



USER'S GUIDE

For Veterans Museum Viewer and Administrator
Applications

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Contents

Viewer Application	2
Searching For A Veteran Record	2
Submitting Corrections / Updates To The Record	3
Administrator Application.....	4
Veterans.....	4
Add Single Veteran.....	4
Add Veterans By Cemetery	4
Search To Edit Existing Veteran	4
Adding / Editing Data	4
Cemeteries	9
Branches.....	9
Ranks	9
Conflicts	9
Awards	10
User Comments	10
Queries.....	10
Installation Instructions	11
Installing MariaDB.....	11
Installing The Viewer And Administrator Applications	13
Configuring MariaDB, Viewer, And Administrator Applications.....	14
Editing The Viewer And Administrator Application Config Files.....	14
Editing The Database Users Config File.....	15
Importing Data And Configuration Files Into The Database	16
References	17

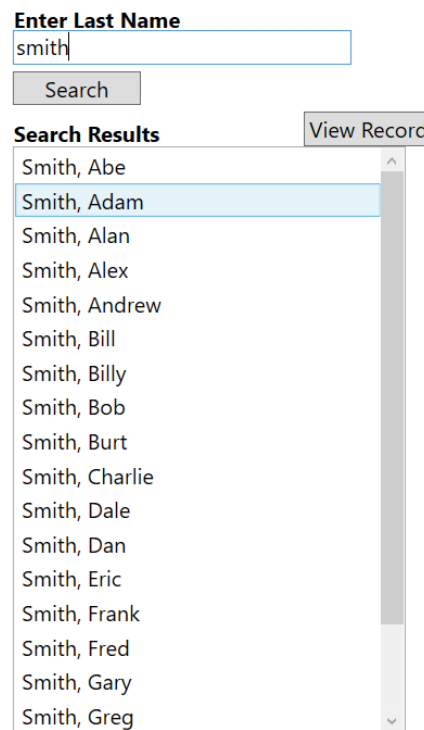
Viewer Application

The viewer application is designed to be used by the public. It does not have the ability to edit the existing data in the database. A *Submit Corrections / Updates* button is available which allows a submission of text up to 3000 characters. The corrections / updates are submitted for later approval.

Searching For A Veteran Record

Upon launching the application, the user will encounter a window that will prompt them to enter a last name of a veteran to search for. Pressing enter or clicking the *Search* button will either load the record, load a list of multiple veterans with the same last name, or load a popup window with the message “No record found for the last name [*last name*]. The name must be spelled as it is in the database, or a match will not occur. In the event of multiple veterans with the same last name, a list will be populated as shown below.

Figure 1



The screenshot displays a web application interface for searching veteran records. At the top, there is a text input field labeled "Enter Last Name" containing the text "smith". Below the input field is a "Search" button. To the right of the search results list is a "View Record" button. The search results are displayed in a list box with a scroll bar on the right. The list contains the following names: Smith, Abe; Smith, Adam (highlighted); Smith, Alan; Smith, Alex; Smith, Andrew; Smith, Bill; Smith, Billy; Smith, Bob; Smith, Burt; Smith, Charlie; Smith, Dale; Smith, Dan; Smith, Eric; Smith, Frank; Smith, Fred; Smith, Gary; and Smith, Greg. The list box has a small upward arrow at the top and a small downward arrow at the bottom.

Search Results	View Record
Smith, Abe	
Smith, Adam	
Smith, Alan	
Smith, Alex	
Smith, Andrew	
Smith, Bill	
Smith, Billy	
Smith, Bob	
Smith, Burt	
Smith, Charlie	
Smith, Dale	
Smith, Dan	
Smith, Eric	
Smith, Frank	
Smith, Fred	
Smith, Gary	
Smith, Greg	

Select the veteran you wish to view and click the *View Record* button to view the associated record. Once the record is loaded, you can view the record, click the *Submit Corrections / Updates* button if you feel like information is missing or incorrect, or click the *Cemetery Information* button for the address, latitude and longitude, aerial picture, and picture of directions to the cemetery. Clicking any photo in either the veteran record or cemetery information will open a window with an enlarged version of the photo. If the last name returned multiple veterans, *Previous* and *Next* buttons will be available to view the other records with the same last name. Once you have completed viewing the selected veteran record, click the *Search Again* button to return to the main menu to search for a different veteran.

