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#### Introduction

Congratulations on your purchase of the MotoSponder Transponder / RFID Digital Scoring System. The transponder system that will track lap times, race position, and other features for your riders. The system also streams live race to track side spectators with Wi-Fi enabled web browser devices. This manual will guide you on your installation of the software, setup of the hardware components, and use of the system.

#### **Software Installation**

Insert the installation CD into your computer. Open a Windows Explorer window and select the CD drive. The user account used to install the MotoSponder software set should have full administrator privileges. MotoSponder software set consists of two installation software files. The file **msdrInstall.jar** installs the MotoSponder specific software. The user should accept all the default settings for the installation of each package unless noted below.

There is a third file "jre-6u23-windows-i586.exe" included in case the user's computer does not already have a Java JRE installed. The Java JRE is needed to install the msdrInstall.jar file. To install the Java JRE double-click on the file "jre-6u23-windows-i586.exe" and accept all defaults.

The file easywamp1.1.exe installs the database and web server related software used by the MotoSponder software. The easywamp1.1.exe software set MUST be installed first. To install the database related software double-click on the easywamp1.1.exe file. The following window will be displayed. You should accept all the default selections presented during the installation of this package.



Figure 1 - Database Installer Language Window

Select "English" and click "OK" button.



Figure 2 - Database Installation Welcome Window

Click "Next >" button to proceed.



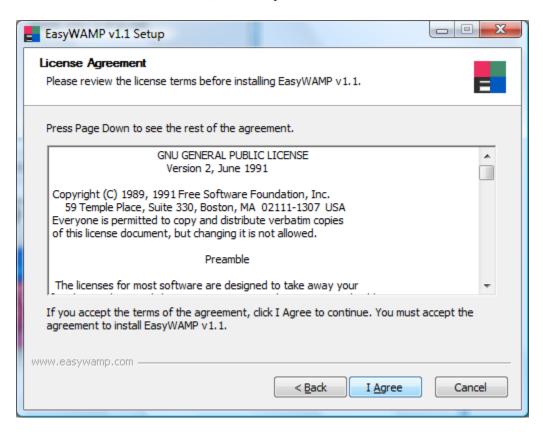


Figure 3 - Database License Agreement Window

Click "I Agree" button to proceed.



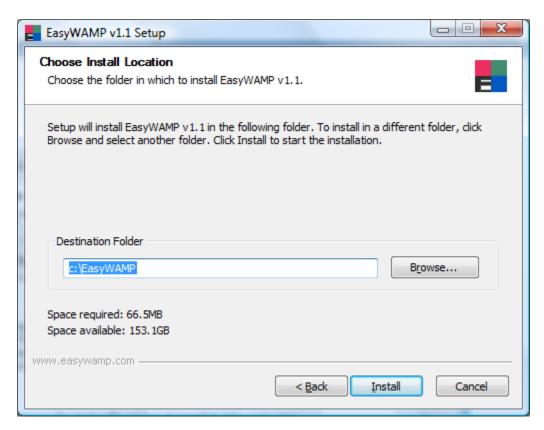


Figure 4 - Database Installation Location Window

The installation directory "c:\EasyWAMP" **MUST** be specified as the installation directory. Do **NOT** change this folder location. Click the "Install" button to proceed. During this installation you will see command windows pop up and down while the database server and web server are installed as Windows Services.



Figure 5 - Database Installation Complete Window

Click on the "Finish" button to complete the installation of the database and web server software.

The MotoSponder specific software set is installed next. The installation of this software package requires a Java JRE which is usually already installed on your computer. If not, install the Java JRE now by double-clicking on the Java JRE installation file **jre-6u23-windows-i586.exe** located on the MotoSponder installation CD before proceeding further. Accept all defaults during installation of JRE.

Double-click on the **msdrInstall.jar** file located in the installation CD folder. The following installation window will be displayed.

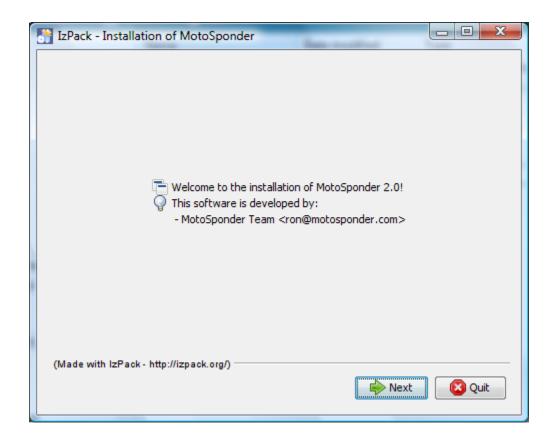


Figure 6 - MotoSponder Installation Welcome Window

Click the "Next" button.



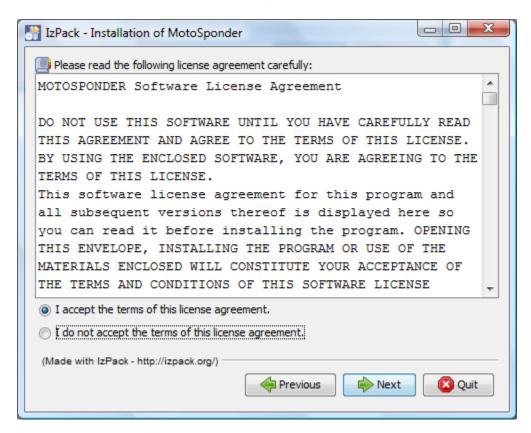


Figure 7 - MotoSponder Software License Agreement Window

To proceed further select the accept choice and click the "Next" button.

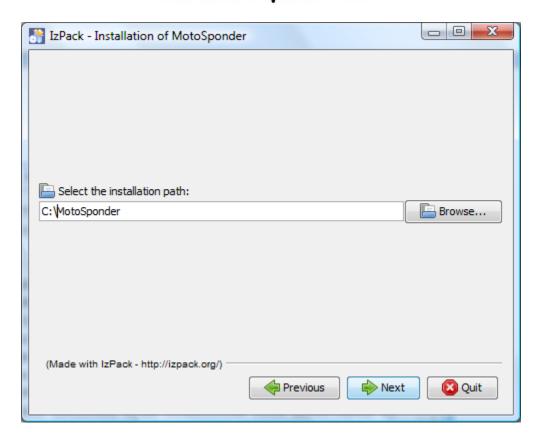


Figure 8 - MotoSponder Installation Path Window

If you are installing on Windows 7 or Windows Vista you will need to change the default installation path (C:\Program Files (x86)\MotoSponder) provided by the installer to the above (C:\MotoSponder) path to install properly. If you are installing on Windows XP you should be able to accept the default path or use the above if you desire.



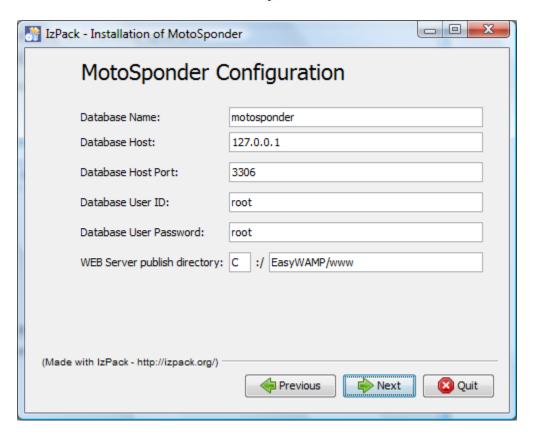


Figure 9 - MotoSponder Database Setup Window

Please do not alter ANY of the settings on this screen. Select the "Next" button to proceed.



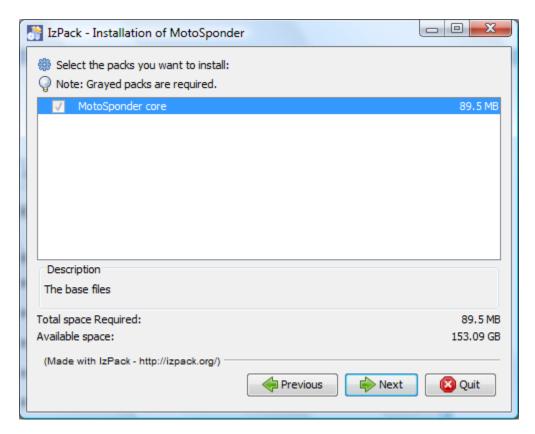


Figure 10 - MotoSponder Installation Start Window

Click on the "Next" button to install the MotoSponder software.

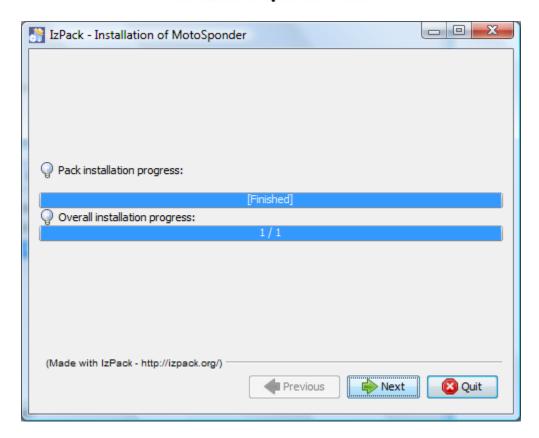


Figure 11 - MotoSponder Installation Finished Window

NOTE: During this stage of the installation if the user receives an access error trying to write file C:\Windows\php.ini then user does not have full administrator privileges and will need to manually copy <install\_dir/config/php.ini to C:\Windows\php.ini and then perform the reinstall steps for the MotoSponder application again.

Click the "Next" button to proceed.

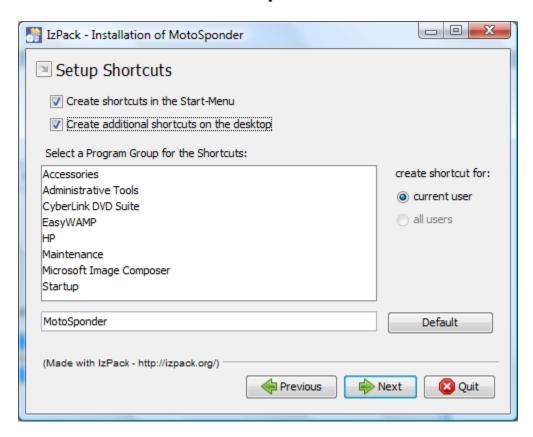


Figure 12 - MotoSponder Installation Setup Shortcuts Window

Select "Create shortcuts in the Start-Menu" and "Create additional shortcuts on the desktop" options and click "Next" to proceed.



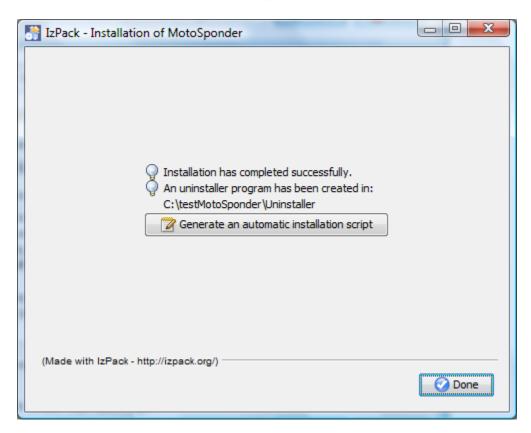


Figure 13 - MotoSponder Installation Completed Window

Click the "Done" to complete the installation of the MotoSponder software.



### **Hardware Connection Setup**

The MotoSponder system package consists of the following hardware components:

- 1. Transponder / RFID Tag Reader (with built-in internal antenna on 2-antenna system)
- 2. External Antenna(s) with cable(s) attached. (1 or 4 depending on system purchased)
- Network Router
- 4. Power Over Ethernet (POE) adaptor (2-antenna system only)
- 5. Power Supply (4-antenna system only)
- 6. 3 Ethernet Cables (1 100 ft., 2 6 ft)

The Reader and External Antenna(s) connection discussed here is to allow the user to connect the components to check out the system. At the track the Reader and External Antenna(s) should be mounted 10 – 14 feet (max) above the finish line (lower the better) pointing straight down towards track surface and each separated by a distance of 4 – 8 feet (max). For best results the maximum track width where the MotoSponder system is mounted should be no more than 15 feet for the 2 antenna system and no more than 40 feet for the 4 antenna system. For example using the 2 antenna system and assuming a 15 foot wide track the Reader and Antenna should be mounted approximately 5ft from each edge leaving 5 ft between each component. The user can increase the distance between each component to the maximum of 8 feet that will stretch the coverage width area to 20 feet for the 2 antenna system and 40 feet for the 4 antenna system but tag detection rates could be affected. Although the system is able to detect bikes moving at a fast rate of speed it is also recommended to mount the system at a point on the track where the bikes are moving slower for best detection rate (i.e. finish line is short distance from corner).



Figure 14 - Reader / Antenna Finish Line Mounting

Since there are numerous ways the Reader and Antenna(s) can be mounted the main idea to point out here is the fact the Reader and Antenna(s) should be mounted 10 – 14 feet above the track surface and pointing straight down towards track surface. You will need to experiment with

the angle and mounting position of the Reader and Antenna(s) to obtain the best detection setup.

NOTE: The Reader is not waterproof and therefore should not be exposed to water/rain or damage may occur unless contained within a waterproof enclosure.



#### MotoSponder Hardware Connection Steps

All the MotoSponder hardware components have been pre-configured so the user can simply remove from box, connect and go. Below are step by step instructions to connect the components of the 2 antenna system but the 4 antenna system is connected in a similar manner.

Connect the External Antenna cable to the Reader external antenna connection. The 4 antenna system will have 4 antenna connections on that Reader labeled 0 - 3.



Figure 15 - External Antenna Connection to Reader

The only connections on the Reader that are used are the external antenna connection(s) and the Ethernet LAN connection. It is highly recommended that all other connections be covered by tape or some other means to keep dirt/dust out of the Reader.

Next, connect one end of the 100ft Ethernet cable to the network port on the Reader.



Figure 16 - Reader Network Port Connection

Next, connect the other end of the 100ft Ethernet cable to the "J1 Data & Pwr" port on the POE adapter (2 antenna system only). On the 4 antenna system the other end of the 100ft Ethernet cable should be connected to one of the Network router ports.



Figure 17 - Reader Ethernet Cable Connection to POE

Next, connect one end of one of the 6ft. Ethernet cables to the "J2 Data" port on the POE adapter (2 antenna system only).



Figure 18 - POE J2 Data Port Connection

Next, connect the other end of the 6ft Ethernet cable to one of the ports on the Network Router (2 antenna system only).



Figure 19 - POE J2 Data Port to Network Router Connection

Next, connect one end of the other 6ft. Ethernet cable to one of the other ports of the Network Router.



Figure 20 - Network Router Ethernet Connection to Computer



Before connecting the other end of the 6ft. Ethernet cable to the computer make sure the computer's network is configured to "Obtain an IP Address Automatically" and "Obtain DNS server address automatically".

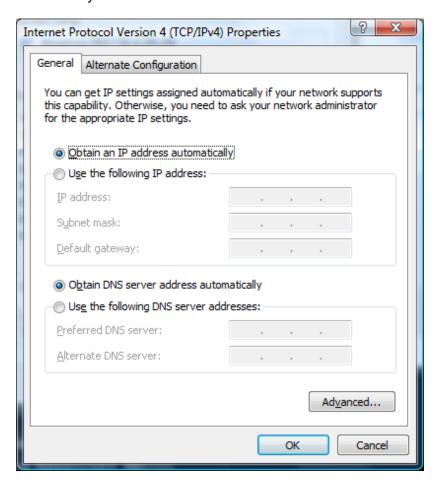


Figure 21 - Computer IP Address Setup

The network router is setup as a DHCP server and will assign IP Addresses to both the Reader and Computer. By default the router's IP Address has been set to 192.168.1.1. The router has been configured to assign IP Addresses starting with 192.168.1.50.

Next, connect the other end of the 6ft. Ethernet cable to the computer network port.



Figure 22 - Computer to Router Network Connection

Next, connect the power cord to the Network Router.



**Figure 23 - Network Router Power Connection** 

Next, plug the Network Router power cord to power outlet.



Figure 24 - Network Router Power Outlet

Next, observe the Network Router connection LEDs and observe the port LED the computer is connected to is on.

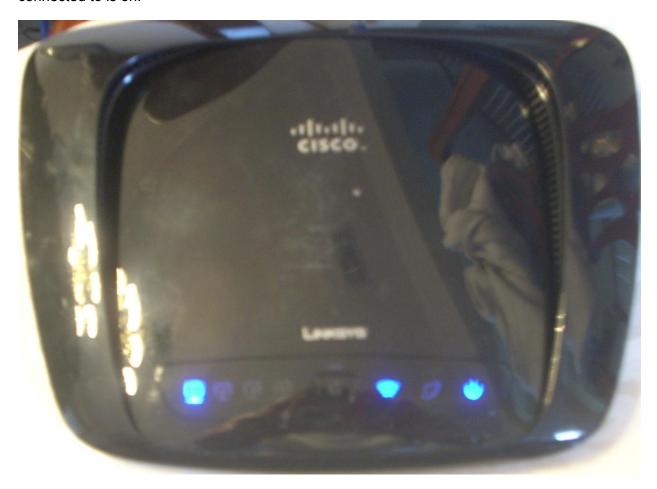


Figure 25 - Computer to Router LED On

Next, connect the power cord to the POE adapter (2 antenna system only). For the 4 antenna system connect the power supply to the Reader at this time.



Figure 26 - POE Power Cord Connection

Next, connect the POE power cord (2 antenna system) or the power supply (4 antenna system) to a power outlet.

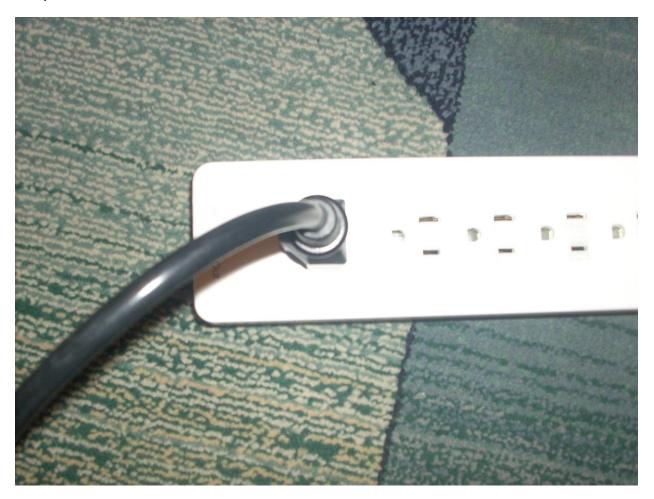


Figure 27 - POE Power Cord Outlet Connection

Next, observe the Network Router port connection LED for the Reader is On.



Figure 28 - Reader to Router LED On

Next, observe the Reader LEDs are On. After the Reader completes its self-test only the Power LED will be On.

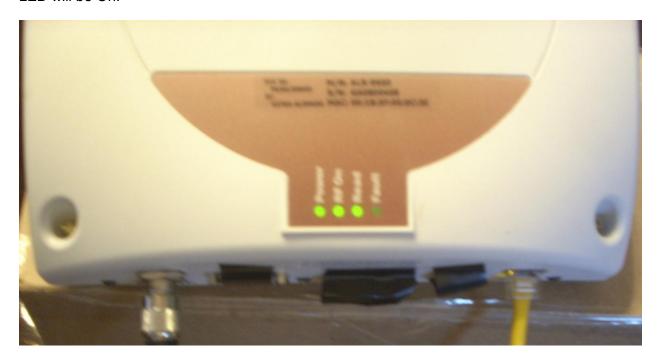


Figure 29 - Reader LEDs On

Next, open a Command Prompt Window and execute "ipconfig" to determine the IP Address the router has assigned to the computer connected to the MotoSponder system.

```
Connection—specific DNS Suffix :
Link—local IPv6 Address . . . : fe80::915a:d719:e099:cf4dx10
IPv4 Address . . . . : fe80::92.168.1.50
Subnet Mask . . . . : 255.255.255.0
Default Gateway . . . : 192.168.1.1

Tunnel adapter Local Area Connection* 6:

Connection—specific DNS Suffix : dlink
Link—local IPv6 Address . . . : fe80::5efe:192.168.1.113x16
Default Gateway . . . . :

Tunnel adapter Local Area Connection* 7:

Connection—specific DNS Suffix :
Link—local IPv6 Address . . . : fe80::5efe:192.168.1.50x14
Default Gateway . . . . : fe80::5efe:192.168.1.50x14

Tunnel adapter Local Area Connection* 11:

Media State . . . . . . Media disconnected
Connection—specific DNS Suffix :

Tunnel adapter Local Area Connection* 12:
```

Figure 30 - IP Address of Computer

If the computer's IP Address is 192.168.1.50, the IP Address assigned to the Reader should be 192.168.1.51 (or vice versa) assuming the Reader and Computer are to only network devices connected to the router.

Using the Command Prompt Window test connectivity to the Reader using the "ping" command. Execute "ping 192.168.1.51" (assuming the Computer's IP Address is 192.168.1.50) to check if the Reader is connected to the network. If the Reader is connected properly you should see the following.

Figure 31 - Reader Ping Response Window

At this point your MotoSponder hardware connectivity setup is complete. The next step is actually using the MotoSponder software.



### **Using the MotoSponder Software Application**

### Startup/Initialization

Start the MotoSponder software application by double-clicking on the desktop MotoSponder icon or the MotoSponder menu item from the Start menu.



Figure 32 - MotoSponder Desktop Icon

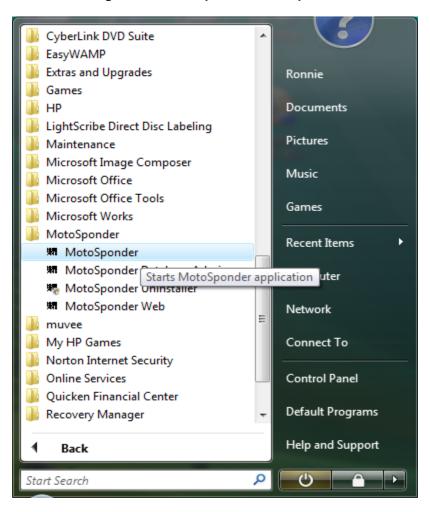


Figure 33 - MotoSponder Start Menu Item



The MotoSponder application window should be displayed as follows.

Figure 34 - MotoSponder Application Initial Window

If the Reader is connected to the network when the application is started, the connection message with the IP address of the connected rider will be displayed on the title bar of the MotoSponder Application window within 30 - 60 seconds.





Figure 35 - Reader IP Address Configured Message



#### **Database Creation**

After the initial installation of the MotoSponder software application, the database **must** be created first. To create the initial database, the user should select "DB Admin" from the main



menu and then select the "Create Database..." submenu item.

Figure 36 - Create Database Menu Item

A popup window will be displayed asking the user if they want to create a new database and that all data will be removed.

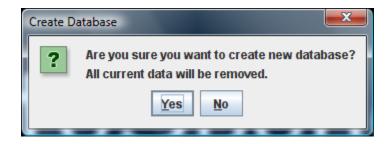


Figure 37 - Create Database Confirmation Window



Click "Yes" and the following popup window will be displayed upon successful database creation.



Figure 38 - Successful Database Creation Window

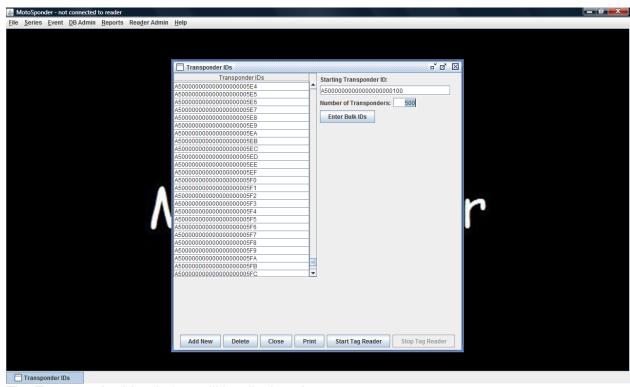
### Transponder / RFID Tag Entry

The transponder / rfid tags must be entered into the MotoSponder database before assigned to a rider. The tags can be entered automatically into the system by using the Reader. This step assumes the Reader is connected to the system and communicating with the MotoSponder application. Select "DB Admin" menu from the main menu and "TransponderIds" submenu item.



Figure 39 - Transponder ID Entry Menu Item





The Transponder Ids window will be displayed.

Figure 40 - Transponder IDs Entry Window

Click the "Start Tag Reader" button to activate the automatic entry of all the tags.

Get the roll of tags and pass over the reader as shown below.

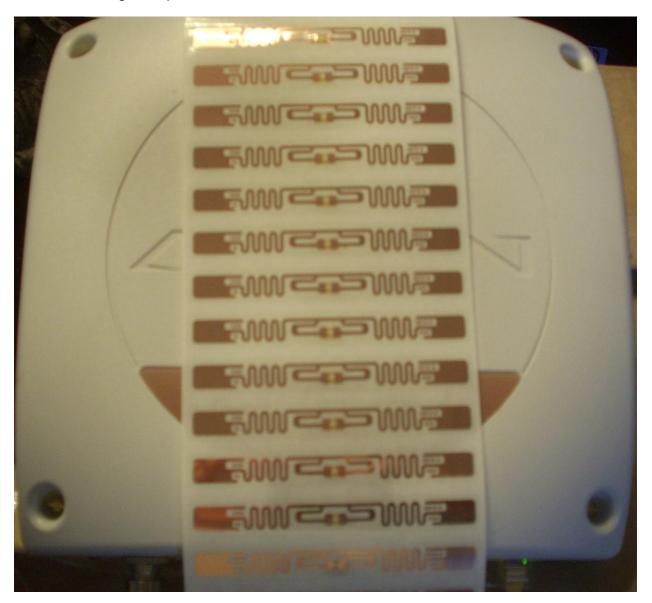
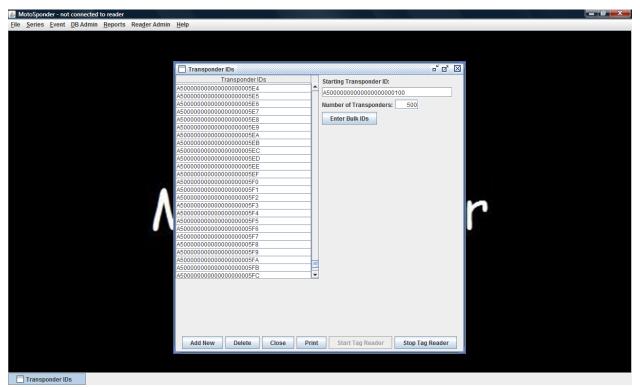


Figure 41 - Automatic Transponder Tag Entry



The MotoSponder software will read in all tags on the roll in a matter of seconds and populate the Transponder IDs list in the window. After all tags have been read/entered the user needs to

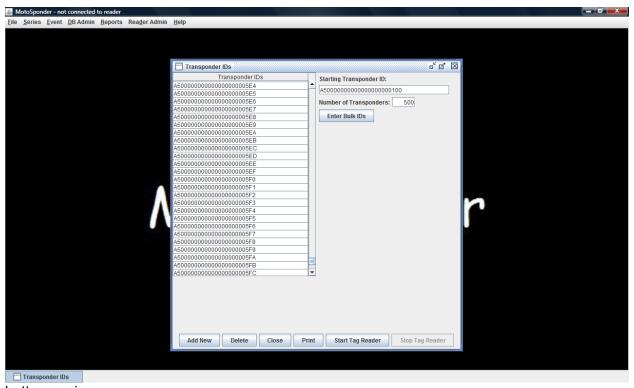


click the "Stop Tag Reader" button to deactivate the auto tag entry mode.

Figure 42 - Stop Tag Reader Button



Clicking the "Stop Tag Reader" button will disable the button and activate the "Start Tag Reader"



button again.

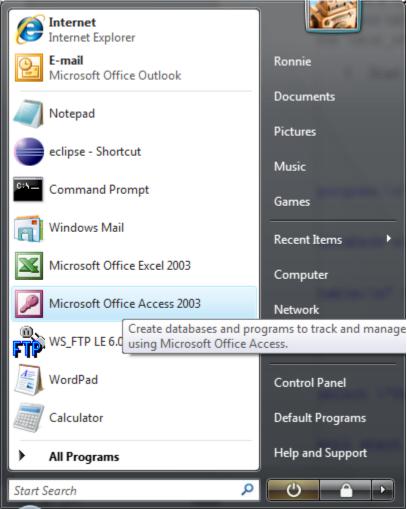
Figure 43 - Start Tag Reader Button

The tags can also be entered into the system by using the "Enter Bulk IDs" button if you have a roll of tags that are consecutively numbered without having to use the reader. Just enter the first tag ID in the "Starting Transponder ID" field and then enter the number of tags on the roll in the "Number of Transponders" field and click the "Enter Bulk IDs" button. This will insert all the tags into the database at one time.



### Import Trackside Rider Data

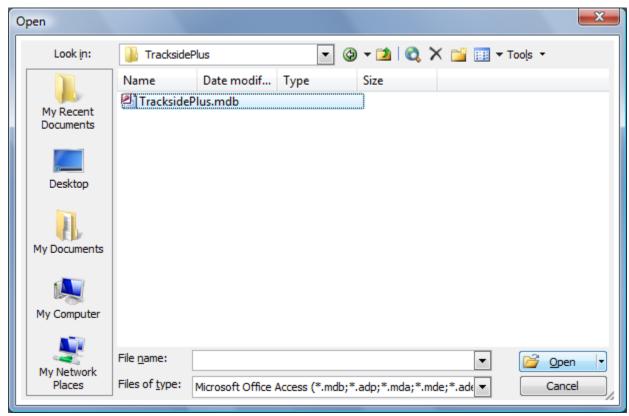
The MotoSponder system is able to import rider data from a TracksidePlus database. This will allow previous users of TracksidePlus to transfer their rider data into the MotoSponder database saving a tremendous amount of time. The import file the MotoSponder application is expecting must be a "tab" delimited text file created when exporting the the "racer\_info" TracksidePlus database table. The TracksidePlus database is a Microsoft Access based database. To export the "racer\_info" table from the TracksidePlus database following these steps.



Start Microsoft Access Database.

