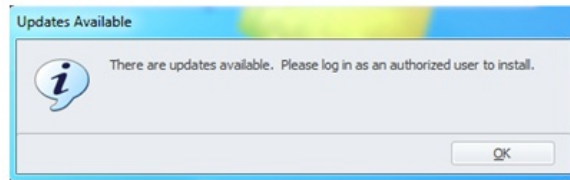
    viii. Click **Ok**.

    ix. Log into TraCS using User **00001** and Password "**tracs**".

    x. Click **Yes** to start the update process.

Updates Available

There are updates available to download. Would you like to download and install them now?

Yes   No
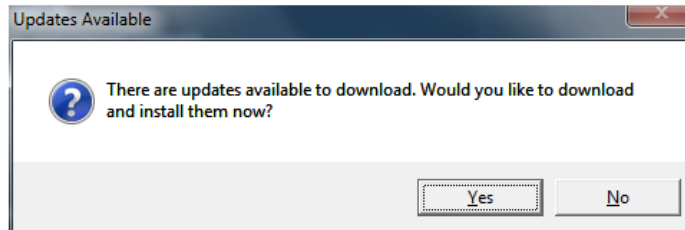
    xi. TraCS will restart when the download is complete.

Finish Database Setup – Task 1.6(c)

9. Double click the shortcut for the TraCS Configuration Manager.

    A. Sign in with account 00001, password **tracs**.

    B. Click Setup tab.

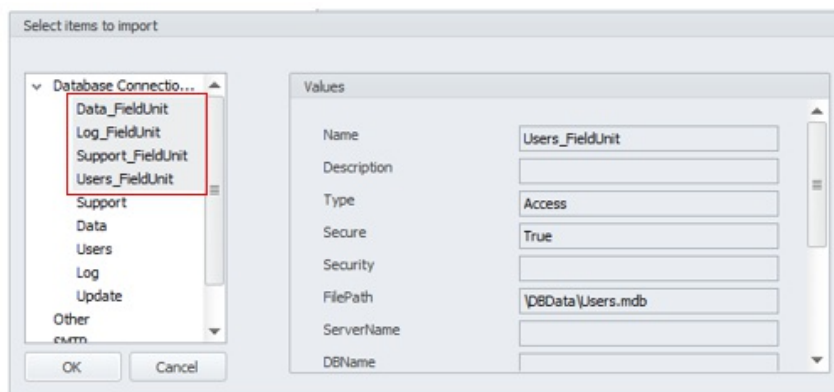   C. Click the **Database Connections** button.

    D. Select **Database Connection** Strings.
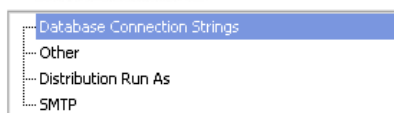
    E. Click **Import DB Connections**.
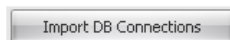
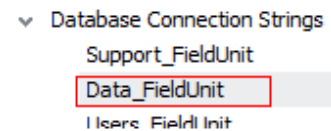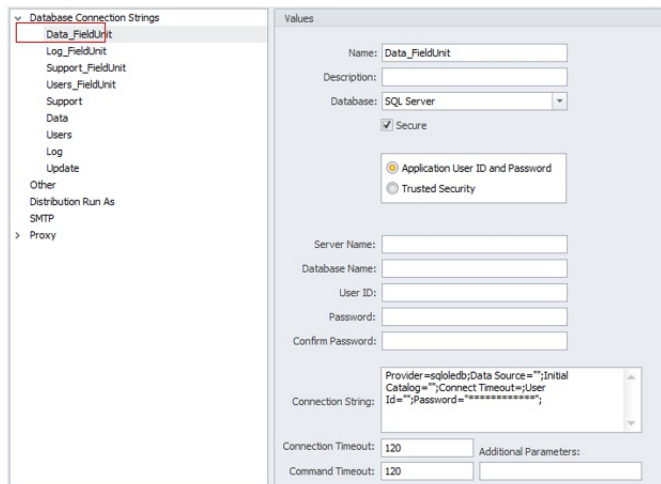   F. Expand the **database connection string** item.

    G. Select the **Support_FieldUnit, Data_FieldUnit, Users_FieldUnit**, and **Log_FieldUnit** entries. (Use the key to select multiple entries at the same time.)

H. Click **OK**. [OK]

I. Edit the database connection for the field unit's version of the data database.

J. Select **Data_FieldUnit** under the **Database Connection Strings** item.

K. Change the **Database** to **SQL Server**.

L. Choose **Application User ID and Password**.

M. In the **Server Name** field, enter the name of the server hosting the SQL server databases. This is the same as the Data Source in the connection string.

N. In the **Database Name** field, enter **tracs_data**. This will populate the Catalog portion of the connection string.

O. Enter the user ID and password needed to access the database.

P. Click **Test** to verify the connection string.

Q. Click **OK** [OK] to close the database connections editor.

 Note: DO NOT change the other _FieldUnit entries. These must remain relative paths. Pointing them to your network databases will break the update process.