The screenshot shows a web application window titled "Veteran Information". At the top left, there is a "Search Again" button. To its right is a "Submit Corrections / Updates" button. In the top right corner, there are "Previous" and "Next" buttons. The main content area displays the name "Smith, Bob" and a "Born" field. Below this is a "Branch - Rank - Unit / Ship" field. There are sections for "Conflicts" (listing "Southwest Asia") and "Awards". A "Comments" section is present. Below the comments is a "Cemetery Information" section, which includes fields for "Roselawn - Decatur", "Section", "Row", and "Marker Location". A "Cemetery Information" button is located below the "Marker Location" field. On the right side, there are sections for "Service Photo", "Marker Photo", "Casual Photo", and "Misc Photo". A "Click Photos To Enlarge" instruction is at the top right.

Submitting Corrections / Updates To The Record

When viewing a veteran record, clicking the *Submit Corrections / Updates* button will open a window with text box allowing the user to add comments. The text box allows up to 3000 characters to be submitted. Click the *Save And Close* button to save the comment and close the window, or click the *Close Without Saving* button to close the window and discard any typed comment.

The screenshot shows a window titled "Add Corrections / Updates". It features a large text area for entering corrections or updates, preceded by the label "Enter Corrections / Updates Below:". At the bottom right, there are two buttons: "Save And Close" and "Close Without Saving".

Administrator Application

The administrator application is designed to be used by trusted employees and volunteers of the veterans museum, not the public. It has the ability to edit and delete any data in the database.

Veterans

The Veterans view can add, edit, or delete veterans contained in the database.

Add Single Veteran

Clicking the *Add Veteran* button in the **Add Single Veteran** section will open a blank veteran record. This will allow creation of a veteran record with all fields available.

Add Veterans By Cemetery

In the **Add Veterans By Cemetery** section you can select an existing cemetery in the database and click *Quick Add* to open a short form blank record. This will allow creation of veteran records preset to the given cemetery information. This form does not allow adding awards, comments, or photos. The veterans added by this method can be edited later to add the missing awards, comments, or photos, if desired.

Search To Edit Existing Veteran

The **Search To Edit Existing Veteran** section operates like the viewer application. Enter the last name of a veteran to edit, then pressing enter or clicking the *Search* button will either load the record, load a list of multiple veterans with the same last name, or load a popup window with the message “No record found for the last name [*last name*]”. The last name must be spelled as it is in the database, or a match will not occur. In the event of multiple veterans with the same last name, a list will be populated as shown in Figure 1 on page 2. Select the veteran you wish to view and click the *View Record* button to view the associated record. If the last name returned multiple veterans, *Previous* and *Next* buttons will be available to view the other records with the same last name.

Adding / Editing Data

Once a blank or existing record has been opened, the operations are similar. There are several text boxes that can be filled with the veteran data. The **Cemetery** field is a dropdown with a list of all of the cemeteries currently contained in the database. The following sections describe fields that are more complicated than the simple text boxes.

Born and Died Date Fields

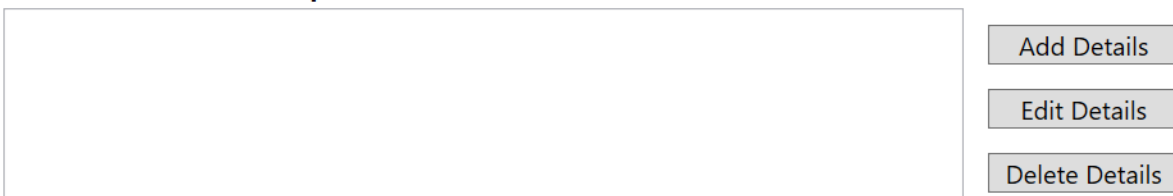
The **Born** and **Died** fields are date fields. These can accept many formats of dates but once they have lost focus (the user has selected a different field) the boxes will auto-convert to the MM/DD/YYYY format.

Service Details

The **Branch – Rank – Unit / Ship** section is controlled by the three buttons to its right, see Figure 2. Click *Add Details* to open a window with a blank record, the record details the branch, rank, and unit or ship. Select an item in the list, and click *Edit Details* to open a window prefilled with the existing information. With either option, a window will open containing two dropdowns and one text field, see Figure 3. Select the branch and then select the rank. The unit / ship field is a text box to fill with free form text. A branch must be selected prior to selecting a rank, the application will only show the ranks that apply to a given branch. Press *Ok* to save it to the veteran record. Pressing the *Cancel* button will discard the information. Selecting an existing record in the box and clicking the *Delete Details* button will remove that service detail record from the current veteran.

Figure 2

Branch - Rank - Unit / Ship



The figure shows a UI section titled "Branch - Rank - Unit / Ship". On the left is a large, empty rectangular box. To the right of this box are three buttons stacked vertically: "Add Details", "Edit Details", and "Delete Details".

Figure 3



The figure shows a dialog window titled "Service Details". Inside the window, there are three fields: "Branch" (a dropdown menu), "Rank" (a dropdown menu), and "Unit / Ship" (a text input field). Below these fields are two buttons: "Ok" and "Cancel".