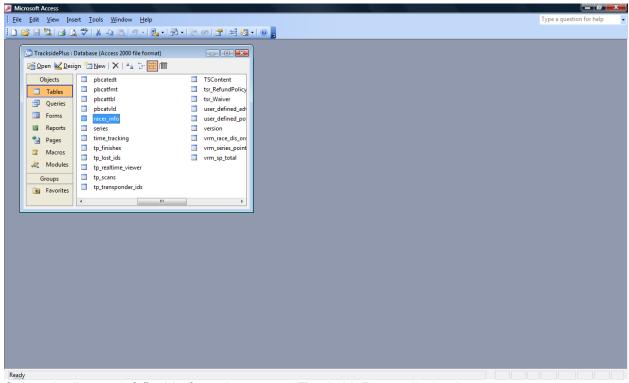
Figure 44 - Start Microsoft Access Program





Open the "TracksidePlus.mdb" database file with Access.

Figure 45 - Open TracksidePlus.mdb Database with Access

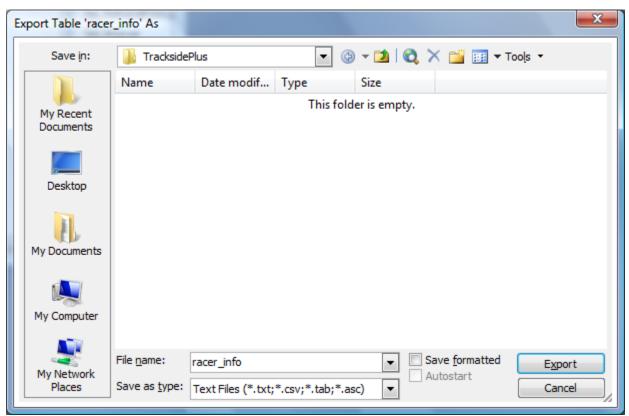


Select the "racer\_info" table from the opened TracksidePlus.mdb database.

Figure 46 - Select "racer\_info" table from the TracksidePlus.mdb Database

Right-click on the "racer\_info" table and select "Export..." option.

On the "Export Table 'racer\_info' As" dialog the user MUST select "Text Files (\*.txt;\*.csv,\*.tab;\*.asc)" as the "Save as type:" option. This will populate the "File name:" field



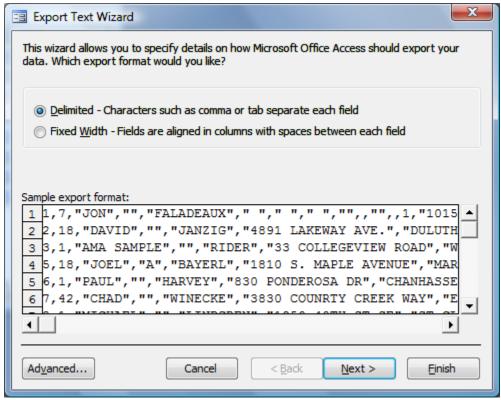
with "racer\_info". Do NOT check the "Save Formatted" checkbox option.

Figure 47 - Export Table "racer\_info" As Dialog Window

Click the Export button on this dialog window.



This will display the "Export Text Wizard" dialog. Select the "Delimited - Characters such as

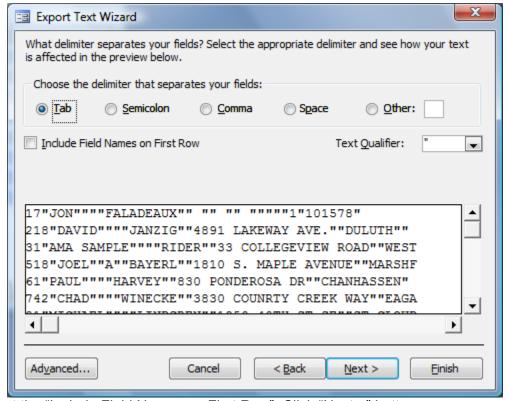


comma or tab separate each field" option and click "Next >" button.

Figure 48 - Export Text Wizard Dialog Window



User MUST select the "Tab" option for the "Choose the delimiter that separates your fields:". Do

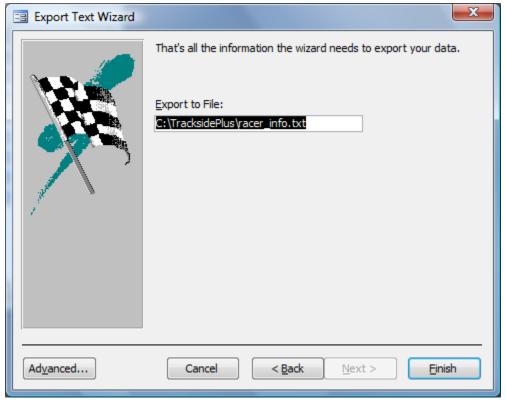


NOT select the "Include Field Names on First Row". Click "Next >" button.

Figure 49 - Export Text Wizard Tab Delimiter Option Dialog Window



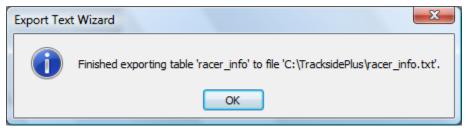
Click the "Finish" button to complete the export of the TracksidePlus "racer\_info" database table



into a file that will be used to import into the MotoSponder database.

Figure 50 - Export Text Wizard Finish Dialog Window

After the wizard has completed the export of the "racer\_info" table the export completed dialog window



will be displayed.

Figure 51 - Export Text Wizard Completed Dialog Window

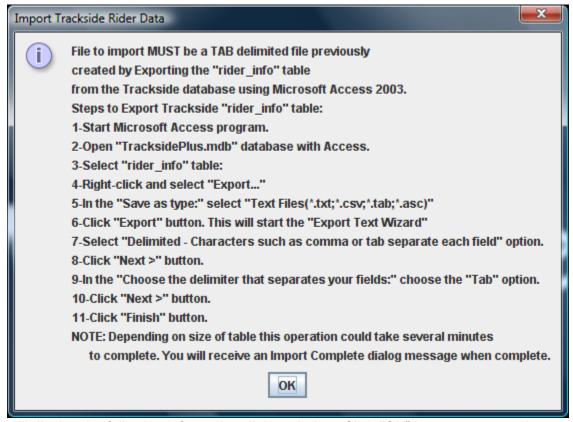
The user is now ready to import the Trackside rider data into the MotoSponder database. Select



the DB Admin menu item and select the "Import Trackside Rider Data..." submenu item.

Figure 52 - Import Trackside Rider Data Window



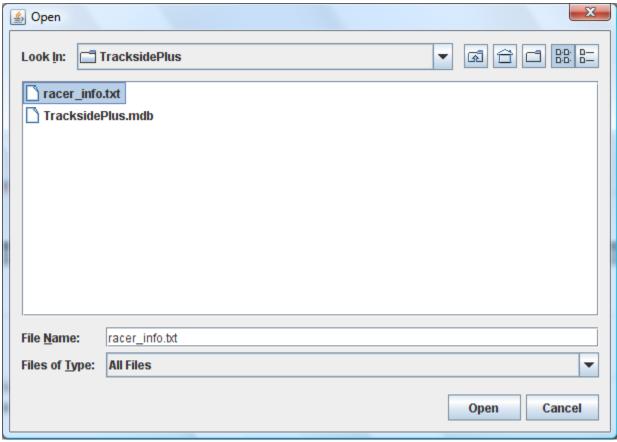


This will display the following information dialog window. Click "OK" button to proceed.

Figure 53 - Import Trackside Rider Data Informational Dialog Window



This will display the Open dialog window to select the previously TracksidePlus database



"racer\_info" table file.Select the "racer\_info.txt" file and click the "Open" button.

Figure 54 - Import Trackside Rider Data Open File Window

This will start the import process. Depending on the number of riders exported from the TracksidePlus database this operation can take several minutes. When the import of the data is



complete the following dialog window will be displayed.

Figure 55 - Import Trackside Rider Data Compete Window



### Race Event Setup

The MotoSponder software is based around race events that are linked to a Series. Each event must be linked to a Series. Race events that will not be part of real Series can be linked to the default Series "MotoSponderSeries".

#### **Race Series Name Creation**

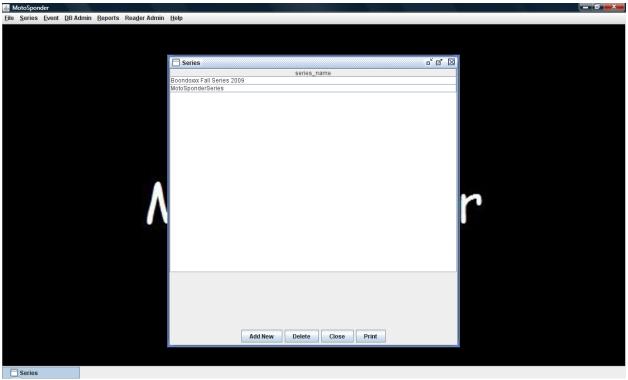
A Series name is created by selecting the "Series" menu item from the main menu and "Create



Series Name" submenu item.

Figure 56 - Create Series Name Menu Item

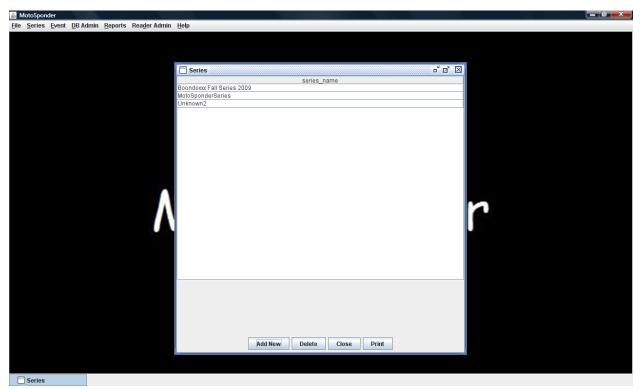
The Series creation window will be displayed with the default Series "MotoSponderSeries"



already displayed. To enter a new Series name click the "Add New" button.

Figure 57 - Add New Series Button

After the "Add New" button is clicked a new row is added to the Series window. The user needs to double click on the row just added and enter the desired Series name. After entering the



Series name the "Close" button is clicked which will close the window.

Figure 58 - Series Name Table Window



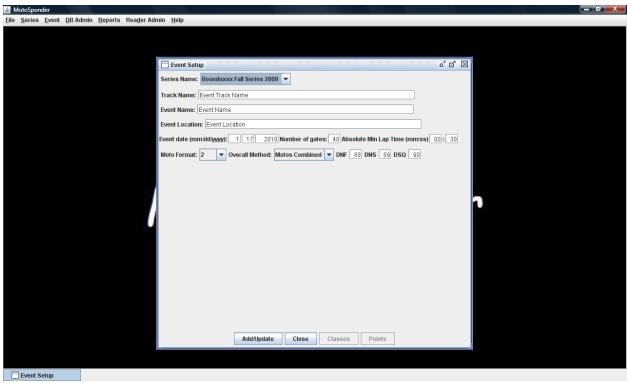
### **Create Race Event Setup**



Race events are created by selecting the "Event" menu item and "Create Event" submenu item.

Figure 59 - Create Event Menu Item

The Event Setup window is used to create an event. The data entered here is **VERY CRUCIAL** as it is the base data that other event related data is determined. The event is linked to a Series by selecting from the "Series Name" list. The "Track Name", "Event Name", "Event Location" are entered by clicking in the text field and entering the desired names. The "Event date (mm/dd/yyyy)" is automatically filled in with the current date but can be changed by clicking in the appropriate text field and entering the desired data. The "Number of gates" is the number of starting line gates the track plans to use. It is **VERY** important to enter the correct number of gates as this number will be the default value (can also set number of gates by class described later) used to automatically split large classes into separate divisions. This number is the default value used for each class but can be overridden by each class if desired when setting up the classes for the event The "Absolute Min Lap Time (mm:ss)" should be set to the fastest lap time a rider could possibly have minus about 30 seconds to filter out any false detections or riders

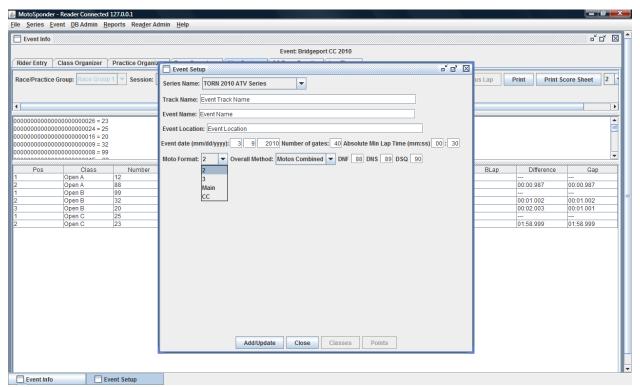


that may have cut the track.

Figure 60 - Event Setup Window



The "Moto Format" selections are 2, 3, Main (SX), CC (Cross Country / Hare Scramble), GP 1 (Kart Grand Prix 1), GP 2 (Kart Grand Prix 2), GP 3 (Kart Grand Prix 3), GP 4 (Kart Grand Prix 3)



4), or GP 5 (Kart Grand Prix 5).

Figure 61 - Event Setup - Moto Format Options

The 2, 3, Main (SX) formats are generally used for motocross events. The CC (Cross Country / Hare Scramble) is generally used for a one moto Cross Country / Hare Scramble events. The GP formats are generally used for Go Kart events.

#### The logic applied for Grand Prix 1 events:

Race 1 grid/gate position by draw (requires manual Gate Pick entry or using the Random Gate Pick button on the Class Qualifier screen)

Race 2 grid/gate position by finish order from Race 1.

Race 3 grid/gate position by reverse finish order from Race 1

Winner determined by total points from each of the three races above.

#### The logic applied for Grand Prix 2 events:

Practice / Qualifier Race

Race 1 grid/gate position by finish position (not fastest lap time) from Practice / Qualifier Race

Race 2 grid/gate position by reverse finish position from Practice / Qualifier Race

Race 3 grid/gate position by points from Race 1 and Race 2

Winner determined by total points from Race 1, 2, and 3 above.

#### The logic applied for Grand Prix 3 events:

**Qualifier Race** 

Main Race grid/gate position by finish position Qualifier Race.

#### The logic applied for Grand Prix 4 events:

Race 1 grid/gate position by draw (requires manual Gate Pick entry or using the Random Gate Pick button on the Class Qualifier screen)

Race 2 grid/gate position by reverse order from Race 1.

Race 3 grid/gate position by most combined points from Race 1 and Race 2.

Winner determined by Race 3, however event points are counted from all three races.

NOTE: With this format it is very possible the winner may not have the most points.

NOTE: If there is a class that was split (multi-DIV) due to more karts than allowed in one race you would need to setup the Qualifier info for that class. To setup the Qualifier for a class go to the Class Organizer tab of a loaded event, select the class and select "ALL" for the "Race". This will enable the Qualifier Setup button. Click on that button and set the following settings:

# Consi: 1

# Transfer to Main from each Division: x

# Transfer to Main from each Consi: x



Click the OK button to save the setup.

### The logic applied for Grand Prix 5 events:

Same as Grand Prix 4 except points for event are only counted from Race 3.



The "Overall Method" selections are "Motos Combined" (the traditional scoring method), "Points Per Moto" (pro scoring method), "Main" (SX style method), "CC" (Cross Country / Hare Scramble – 1 moto), GP 1 (Kart Grand Prix 1), GP 2 (Kart Grand Prix 2), GP 3 (Kart Grand Prix 3, GP 4 (Kart Grand Prix 4), or GP 5 (Kart Grand Prix 5).

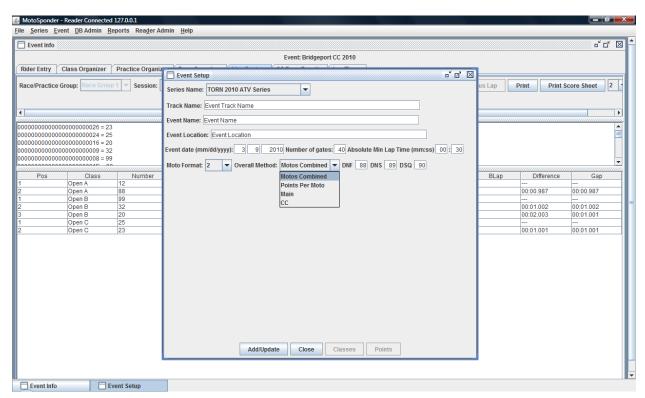


Figure 62 - Event Setup - Overall Method Options

The DNF (Did Not Finish means the rider did not complete at least ½ the race laps), DNS (Did Not Start means the rider did not start or complete at least one lap), and DSQ (DiSQualified rider) settings are the race penalty position assigned to a rider that had a DNF, DNS, or DSQ. The DSQ setting should be the worst, followed by the DNS setting, and DNF the least of the 3 penalty positions. After all the event data has been entered the user clicks "Add" to record the event data.

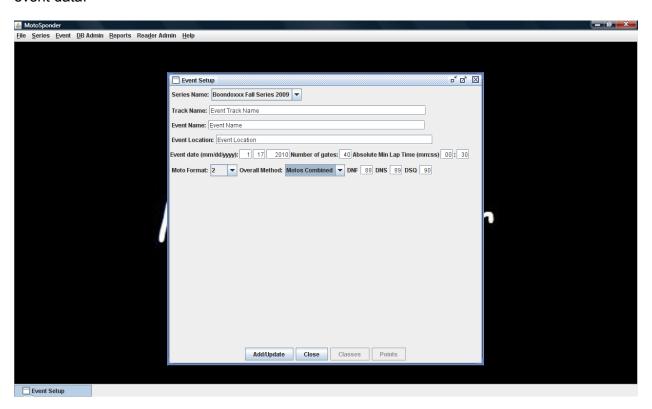


Figure 63 - Event Setup After Add Button



After the "Add" button is clicked the "Select Event Classes File" file selection dialog will be displayed allowing the user to select any pre-defined class files. By default, the DefaultClasses.txt will be available for selection and will be the file selected if the user clicks the "Cancel" button in the file selection.

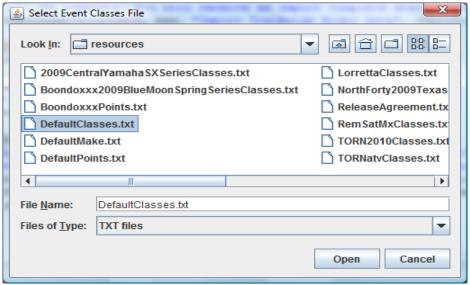


Figure 64 - Select Event Classes File Dialog

After the user selects the event classes file, the "Select Event Points File" file selection dialog will be displayed allowing the user to select any pre-defined points files. By default, the DefaultPoints.txt will be available for selection and will be the file selected if the user clicks the "Cancel" button in the file selection.

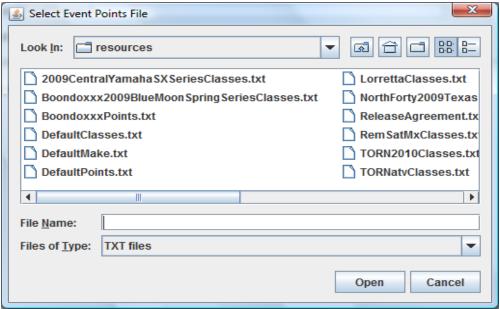


Figure 65 - Select Event Points File Dialog

After the event data has been added the user can modify the classes and/or points for the event if needed. To setup the classes for the event the "Classes" button is clicked.

The Classes window is displayed with the Class Name, Number of Gates, Class Restrictions, and Age Limit for each class. The default classes displayed originate from the "C:/MotoSponder/resources/DefaultClasses.txt" file. This file can be modified to suite a Series and/or Event classes. The classes displayed in the Classes window can be modified, deleted, or new classes added. If the user desires to override the default "Number of gates" value entered on the "Create Event" window for a class double click on the desired class line and change the "Number of Gates" value for that class. After all the class information has been added, the "Close" button is clicked.



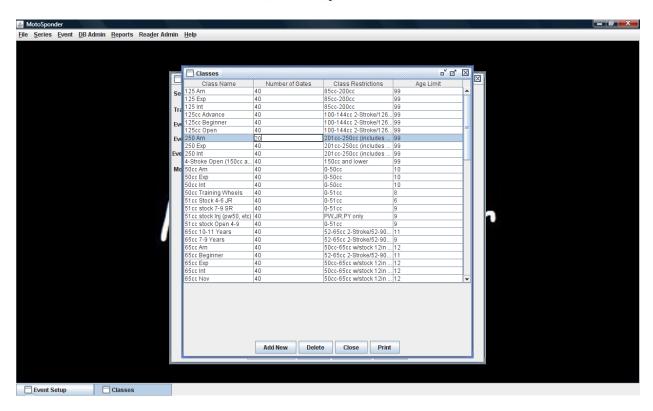


Figure 66 - Event Setup - Class Setup Window

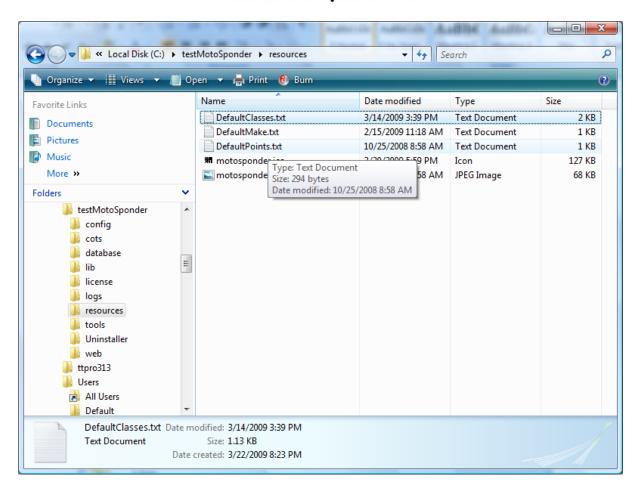


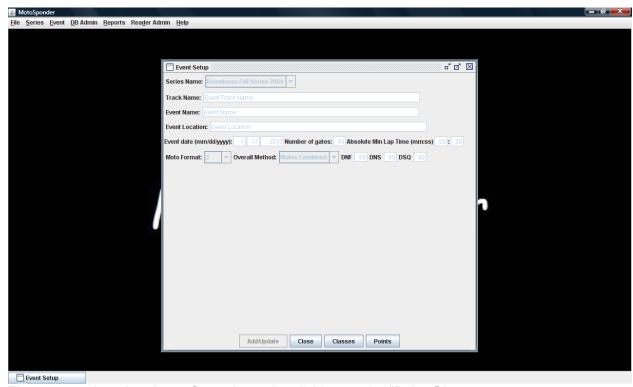
Figure 67 - DefaultClasses.txt Directory Path



```
_ D X
      DefaultClasses.txt - Notepad
  File Edit Format View Help
 #Class name::Number of Gates::Class Restrictions::Age Limit
50cc Exp::40::0-50cc::10
 50cc Int::40::0-50cc::10
 50cc Am::40::0-50cc::10
 Ladies Int::40::unlimited
Over 30 Lad Int::40::unlimited::39
Mini Am::40::65-105cc 2-stroke w16in 70-150cc 4-stroke w16in::15
Ladies Am::40::unlimited
Over 40 Ladies::40::unlimited::49
Over 40 Ladies::40::uniimited::49
Mini Novice::40::65-105cc 2-stroke w16in 70-150cc 4-stroke w16in::15
Over 30 Ladies Am::40::unlimited::39
Ladies Exp::40::unlimited
Mini Int::40::65-105cc 2-stroke w16in 70-150cc 4-stroke w16in::15
Sport Am::40::100cc and up
Over 45 Am::40::unlimted::51
Over 58::40::unlimted::99
 Over 52 Am::40::unlimted::57
 Sport Exp::40::100cc and up
Mini Exp::40::100cc and up
Mini Exp::40::155-105 cc 2 - stroke w16in 70-150cc 4-stroke w16in::15
Sport Int::40::100cc and up
Over 45 Int::40::unlimted::51
Over 38 Am::40::unlimted::44
Over 52 Int::40::unlimted::57
Over 32 IIIC::40::unlimted::57
65cc Am::40::50cc-65cc w/stock 12in rear wheel, 110 4-stroke may be bored to 130cc::12
65cc Nov::40::50cc-65cc w/stock 12in rear wheel, 110 4-stroke may be bored to 130cc::12
65cc Exp::40::50cc-65cc w/stock 12in rear wheel, 110 4-stroke may be bored to 130cc::12
65cc Int::40::50cc-65cc w/stock 12in rear wheel, 110 4-stroke may be bored to 130cc::12
Pro::40::101mimited
open Exp::40::100cc and up
250 Exp::40::201cc-250cc (includes 250F)
 125 Exp::40::85cc-200cc
Over 30 Exp::40::unlimted::37
Over 38 Exp::40::unlimted::44
Over 45 Exp::40::unlimted::51
```

Figure 68 - DefaultClasses.txt File Contents





The event points data is configured next by clicking on the "Points" button.

Figure 69 - Event Setup - Points Button



The default points displayed originate from the "C:/MotoSponder/resources/DefaultPoints.txt" file. This file can be modified to suite a Series and/or Event points. The points displayed in the Points window can be modified, deleted, or new points added. After all the points information has been added, the "Close" button is clicked.

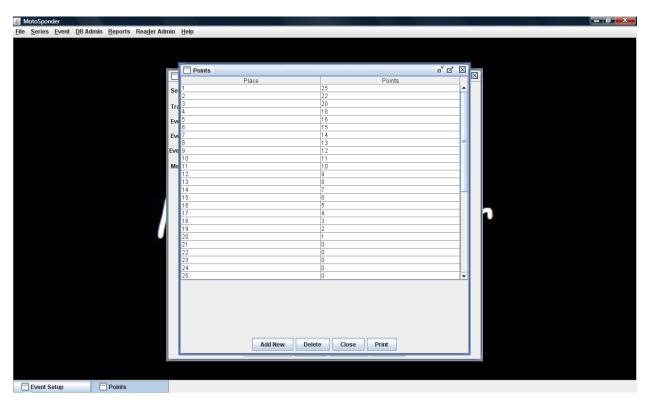


Figure 70 - Event Setup - Points Window

After setting up the event points data, the "Close" button on the Points window should be clicked.

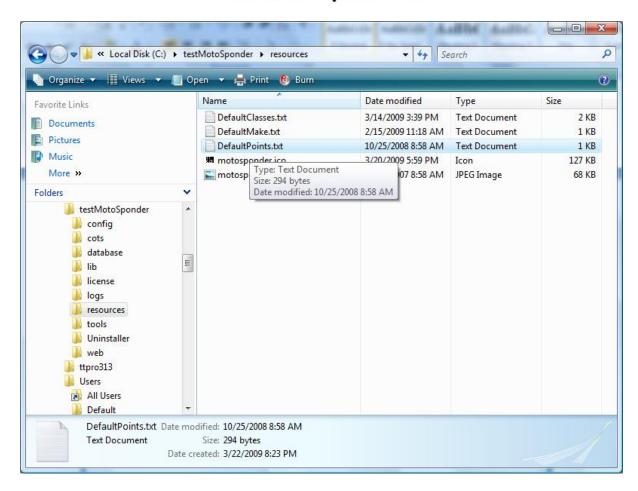


Figure 71 - DefaultPoints.txt Directory Path

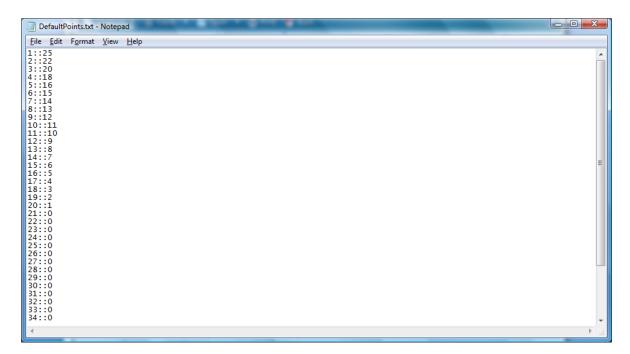


Figure 72 - DefaultPoints.txt File Contents

The "Close" button on the Event Setup window should be clicked to complete the event data setup.



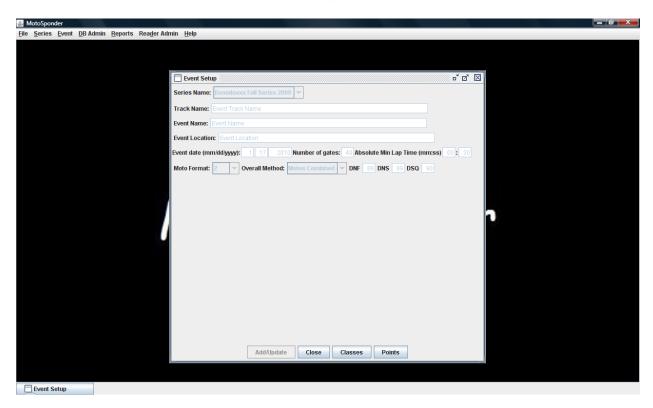


Figure 73 - Event Setup Close Button

#### **Edit Race Event**

The user can edit an event by selecting the "Event" menu item and "Edit Event" submenu item.



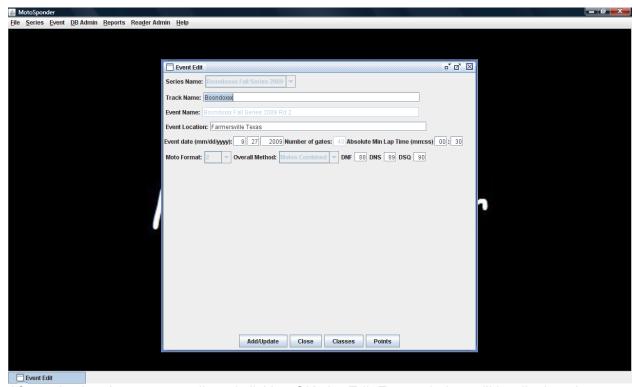
Figure 74 - Edit Event Menu Item

After selecting "Edit Event" the Event Selector dialog window will be displayed for the user to select an event previously created.



Figure 75 - Event Selector Dialog Window





After selecting the event to edit and clicking OK, the Edit Event window will be displayed

Figure 76 - Edit Event Window

While in Event Edit mode only certain fields are allowed to be edited depending on the stage of the event. The main purpose of the Event Edit window is to allow the user to add a class to the event and/or adjust the Absolute Min Lap Time if need be.