10. Using the SQL import/export tool import the following

   ○ All the Data.mdb to tracs_data tables

   ○ All the Log.mdb to tracs_log tables

   ○ All the Users.mdb to tracs_users tables

   ○ The following in support.mdb to tracs_support tables

• V2CaseInvestigationType	• V2ViolationOnStreet
• V2CourtAgency	• V2PropertyOwnerAlias
• V2CourtAppointment	• V2Reason
• V2CourtBlackOutDate	• V2ReasonContact
• V2CourtSchedule	• V2ReasonDetail
• V2CustomText	• V2RemovedBy

- V2GangAffiliation
- V2InsuranceAlias
- V2LocalHelp
- V2LocationAtStreet

- V2Tag
- V2TagCase
- V3ViolationOrdinance
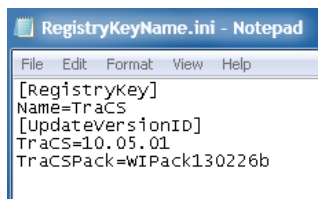- V2ViolationShortcut

11. Test Office Computers

- Create a form and close out. (Makes sure the forms are saving to databases)
- End-shift some forms in from an MDC.
- Create a distribution.

Best Practices (Redo the Pack Update on Master Computer)
Note: It's a good idea to run the update down again on the Master Computer. This ensures that the data which we imported is going to work in the SQL environment. This step isn't necessary, we just recommend it in case there are any issue with forms saving, end-shifting, etc....

Reset Pack Level on Master.

- Delete the files/folders in the **C:\ProgramData\Tracs\TraCSClientUpdate** folder.
- Delete the DistributionLog.xml File **C:\ProgramData\Tracs\Settings** folder.
- Delete the whole TraCSPack line in the RegistryKeyName.ini file
  - C:\Program Files\TraCS\RegistryKeyName.ini or
  - C:\Program Files (X86)\TraCS\RegistryKeyName.ini

  - Example: TraCS Pack=WIPack130226b
  - Should look like below. Do not change the TraCS= line in your file.
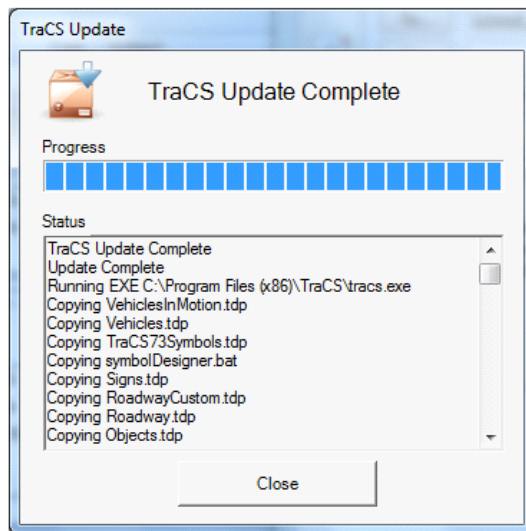

Restart Auto-Update on Master Computer

12. Requirements: Master Computer needs to be connected to the Internet.
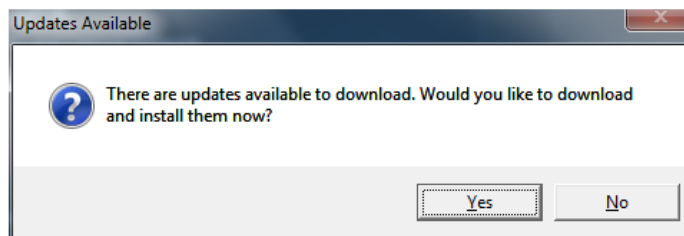
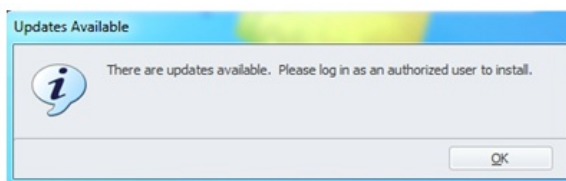 - Close the configuration manager if it is still open from the previous task.

    i. Start TraCS.

    ii. TraCS will restart when the download is complete.

iii. Click **Yes** to start the update process.

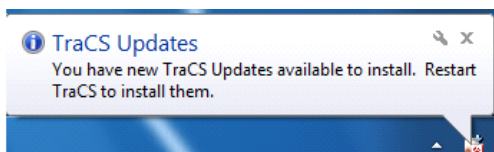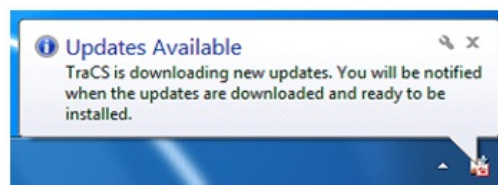iv. Log into TraCS using User **00001** and Password "**tracs**".

v. Click **Ok**.

vi. Start TraCS.

vii. When you receive the notification that the download is complete, exit TraCS by clicking the

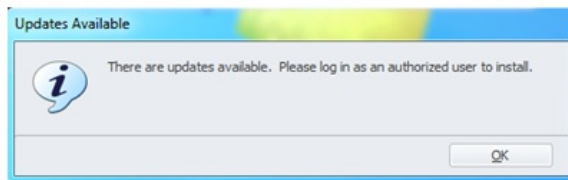**Cancel** button on the log in screen.

viii. You will receive notifications in you Windows task bar that files are downloading.

ix. Log into TraCS using User **00001** and Password "**tracs**".

x. Click **OK.**

Create Distribution and Update Mobile computers

- Refer to Installation **Guide Task 4.1(a): Create Custom Installation Files**
  - Run the distribution on the mobile computers.
  - Verify that end-shifting is working.

DBM - 8/1/2020