Conflict Details

The **Conflicts** section is controlled by the three buttons to its right, see Figure 4. Click *Add Conflict* to open a window with a blank record. Select an existing record in the box and click *Edit Conflict* to open a window prefilled with the existing information. With either option, a window will open containing a dropdown, see Figure 5. Select the conflict and press *Ok* to save it to the veteran record. Pressing the *Cancel* button will discard the information. Selecting an item in the list and clicking the *Delete Conflict* button will remove that conflict record from the current veteran.

Figure 4

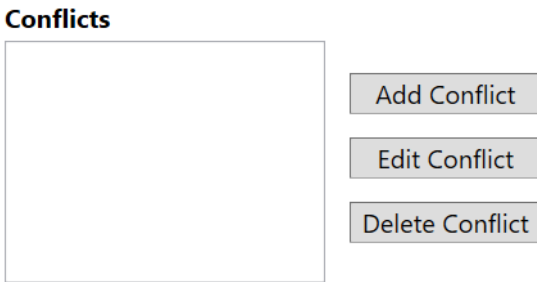
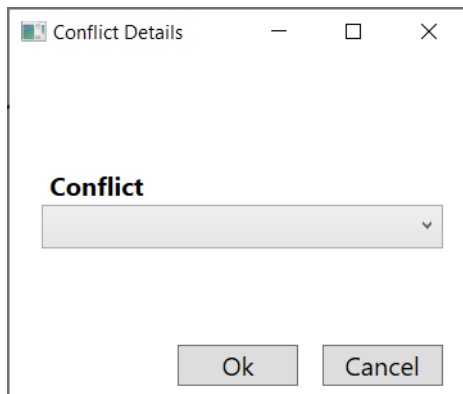


Figure 5



Award Details

The **Awards** section is controlled by the three buttons to its right, see Figure 6. Click *Add Award* to open a window with a blank record. Select an existing record in the box and click *Edit Award* to open a window prefilled with the existing information. With either option, a window will open containing two dropdowns, see Figure 7. Select the branch and then select the award. A branch must be selected prior to selecting an award, the application will only show the awards that apply to a given branch. Press *Ok* to save it to the veteran record. Pressing the *Cancel* button will discard the information. Selecting an item in the list and clicking the *Delete Award* button will remove that award record from the current veteran.

Figure 6

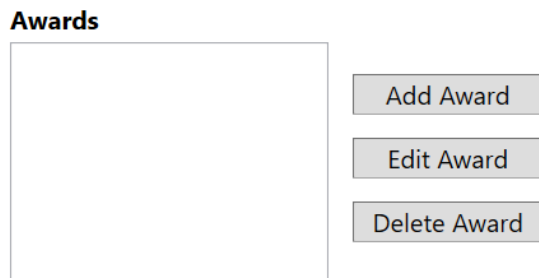
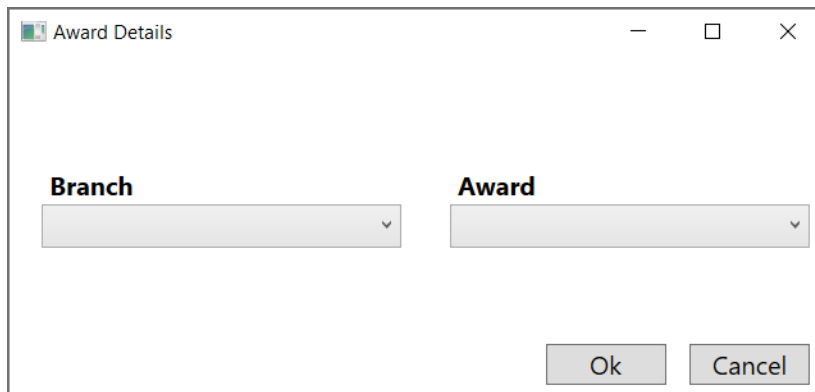


Figure 7



Photos

The **Service Photo**, **Casual Photo**, **Marker Photo**, and **Misc Photo** sections all contain *Set Photo* and *Delete Photo* buttons, see Figure 8. Clicking the *Set Photo* button will allow the user to select a new photo to replace the current one (in the case of an empty photo, it simply adds the photo). Clicking the *Delete Photo* button removes the current photo and does not replace it.

Save Record and Delete Record

The *Save Record* and *Delete Record* buttons are located in the top left of the window, see Figure 8. The *Save Record* button writes the current record to the database. This also writes the **Branch – Rank – Unit / Ship**, **Conflicts**, and **Awards** sections to the database so it must be pressed if any of those are changed. If the user attempts to change to a different view or record, or attempts to close the application with unsaved data, a window will pop up to confirm that they wish to discard the unsaved information. The *Delete Record* button will remove this veteran record from the database.