#### **Delete Race Event**

The user can delete an event by selecting the "Event" menu item and "Delete Event" submenu item. Use **extreme** caution with this command as the user can delete an entire event from the database!



Figure 77 - Delete Event Menu Item

After selecting "Delete Event" the Event Selector dialog window will be displayed for the user to select an event previously created.

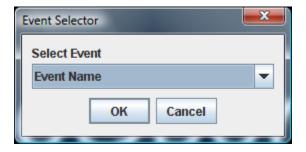


Figure 78 - Event Selector Dialog Window



After selecting the event to delete and clicking OK, a warning dialog window will be displayed requesting the user to proceed or cancel the delete operation.

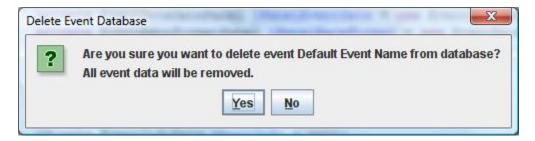


Figure 79 - Delete Event Dialog Window

If the user clicks "No", the event data is not deleted. If the user clicks "Yes" all data related to the event is removed from the database. After the deletion is complete, the event deleted confirmation window is displayed.

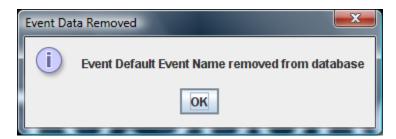


Figure 80 - Event Data Removed Confirmation Window



#### **Delete Race Event Lap Times**

The user can delete the lap times for an event by selecting the "Event" menu item and "Delete Event Lap Times" submenu item. Use **extreme** caution with this command as the user can delete all the lap times for an entire event from the database!



Figure 81 - Delete Event Lap Times Menu Item

After selecting "Delete Event Lap Times" the Event Selector dialog window will be displayed for the user to select an event previously created.



Figure 82 - Event Selector Dialog Window



After selecting the event to delete lap times and clicking OK, a warning dialog window will be displayed requesting the user to proceed or cancel the delete operation.



Figure 83 - Delete Event Lap Times Dialog Window

If the user clicks "No", the event lap times data is not deleted. If the user clicks "Yes" all lap time data related to the event is removed from the database. After the deletion is complete, the event lap times deleted confirmation window is displayed.

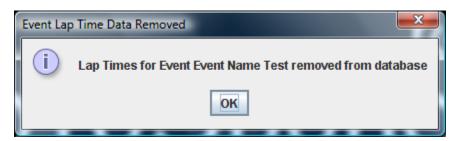


Figure 84 - Event Data Removed Confirmation Window



#### **Load Race Event**

The user can load an event by selecting the "Event" menu item and "Load Event" submenu item.



Figure 85 - Load Event Menu Item

After selecting "Load Event" the Event Selector dialog window will be displayed for the user to select an event previously created.

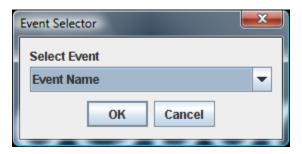
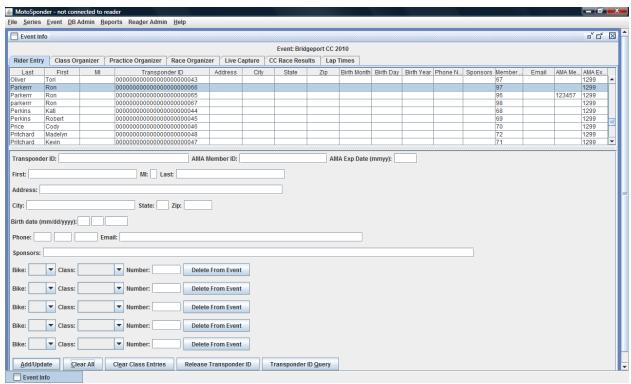


Figure 86 - Event Selector Dialog Window



## **Rider Entry Window**

After selecting an event the Event tabbed window will be displayed with the "Rider Entry" tab displayed. This window displays an alphabetical list of all riders currently in the database, rider entry fields for new riders and class entry fields. There are five class entry fields (Bike, Class,



Number) allowing a single rider to signup for five different classes at a time.

Figure 87 - Event Rider Entry Window



#### Rider Entry - Add/Update Button

Selecting a row from the rider table will populate the rider entry fields below. The Bike, Class, and Number per entry class(es) will be filled in with information from the last event entered by the rider.

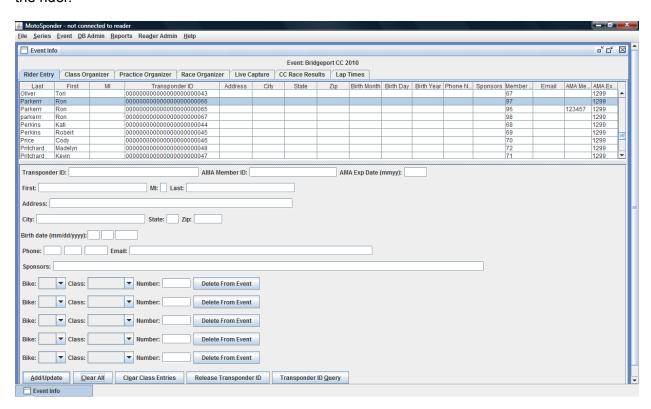
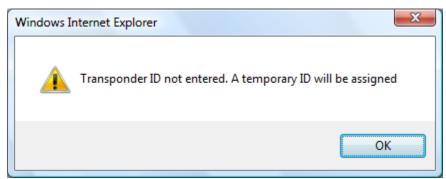


Figure 88 - Event Rider Entry Field Population via Row Selected

After entering the rider's class(es) entry information, the user clicks "Add/Update" to add/update the rider entry for the class(es).



If a transponder ID was not entered the following dialog window will be displayed to inform the user a temporary transponder ID will be assigned. The user must remember to update this



rider's transponder ID before the actual race to be scored.

#### Figure 89 - Event Rider Entry Temporary Transponder ID Assigned Dialog

If the rider information was accepted the Rider Info Accepted dialog window will be displayed.

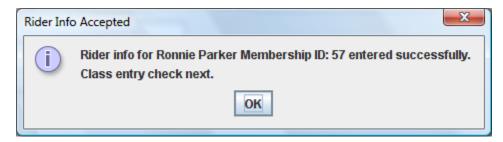


Figure 90 - Rider Info Accepted Dialog Window



After the user clicks OK on the above dialog window and if the rider class entry information was accepted the Rider Class Info Accepted dialog window will be displayed. At this point the user can print the Entry Summary and Release form by clicking on the Yes button. If the user clicks Yes, the Print Dialog window will be displayed to print the report form. The legal text of the form is read in from file <install dir>\resources\ReleaseAgreement.txt. The user can change the legal text by modifying this file.

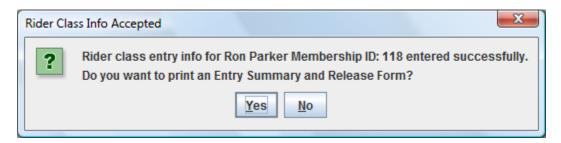


Figure 91 - Rider Class Info Accepted Dialog Window

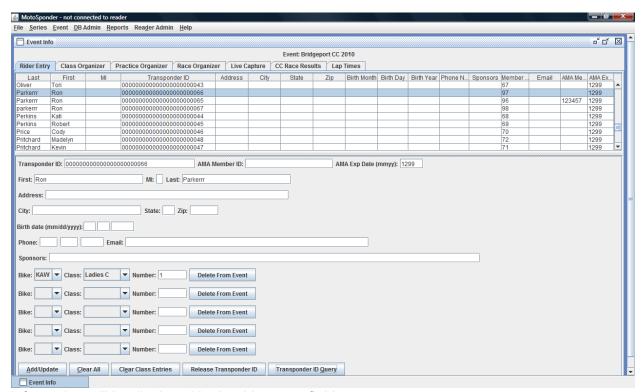


#### Rider Entry - Transponder ID Query Button

A rider's information can be queried via the associated Transponder ID by either manually entering the Transponder ID 24 hex character code or automatically by using the RFID Reader.

If using the Reader the Reader should be set to Signup Mode (See Reader Admin) to read only the desired tag. If using the Reader the rider just needs to pass their Transponder ID tag near the Reader and then click the Transponder ID Query button. After clicking the button the Transponder ID read by the Reader and the associated rider's information will be displayed in the rider entry fields.

If manually entering the Transponder ID the user enters the ID first and then clicks the Enter button or the Transponder ID Query button. After clicking the button the associated rider's



information will be displayed in the rider entry fields.

Figure 92 - Rider Entry - Transponder ID Query Button



#### Rider Entry - Release Transponder ID Button

A rider's Transponder ID can be released or made available again by selecting a rider from the rider list which will populate the Transponder ID field along with the other fields and clicking the "Release Transponder ID" button.

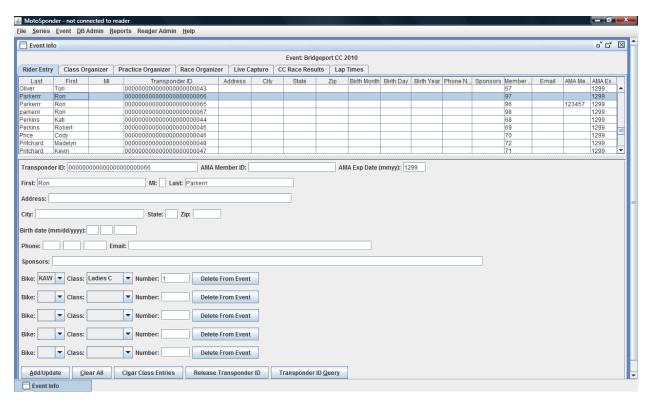


Figure 93 - Rider Entry - Release Transponder ID Button

After the "Release Transponder ID" button is clicked a dialog box will be output asking the user



if they want to assign a temporary ID to the rider.

Figure 94 - Rider Entry - Temporary Transponder ID Assign Dialog

If the user clicks the "Yes" button the transponder ID currently assigned to the rider will be released and a temporary transponder ID will be assigned. If the user clicks "No" the transponder ID will not be released.



### Rider Entry - Clear All Button

Rider information that is currently displayed in the rider entry fields can be cleared out by clicking the "Clear All" button.

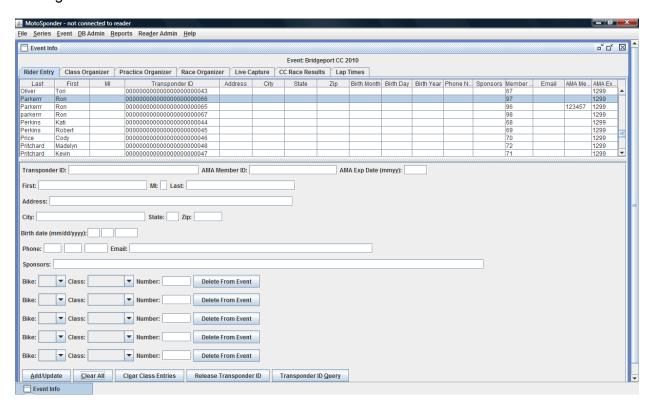


Figure 95 - Rider Entry - Clear All Button



## Rider Entry - Clear Class Entries Button

Rider class entry information that is currently displayed in the rider class entry fields can be cleared out by clicking the "Clear Class Entries" button.

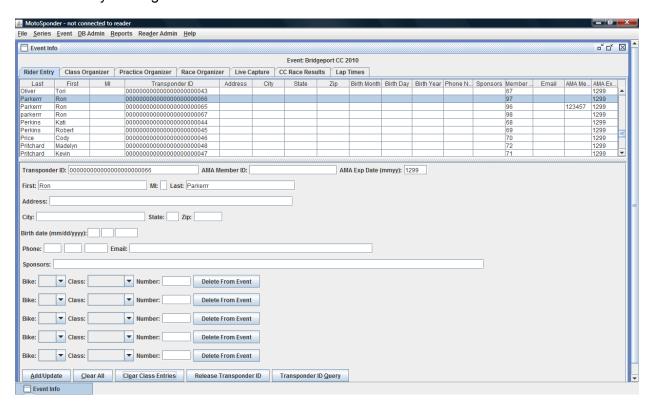


Figure 96 - Rider Entry - Clear Class Entries Button



### Rider Entry - Delete From Event Button

A rider can be deleted from a class for an event by selecting the rider from the list which will populate all the classes the rider has entered and clicking the "Delete From Event" button.

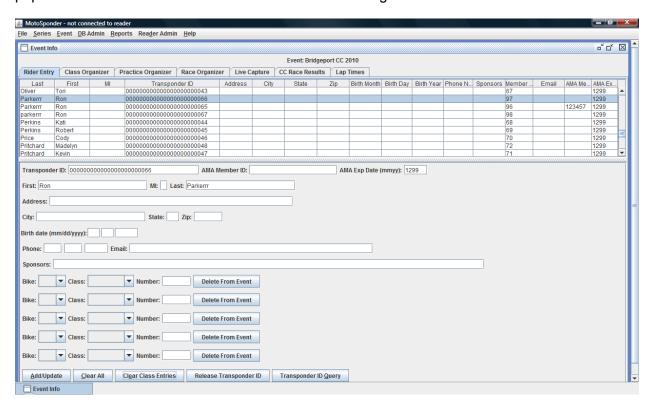
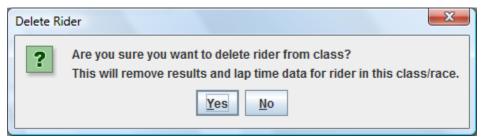


Figure 97 - Rider Entry - Delete From Event Button

After the "Delete From Event" button is clicked, the user will be prompted to confirm the deletion of the rider from the selected class. Deleting a rider from the class will also remove moto results



and lap times for the rider in that class if that data exists.

Figure 98 - Rider Entry - Delete From Event Confirmation Dialog



Upon successful deletion the following dialog will be displayed.

Figure 99 - Rider Entry - Delete From Event Success Dialog



### Rider Entry – Delete Rider

A rider can be deleted from the database by selecting the desired rider in the rider list on the Rider Entry panel, right-click and select "Delete" from the popup menu.

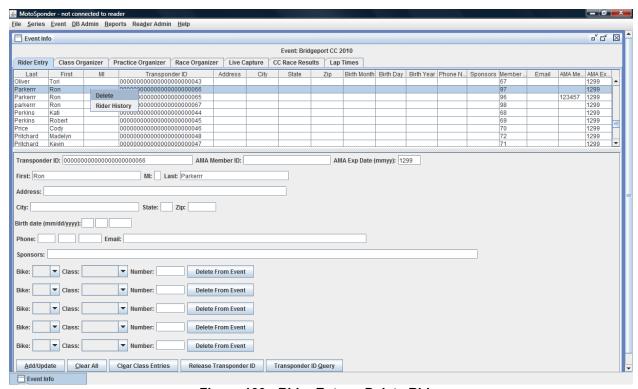
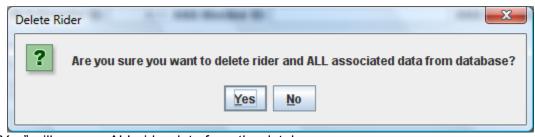


Figure 100 - Rider Entry - Delete Rider

After selecting "Delete" the following dialog will be displayed asking for confirmation to delete.



Click "Yes" will remove ALL rider data from the database.

Figure 101 - Rider Entry - Delete Rider Confirmation Dialog



### Rider Entry - Rider History

A rider's history can be displayed by selecting the desired rider from the rider list on the Rider Entry panel, right-clicking and selecting "Rider History" from the popup window.

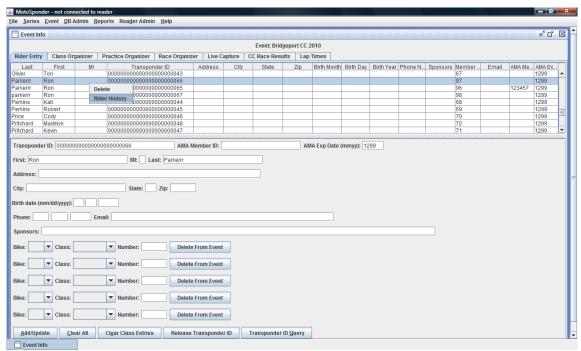


Figure 102 - Rider Entry - Rider History Menu Item



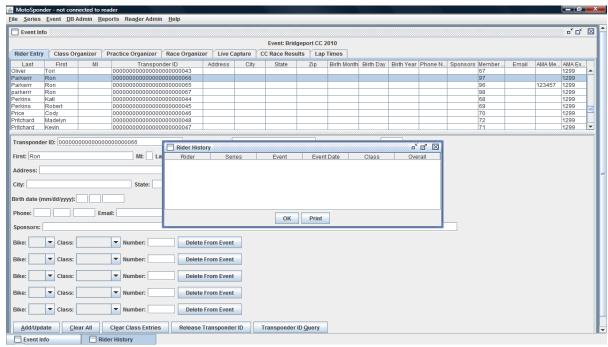


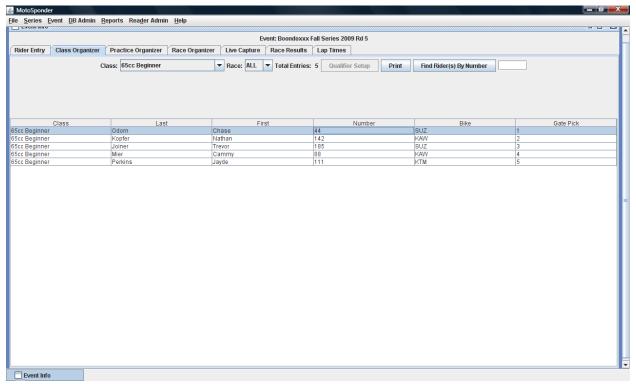
Figure 103 - Rider Entry - Rider History Window

The Rider History displays the Rider Name, Series, Event. Event Date, Class, and Overall finish for the rider.



## **Class Organizer Window**

The "Class Organizer" tab displays the number of riders entered for a particular class, their name, associated number, bike make, and gate pick. The "Number", "Make" and "Gate Pick" columns are editable allowing the user to modify the bike number, make and/or gate pick if needed. The Class Organizer window provides the user great flexibility to create races for a

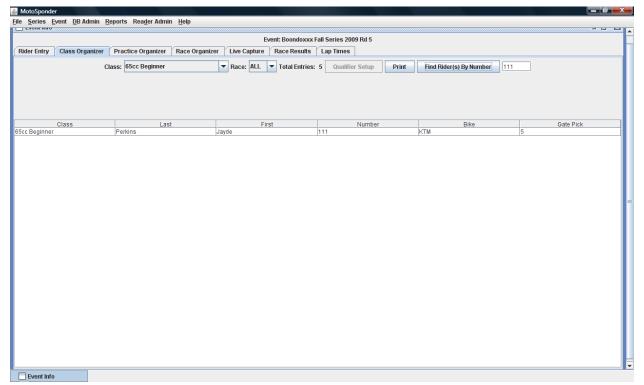


Class and ease to move riders around using the Copy/Delete/Paste functionality provided.

Figure 104 - Event Class Organizer Window



The Class Organizer window allows the user to search the class entries by rider number with the "Find Rider(s) By Number" button. The desired number to search is entered in the text field



and the button clicked.

Figure 105 - Event Class Organizer - Find Rider(s) By Number Button



The Class Organizer window allows the user to assign a random gate pick to each rider of a class with the "Random Gate Pick" button. This will randomize the gate pick for each rider of the displayed class(es) to allow the user to print out. The random gate pick number is not saved to the database but only used for display and/or printing purposes. To revert back to the default initial gate pick (order of signup) just re-select the desired Class and/or Race.

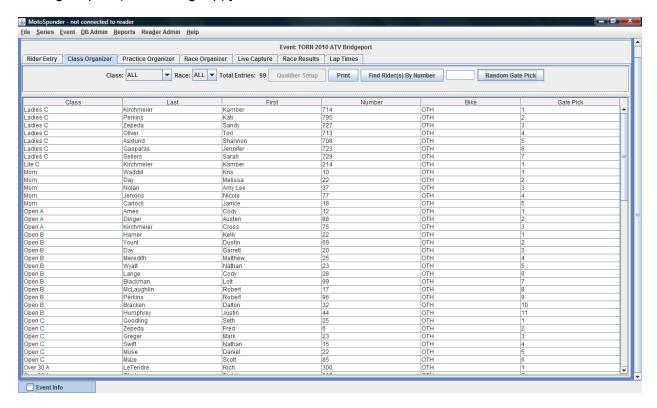
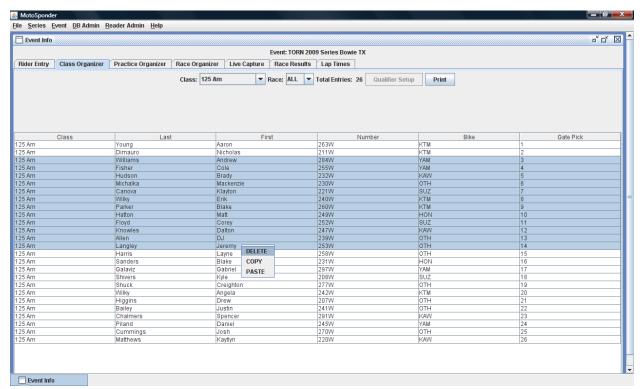


Figure 106 - Event Class Organizer - Random Gate Pick Button



The user can delete one or more rider entries for a class by selecting the desired rider(s) and right-clicking on a row which will display the DELETE menu option. Selecting the DELETE

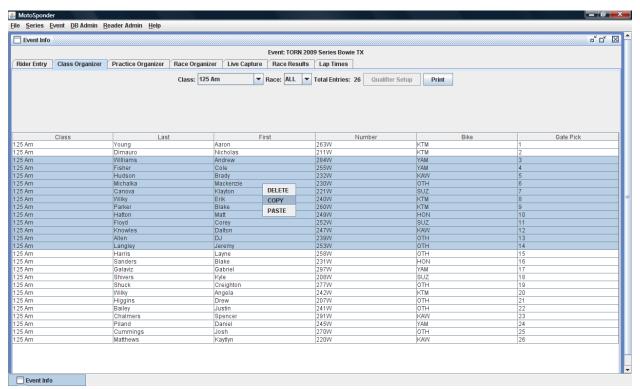


option will remove the rider(s) from the class.

Figure 107 - Delete Rider(s) from Event Class



The user can copy one or more rider entries from one class to another by selecting the desired rider(s) and right-clicking on a row which will display the COPY menu option. Selecting the



COPY option will copy the selected rider(s) that can be pasted into another class or race.

Figure 108 - Copy Rider(s) from Event Class



The user can paste one or more rider entries copied from either the Class Organizer, Live Capture, Race Results, or Lap Times windows to another class by selecting the desired class or race and right-clicking on a row which will display the PASTE menu option. Selecting the PASTE option will paste the selected rider(s) into the desired class or race.

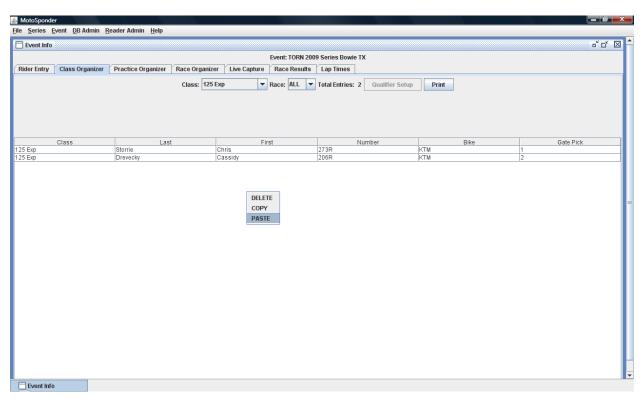


Figure 109 - Paste Rider(s) into Event Class



If the class entries exceed the number of gates specified for the class, the class is automatically split into Divisions and the Qualifier Setup button will be enabled. Selecting the division number ("Div x") from the Race selection box will display the riders assigned to each division. The user can override the Division a rider is placed in by deleting from one Division and copying to another.

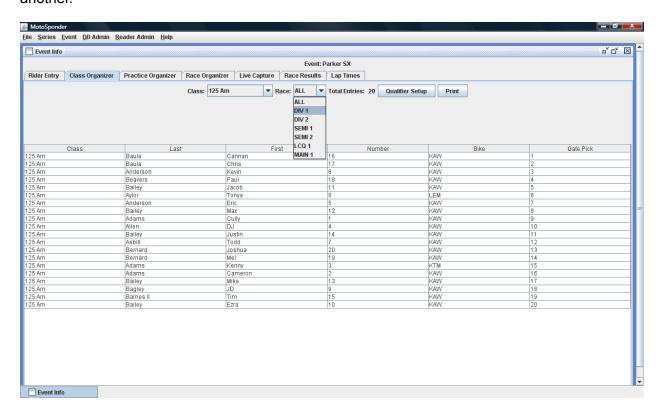
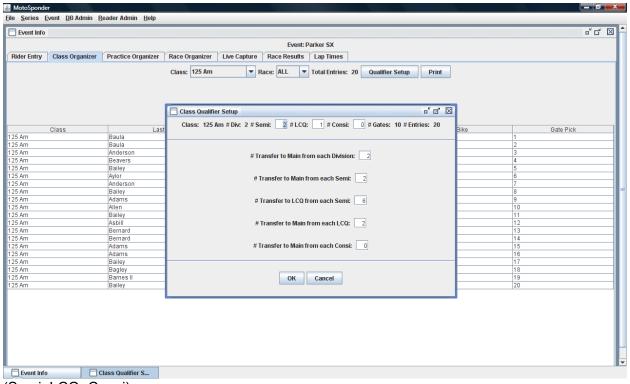


Figure 110 - Event Multi-Division Class Organizer Window



If there are multiple divisions the "Qualifier Setup" button can be clicked to set up the qualifiers



(Semi, LCQ, Consi).

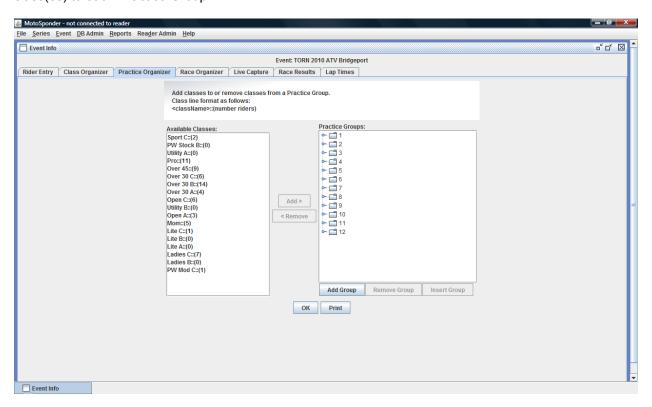
Figure 111 - Class Qualifier Setup Window

Using the Class Qualifier Setup window the user can configure how many riders will transfer to the Main from each Division, transfer to Main from each Semi, transfer to LCQ from each Semi, transfer to Main from each LCQ, and transfer to Main from each Consi. The Class Qualifier Setup window displays the Class, number of Divisions, number of gates, and total Class entries. The user is allowed to create the number of Semi, LCQ, and Consi races needed for the class. If a Consi race is specified it will essentially capture all the riders that do not qualify for the Main. It is the user's choice as to whether any riders transfer to the Main from the Consi or if the Consi will be a totally separate race for those riders that do not qualify for the Main.



#### **Practice Organizer Window**

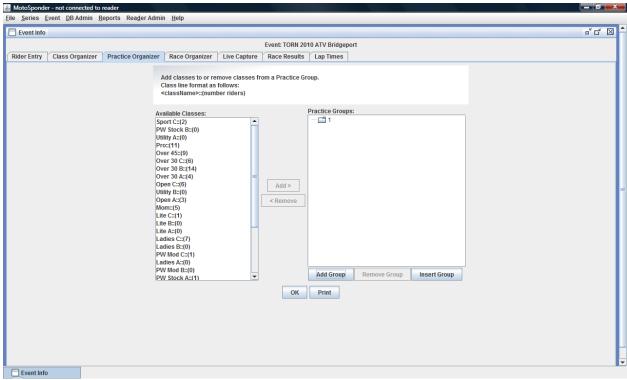
The "Practice Organizer" tab allows the user to setup the event practice order. The window displays the "Available Classes" list and the "Practice Groups" list. The user will create Practice Groups and assign class(es) to each Practice Group.



**Figure 112 - Event Practice Group Window** 



The user creates a Practice Group by clicking the "Add Group" button. After clicking this button

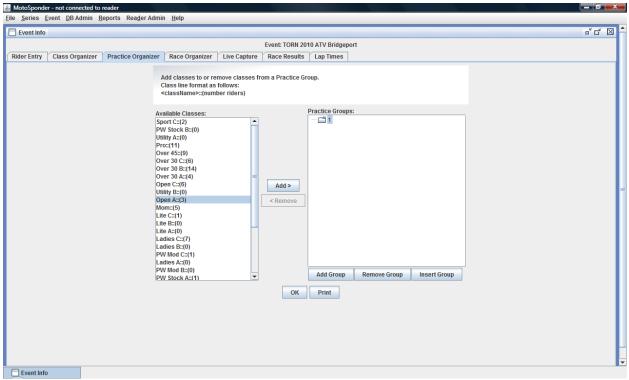


a Practice Group folder will be created in the Practice Group list.

Figure 113 - Event Practice Group Creation



To associated a class or classes to a particular Practice Group, the user will select the Practice

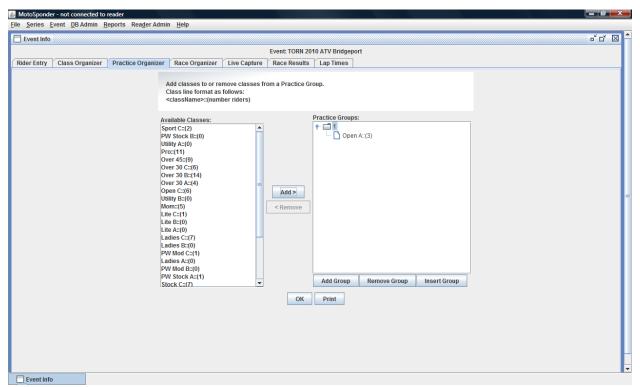


Group folder and one or more classes and click the "Add >" button.

Figure 114 - Event Practice Group Class Association



After the "Add >" button is clicked, the class(es) are removed from the Available Classes list and moved to the Practice Groups list under the selected Practice Group folder. After all Practice

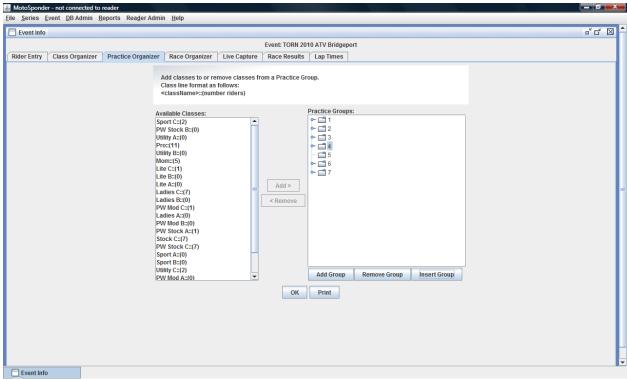


Groups have been setup, the user must click the "OK" button to save the settings.

Figure 115 - Event Class Associated with Practice Group



The "Insert Group" button is used to insert a practice group after the selected practice group in



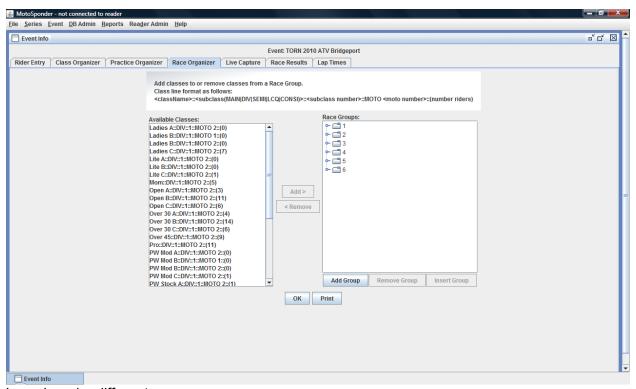
the list. If no practice group is selected the new group is added to the end.

Figure 116 - Insert Group Button on Practice Group Window



#### **Race Organizer Window**

The "Race Organizer" tab allows the user to setup the event race order. The window displays the "Available Classes" list and the "Race Groups" list. The user will create race Groups and assign class(es) to each Race Group. The race format selected when the event was created determines the Available Classes structure. For example, if the 2 moto format was selected and there are no qualifiers, the list will contain a class entry for moto 1 and moto 2. Each moto race

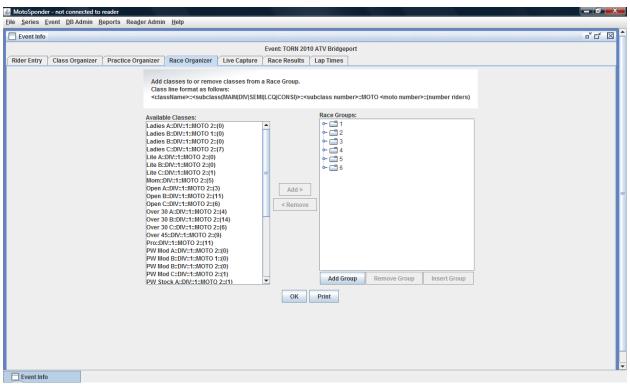


is assigned a different race group.

Figure 117 - Event Race Group Window



The user creates a Race Group by clicking the "Add Group" button. After clicking this button a

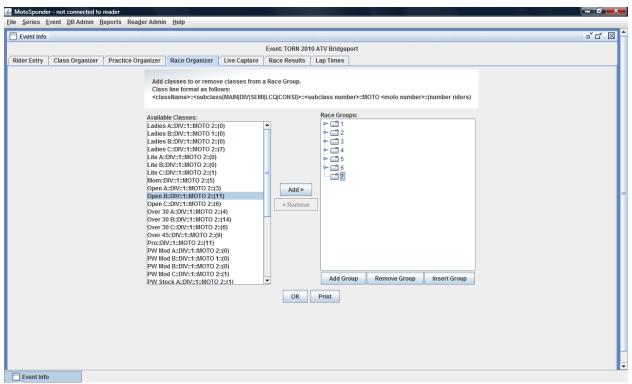


Race Group folder will be created in the Race Groups list.

Figure 118 - Event Race Group Creation



To associate a class or classes to a particular Race Group, the user will select the Race Group



folder and one or more classes and click the "Add >" button.

Figure 119 - Event Race Group Class Association



After the "Add >" button is clicked, the class(es) are removed from the Available Classes list and moved to the Race Groups list under the selected Race Group folder. If there are smaller classes that the user wishes to combine into one race group this is where it is done. After all Race Groups have been setup, the user must click the "OK" button to save the settings.

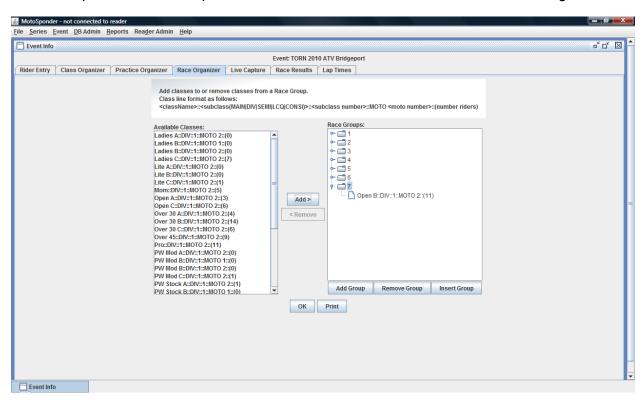
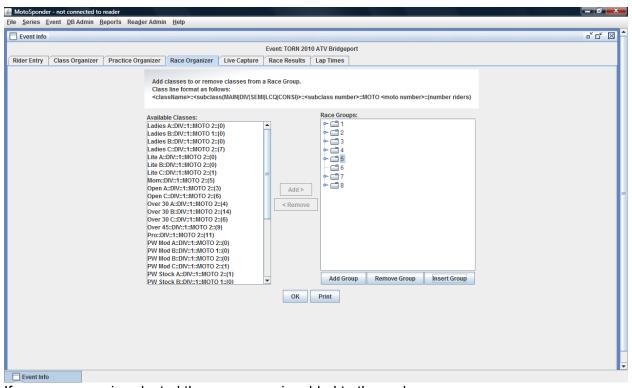


Figure 120 - Event Class Associated with Race Group



The "Insert Group" button is used to insert a race group after the selected race group in the list.



If no race group is selected the new group is added to the end.

Figure 121 - Insert Group Button on Race Group Window

After the user has followed the above steps in setting up the event and configured the Race Groups the most time consuming work for the event has been completed. The remainder of the work for the event will be to capture practice lap times and race lap times/finish using the "Live Capture" tab window described next.



#### **Live Capture Window**

The "Live Capture" tab window is used to capture lap times for each Practice Group and lap times/class finish for each Race Group. The "# Laps" selection box is only used when the "Print Score Sheet" button is clicked. This setting determines how many columns will be printed on the score sheet. The setting has no effect on the number of laps the system will capture will in Live Capture mode. The "Live Capture" window is divide into three areas. The top area contains the command buttons and a manual rider number entry. The "Capture All Tags (Race Groups ONLY)" checkbox should be used with extreme caution. When this checkbox is checked ALL/ANY tags detected by the reader regardless if registered for the Race Group will be included into the Race Group dynamically and automatically entered into the class in the Race Group and assigned a "xYYY" number. The main purpose of this setting is to catch any rider that may have entered the race late (not included in currently loaded Race Group) or any riders that may have had their transponder ID entered incorrectly during signup. If there are multiple classes comprising the Race Group then the rider will be entered into the first class of the Race Group which may or may not require the user the manually delete/paste the riders info into the appropriate class after the Live Capture session using the Results window. The Manual Race Replay button is used to add/delete/modify lap information for any rider of any race. More on this feature is described below. The middle section is the detected transponder Ids monitor area. Only transponder IDs that are registered for the Race/Practice Group are monitored and will display the Transponder ID upon immediate detection along with the associated rider number assuming the Absolute Min Lap Time setting has been met. The bottom area displays the live status of the Race/Practice Group being captured. The size of each area can be adjusted by moving the mouse over the separation bar which will change the cursor to an up/down cursor and then clicking either mouse button and dragging up or down to adjust the size.

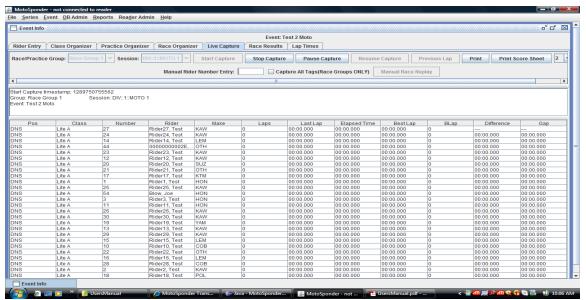


Figure 122 - Event Live Capture Window



To capture lap times for each rider in a Practice Group, select the Practice Group from the "Race/Practice Group" list and the practice session from the "Session" list. Selecting the Practice Group will populate the window with riders for each class assigned to the Practice Group.

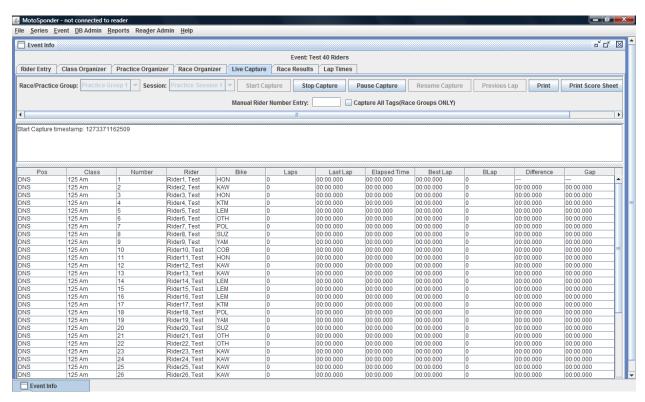


Figure 123 - Event Live Capture Practice Group Selection Window

When ready to start capturing lap times for the practice session the user clicks the "Start Capture" button. After the Start Capture button has been clicked, the button will be disabled, the "Stop Capture" and "Pause Button" buttons will be enabled, and the keyboard focus will shift to the "Manual Rider Number Entry:" text field so the user can enter any rider numbers in case the rider is not detected by the system. As each rider crosses the finish line where the Reader and External Antenna are mounted, the rider's lap time is captured. If the rider number is entered manually the lap time will be recorded the instant the user presses the "Enter" button. Each rider's best lap time, last lap times, and elapsed time are displayed on the window.

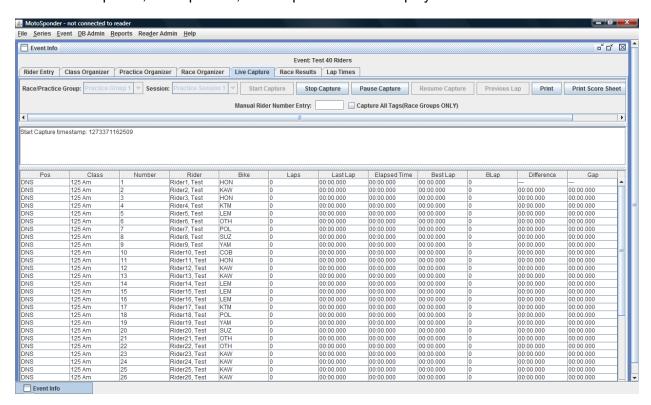
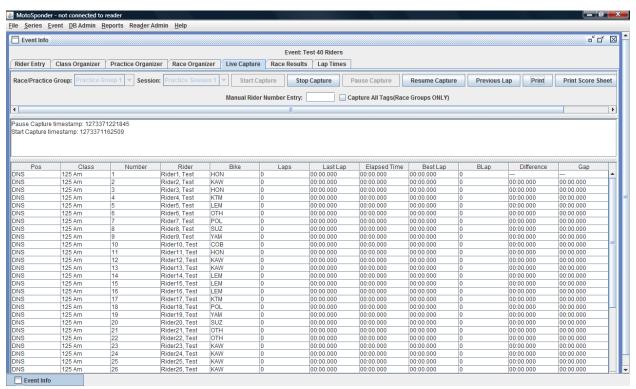


Figure 124 - Event Live Capture Practice Group Start

If the user wants to pause the capture the "Pause Capture" button is clicked. When this button is clicked any tags for the practice group will be ignored effectively pausing the lap counter. When



this button is clicked the "Resume Capture", and "Previous Lap" buttons will be enabled.

Figure 125 - Event Live Capture Pause Capture Button

While in Pause mode the "Previous Lap" button can be clicked. Clicking this button will pop up a dialog window asking the user to confirm or cancel the request. If the user clicks "Yes" the rider order on the lap before the "Pause Capture" button was clicked will be displayed on the Live Capture window. WARNING: Once user clicks "Yes" to set the rider order as it was the previous lap, the current lap display order is removed and CANNOT be undone. The purpose of the "Pause Capture", "Previous Lap", and "Resume Capture" buttons is if a wreck happens and the yellow flag is out and you don't want the laps under the caution to count.

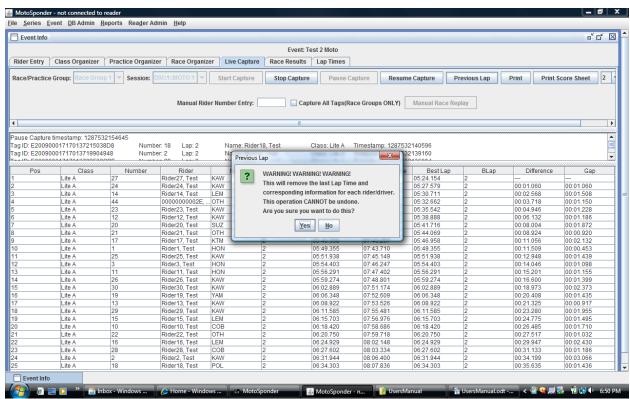
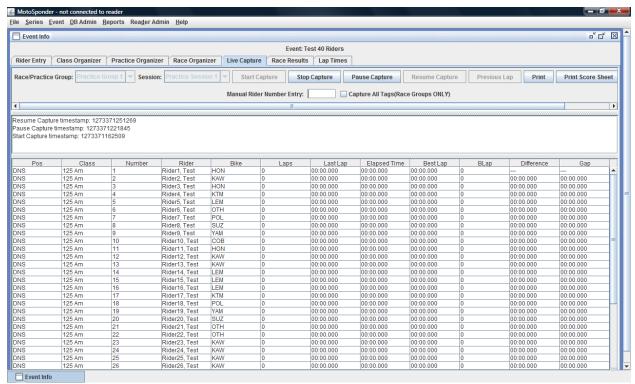


Figure 126 - Event Live Previous Lap Dialog



When the user desires to resume the capture the "Resume Capture" button is clicked. This will



effectively resume the lap counter. This will also enable the "Pause Capture" button again.

Figure 127 - Event Live Capture Resume Capture Button

When the user is ready to stop capturing lap times for the practice group session, the "Stop Capture" button is clicked. When this button is clicked a popup dialog window will be displayed asking the user if they are sure they want to stop capture.

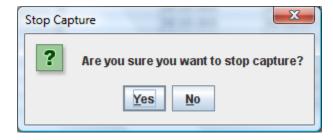


Figure 128 - Stop Capture Dialog Window



If the user clicks "No", the lap time capture for the practice group session will continue. If the user clicks "Yes", another popup dialog window will be displayed asking the user if they want to save the data to the database.

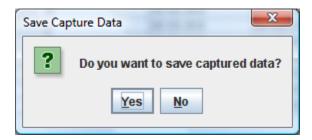


Figure 129- Save Captured Data Dialog Window

If the user clicks "No", the captured data will not be saved to the database. If the user clicks "Yes" the captured data will be saved to the database.



To capture lap times for each rider in a Race Group, select the Race Group from the "Race/Practice Group" list. Selecting the Race Group will populate the window with riders for each class assigned to the Race Group and clear out the transponder ID detection list (middle area of window). The transponder ID detection list that is cleared from the display is also copied to the Windows clipboard to allow the user to paste the list into any text document for analysis if needed.

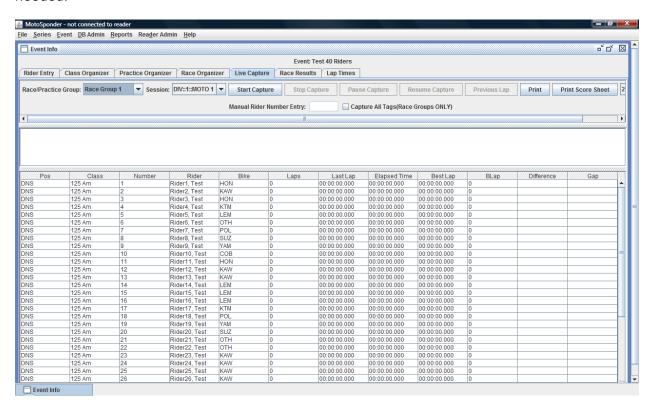


Figure 130 - Event Live Capture Race Group Selection Window

When ready to start capturing lap times for the race the user clicks the "Start Capture" button. After the Start Capture button has been clicked, the button will be disabled, the "Stop Capture" and "Pause Capture" buttons will be enabled, and the keyboard focus will shift to the "Manual Rider Number Entry:" text field so the user can enter any rider numbers in case the rider is not detected by the system. As each rider crosses the finish line where the Reader and External Antenna are mounted, the rider's lap time and class position are captured. If the rider number is entered manually the lap time will be recorded the instant the user presses the "Enter" button. Each rider's best lap time, last lap times, lap number, time difference behind leader, and gap time behind rider in front of the rider are displayed on the window.

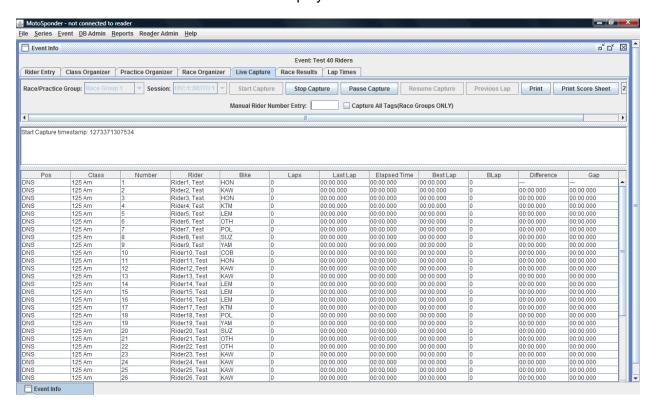
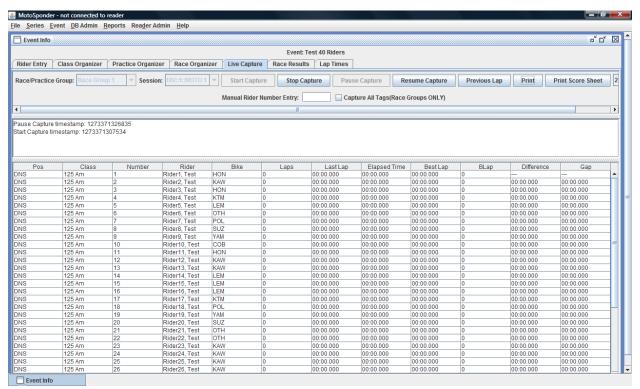


Figure 131 - Event Live Capture Race Group Start

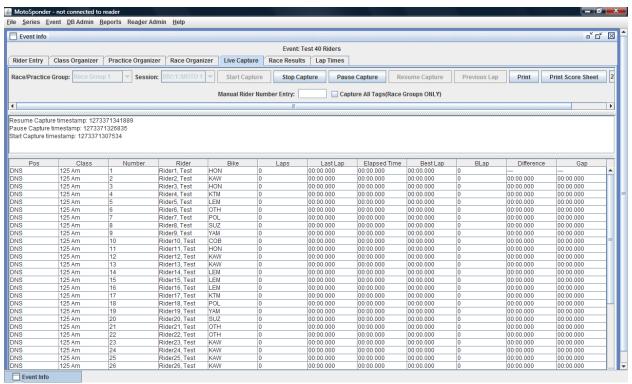
If the user wants to pause the capture the "Pause Capture" button is clicked. When this button is clicked any tags for the race group will be ignored effectively pausing the lap counter. When this



button is clicked the "Resume Capture", and "Previous Lap" buttons will be enabled.

Figure 132 - Event Live Capture Pause Capture Button

When the user desires to resume the capture the "Resume Capture" button is clicked. This will



effectively resume the lap counter. This will also enable the "Pause Capture" button again.

Figure 133 - Event Live Capture Resume Capture Button



When the user is ready to stop capturing lap times for the race, the "Stop Capture" button is clicked. When this button is clicked a popup dialog window will be displayed asking the user if they are sure they want to stop capture.



Figure 134 - Stop Capture Dialog Window

If the user clicks "No", the lap time and class position capture for the race will continue. If the user clicks "Yes", another popup dialog window will be displayed asking the user if they want to save the data to the database.

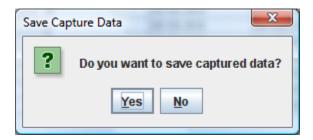


Figure 135- Save Captured Data Dialog Window

If the user clicks "No", the captured data will not be saved to the database. If the user clicks "Yes" the captured data will be saved to the database.

The Manual Race Replay button is used to easily add/delete/modify detection Timestamps (that determines lap times) for any rider/driver of any Race Group of any Event. All Timestamps shown are in milliseconds (1000 milliseconds = 1 second). Just make your Timestamp adjustment(s), click OK and the entire Race is replayed using the updated Timestamps and the modified race results are displayed on the Live Capture window automatically updated to the database.

With this feature the user can quickly manipulate lap times and/or race results any way you desire. The feature can be used immediately after a Stop Capture for a Race Group or can be used anytime afterwords to update lap times and results as needed.

To use just select a Race Group from the drop down list on the Live Capture window and click the Manual Race Replay button located on the same window. This will pop up the Manual Race Replay window displaying each recorded detection in Timestamp order for every rider/driver in the Race Group for every lap (assuming lap time was at least the "Min Absolute Lap Time" setup for the Event) from the time the Start Capture button was clicked until the Stop Capture was

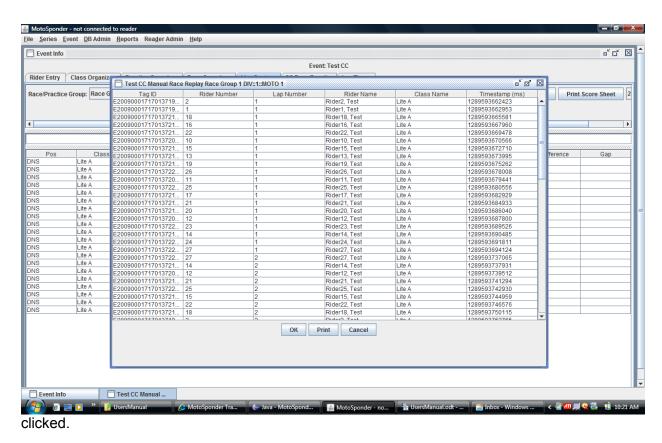


Figure 136 - Event Live Capture Manual Race Replay Button

The window will display the rider/driver Transponder ID, Rider Name, Rider Number, Class within Group, Lap Number, and Timestamp at time of detection. The Transponder ID and

Timestamp columns are the only columns used by the Manual Race Replay feature as all the other columns are shown just to make it easier to identify which rider/driver the Transponder ID and Timestamp is associated with.

Lap times can be deleted by selecting a row, right-clicking the mouse and selecting Delete option. To add a lap time, the user just needs to select a currently displayed row, right-click, select Copy, then select the row you want to insert the new Timestamp, right-click, and select "Insert Before" or "Insert After".

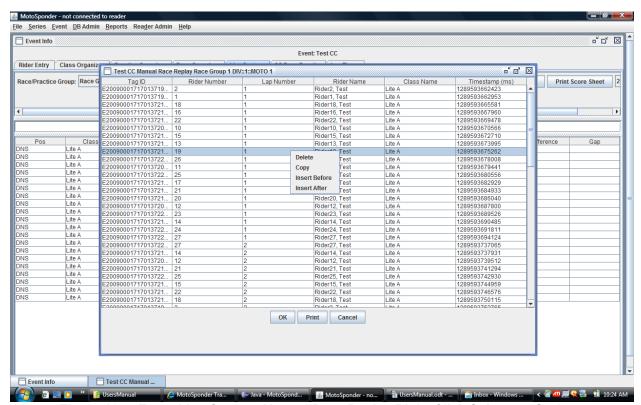


Figure 137 - Event Live Capture Manual Race Replay Right-Click Submenu Options

The Timestamp of the inserted lap time data is automatically adjusted to fit within the Timestamp times of the row before and the row after. A check is also made to make sure the new Timestamp you are adding does not result in a lap time that falls below the "Min Absolute Lap Time" threshold. If it does the system won't allow you to insert at that point because any lap time that falls below the threshold is ignored anyway. To modify a Timestamp value just click in the appropriate cell and modify. The system will auto check to make sure the modified Timestamp value still fits within the time frame of the previous and next rows.

When finished, click the Ok button to replay the Race Group data. Before the replay begins the following dialog window will be displayed.



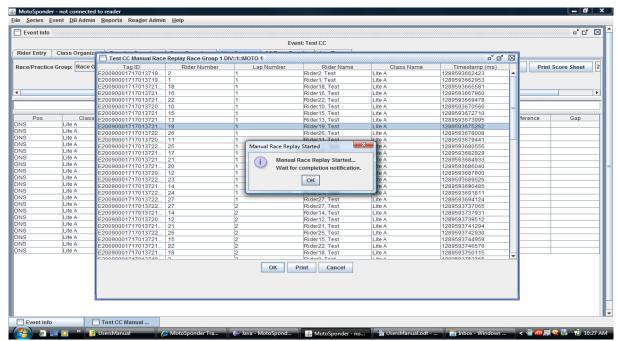


Figure 138 - Event Live Capture Manual Race Replay Start Dialog Window

When replay is complete a dialog box will displayed informing you the replay is complete and the new results will be shown on the Live Capture window and are saved to the database.



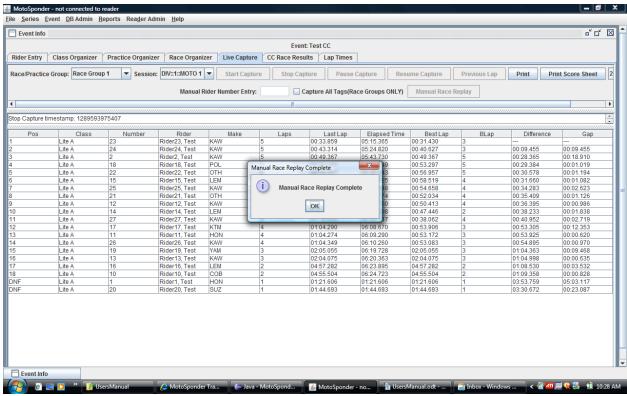


Figure 139 - Event Live Capture Manual Race Replay Complete Dialog Window

Riders from the Live Capture window can be copied to a particular Class race on the Class Organizer window by selecting one or more riders on the Live Capture window, right clicking, selecting the COPY menu item and then right clicking in the Class Organizer window and selecting the PASTE menu item.



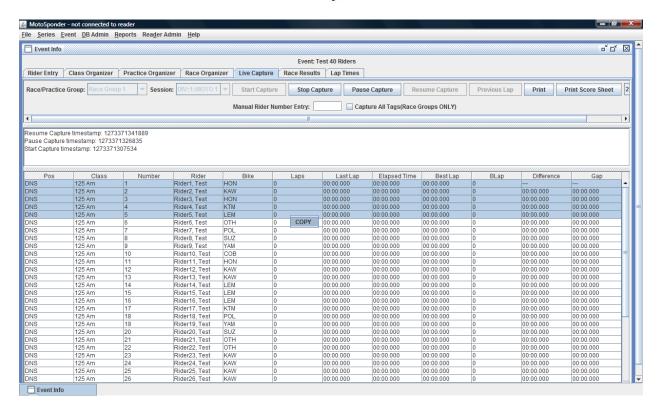


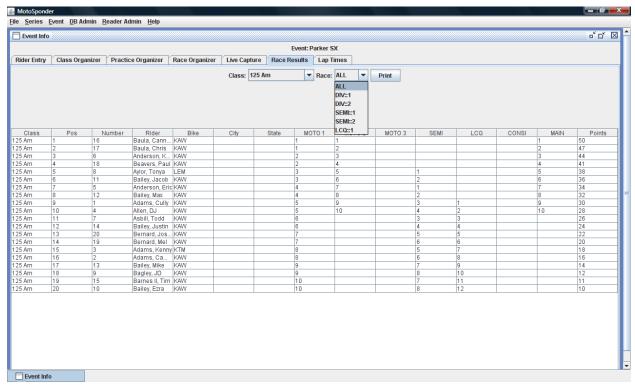
Figure 140- Copy Riders from Live Capture Window

The "Print" button will send the results to a printer and also create a .csv file in the <install dir>\reports\ directory.



#### **Race Results Window**

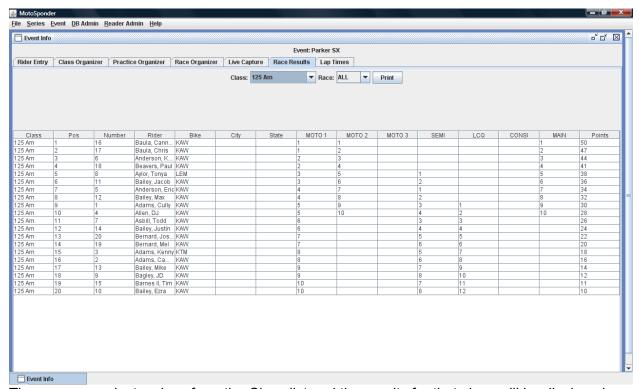
The "Race Results" tab window is used to display the results for each class race of the event. The only "Race" selection for a Race Group is "ALL" unless the Class had multiple Divisions and/or qualifiers (Semi x, LCQ x, Consi x) in which case each can be selected individually to display the results for that race . The "Print" button will send the results to a printer and also



create a .csv file in the <install\_dir>\reports\ directory.