Figure 8

The screenshot displays a web application interface for managing veteran records. At the top left, two buttons labeled "Save Record" and "Delete Record" are highlighted with a red box. Below these are input fields for "Last Name", "First Name", "Middle Name", and "Suffix". There are also "Born" and "Died" date pickers. A section titled "Branch - Rank - Unit / Ship" contains a large text area and three buttons: "Add Details", "Edit Details", and "Delete Details". Below this are two sections: "Conflicts" and "Awards". Each has a text area and three buttons: "Add", "Edit", and "Delete". At the bottom left is a "Comments" text area. Below that are dropdowns for "Cemetery" (showing "0") and "Section", and input fields for "Row" and "Marker Location". On the right side, there are four photo sections: "Service Photo", "Marker Photo", "Casual Photo", and "Misc Photo". Each section has a "Set Photo" and a "Delete Photo" button, which are highlighted with red boxes.

Cemeteries

The Cemeteries view lists the names and cities of all cemeteries contained in the database and can add, edit, or delete these cemeteries. To add a new cemetery to the database, click the *Add Cemetery* button to open an empty record. Select an item in the list and click the *Edit Cemetery* button to open an existing record to edit the name, address, city, GPS coordinates, directions photo or aerial photo associated with that cemetery. Enter or edit the appropriate information in the text boxes attached to the labels in bold. For the directions and aerial photos, clicking the *Set Photo* button will allow the user to select a new photo to replace the current one (in the case of an empty photo, it simply adds the photo). Clicking the *Delete Photo* button removes the current photo and does not replace it. Click the *Save* button to write the information to the database, or click the *Cancel* button to discard changes. Select an item in the list and click the *Delete Cemetery* button to remove the cemetery from the database.

Branches

The Branches view lists the names of all branches contained in the database and can add, edit, or delete these branches. To add a new branch to the database, click the *Add Branch* button to open an empty record. Select an item in the list and click the *Edit Branch* button to open an existing record to edit the name or picture associated with that branch. Enter or edit the name of the branch under the label **Branch Name**. Clicking the *Set Photo* button will allow the user to select a new photo to replace the current one (in the case of an empty photo, it simply adds the photo). Clicking the *Delete Photo* button removes the current photo and does not replace it. Click the *Save* button to write the information to the database, or click the *Cancel* button to discard changes. Select an item in the list and click the *Delete Branch* button to remove the branch from the database.

Ranks

The Ranks view lists the names of all ranks contained in the database for a given branch and can add, edit, or delete these ranks. Clicking the dropdown under the **Branch** label will list all branches in the database. Select a branch to see the ranks for the given branch. To add a new rank for the selected branch to the database, click the *Add Rank* button to open an empty record. Select an item in the list and click the *Edit Rank* button to open an existing record to edit the name and abbreviation of that rank. Enter or edit the name of the rank under the label **Rank Name**. Optionally, enter or edit the abbreviation for the rank under the label **Rank Abbreviation**. Click the *Save* button to write the information to the database, or click the *Cancel* button to discard changes. Select an item in the list and click the *Delete Rank* button to remove the rank from the database.

Conflicts

The Conflicts view lists the names of all conflicts contained in the database and can add, edit, or delete these conflicts. To add a new conflict to the database, click the *Add Conflict* button to open an empty record. Select an item in the list and click the *Edit Conflict* button to open an existing record to edit the name of that conflict. Enter or edit the name of the conflict under the label **Conflict Name**. Click the *Save* button to write the information to the database, or click the *Cancel* button to discard changes. Select an item in the list and click the *Delete Conflict* button to remove the conflict from the database.

Awards

The Awards view lists the names of all awards contained in the database for a given branch and can add, edit, or delete these awards. Clicking the dropdown under the **Branch** label will list all branches in the database. Select a branch to see the awards for the given branch. Click the *Add Award* button to open an empty record to add a new award for the selected branch to the database. Select an item in the list and click the *Edit Award* button to open an existing record to edit the name of that award. Enter or edit the name of the award under the label **Award Name**. Click the *Save* button to write the information to the database, or click the *Cancel* button to discard changes. Select an item in the list and click the *Delete Award* button to remove the award from the database.

User Comments

The User Comments view lists the names of veterans who have comments submitted by users of the viewer application. Select a name and click the *View Comment* button to open a split view of the comment and the veteran record tied to that comment. If multiple comments are present, *Previous* and *Next* buttons will be visible to view the other comments in the database, regardless if the comments reference the same or different veterans.

On the left, with a light blue background, will be the comment submitted in the viewer application. On the right, with a white background, will be the veteran record that is tied to the comment. The comment is not editable, and clicking the *Delete Correction* button will remove the comment from the database. The veteran record operates as detailed in the Adding / Editing Data heading on page 4. Be sure to save the veteran record if any data was added or updated, and to delete the comment after updating the veteran record. The deleting of the comment and saving the record are not tied together to allow deletion of superfluous comments without affecting the veteran record and to allow saving small changes detailed in the comment while deferring larger changes that may require the comment to continue existing for research before modifying the associated veteran record.

Queries

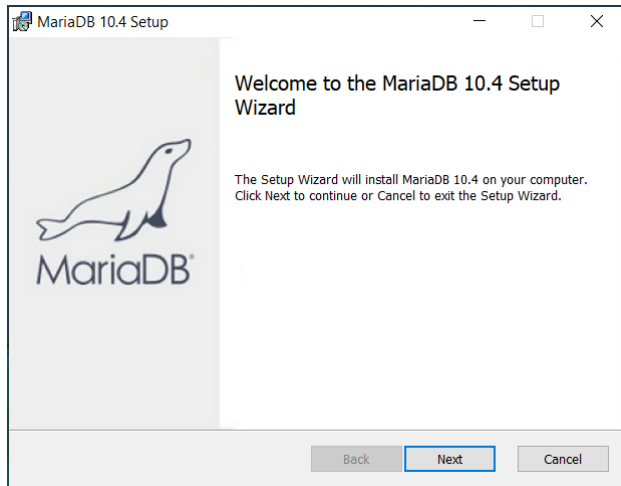
The Queries view allows reports to be ran against the database. The queries are designed to be shown as a normal English command or question. The first line under each heading in bold has two dropdown lists. The first dropdown lets the user select if they would like a count (How many) or a list (List the) of the veterans. The second dropdown lets the user select the cemetery, branch, or conflict for the query. The second line under each heading lists all cemeteries, branches, or conflicts with a count of veterans. This is running a “How many veterans in all cemeteries / branches / conflicts?” report.

Installation Instructions

Installation requires installing MariaDB, installing the viewer and administrator applications, and configuring MariaDB and the applications to work together.

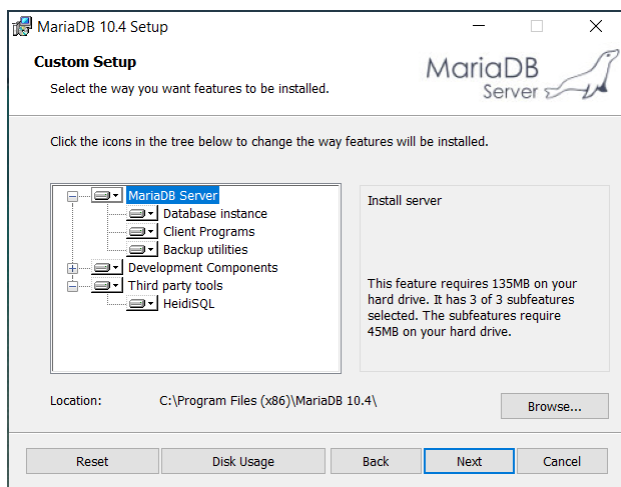
Installing MariaDB

MariaDB is a free database program that is downloadable from the internet. The viewer and administrator applications use MariaDB to store data. An installation package is present on the installation USB drive. Once you have downloaded the software, or located it on the installation USB drive, double-click it to begin the installation process.

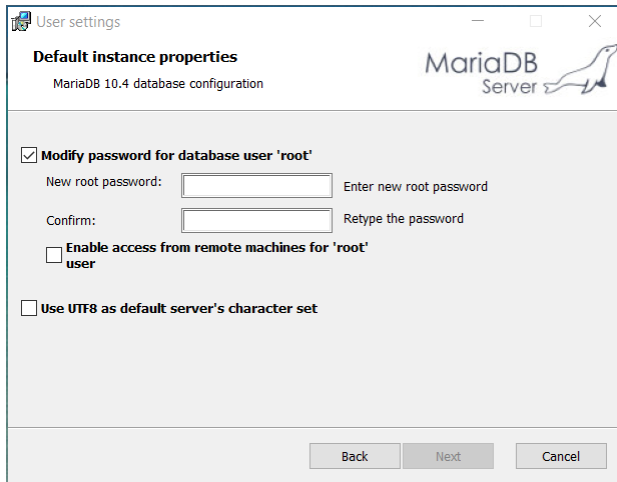


Click Next.

Accept the license agreement and click next.



Click Next.