Figure 141 - Event Race Results Window





The user can select a class from the Class list and the results for that class will be displayed

Figure 142 - Event Class Race Results Window



Riders from the Race Results window can be copied to a particular Class race on the Class Organizer window by selecting one or more riders on the Race Results window, right clicking, selecting the COPY menu item and then right clicking in the Class Organizer window and selecting the PASTE menu item.

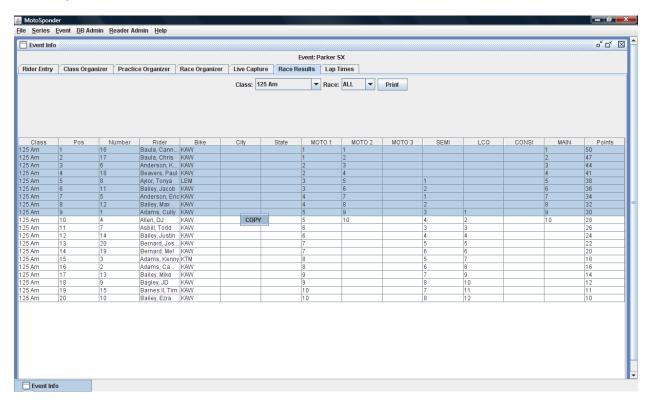


Figure 143- Copy Riders from Race Results Window



# **CC (Cross Country) Race Results Window**

The "CC Race Results" tab window is used to display the results for each class race of a Cross Country event. The only "Race" selection for a Race Group is "ALL". The "Track Length (miles)" entry field is used to enter the length of the course in miles and computes the "MPH" value for each rider row. The "Start Offset(seconds)" entry field is used to enter the staggered start offset time in seconds by class that are part of a multi gate drop Race Group. This offset time will adjust a rider's Elapsed Time, Lap 1 time, MPH, and Average Lap values. This results window is specifically for Cross Country style events that displays the total elapsed time, MPH lap average, average lap time and each individual lap time. If there are more than 12 laps for the event only the first 12 lap times will be displayed but the MPH, Elapsed Time, and Average Lap values are computed based on the total laps in the Laps column. The "Print" button will send the results to a printer and also create a .csv file in the <install dir>\reports\ directory.

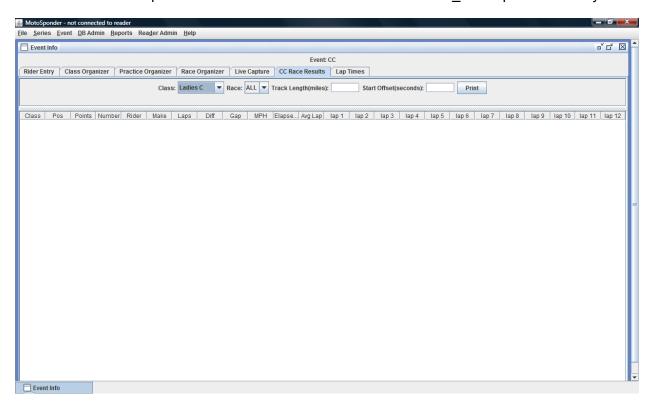
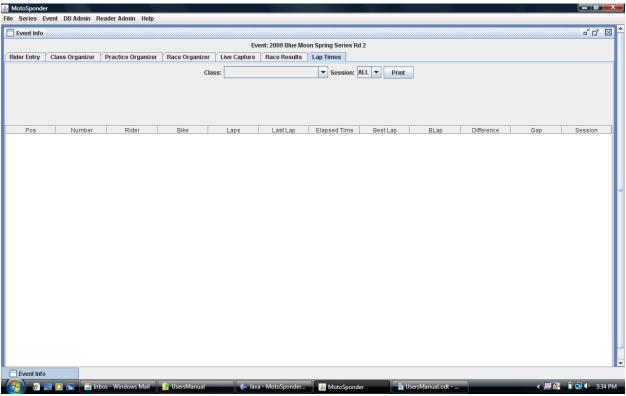


Figure 144 - CC Event Race Results Window



# **Lap Times Window**

The "Lap Times" tab window is used to display the lap times for each class of the race. The "Session" list contains each practice session and moto race. The "Print" button will send the



results to a printer and create a .csv in the <install\_dir>\reports\ directory.

Figure 145 - Event Lap Times Window



When the user selects a class the default display will show the lap times for each rider for all practice sessions and race motos sorted by Best Lap time. If a practice session is selected the

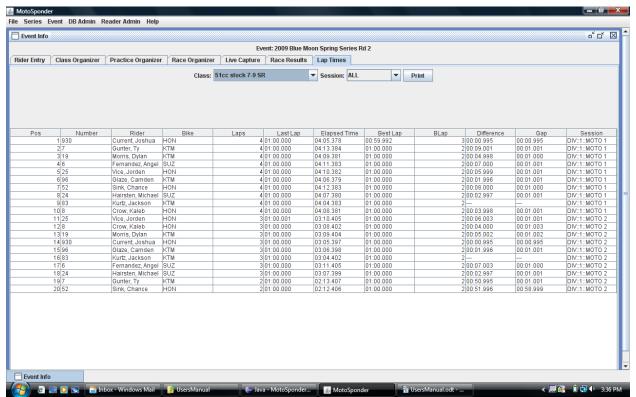


table is sorted by Best Lap time also.

Figure 146 - Event Lap Times - Session ALL Window



The lap times for each rider in the class can be filtered by selecting a practice session or race moto from the "Session" list. When a race session is selected the table is sorted by Elapsed Time. This effectively will show the results of the race from first to last with associated elapsed time for each rider in the class.

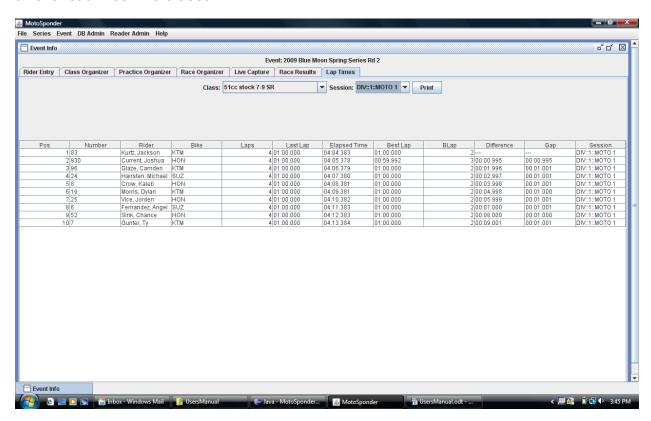


Figure 147 - Event Lap Times - Filtered Session Window



Riders from the Lap Times window can be copied to a particular Class race on the Class Organizer window by selecting one or more riders on the Lap Times window, right clicking, selecting the COPY menu item and then right clicking in the Class Organizer window and selecting the PASTE menu item.

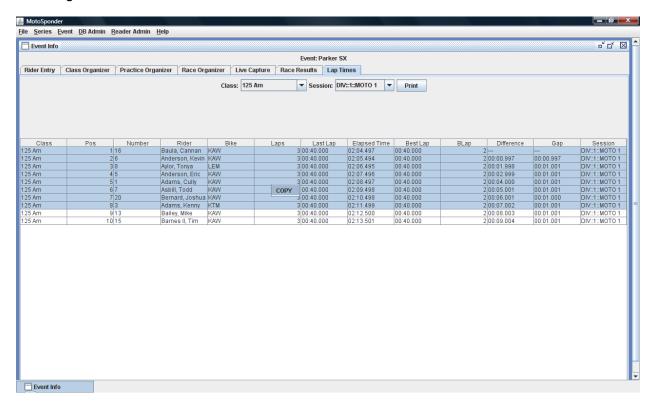
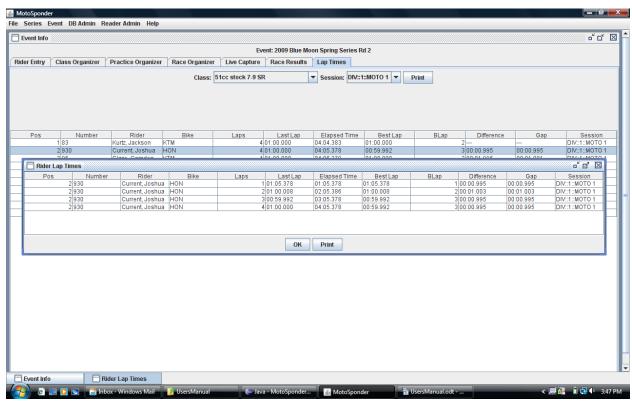


Figure 148- Copy Riders from Lap Times Window



# **Lap Times per Individual Window**

If the user double-clicks on a row the individual lap times for the rider are displayed in a separate window. The user can print the individual lap times by clicking on the Print button

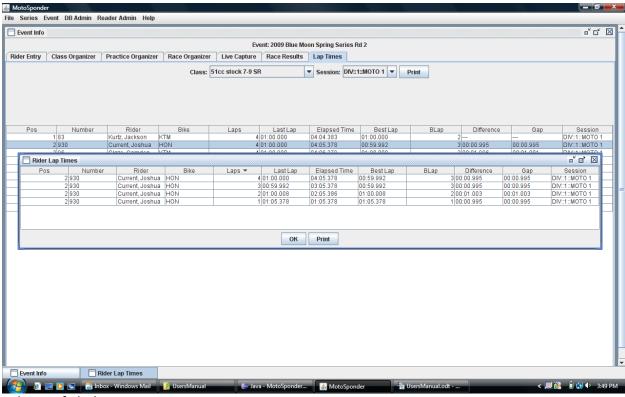


which also creates a .csv file in the <install\_dir>\reports\ directory.

Figure 149 - Individual Rider Lap Times Window

# MotoSponder

The Rider Lap Times data rows can be sorted according to column data by clicking on the



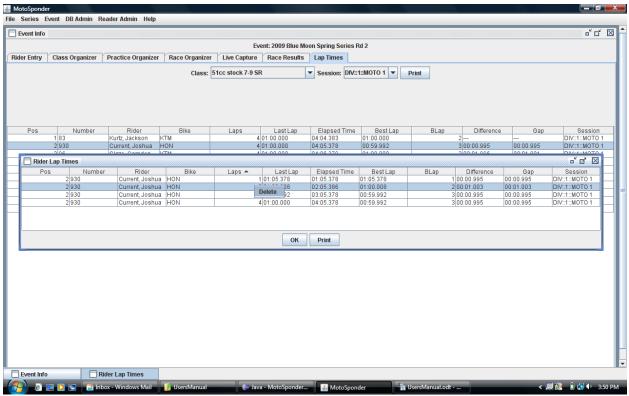
column of choice.

Figure 150 - Individual Lap Times Data Sorted



# **Delete Individual Lap Times**

The user can delete individual lap time data by selecting the appropriate row, right-clicking on



the row and selecting the Delete option.

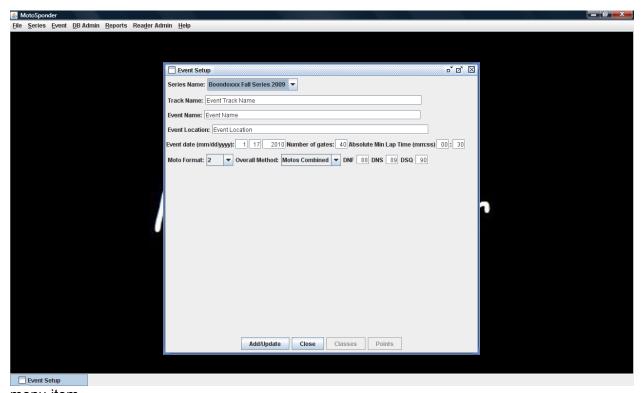
Figure 151 - Individual Lap Time Data Delete



#### **Copy Event Data**

The user can quickly setup/configure a newly created event (described in Create Race Event Setup) with the event data from a previous event by selecting the "Event" menu item and "Copy Event Data" submenu item. By using this feature the user will save a tremendous amount of time by not having to re-enter all the rider entry data, Event Classes, Event Points, Practice Order, Race Order, etc. for the event. All event data from the source event with the exception of lap time and moto results will be copied to the destination event.

When creating the new destination event the user only needs to select the "Series Name", enter "Track Name", "Event Name", "Event Location", "Event Date", and "Absolute Min Lap Time" data, click the "Add/Update" button and then the "Close" button on the "Event Setup" window that is displayed when the user selects the "Create Event" submenu item under the "Event"



menu item.

Figure 152 - Creating Destination Event for Copy Event Data



After the user creates the destination event the newly created event must be loaded by



selecting the "Load Event" submenu item under the "Event" menu item.

Figure 153 - Load New Destination Event Created for Copy Event Data

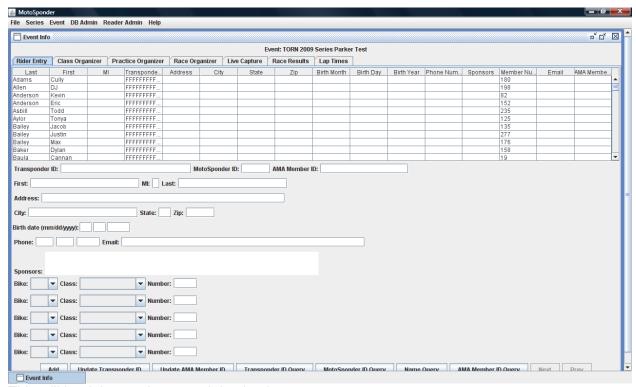
This will display the Event Selector dialog window. The user needs to select the newly created



destination event.

Figure 154 - Destination Event Selector Dialog Window





This will load the newly created destination event.

Figure 155 - Newly Created Loaded Destination Event

Once the newly created destination event has been loaded the user must select the "Copy Event Data" submenu item under the "Event" menu item.



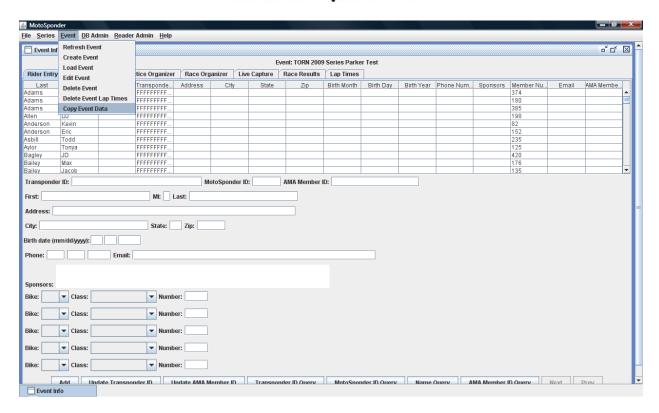


Figure 156 - Copy Event Data Menu item

The Event Selector dialog window will be displayed for the user to select the source event to

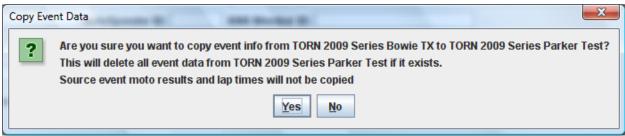


copy the event data from.

Figure 157 - Source Event Selector Dialog Window



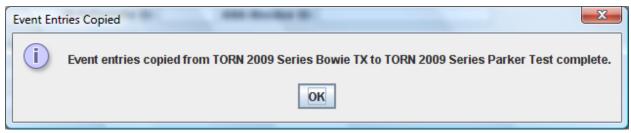
After selecting the source event a confirmation dialog window will be displayed asking the user



to confirm the copy event request,

Figure 158 - Copy Event Confirmation Dialog Window

If the user is sure this is the event to copy information from clicking the "Yes" button will start the copy process. Once the source event data has been copied to the destination event the copy



completion dialog window will be displayed.

Figure 159 - Copy Event Completion Dialog Window

The newly created destination event has now been setup complete with all the Rider Entries from the source event as well as the Practice Order, Race Order, etc ready to start capturing lap times and recording results. All the user has to do now is enter any new rider entry information and/or delete rider(s) from classes that did not signup for the new event.



#### DB Admin

The "DB Admin" menu selections allow the user to create a database, add/delete/modify cycle Make, add/delete/modify Transponder Ids, and import Trackside rider data. The "Create Database…", "TransponderIds", and "Import Trackside Rider Data…" were described earlier.

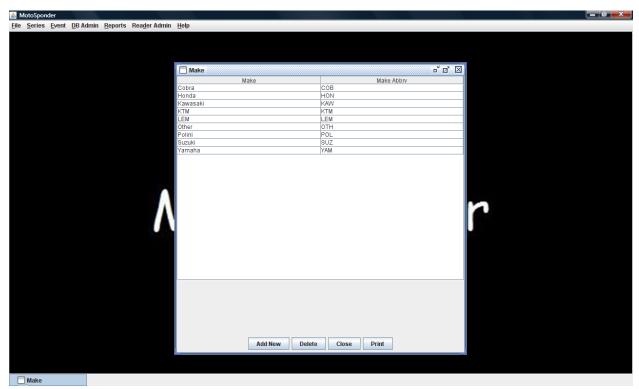


To add/delete/change a cycle Make the "Make" menu item is selected.

Figure 160 - DB Admin Make Menu Selection

# MotoSponder

Selecting "Make" will display the Make window. To add a new Make, the user clicks the Add New button and then enters the Make long name and Make Abbrev decriptions. To delete a



Make the user selects the desired row and clicks the Delete button.

Figure 161 - DB Admin Make Window



# Reports

The "Reports" menu item provides numerous options for the user to display and/or print different



reports.

Figure 162 - Reports Menu Window



#### **Event AMA Report**

The user can create an AMA report for an event by selecting the "Event AMA Report" submenuitem.



Figure 163 - Reports Menu - Event AMA Report Window

After selecting this submenu item, the Event Selector dialog window is displayed to select the



desired event.

Figure 164 - Reports Menu - Event AMA Report Event Selection Dialog

After selecting the desired event the AMA report for the event is created and a report completed dialog window is displayed.

# MotoSponder

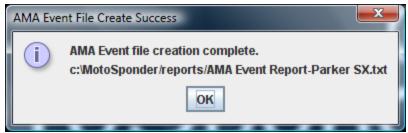
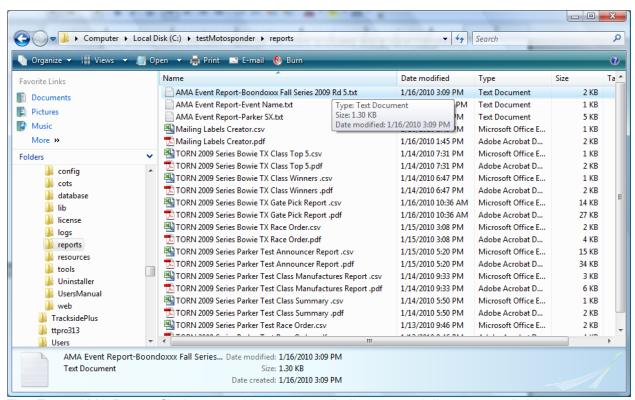


Figure 165 - Reports Menu - Event AMA Report Complete Dialog



The Event AMA Report file is created in the <install\_dir>/reports/ directory available.

Figure 166 - Reports Menu - Event AMA Report File Location



### **Event Class Summary**

The Event Class Summary submenu item can be selected to display the number of entries for each class of the event.



Figure 167 - Reports Menu - Event Class Summary Submenu Option

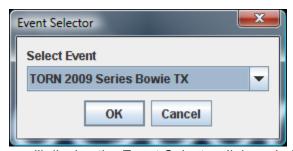
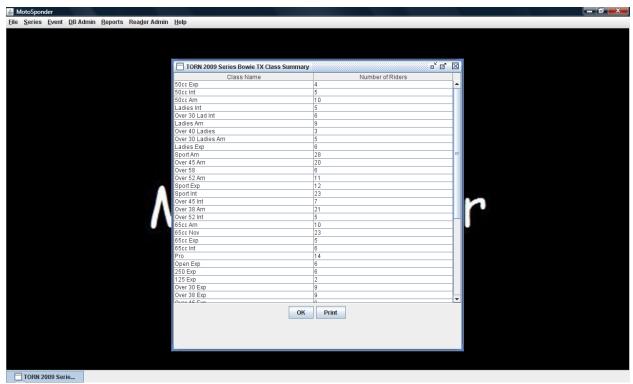


Figure 168 - Reports Menu – Event Class Summary Event Selection Dialog



The user selects the desired event and the summary report is displayed. The report displays the



Class Name and Number of Riders entered in each class.

Figure 169 - Reports Menu - Event Class Summary Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install\_dir>/reports directory.



#### **Event Class Winners**

The Event Class Winners submenu item can be selected to display the winners for each class of the event.

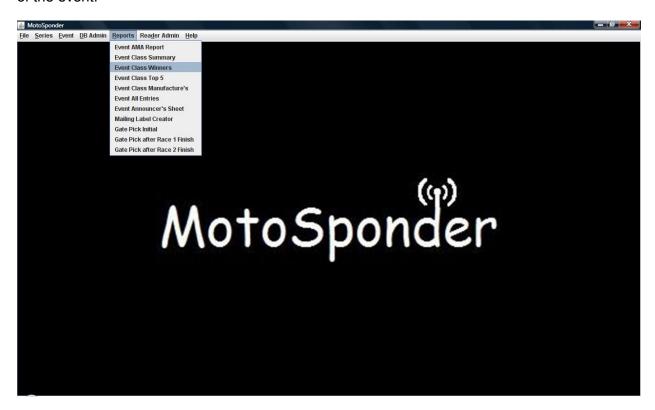


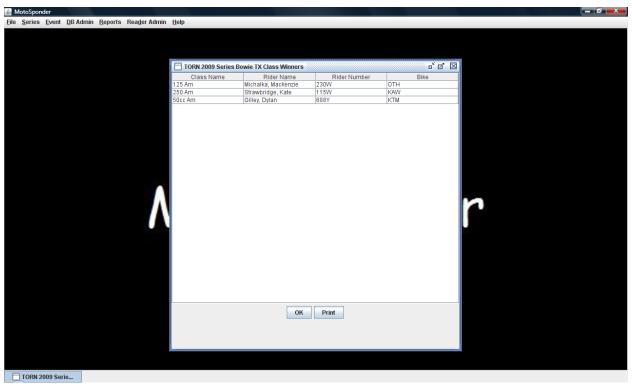
Figure 170 - Reports Menu - Event Class Winners Submenu Option



Figure 171 - Reports Menu - Event Class Winners Event Selection Dialog



The user selects the desired event and the winners report is displayed. The report displays the



Class Name, Rider Name, Rider Number, and Bike for each class winner.

Figure 172 - Reports Menu - Event Class Winners Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install\_dir>/reports directory.



#### **Event Class Top 5**

The Event Class Top 5 submenu item can be selected to display the top 5 riders for each class of the event.

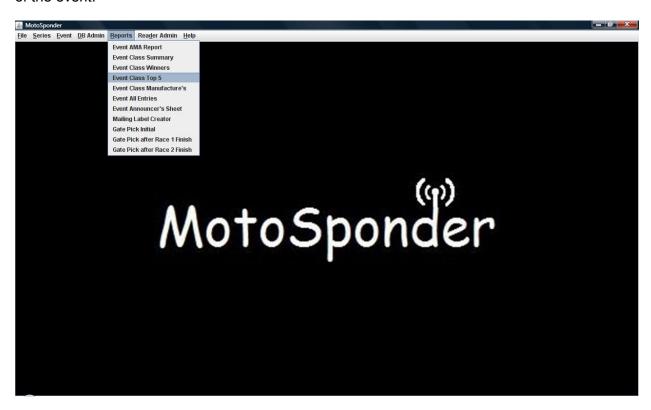


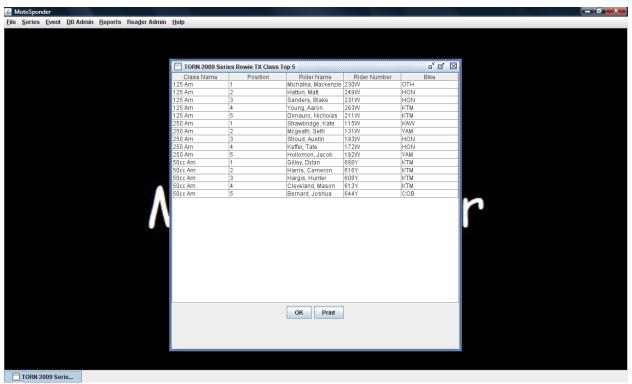
Figure 173 - Reports Menu - Event Class Top 5 Submenu Option



Figure 174 - Reports Menu - Event Class Top 5 Event Selection Dialog



The user selects the desired event and the top 5 riders report is displayed. The report displays



the Class Name, Position, Rider Name, Rider Number, and Bike for each class top 5 riders.

Figure 175 - Reports Menu - Event Class Top 5 Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install\_dir>/reports directory.



#### **Event Class Manufacture's**

The Event Class Manufacture's submenu item can be selected to display the number of each kind of bike for each class of the event.



Figure 176 - Reports Menu - Event Class Manufacture's Submenu Option

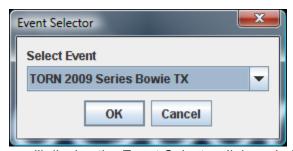
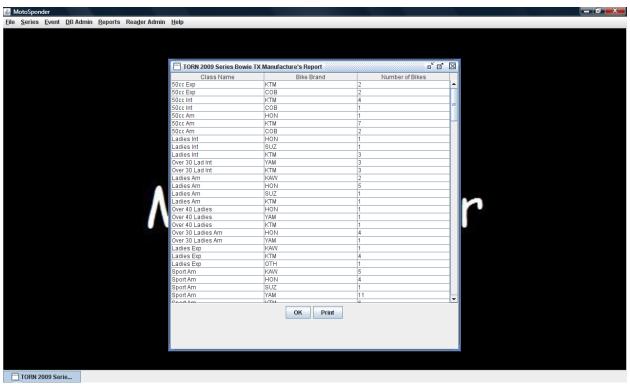


Figure 177 - Reports Menu - Event Class Manufacture's Event Selection Dialog



The user selects the desired event and the bike manufacture's report is displayed. The report



displays the Class Name, Bike, and Number of Bikes for each class.

Figure 178 - Reports Menu - Event Class Manufacture's Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install\_dir>/reports directory.



#### **Event All Entries**

The Event All Entries submenu item can be selected to display all the riders and each class each rider has entered for the event.



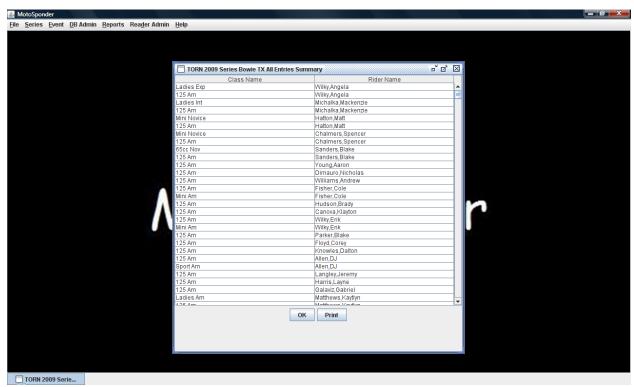
Figure 179 - Reports Menu - Event All Entries Submenu Option



Figure 180 - Reports Menu – Event All Entries Event Selection Dialog



The user selects the desired event and all the riders entered in the event and each class they are entered in report is displayed. The report displays the Class Name, and Rider Name for



each entry.

Figure 181 - Reports Menu – Event All Entries Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install\_dir>/reports directory.



#### **Event Announcer's Sheet**

The Event Announcer's Sheet submenu item can be selected to display the event's race order with each class and all entries for each each class displayed.



Figure 182 - Reports Menu - Event Announcer's Sheet Submenu Option

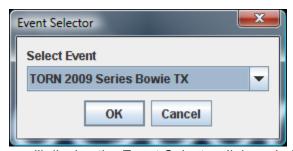
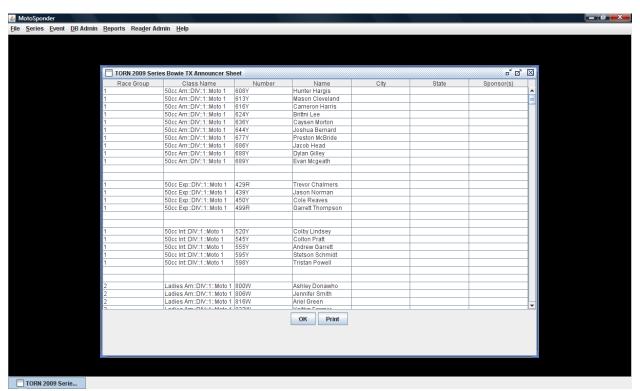


Figure 183 - Reports Menu – Event Announcer's Sheet Selection Dialog



The user selects the desired event and the event's race order is displayed with the class(es) in each race group and the rider entries for each of those classes. The report displays the Race



Group, Class Name, Rider Number, Rider Name, City, State, and Sponsors for each entry.

Figure 184 - Reports Menu – Event Announcer's Sheet Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install dir>/reports directory.



### **Mailing Label Creator**

The Mailing Label Creator submenu item can be selected to display all the riders in the database that contain complete mailing address information. Only riders that have an address, city, state, and zip are included in the list.



Figure 185 - Reports Menu - Mailing Label Creator Submenu Option

Selecting this submenu item will display the informational dialog window.

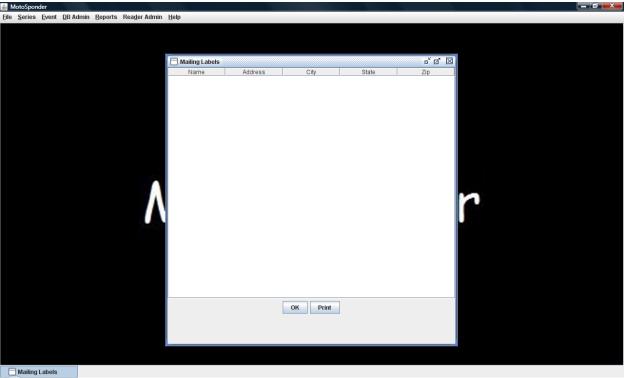




Figure 186 - Reports Menu - Mailing Label Creator Dialog

# MotoSponder

After acknowledging the informational dialog window the mailing labels window is displayed.