User settings

Default instance properties
MariaDB 10.4 database configuration

☒ **Modify password for database user 'root'**

New root password: Enter new root password

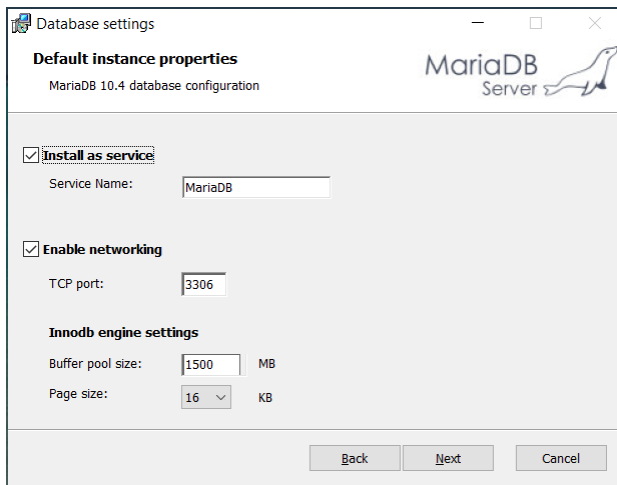
Confirm: Retype the password

☐ **Enable access from remote machines for 'root' user**

☐ **Use UTF8 as default server's character set**

Back Next Cancel

Pick a strong passphrase, enter it, and write it down. Click Next.



Database settings

Default instance properties
MariaDB 10.4 database configuration

☒ **Install as service**

Service Name:

☒ **Enable networking**

TCP port:

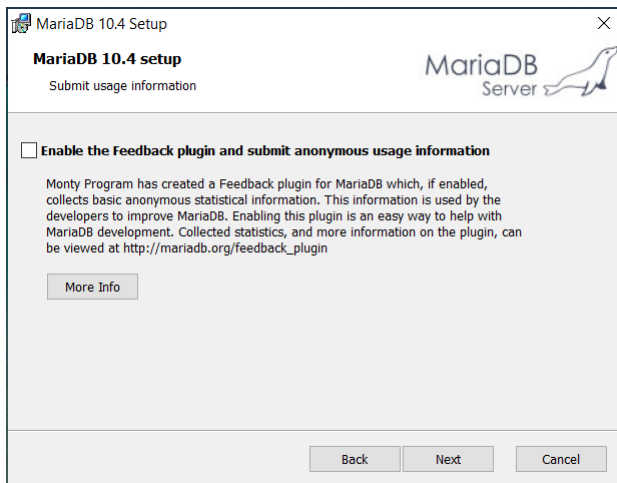
InnoDB engine settings

Buffer pool size: MB

Page size: KB

Back Next Cancel

Click Next.



MariaDB 10.4 Setup

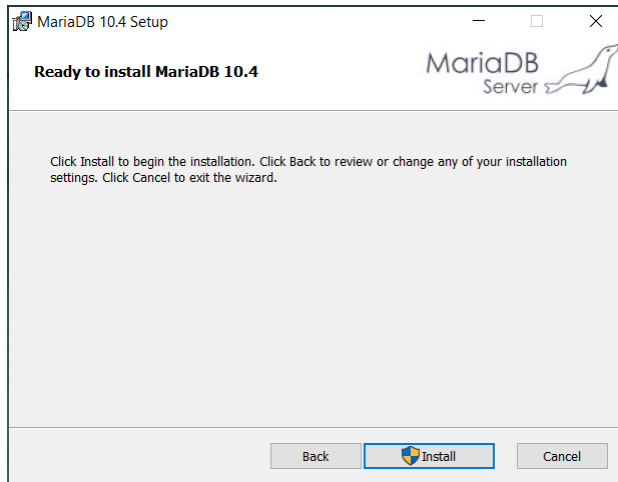
MariaDB 10.4 setup
Submit usage information

☐ **Enable the Feedback plugin and submit anonymous usage information**

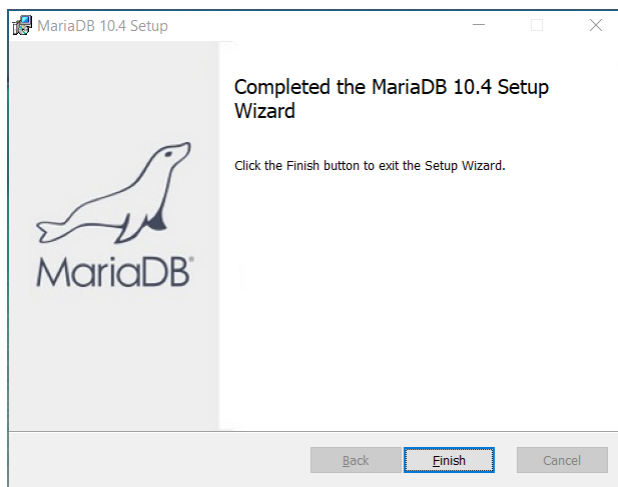
Monty Program has created a Feedback plugin for MariaDB which, if enabled, collects basic anonymous statistical information. This information is used by the developers to improve MariaDB. Enabling this plugin is an easy way to help with MariaDB development. Collected statistics, and more information on the plugin, can be viewed at http://mariadb.org/feedback_plugin

Back Next Cancel

Click Next.



Click Install. Accept the User Account Control popup.



Click Finish.

MariaDB is now installed. Proceed to installing the viewer and administrator applications.

Installing The Viewer And Administrator Applications

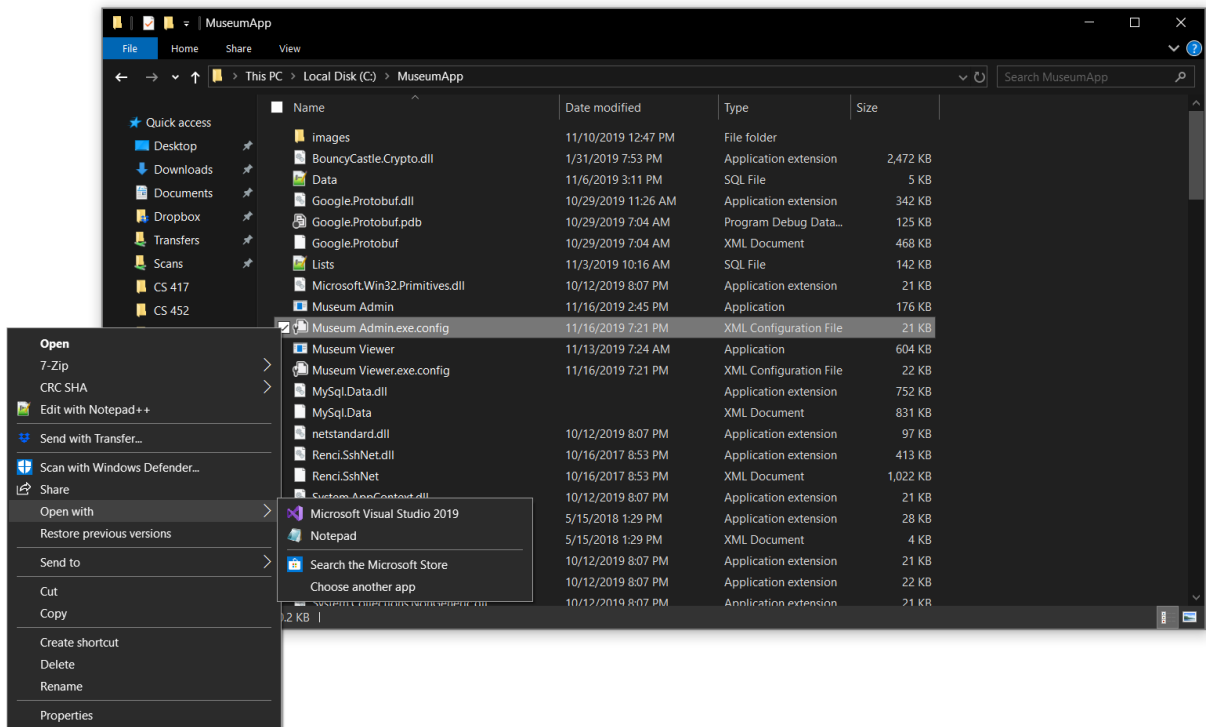
The viewer and administrator applications install via a text based installer. The file name is simply "Installer". During the install, a User Account Control popup will appear. Click Yes. The viewer and / or administrator applications are now installed.

Configuring MariaDB, Viewer, And Administrator Applications

The database application, MariaDB, must have the converted data loaded into it. Also, additional configuration is required of MariaDB, the viewer application, and the administrator application for the three to work together.

Editing The Viewer And Administrator Application Config Files

Open file explorer and navigate to C:\MuseumApp. Right-click the **Museum Admin.exe.config** file, go to *Open With > Notepad*. See below for a screenshot.