The window displays the Name, Address, City, State, and Zip for each rider.

Figure 187 - Reports Menu - Mailing Label Creator Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install\_dir>/reports directory. The .csv file can be imported into any mailing label program to create the desired mailing labels.



#### **Gate Pick Initial**

The Gate Pick Initial submenu item can be selected to display the event's gate pick order for each class for the initial races.



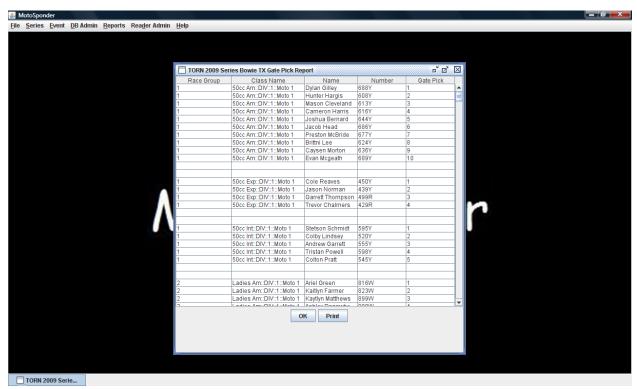
Figure 188 - Reports Menu - Gate Pick Initial Submenu Option



Figure 189 - Reports Menu - Gate Pick Initial Selection Dialog



The user selects the desired event and the event's initial Gate Pick order for each class in each Race Group. The report displays the Race Group, Class Name, Rider Number, Rider Name,



and Gate Pick for each class.

Figure 190 - Reports Menu - Gate Pick Initial Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install\_dir>/reports directory.



#### Gate Pick after Race 1 Finish

The Gate Pick after Race 1 Finish submenu item can be selected to display the event's gate pick order for each class based on the first race (moto 1) finish order.



Figure 191 - Reports Menu - Gate Pick after Race 1 Finish Submenu Option

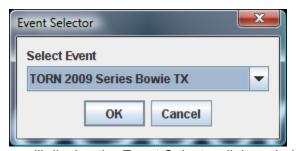
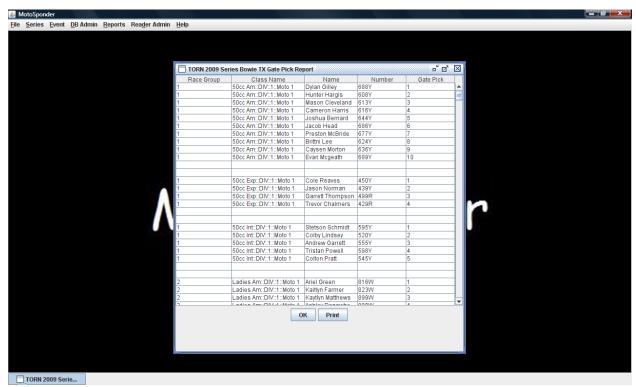


Figure 192 - Reports Menu - Gate Pick after Race 1 Finish Selection Dialog



The user selects the desired event and the event's Gate Pick order for each class based on first race (moto 1) finish position in each Race Group. The report displays the Race Group, Class



Name, Rider Number, Rider Name, and Gate Pick for each class.

Figure 193 - Reports Menu - Gate Pick after Race 1 Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install\_dir>/reports directory.



#### Gate Pick after Race 2 Finish

The Gate Pick after Race 2 Finish submenu item can be selected to display the event's gate pick order for each class based on the second race (moto 2) finish order.



Figure 194 - Reports Menu - Gate Pick after Race 2 Finish Submenu Option

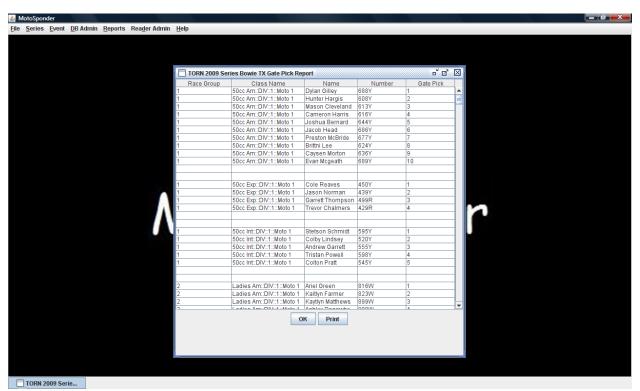


Selecting this submenu item will display the Event Selector dialog window.

Figure 195 - Reports Menu - Gate Pick after Race 2 Finish Selection Dialog



The user selects the desired event and the event's Gate Pick order for each class based on second race (moto 2) finish position in each Race Group. The report displays the Race Group,



Class Name, Rider Number, Rider Name, and Gate Pick for each class.

Figure 196 - Reports Menu - Gate Pick after Race 2 Window

The user can print the report by clicking the "Print" button which also creates a .csv file in the <install dir>/reports directory.



#### Reader Admin

The "Reader Admin" menu item is used to set the reader mode and for diagnostics. The only

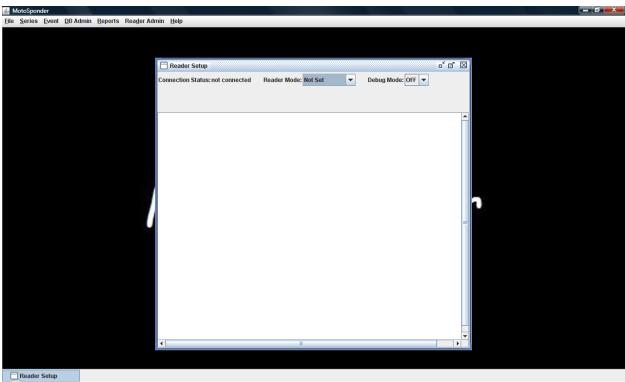


submenu item is "Setup".

Figure 197 - Reader Admin Menu Selection

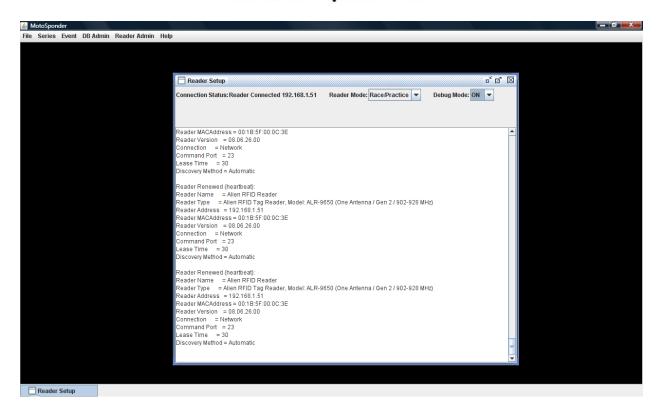


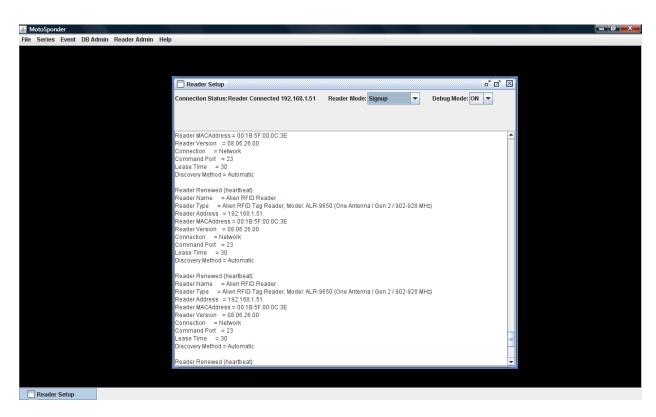
When the "Setup" submenu item is selected the Reader Setup window is displayed. This

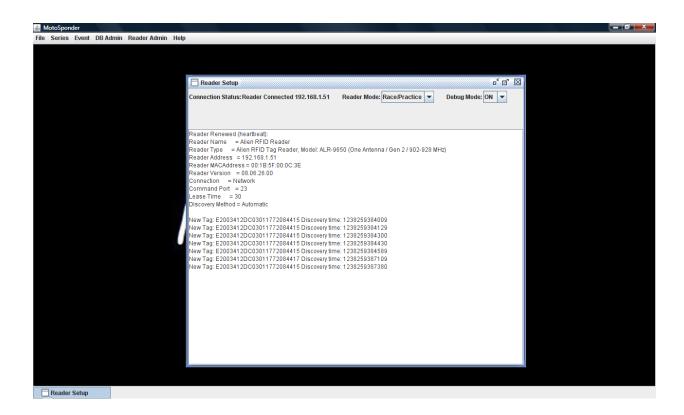


window displays the Reader connection status, Reader Mode, and Debug Mode.

Figure 198 - Reader Admin Setup Window









#### Series

The "Series" menu item is used to add/delete/modify a Series name in the database and display



the results for a Series.

Figure 199 - Create Series Name Menu Item

The "Series" menu item will display the Series table. To add a new Series name, the user clicks the Add New button and then enters the Series name. To delete a Series name the user selects the desired row and clicks the Delete button.



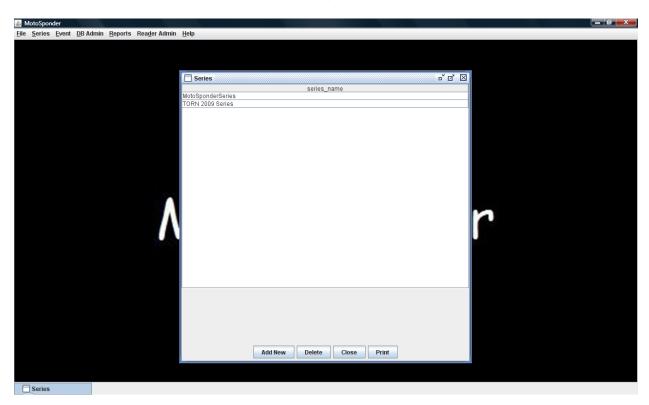


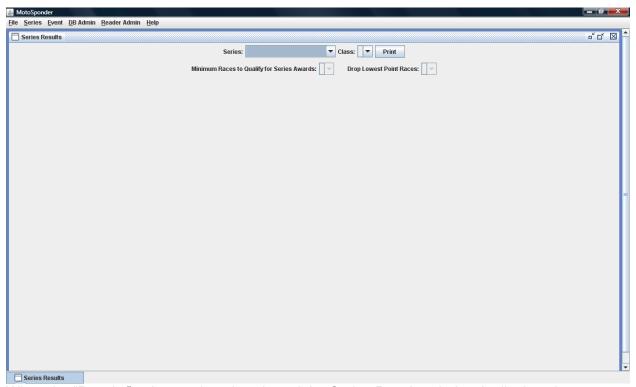
Figure 200 - DB Admin Series Window



To display the results for a Series, the "Results" submenu item is selected.

Figure 201 - Series Results Menu Item



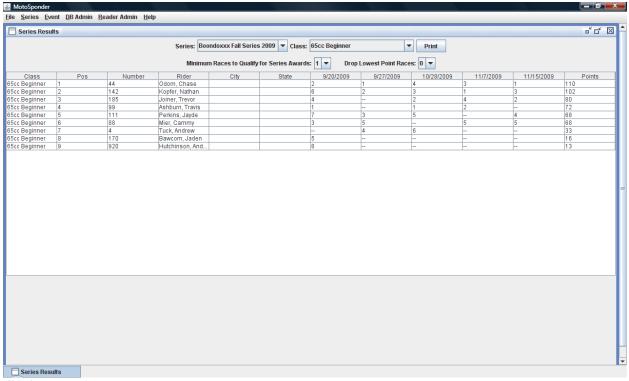


When the "Results" submenu item is selected the Series Results window is displayed.

Figure 202 - Series Results Window



The Series Results window allows the user to select the Series and Class of the Series to



display.

Figure 203 - Series Results Window



The "Minimum Races to Qualify for Series Awards" selection box allows the user to filter out riders in the series that did not compete in the minimum number of races. For example, if riders must compete in 4 races to qualify for series awards the user would select 4 and the list would be filtered as follows:

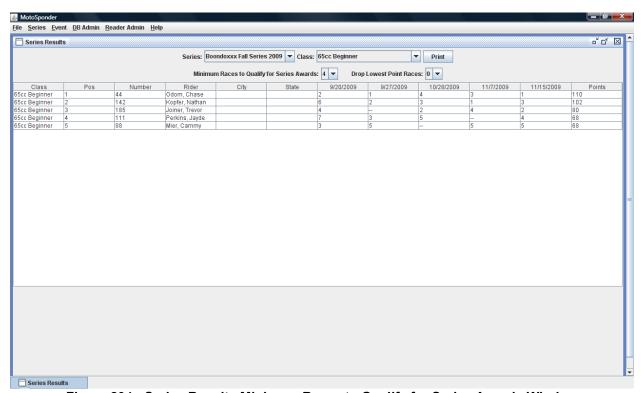


Figure 204 - Series Results Minimum Races to Qualify for Series Awards Window



The user can also filter Series Results by dropping the lowest point races of the Series. For example, if the Series allows the rider to drop their lowest score of the Series the user would select 1 on the "Drop Lowest Point Races" selection box that will adjust the total points for each rider by the lowest race points from the Series.

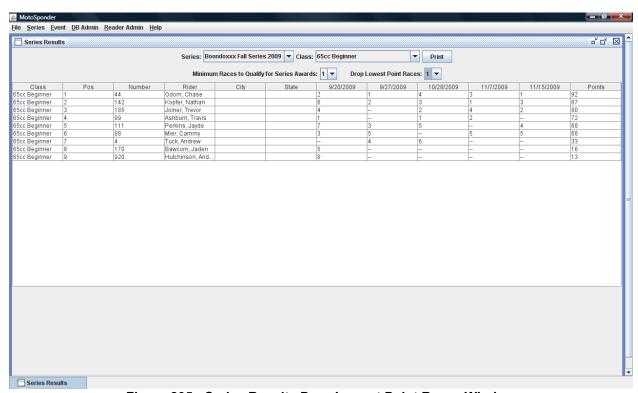


Figure 205 - Series Results Drop Lowest Point Races Window

## Help

The user can display this User's Manual by selecting the "Help" menu item and "User's Manual"



submenu item.

Figure 206 - Help User's Manual Menu Item

Selecting the User's Manual submenu item will display this help file in a web browser window.

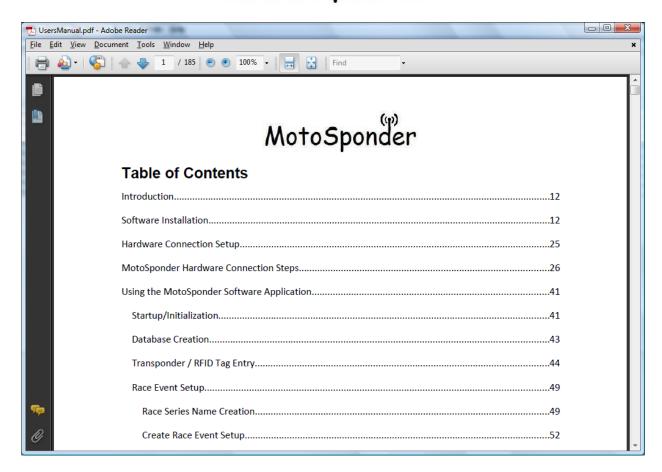


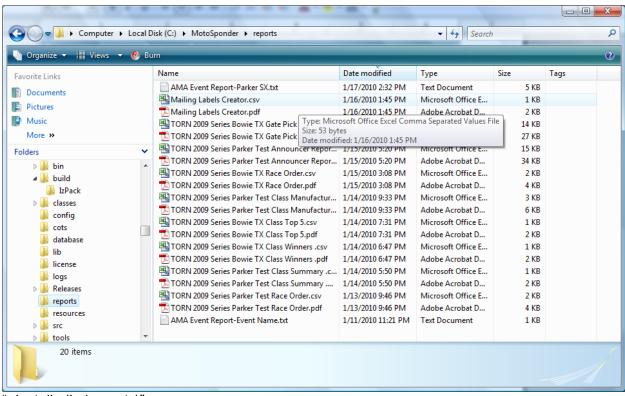
Figure 207 - User's Manual Display



## **Export of Event Results**

#### CSV and PDF Files

Each Event tab screen (Live Capture, Race Results, Lap Times, Class Organizer, Practice Organizer, Race Organizer) has a "Print" button. Clicking on the "Print" button will print the information on the screen to the printer and also create a .pdf and .csv files on directory



<sup>&</sup>quot;<install\_dir>\reports\".

Figure 208 - <install\_dir>\reports\ directory with .PDF and .CSV files



#### **Database Administration**

### Import Database

The Import Database feature is used to import a MotoSponder database. The most common reasons to import a database are to restore a previously exported database or to share a common database that is being used for a multi-track Series. The database admin tool must be started to import a database. To start the database admin the user will can double-click on the desktop icon



Figure 209 - Database Admin Desktop Icon

Or the database admin menu item from the Start menu.

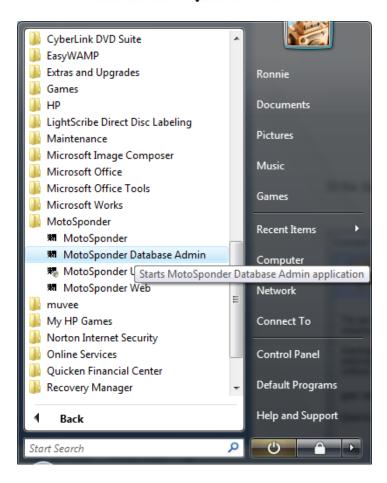


Figure 210 - Database Admin Start Menu

When the Database Admin tool is started the database login window is displayed. By default the User name is "root" and the Password is "root".



Figure 211 - Database Admin Login Window



After logging in to the database admin tool the main window is displayed.



Figure 212 - Database Admin Main Window



From the main Database Admin window select the "motosponder" database from the "Database" selection list.



Figure 213 - Database Admin - Database Selection List

After selecting the "motosponder" database the tables of the database are selected.

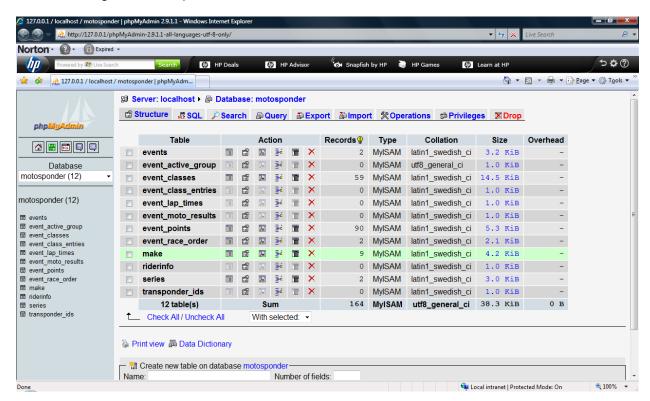


Figure 214- Database Admin - MotoSponder DB Tables



On the Database Admin tables window the user clicks the "Check All" link to select all tables in the motosponder database. This step is only needed if the user desires to replace the entire current database with a new imported database. If the user just wants to merge a previously exported database into the current database skip down to the step where the "Import" link is clicked. If the user imports a previously exported MotoSponder database file without dropping all the current database tables first then only the new data from the import file that is not currently in the database will be imported (i.e. import data from a new event).

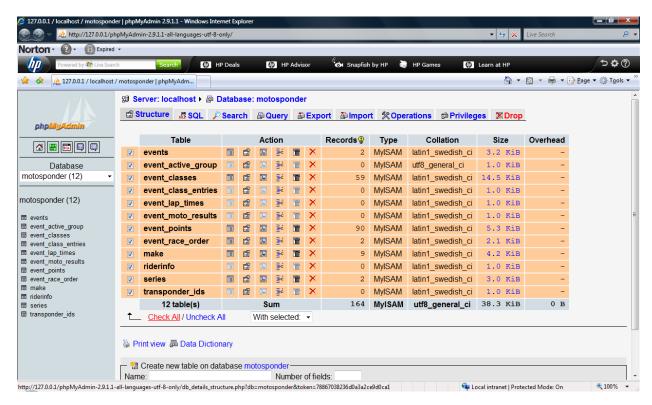


Figure 215 - Database Admin - Select All Tables



After selecting all the database tables the user needs to select the "Drop" action from the list. This action will delete all the data in the current MotoSponder database. **This step is only needed if the user desires to replace the entire current database with a new imported database.** 

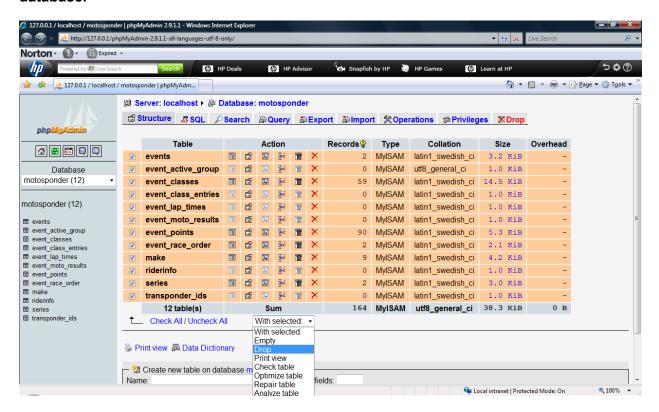


Figure 216 - Database Admin Drop Tables



Before the database tables are dropped a warning window will be displayed. To drop the tables the user clicks on the "Yes" button. This step is only needed if the user desires to replace the entire current database with a new imported database.

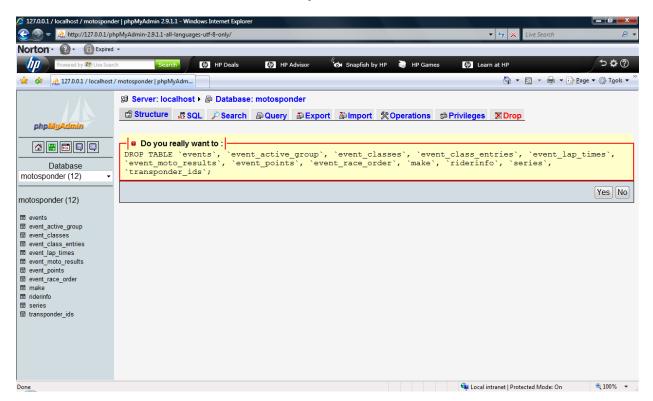


Figure 217 - Database Admin - Drop Table Warning Window



After the database tables have been dropped the success completion window is displayed. This step is only needed if the user desires to replace the entire current database with a new imported database.

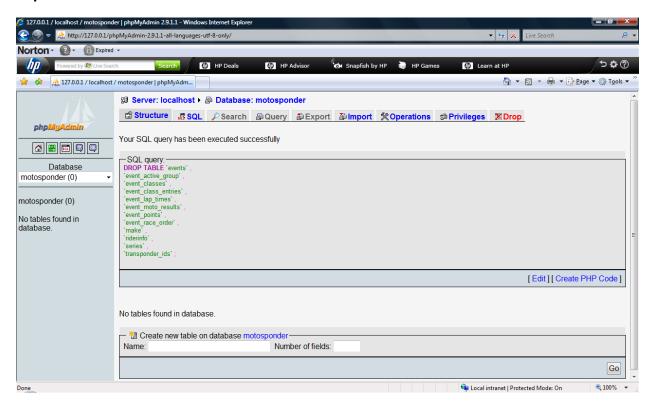


Figure 218 - Database Admin - Drop Tables Completion Window



After the current database tables have been dropped the new MotoSponder database is imported. To import the database the "Import" tab is clicked which will display the import window. Click the "Browse" button to allow selection of the MotoSponder database file.

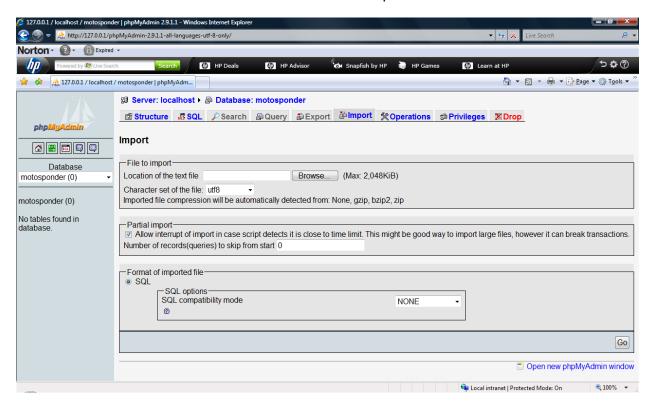


Figure 219 - Database Admin Import Window

The user navigates to the directory where the MotoSponder database file is located, selects the file and clicks "Open".

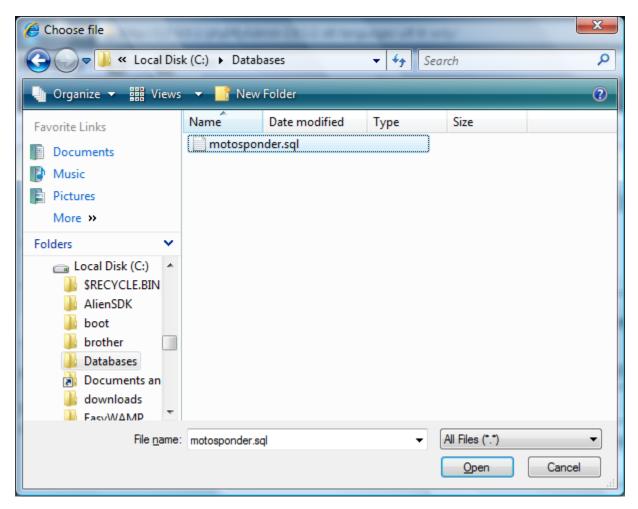


Figure 220 - Database Admin - Import Database File Selection



After selecting the database file name, the user clicks the "Go" button to start the import.

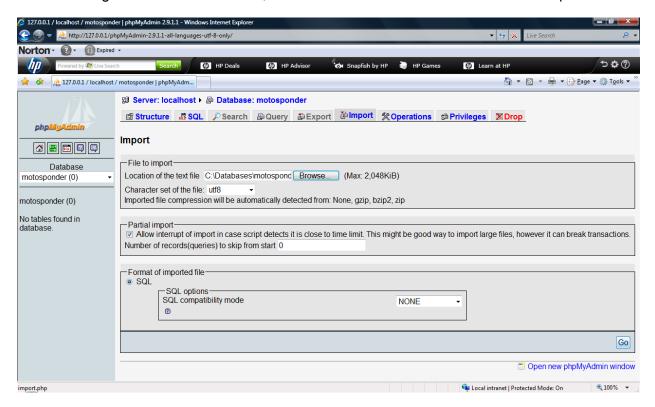


Figure 221 - Database Admin - Start Import



After the database has been imported the import success window is displayed.

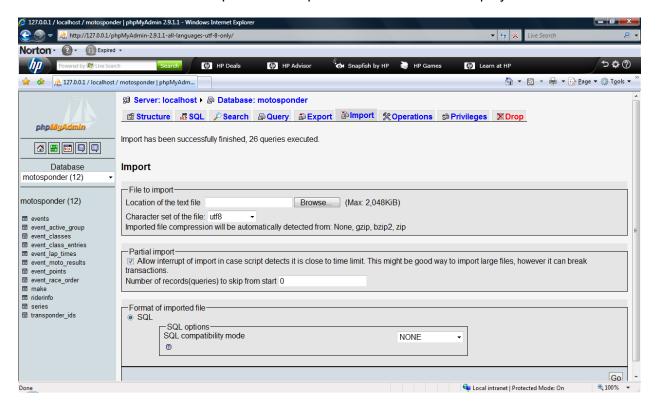


Figure 222 - Database Admin - Import Success Window



### **Export Database**

The Export Database feature is used to export a MotoSponder database. The most common reasons to export a database are to backup or to share a common database that is being used for a multi-track Series. The database admin tool must be started to export a database. To start the database admin the user will can double-click on the desktop icon



Figure 223 - Database Admin Desktop Icon

Or the database admin menu item from the Start menu.



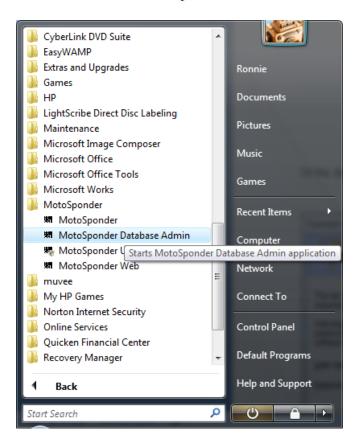


Figure 224 - Database Admin Start Menu

When the Database Admin tool is started the database login window is displayed. By default the User name is "root" and the Password is "root".

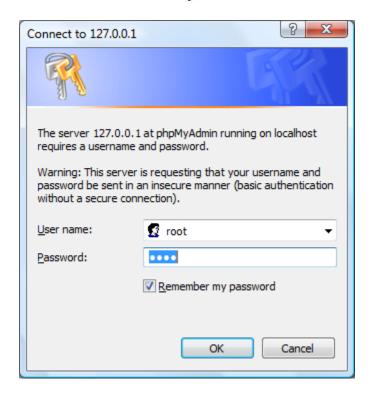


Figure 225 - Database Admin Login Window



After logging in to the database admin tool the main window is displayed.



Figure 226 - Database Admin Main Window



From the main Database Admin window select the "motosponder" database from the "Database" selection list.



Figure 227 - Database Admin - Database Selection List



After selecting the motosponder database the tables are displayed.