Once opened, look for the part **Password=InsertPasswordHere**. Change **InsertPasswordHere** to a strong passphrase, write it down. This passphrase should be different than the one created while installing MariaDB (at the end of installation, you should have 3 passwords: MariaDB, administrator application, and viewer application). Go to *File > Save* to save this file. This is the password the administrator application uses to access the database. It will not be needed for day to day operations. See below for a screenshot.

```

Museum Admin.exe.config - Notepad
File Edit Format View Help
<?xml version="1.0" encoding="utf-8"?>
<configuration>
  <startup>
    <supportedRuntime version="v4.0" sku=".NETFramework,Version=v4.6.1" />
  </startup>
  <connectionStrings>
    <add name="DBConnectionString" connectionString="Server=localhost;Database=VeteransMuseum;UserID=adminapp;Password=InsertPasswordHere"
    providerName="MySql.Data.MySqlClient;" />
  </connectionStrings>
  <appSettings>
    <add key="InstallDirectory" value="C:\Users\Ben\Dropbox\Visual Studio\Veterans Museum\Museum Admin\Museum Admin\bin\Debug" />
    <add key="MilPicDirectory" value="\images\Veterans\MilPic\" />
    <add key="CasualPicDirectory" value="\images\Veterans\CasualPic\" />
    <add key="MarkerPicDirectory" value="\images\Veterans\MarkerPic\" />
    <add key="MiscPicDirectory" value="\images\Veterans\MiscPic\" />
    <add key="BranchPicDirectory" value="\images\BranchLogos\" />
    <add key="CemDirectionsDirectory" value="\images\Cemeteries\DirectionsPic\" />
    <add key="CemAirPicDirectory" value="\images\Cemeteries\AirPic\" />
  </appSettings>
  <runtime>
    <assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">
      <dependentAssembly>
        <assemblyIdentity name="Google.Protobuf" publicKeyToken="a7d26565bac4d604" culture="neutral" />
        <bindingRedirect oldVersion="0.0.0.0-3.10.1.0" newVersion="3.10.1.0" />
      </dependentAssembly>
      <dependentAssembly>
        <assemblyIdentity name="BouncyCastle.Crypto" publicKeyToken="0e99375e54769942" culture="neutral" />
        <bindingRedirect oldVersion="0.0.0.0-1.8.5.0" newVersion="1.8.5.0" />
      </dependentAssembly>
    </assemblyBinding>
  </runtime>
</configuration>
Ln 1, Col 1 100% Windows (CRLF) UTF-8

```

Repeat the *Open With > Notepad* and changing **InsertPasswordHere** for the **Museum Viewer.exe.config** file. Do not use the same password for the administrator and viewer config files.

Editing The Database Users Config File

In the MuseumApp file explorer window, scroll down to find the file **Users.sql** (it may simply be shown as Users). Right click and *Open With > Notepad* as before. Once opened, change the **InsertPasswordHere** for adminapp and viewerapp to match the passwords set above in the config files. Go to *File > Save* to save this file.

```

Users - Notepad
File Edit Format View Help
CREATE USER 'viewerapp'@'%' IDENTIFIED BY 'InsertPasswordHere';
CREATE USER 'adminapp'@'%' IDENTIFIED BY 'InsertPasswordHere';

GRANT SELECT ON VeteransMuseum.* TO 'viewerapp'@'%';
GRANT INSERT ON VeteransMuseum.UserComments TO 'viewerapp'@'%';

GRANT ALL PRIVILEGES ON VeteransMuseum.* TO 'adminapp'@'%';
Ln 1, Col 1 100% Windows (CRLF) UTF-8

```


Importing Data And Configuration Files Into The Database

Three files must be loaded into MariaDB: **Lists.sql**, **Users.sql**, and **Data.sql**. They must be loaded in the correct order. To begin loading the files, go to the start menu and look for the MariaDB folder (it will be named MariaDB [version number]). In this folder you should see a program named *MySQL Client* (MariaDB [version number]). Open this program to see a text based terminal window.

The first thing you will see is a prompt for the password. This is the password set up during the MariaDB install (see Installing MariaDB on page 11). Once you enter the password you will be greeted and will see a prompt *MariaDB [(none)]>*. To load a file into the database, use the *source* command. First, load the **Lists.sql** file using the command *source c:\museumapp\lists.sql*. You should see several lines flash on the screen saying *Query OK, 1 row affected (0.001 sec)*. Do not worry if the times differ, the Query OK part is what is important.

Once **Lists.sql** has loaded, the prompt should now change to *MariaDB [VeteransMuseum]>*. Time to load the next file, **Users.sql**. Type the command *source c:\museumapp\users.sql*. Again, you should see the *Query OK* messages. Finally, load the **Data.sql** file with the command *source c:\museumapp\data.sql*. Again, you should see the *Query OK* messages.

This completes the installation and configuration of the applications. Test the applications. In the event they do not work, reboot the computer and test again. Some configurations may not update without a computer restart.

References

<https://mariadb.com/kb/en/library/installing-mariadb-msi-packages-on-windows/>

<https://mariadb.com/kb/en/library/create-user/>

<https://mariadb.com/kb/en/library/grant/>

<https://mariadb.com/kb/en/library/mysql-command-line-client/>