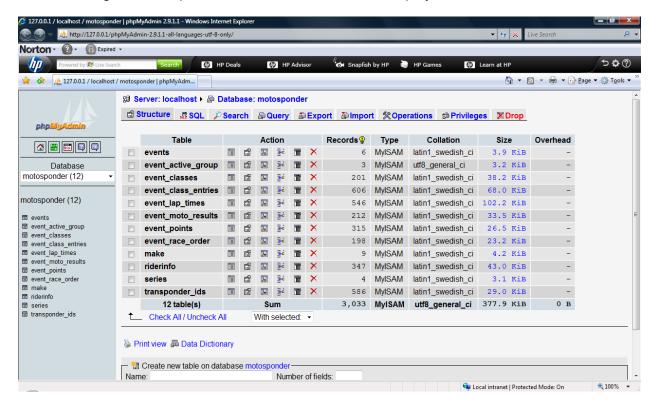
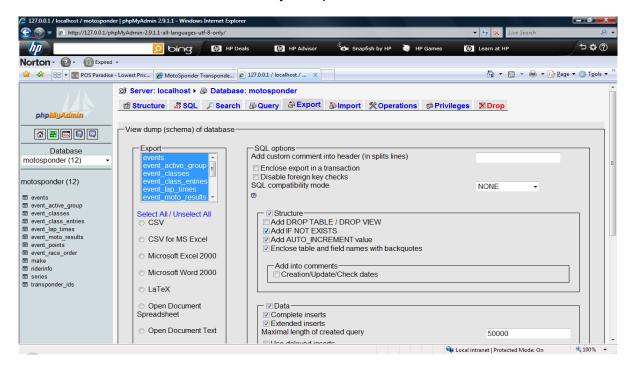


Figure 228 - Database Admin - Database Tables



Click the "Export" tab button to start the export process. All options needed should already be set by default except for the "Add IF NOT EXISTS", "Use ignore inserts", and "Save as file" check boxes which needs to be selected. See below for all the options that should be selected. The user clicks the "Go" button when ready to export.





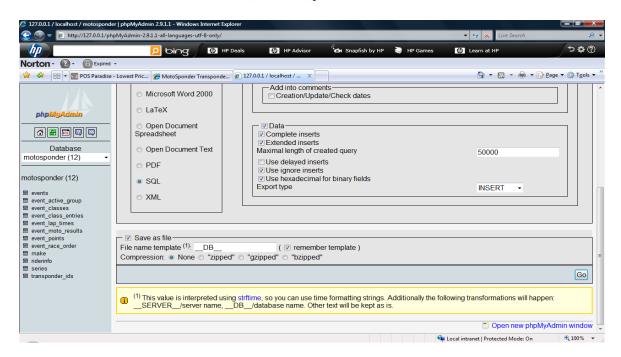


Figure 229 - Database Admin - Export Options Window

After clicking the "Go" button and exporting the database the "File Download" dialog window is displayed to allow the user to save the exported database. The user should click "Save" to save the database to a file.

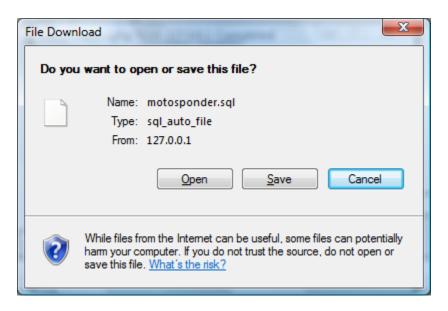


Figure 230 - Database Admin - Export Database Save Dialog Window

# MotoSponder

After selecting "Save" from the dialog window the "Save As" dialog window is displayed where the user can choose a directory and specify a filename the database will be saved to.

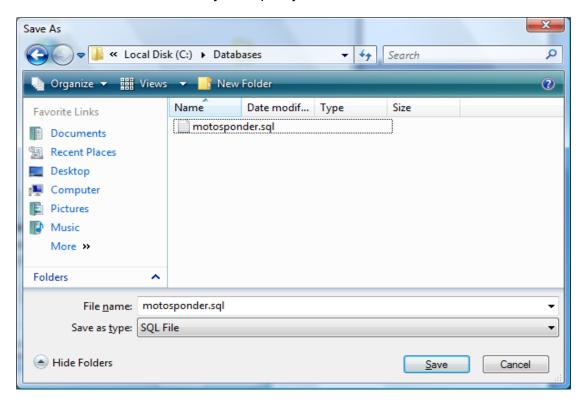


Figure 231 - Database Admin - Export Save As Window

After the user clicks "Save" the database export "Download complete" dialog window is displayed. The user should click "Close" to complete the export process.





Figure 232 - Database Admin - Export Download Complete Window



#### Web Interface

The MotoSponder web interface is used to provide the Practice Order, Race Order, Class Entries, Results, Lap Times, Live race, Series Points, Announcer's Sheet, Class Summary, Class Winners, Class Top 5, All Entries, Gate Pick Race 1, Gate Pick Race 2, and Gate Pick Race 3 for an event to anyone track side as well as the race scorer. The web interface compliments the MotoSponder application in two ways. The interface can be used by the race scorer at the same time the MotoSponder application is used to output "prettier" reports. The web interface is also what anyone track side with a Wi-Fi enabled web browser device can view. The user can enter the url <a href="http://192.168.1.50/">http://192.168.1.50/</a> (or whatever the MotoSponder web server address has been configured for) to view this web page. The race scorer using the MotoSponder application can also reach this web page by using the url <a href="http://127.0.0.1/">http://127.0.0.1/</a>.

The web interface can be started locally by clicking on the MotoSponder Web Interface desktop icon or from the Start menu.



Figure 233 - Web Interface Desktop Start Icon

## MotoSponder

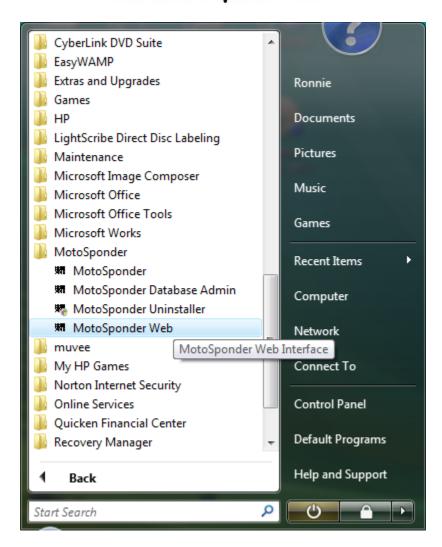


Figure 234 - Web Interface Launch via Start Menu



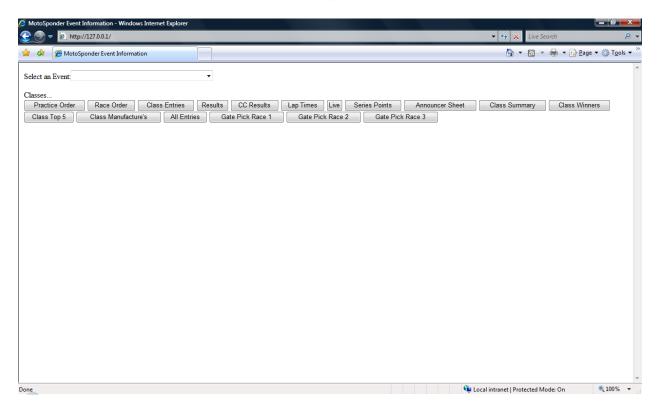
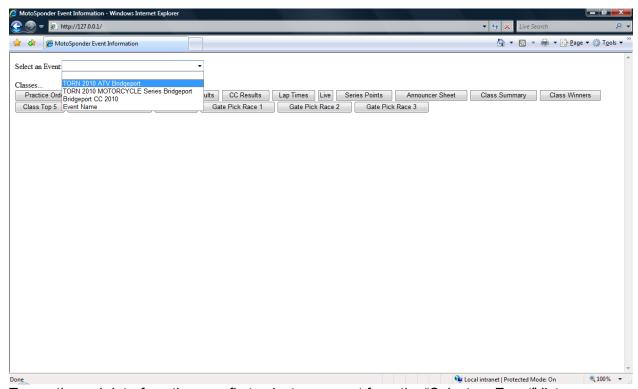


Figure 235 - MotoSponder Web Interface

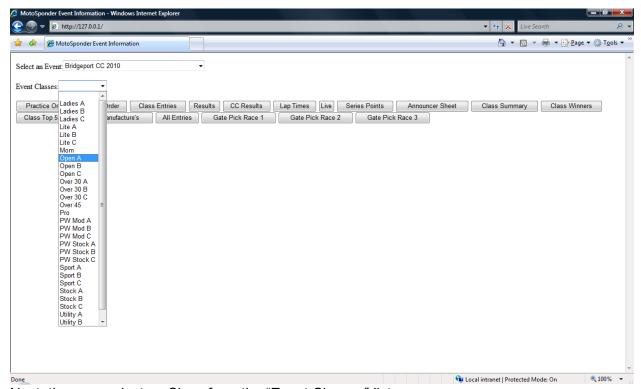




To use the web interface the user first selects an event from the "Select an Event" list.

Figure 236 - Web Interface Select an Event List

## MotoSponder



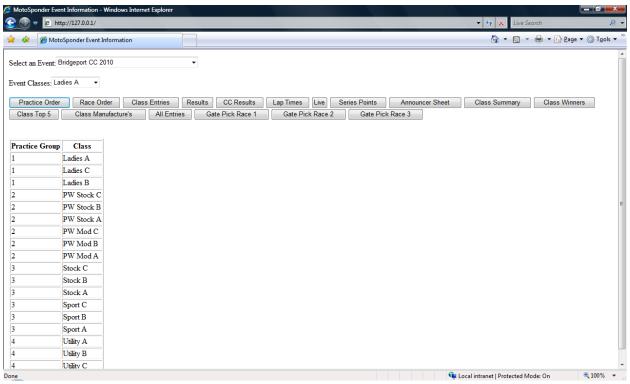
Next, the user selects a Class from the "Event Classes" list

Figure 237 - Web Interface Event Classes Selection List



#### **Practice Order**

The Practice Order web page is used to display the event's practice order. The Practice Group



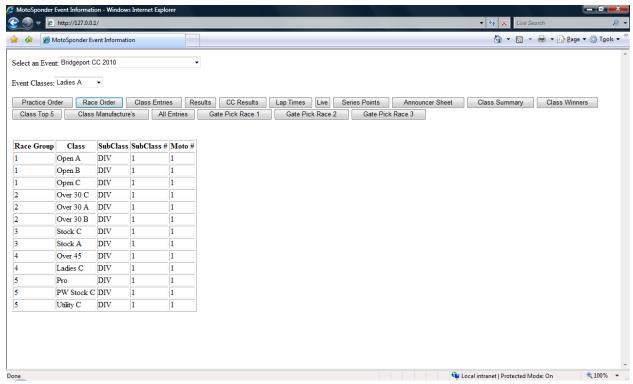
number and associated class(es) are displayed.

Figure 238 - Web Interface - Practice Order



#### Race Order

The Race Order web page is used to display the event's race order. The Race Group number,



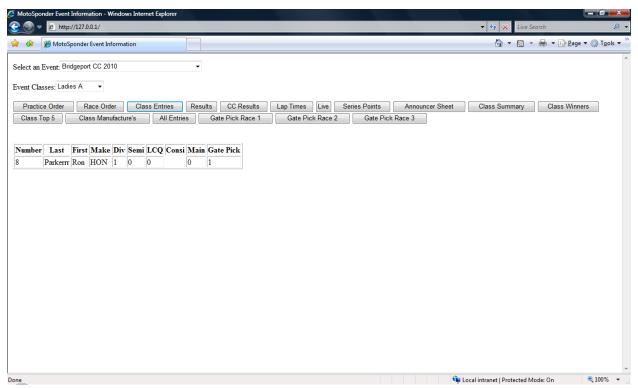
associated class(es), Division, and Moto number are displayed.

Figure 239 - Web Interface Race Order



#### Class Entries

The Class Entries web page is used to display the event's entries for a Class. The racer's bike



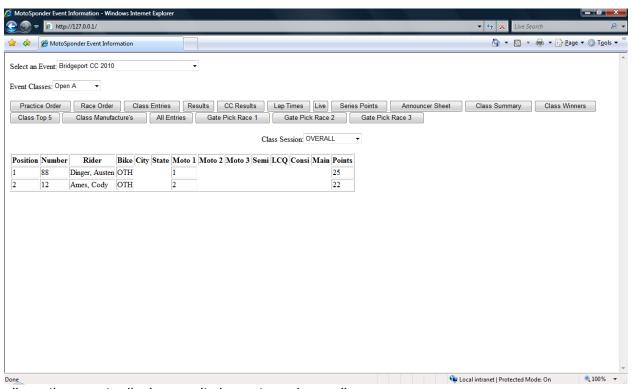
make, number, name, subclass info (Div, Semi, LCQ, Consi, Main) and Gate Pick are displayed.

Figure 240 - Web Interface Class Entries



#### Results

The Results web page is used to display the event's results for a Class. The racer's position, number, name, city, state, moto results, and event points are displayed. The Class Session list



allows the user to display results by moto and overall.

Figure 241 - Web Interface Overall Results



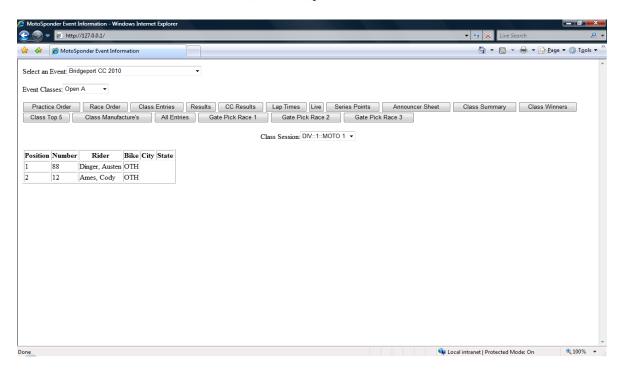


Figure 242 - Web Interface Moto 1 Results



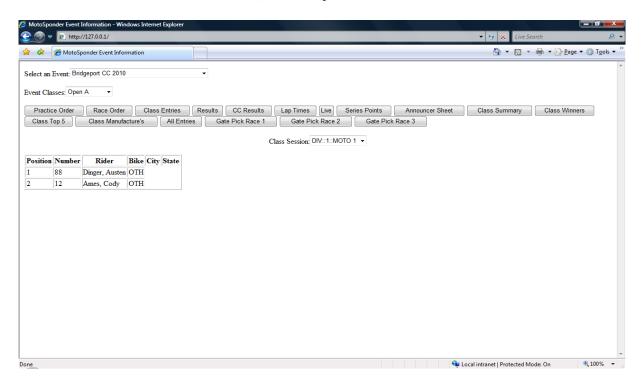
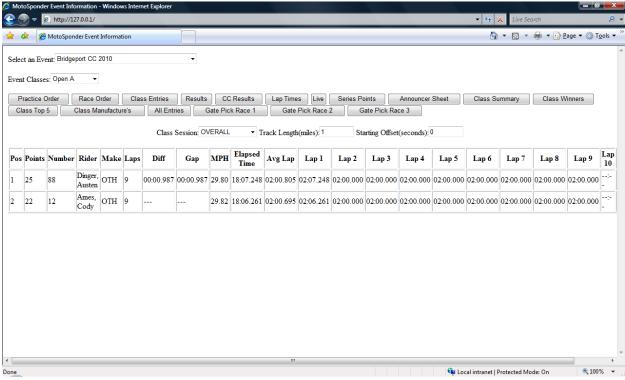


Figure 243 - Web Interface Moto 2 Results



#### CC Results

The CC Results web page is used to display a Cross Country / Hare Scramble event's results for a Class. The racer's position, event points, number, name, make, laps, diff, gap, mph, elapsed time, avg lap, and lapss 1-12 are displayed. The Track Length and Starting Offset fields are used to enter the track length and the starting offset of race if multiple drop gate and



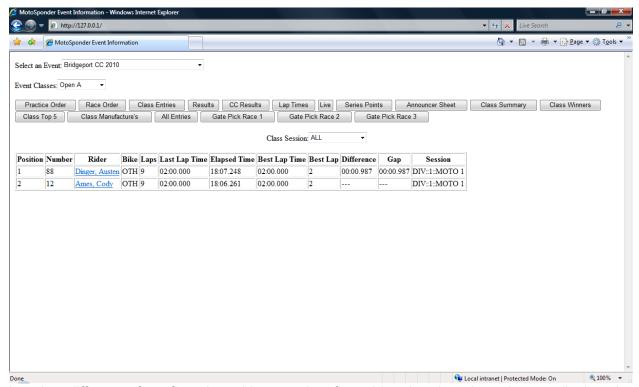
will adjust the displayed information accordingly.

Figure 244 - Web Interface CC Results



### Lap Times

The Lap Times web page is used to display the event's lap times for a Class. The racer's position, number, name, bike, number of laps, last lap time, elapsed time, best lap time, best

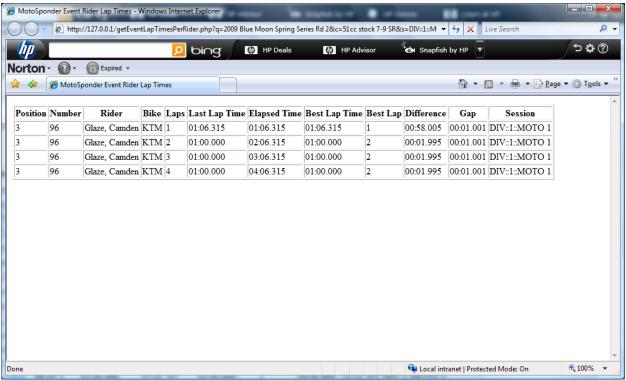


lap, time difference from first place rider, gap time from rider ahead, and session are displayed.

Figure 245 - Web Interface Lap Times

## MotoSponder

If the user clicks on the rider name on the Lap Times window, the individual lap time information



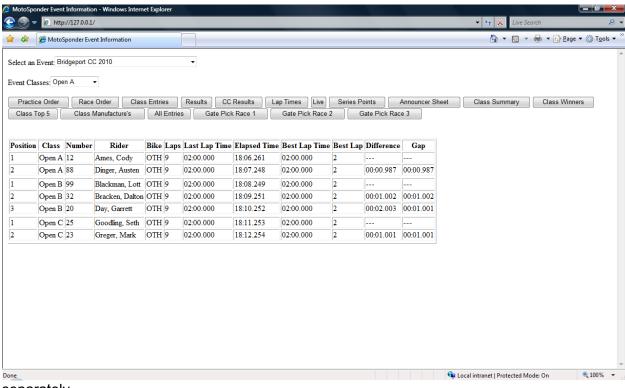
for the particular session will be displayed in a separate window.

Figure 246 - Web Interface Rider Lap Times Per Lap Window



#### Live

The Live web page is used to display the event's current or last race. The web page is updated every 15 seconds. The racer's position, class, number, name, bike, number of laps, last lap time, best lap time, elapsed time, best lap, time difference from leader and gap time from rider ahead are displayed. If there are multiple classes combined in a single race they are displayed



separately.

Figure 247 - Web Interface Live



#### Series Points

The Series Points web page is used to display the current Series results for each class. The racer's position, number, name, city, state, series points, and each event overall position are

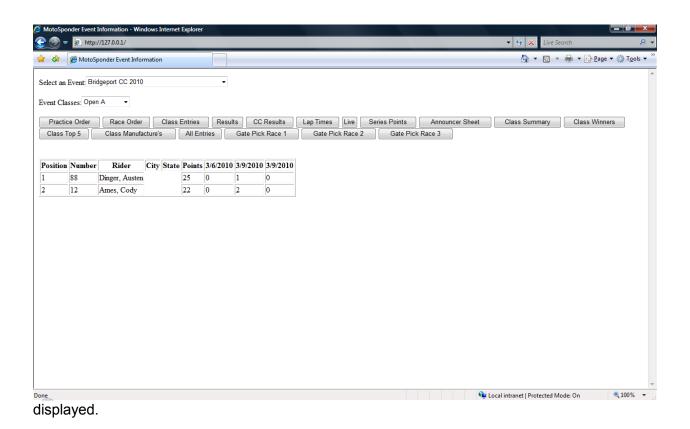
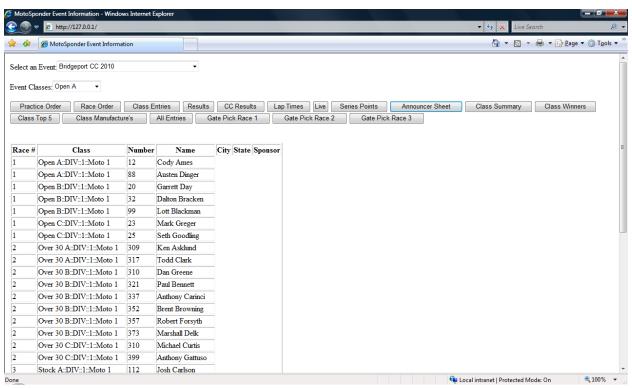


Figure 248 - Web Interface Series Points



#### Announcer Sheet

The Announcer Sheet web page is used to display the event's race order along with each entry



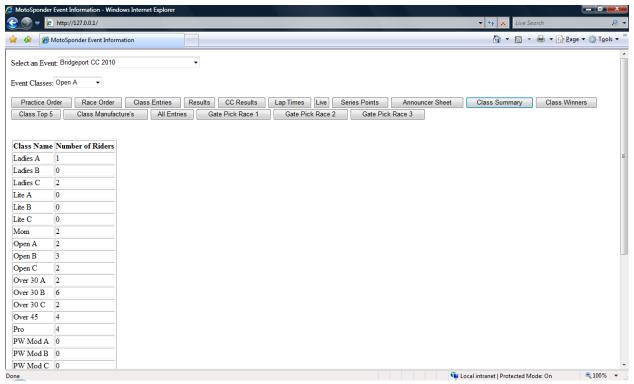
per class. The racer's class, number, name, city, state, and sponsor data are displayed.

Figure 249 - Web Interface Announcer Sheet



### **Class Summary**

The Class Summary web page is used to display the number of riders entered into each of the

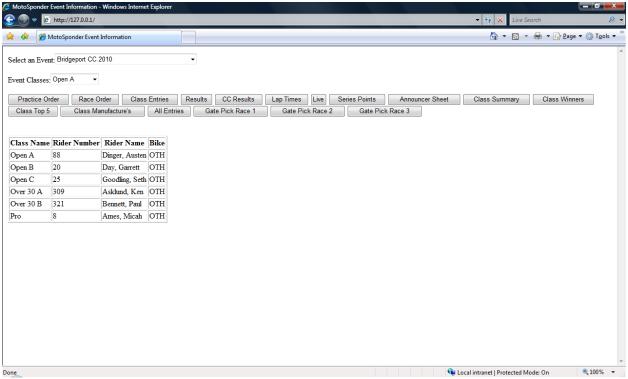


event's classes.

Figure 250 - Web Interface Class Summary



#### Class Winners

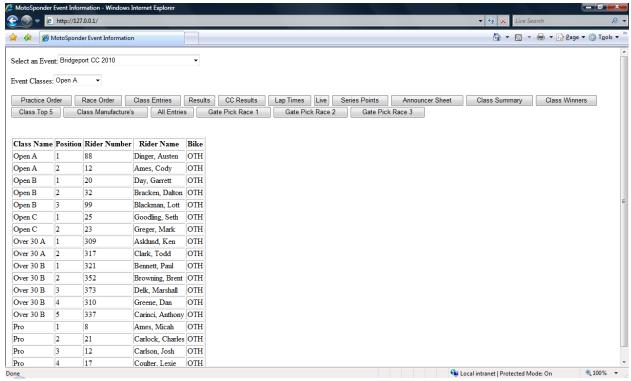


The Class Winners web page is used to display the winner of each of the event's classes.

Figure 251 - Web Interface Class Winners



### Class Top 5



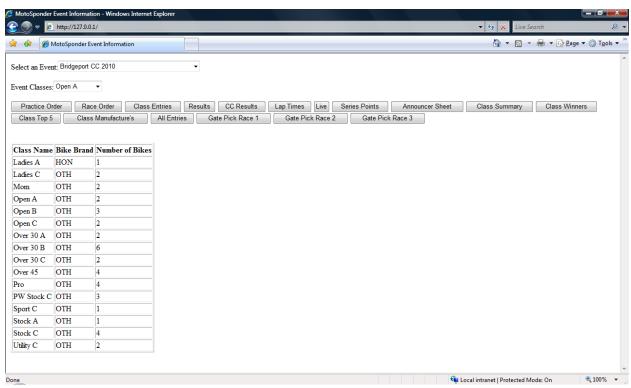
The Class Top 5 web page is used to display the top 5 riders of each of the event's classes.

Figure 252 - Web Interface Class Top 5



#### Class Manufacture's

The Class Manufacture's web page is used to display the number of each brand of manufacture



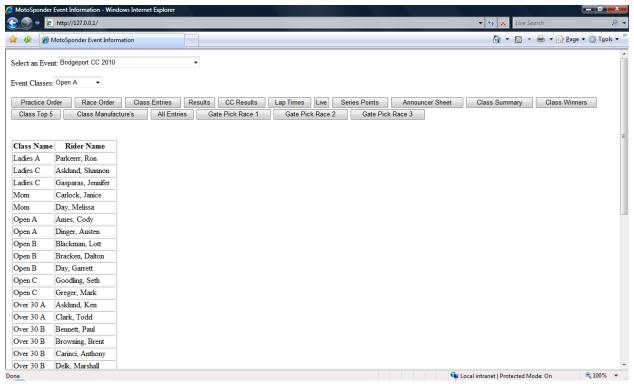
entered into each of the event's classes.

Figure 253 - Web Interface Class Manufacture's



#### All Entries

The All Entries web page is used to display all the riders that are entered into each of the



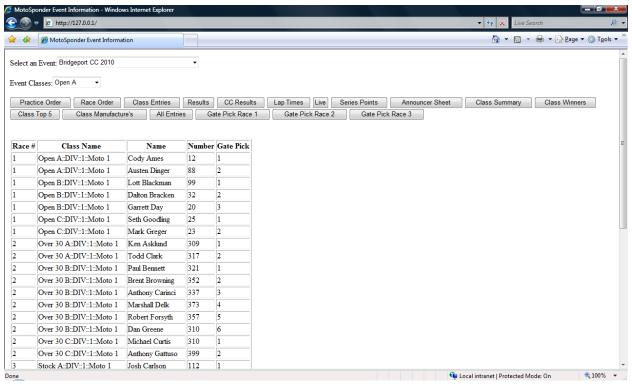
event's classes.

Figure 254 - Web Interface All Entries



#### Gate Pick Race 1, 2, 3

The Gate Pick Race 1 web page is used to display the gate pick order for each of the event's



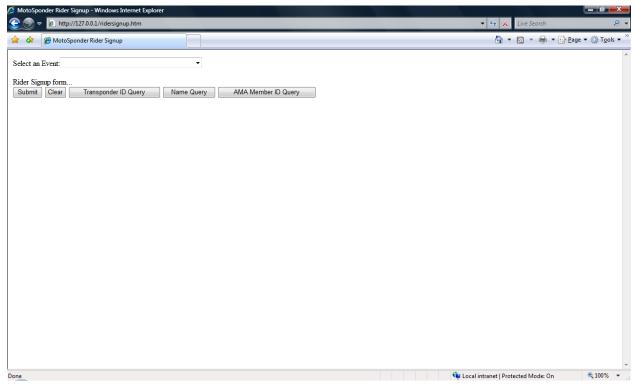
classes for race 1, 2, and 3.

Figure 255 - Web Interface Gate Pick Race 1, 2, 3



### Rider Signup

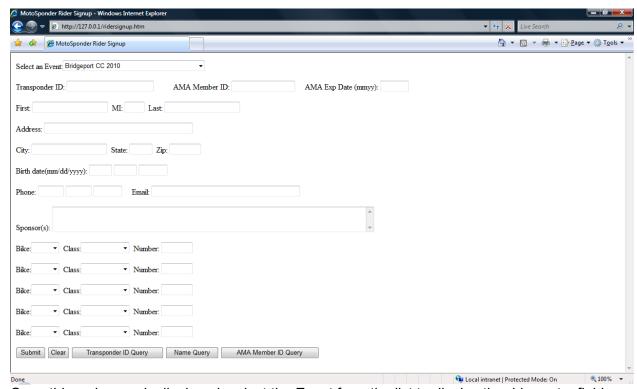
The Rider Signup web page is used to enter rider data during signup. This feature provides the capability to allow multiple people to be able enter rider data during signup in addition to the Rider Entry window provided by the main MotoSponder application (see Rider Entry Window described earlier). To display the web based Rider Signup page, open a web browser and enter



URL "http://127.0.0.1/riderSignup.htm".

Figure 256 - Web Interface Rider Signup URL





Once this web page is displayed, select the Event from the list to display the rider entry fields.

Figure 257 - Web Interface Rider Signup Fields

All the rider entry fields on this web page are the same as the Rider Entry window of the main MotoSponder application.

NOTE: To prevent duplicate rider entries from getting entered into the database via the web interface be sure to use the Transponder ID Query, Name Query, or AMA Member ID Query button FIRST to check if the rider already exists in the database. If the rider already exists, the rider's information and class information will be displayed in the form and when the user clicks the Submit button the rider will be entered into the class(es) for the event.

FAILURE to QUERY a rider BEFORE clicking the SUBMIT button will result in the rider being DUPLICATED in the database with a DIFFERENT Transponder ID!!

After entering the desired rider data click on the "Submit" button to enter the rider data and class entry information into the database.



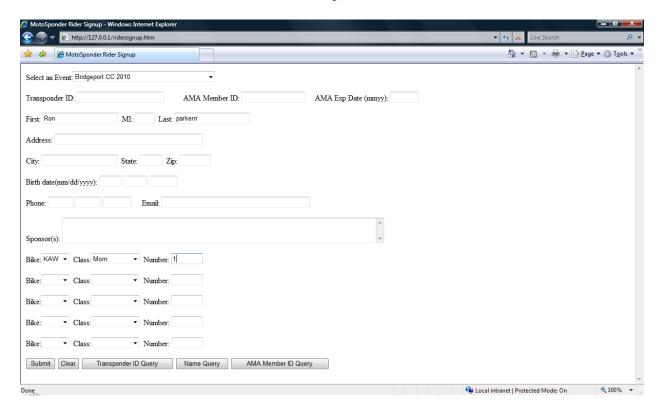


Figure 258 - Web Interface Rider Signup Submit

If a transponder ID was not entered the following dialog window will be displayed to inform the user a temporary transponder ID will be assigned. The user must remember to update this rider's transponder ID before the actual race to be scored.

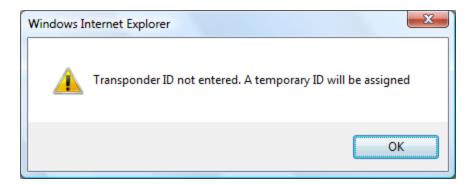


Figure 259 - Web Interface Temporary Transponder ID Assigned Dialog



Upon successful entry into the database the following message will be displayed on the web

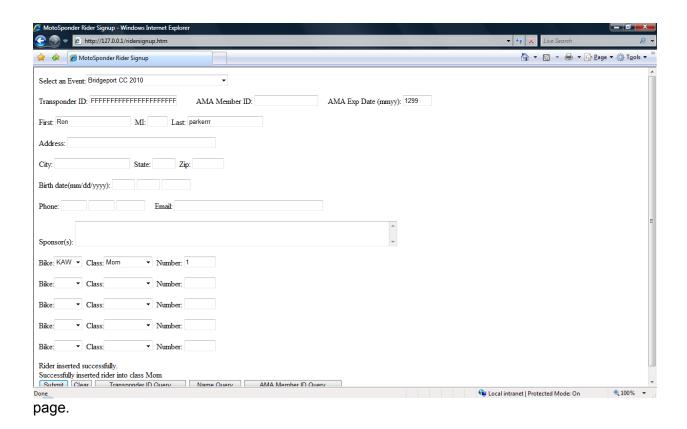


Figure 260 - Web Interface Rider Signup Successful Message

Note: Although the web interface Rider Signup feature does allow additional people to help enter rider data during signup, the entered riders will not show up in the Class Organizer window of the main MotoSponder application until the particular class is reselected. The rider data will also not be displayed in the rider list panel of the Rider Entry window of the main MotoSponder application until the Event is reloaded or a Rider Entry from the main MotoSponder application is entered.



## **Setting Up Multi-Computer Network with Single Database**

The MotoSponder application can be configured such that multiple track side computers can be networked together to operate from a single database. This will eliminate the need to export / import data from computer to computer and syncing issues caused from such action. In order to setup the network one computer is designated as the master database computer. Each computer must have the MotoSponder appplication as well as the EasyWAMP package installed. All computers in the network should first be configured with a static IP address. For instance, if you have 3 computers you want to network together you would set each computer's static IP address to something like 192.168.1.100, 192.168.1.101, 192.168.1.102 assuming the routers IP address set to 192.168.1.1 and Netmask set to 255.255.255.0 for each. To set a computer's static IP address bring up the network interface properties window and set the static IP info as below.

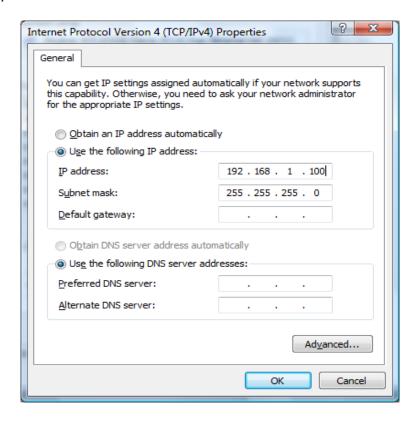


Figure 261 - Setting Computer's Static IP Address

Do this for each computer you want to be in your network.

## MotoSponder

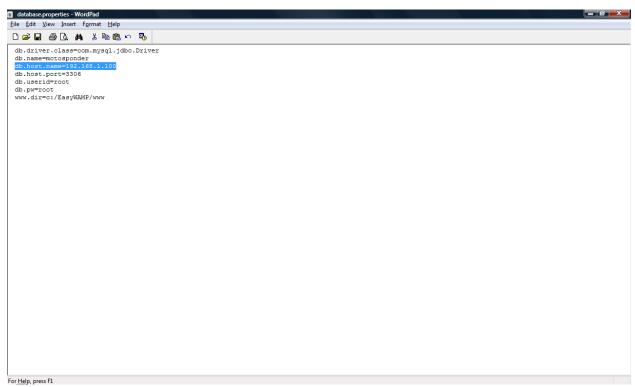
Next, on the computer designated as the master network database, open file C:\Windows\my.ini and comment out the "bind-address" line by inserting a "#" character at the beginning of the line

and save file.

Figure 262 - Comment out bind-address in C:\Windows\my.ini File on Master Computer



Next, change the "db.host.name" property in file <motosponder install dir>\config\database.properties to the IP Address of the master database computer's IP address

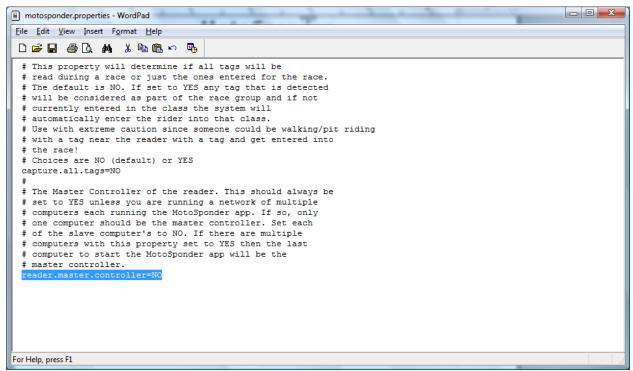


on each of your desired computers.

Figure 263 - Set db.host.name Property in <installDir>\config\database.properties File



Next, change the "reader.master.controller" property in file <motosponder install dir>\config\motosponder.properties to "NO" on each of your non-master computers.



Leave this setting on the Master computer set to "YES"!!

Figure 264 - Set reader.master.controller Property in <installDir>\config\motosponder.properties File

**Slave Computers ONLY** 



Next, change the "db.host.name" property in file C:\EasyWAMP\www\database.ini to the IP

Address of the master database computer's IP address on each of your desired computers.

Figure 265 - Set db.host.name Property in C:\EasyWAMP\www\database.ini File



Next, on the master database computer bring up the database management GUI in a web browser using URL "http://127.0.0.1/phpMyAdmin-2.9.1.1-all-languages-utf-8-only/". This will result in the database login dialog displayed. Enter "root" for both username and password to login.

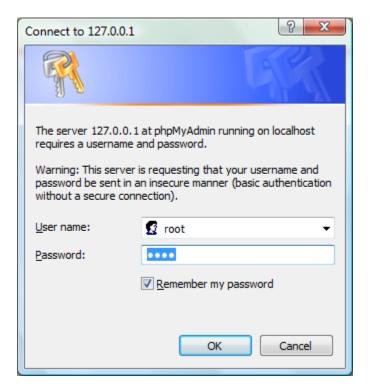
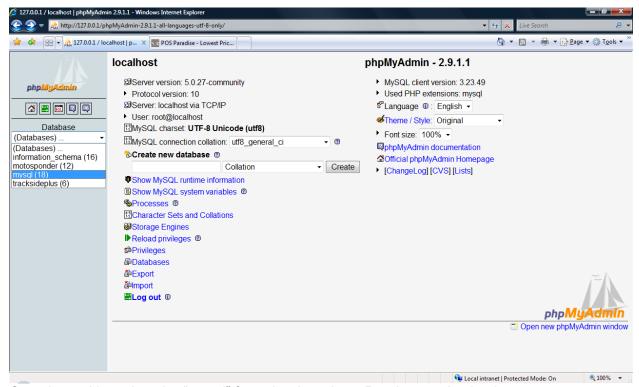


Figure 266 - Database Management Login Dialog

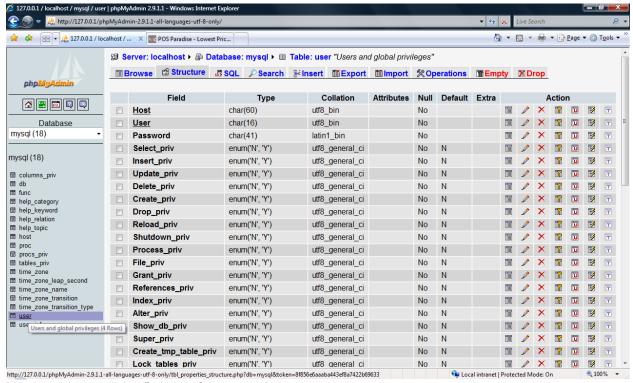




Once logged in, select the "mysql" from the drop down Database selection box.

Figure 267 - Database Management - Select mysql Database

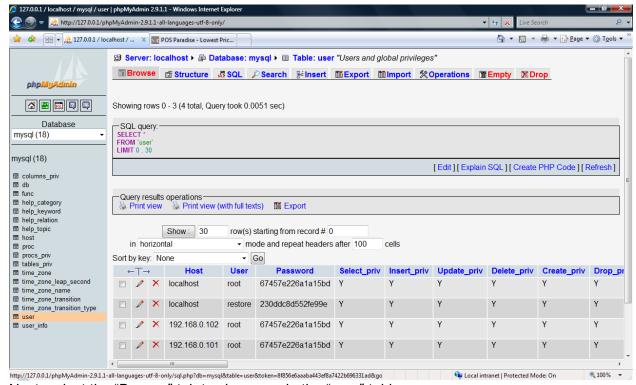




Next, select the "user" table of the mysql database.

Figure 268 - Database Management - Select "user" table from mysql Database





Next, select the "Browse" tab to view rows in the "user" table.

Figure 269 - Database Management - Browse "user" table rows from mysql Database



Next, select the checkbox on the row with "User" "root" and click the pencil (edit) icon on that

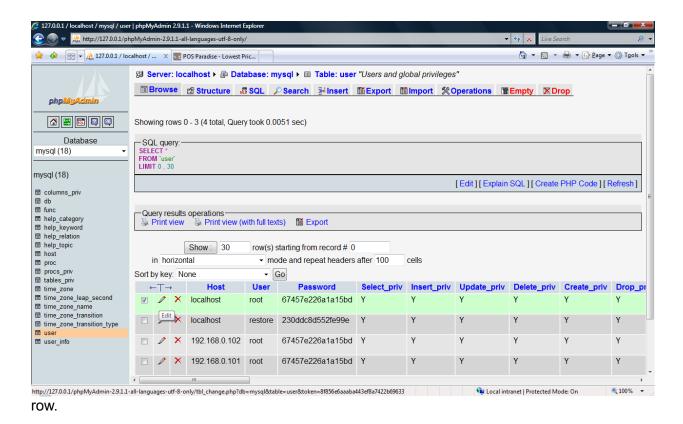
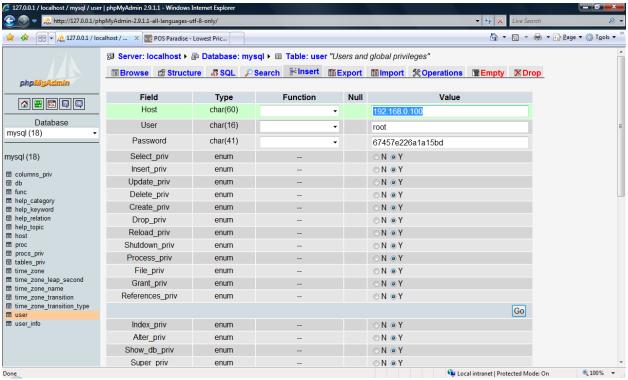


Figure 270 - Database Management - Edit "root" User table row from mysql Database

# MotoSponder

Next, in the edit window for the "root" User, change the Host value to the IP address assigned to

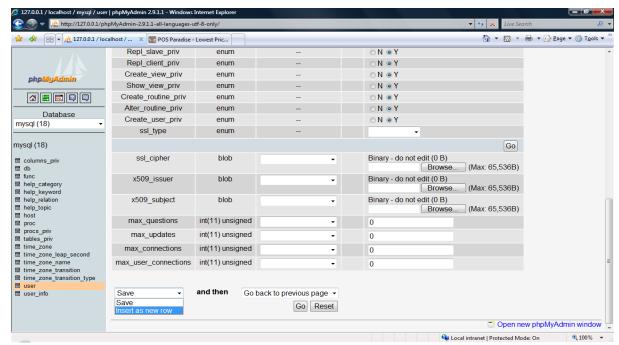


one of the computers earlier.

Figure 271 - Database Management - Assign Host Value to a Network Computer



Scroll to bottom of window and select the "Insert as new row" option on the bottom left and click



the "Go" button. This will copy a new row into the "user" table of the mysql database.

Figure 272 - Database Management - Save as new row in "user" table of mysql Database

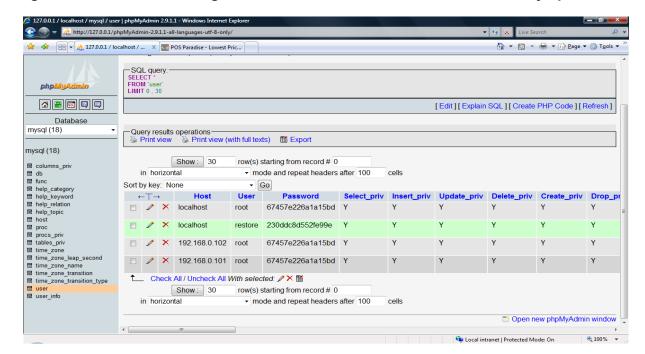




Figure 273 - Database Management - New row for added Network Computer

Add a row for each computer in your desired network following the steps above.

On the master database computer restart the database server by clicking on the Windows Start button (lower left corner of screen) and selecting All Programs-->EasyWAMP-->EasyWAMP.

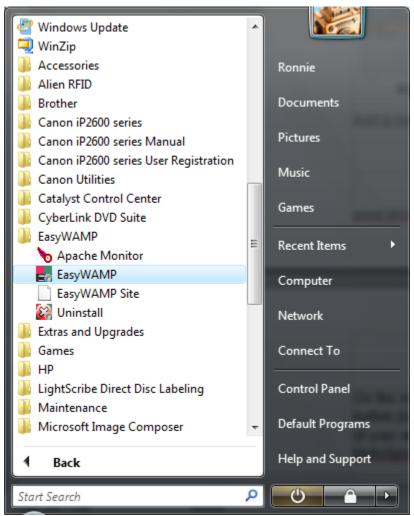
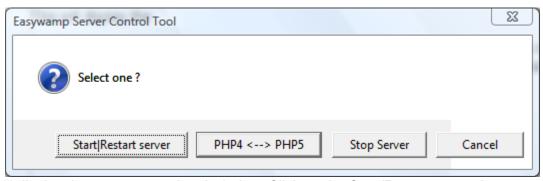


Figure 274 - Database Management - Restarting Database Server





This will display the server control tool window. Click on the Start/Restart server button.

Figure 275 - Database Management - Server Control Window

After the database server is restarted and assuming each of your network computers are connected to the same router you should now be able to use the MotoSponder application on each computer utilizing a central database.



### Setting up Separate Reader Networks for Simultaneous Rider Signup and Live Capture using Single Database

Before you perform the following steps user MUST have executed ALL the steps in the previous chapter "Setting Up Multi-Computer Network with Single Database".

The MotoSponder application can be configured to allow the user to setup separate networks to allow simultaneous rider signup / transponder tag check utilizing one reader and live capture of current race utilizing another reader all connected to a central database.

This feature requires the user to have at least two readers (Models 9650 and/or 9900) and two network routers. Also, the computer that is utilized as the signup / transponder tag check station must have a wireless LAN adapter as well as an Ethernet LAN adapter or have two Ethernet LAN adapters. Most modern laptop computers come with both.

The feature allows users to have a separate sign up / transponder tag check station that uses a separate reader but is still connected to the central database allowing simultaneous rider/driver entry addition/update/query during the live capture of an ongoing race.

Unless you are a network firewall expert and really know what you're doing just disable the Windows (or and other 3<sup>rd</sup> party) Firewall to eliminate any port connection issues that you may otherwise encounter during this configuration!!

The second network router must be setup next. Connect the second router to the signup computer using the Ethernet cable that came with the router into the available Ethernet port on the computer. The other end of the Ethernet cable should be plugged into port 1 of the router. Assuming the first router used in the MotoSponder multi-computer network you configured in the previous chapter has an IP address of 192.168.1.1, you need to configure the second router's IP address to 192.168.2.1 with a subnet mask of 255.255.255.0. The DHCP Settings should have the Start assigned IP address set to 192.168.2.100 and the End assigned IP address set to 192.168.2.199. The Default Gateway on the DHCP Settings should also be set to 192.168.2.1. (NOTE: The default IP address of most network routers is set to 192.168.1.1. If your signup computer is connected to the MotoSponder network (192.168.1.xxx) (which already has a router configured with IP address 192.168.1.1) you will need to disconnect from that network first in order to configure the second router's IP address. The reason is because when you first connect the second router the IP address of the second router will initially be 192.168.1.1. Using a Internet Browser (i.e. Internet Explorer) you will need to enter URL "http://192.168.1.1" in order to configure the second router to the new IP address of 192.168.2.1. You will also be prompted by the router to enter a username and password in order to configure. The default username and password for most network routers is "admin".)

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After saving the settings and rebooting the second router make sure your signup computer now recognizes the second network by opening a Command Prompt window and entering "ipconfig". You should see your Ethernet LAN adapter IP address set to 192.168.2.100 with a Default Gateway of 192.168.2.1. Make sure you can "ping" the second router by entering "ping 192.168.2.1" in the Command Prompt window. You should get reply messages from the second router if configured properly. If so proceed on to the next step.

On the signup computer, navigate to the "<motosponder install dir>\config\" directory and open the "rfidreader9650.properties" file. (NOTE: Open this file regardless if you are using the 9650, 9900, 9800 reader). Change the "reader.ipaddress" property to "192.168.2.100" (assuming the IP Address of the signup computer on the second network is 192.168.2.100). Set the "reader.override" property to "true". Save the file.

In the same directory open the "motosponder.properties" file and change the "reader.master.controller" property to "YES". Save the file.

Next, connect the second reader to the second router just configured above with an Ethernet cable. Plug the one end of the Ethernet cable into the second router's port 2. If you are using a model 9650 reader, the other end of the Ethernet cable will be plugged into the "Data" port of the POE adapter and another Ethernet cable will be needed to connect from the "Data & PWR" port to the reader's Ethernet port. If you are using a model 9900 reader the other end of the Ethernet cable will be plugged directly into the reader's Ethernet port.

Next, power on the reader and wait approximately 2 minutes for the reader to initialize itself.

Last, connect back to the MotoSponder network (192.168.1.xxx) on the signup computer. In a Command Prompt window enter "ipconfig" and make sure you now see both the 192.168.1.xxx network (probably on the Wireless Network adapter) and the 192.168.2.xxx network (probably on the Ethernet LAN adapter).

If everything has been configured properly you should now be able to start up the MotoSponder application on the signup computer and wait 30-60 seconds for the application to connect to the reader connected to the second router. After the reader has connected to the application you should be able to turn the debug window on and see any tags read by the reader displayed in the window. Also, on the Rider Entry window of a loaded event, if you click the "Transponder ID Query" button when the "Transponder ID:" field is blank, the system will read whatever tag is near the reader and display the tag's ID in the "Transponder ID:" field. If a rider was previously assigned this tag ID then all that rider's associated information will also be displayed on the Rider Entry window. (NOTE: It is a good idea to set the reader mode to "Signup" before using for signup purposes as this lowers the gain of the reader so that only tags held near the reader will be read otherwise the system could detect another tag in the area first before the one you actually want to read.)



(NOTE: Only one signup computer can be connected to the signup reader at any one time. If you need multiple signup computers each with reader access you would need an additional reader and router for each signup computer. You would also need to configure each router as a separate network (i.e. 192.168.3.1, 192.168.4.1, etc.) following the steps above.)

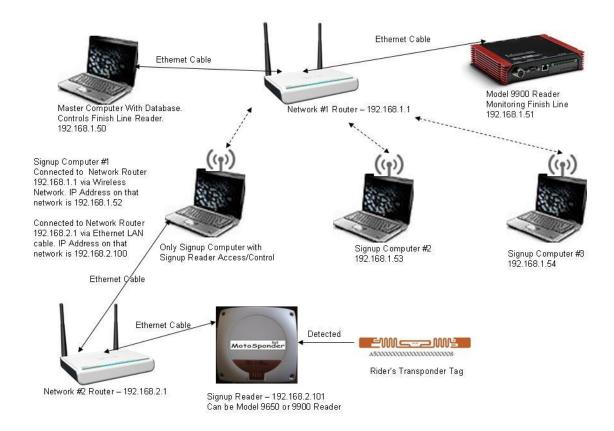


Figure 276 - Multi-Network Setup with Finish Line Reader and Signup Reader



#### **Appendix A - Network Router Settings**

The Network Router included with the MotoSponder system has been preconfigured before shipment and should require **no** user modification. The SSID of the router has been configured to "motosponder". This is the wireless network name trackside spectators with Wi-Fi enabled devices with web browsers should connect to.

Should the user desire to change these settings (not recommended unless you know what you are doing!!) follow the steps.

First bring up a web browser like Internet Explorer. Type in URL <a href="http://192.168.1.1">http://192.168.1.1</a> to configure the router. After entering this address the user / password login window is displayed for the user to enter a username and password. By default the username is "admin" and the password is "admin".



#### Appendix B - Quick Setup Steps

Quick Setup Steps (Assumes computer is setup to have its IP Address assigned by a DHCP server (the router) and the MotoSponder software (msdrInstall.jar and easywamp.exe) has been installed). Also, make sure the "Hide extensions for known file types" checkbox is **UNCHECKED** on your computer's Folder Options settings so that you can see the full filenames (filename.ext) for steps 1 or 2 below.

- 1) If you are using the 4 antenna system reader (ALR-9900) go to the <install dir>\config\ directory and copy/rename the "rfidreader.properties.HighSpeed9900" file to "rfidreader.properties". This file contains the optimized settings for that reader.
- 2) If you are using the 2 antenna system reader (ALR-9650) go to the <install dir>\config\ directory and copy/rename the "rfidreader.properties.Standard9650" file to "rfidreader.properties". This file contains the optimized settings for that reader.
- 3) Unpack router and using one of the 6ft Ethernet cables connect cable from computer to port 1 on the back of the router.
- 4) Power on router and wait for router to assign computer IP Address. Your computer must be configured to have its IP address dynamically assigned by a DHCP server which is the router. To check open Command Prompt window and type "ipconfig". The computer's IP Address should be something like 192.168.1.50 and the Default Gateway should be something like 192.168.1.1 which is the router's IP Address.
- 5) Unpack reader and antenna(s) and connect antenna(s) to reader (MAKE SURE POWER IS OFF BEFORE CONNECTING ANTENNA(S)).
- 6) Using 100ft or 50ft Ethernet cable connect reader to port 2 on the back of the router. NOTE: If using 9650 reader you will connect the cable from the reader to the "Data & Pwr" port of the Power Over Ethernet (POE) adapter and you will connect the other 6ft Ethernet cable from the "Data" port on the POE to port 2 on the router.
- 7) Power on the reader and wait for it to complete its boot up sequence(usually takes 1-2 minutes to complete). The router will have also assigned the IP Address to the reader at this time. To check if the reader has been assigned an IP enter "ping 192.168.1.51" (assumes this IP if your computer was assigned 192.168.1.50, your router is 192.168.1.1, and there is nothing else on this network) in the Command Prompt window opened in step 2 and look for replies from that IP Address (reader). It's possible the reader could have been assigned a different IP Address by the router so don't panic if you can't ping the above IP Address.
- 8) Start the MotoSponder application. If you receive database connection errors it just indicates you haven't created your database yet (see Step 9 to create). Within 60 seconds the

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reader should connect to the application. The connected message will be displayed on the MotoSponder application title bar at the top of the window showing the IP Address of the connected reader. You can also open the Reader Setup window (Reader Admin  $\rightarrow$  Setup) and turn Debug Mode to ON (may have to maximize the window in order to view the Debug Mode option on the top right side of the window. With debug on you should see heartbeat messages from the reader every 30 seconds. If you pass any tags by the antenna(s) you will also see the tag ID and timestamp of detection.

- 9) If you haven't already created a database create one now by selecting "DB Admin  $\rightarrow$  Create database..." from the main menu.
- 10) The MotoSponder system is now ready!
- 11) Please read the User's Manual for details.



#### Appendix C - Tag Detection Troubleshooting Guide

If you think you have a transponder tag that is not being detected follow these steps to best determine the cause.

Make sure your reader/antennas are not mounted any higher than 8ft-10ft above the track surface. For Go Kart racing they should be even lower since Kart drivers sit lower to the track surface. The main idea is to have the reader/antennas mounted as close as possible to the top of rider/driver helmet (without the possibility of contact of course!) when they pass through the read zone.

The reader/antennas is generally mounted at about a 45 degree angle to the track surface although this can vary depending on the read zone desired.

Transponder tag placement is crucial for the MotoSponder passive RFID system. It's recommended to mount the tag horizontally across the rider/driver helmet visor. Mount on top side of visor unless muddy conditions and then mount underneath visor. You can experiment in other locations but that location works best. For sure do NOT mount the tag on any metal surface or liquid container (gas tank). Also, if a rider/driver helmet is made of true carbon fiber do not mount directly on helmet either as true carbon fiber absorbs RF (same material used on stealth aircraft that goes undetected by radar!!)

If all the above is setup and rider/driver still not detected then proceed with the following steps:

Open the Reader Setup window by selecting "Reader Admin" from the main menu and then "Setup" submenu item. This window is used mainly for debugging purposes. While open set the "Debug Mode" to ON. If you don't see this option just pull the right side of the window with your mouse to increase the window size to expose this setting. With this window open make sure the "Connection Status" message shows the reader is connected (i.e. "Connection Status: Reader connected 192.168.1.51"). You can also check reader connectivity by opening a Windows Command Prompt window and "pinging" the reader's IP Address to see if there is a response (i.e. "ping 192.168.1.51") Next, make sure "Reader Mode" is set to "Race/Practice". It will initially be set to "Not Set" so just select the "Race/Practice" choice. If you want to make sure the reader received this command, select "Not Set" and then you should see the setting automatically switch back to "Race/Practice". The main point is to make sure the reader IS NOT set to "Signup" mode. This mode is only used during signup as it turns the reader power down so that only 1 tag that is very close will be detected. For Race/Practice mode the reader power is set to the max (Race/Practice mode). If all settings are set as described above any tag that passes through the read zone should be displayed along with the timestamp of detection. Pass some sample tags through the read zone to make sure the system is detecting tags. If the tags are being detected then have the rider/driver not being detected pass through the read zone to verify if there is any detection. If not, the tag has probably been damaged (could have been ripped when peeling the sticker to mount to the surface) and will need to be replaced. Before giving rider/driver new tag, pass through read zone to make sure the new tag is detected and



then mount on the recommended location of the rider/driver's visor. Also, remember to update the transponder ID associated with that rider.

If the rider/driver's tag is being detected in the Reader Setup window but is not being recorded for the Race/Practice session then follow these steps:

NOTE: The Reader Setup debug window used above will display the tag ID and timestamp of detection immediately for each tag that passes through the read zone while the Live Capture window used during practice or a race will not display immediately. During Live Capture mode the system does record the ID and detection time immediately but the Live Capture screen is only updated every 5 seconds so don't panic if the Live Capture screen doesn't update immediately as the rider passes through.

When you setup/create an event make sure the "Absolute Min Lap Time (mm:ss)" setting is less than any rider/driver could possibly complete a lap. For example, if the fastest rider/driver is turning 2 minute lap times set to 1:30. This setting is the threshold the system uses to determine whether to count the lap or not. If a rider/driver passes the read zone faster than this setting the rider/driver tag is ignored for that lap.

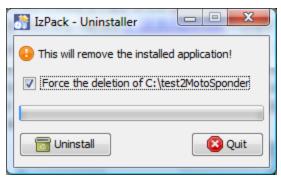
If still not detected you have probably entered the wrong transponder ID for the rider/driver for the class(es) during signup. If a rider/driver is signed up for multiple classes it is **highly recommended** to use the same transponder tag (ID) for all classes entered. While the system does allow you to assign a separate transponder tag (ID) for each class a rider/driver enters (separate Rider Entry with different Transponder ID and MotoSponder ID assigned) it opens the door for possible mistakes. The main point to remember is during Live Capture of practice or race the system will only record the tag IDs that have been assigned to the rider/driver of the class(es) of the current practice or race group (all others are ignored).



#### Appendix D – Steps to Update to New Software Version

The user should always run with the latest version of the MotoSponder software. Follow these steps to update your current version to the latest version. All steps assume you are logged in as Administrator user.

- 1) Download the latest MotoSponder software file "msdrlnstall.jar" from the www.MotoSponder.com website.
- 2) Make a copy of the directory your current MotoSponder version is installed in. For instance, if your software is currently installed in directory "C:\MotoSponder" then using Windows Explorer window (right-click on Windows Start button on lower left corner and select Explore) select that directory and either right-click your mouse and select "Copy" or just "Ctrl-C". Using the same Windows Explorer window, right-click and select "Paste" or just "Ctrl-V which will create a copy of the MotoSponder directory. After this step you should have a copy directory named C:\MotoSponder Copy" or similar name.
- 3) Uninstall the current version of the MotoSponder application using the MotoSponder Uninstaller program. To uninstall click on the Windows Start button in the lower left portion of the screen, select "All Programs", Select "MotoSponder", and "MotoSponder Uninstaller". This will result in the MotoSponder Uninstaller window displayed where you will check the checkbox "Force the deletion of C:\MotoSponder" and then click the "Uninstall" button. When the



uninstaller is complete just click the "Quit" button.

Figure 277 - Uninstaller Dialog Window

- 4) Now install the new version by double-clicking on the "msdrlnstall.jar" file you downloaded in step 1 above. Refer to the "Software Installation" section of this document for installation details if needed, but you pretty much just accept all the install screen default settings except for the next to last install screen where you will want to check the checkbox that places the three MotoSponder icons on your desktop.
- 5) Copy file "C:\MotoSponder Copy\config\rfidreader9650.properties" to "C:\MotoSponder\config\rfidreader9650.properties" to preserve your current rfid reader 9650 property settings. **Only need to do this if you have made any custom changes to the file.**



- 6) Copy file "C:\MotoSponder Copy\config\rfidreader9900.properties" to "C:\MotoSponder\config\rfidreader9900.properties" to preserve your current rfid reader 9900 property settings. **Only need to do this if you have made any custom changes to the file.**
- 7) Copy your default classes, points, make, and release agreement files in "C:\MotoSponder Copy\resources\" directory to "C:\MotoSponder\resources\" directory to preserve your current default classes (DefaultClasses.txt and any other classes files you may have previously created), points (DefaultPoints.txt and any other points files you may have previously created), bike make (DefaultMake.txt and any other make files you may have previously created)), and ReleaseAgreement.txt. **Only need to do this if you have made any custom changes to the file(s).**
- 8) This completes the installation of the new MotoSponder software version.