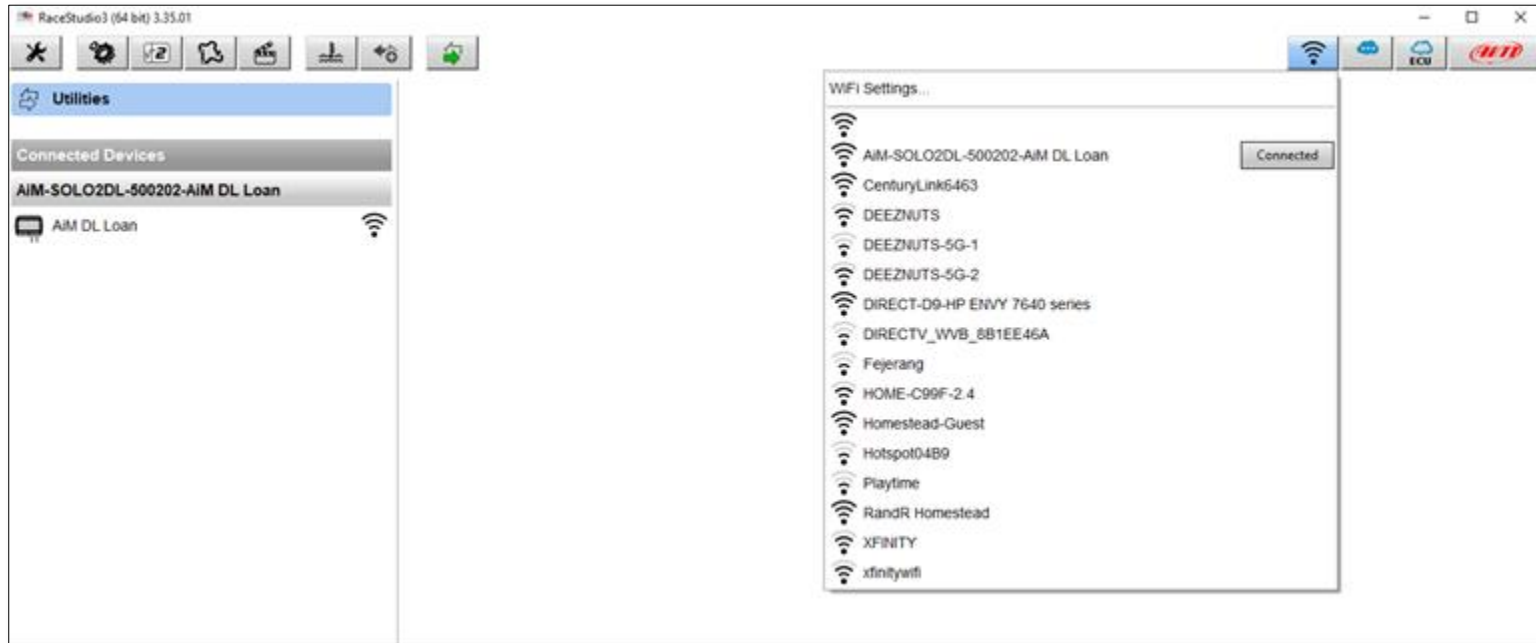


AiM Sports WiFi

Information, Tips and Tricks!



Host:

Roger Caddell

AiM Sports - National Training Manager

Co-Hosts:

Jeff Wasilko

Miata Racer and Data Advocate

Co-Hosts:

Emiliano Bina

AiM-Sportline - Software Developer



[aimsports.com](https://www.aimsports.com)

Tuesday Mar 23rd, 2021

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Jeff Wasilko

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- Data User Since 2006
- Time Trial, Sprint, Endurance & Sim Racer
- Leads COM Sports Car Club's Advanced Data Coaching Program
- 2 Time AiM Sports Webinar Co-Host!



Jeff Wasilko

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Emiliano Bina

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- Graduated in 2000 as Road Vehicles Engineer with a thesis on a simulation model for Toyota Prius hybrid powertrain
- Software Developer for AiM Since 2000: RaceStudio2 Analysis, DragAnalyzer, GPSManager, RaceStudio3
- Passion for Sim Racing and Motorsport, cooperated for data analysis in endurance races
- 10 Time AiM Sports Webinar Co-Host!



Emiliano Bina

AiM-Sportline Software Developer



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Webinar Agenda



User Guide

4.7 – Wi-Fi Management

Here you can manage Wi-Fi as well as select the channel to be used (expert users only) and reset its configuration. **Wi-Fi modes** are:

- ON
- Auto: switches Wi-Fi on when the vehicle is stopped and automatically switches it off when MX Series starts recording according to the setting you performed in "Parameters" page of Race Studio 3 software (see paragraph 6.2.8 for further information)
- OFF

Select Channel function is for expert users only; here it is possible to select which Wi-Fi channel to use; available option are:

- AUTO (default – recommended)
- 1
- 6
- 11

"Wi-Fi reset CFG" resets Wi-Fi configuration and is very useful if you do not remember Wi-Fi password.

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User Guide

5 – Wi-Fi configuration

Two possible Wi-Fi connection modes are available.

1 – As an access point (AP – default)
This is the ideal configuration for one only device and one only computer. In this situation MX Series creates a Wi-Fi network and works as an Access Point the PC can be connected to.

2 – Existing network (to connect to an existing Wi-Fi network – WLAN)
This mode is complex and implies an external access point (AP) but it is also more flexible and powerful because allows the communication among more than one device and more than one computer in the same network. MX Series and the PC must connect to an existing Wi-Fi network made by a device that works as an external access point.

When working in WLAN mode MX Series has two available security levels:

- network authentication: network password
- device authentication: MX logger password

Both levels allow the use of different strategies. A PC in WLAN, for example, can see several AiM devices but can communicate only with those he knows the password of. Forgetting the password Wi-Fi configuration can be reset from MX Series menu as explained at paragraph 4.7.

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http://www.aimsports.com/download/doc/eng/mxs1.2-mxp-mxg1.2/MXG1.2+MXP+MXS1.2_user_guide_101_eng.pdf



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AiM Sports Wi-Fi

Webinar Agenda

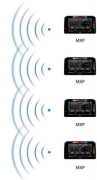
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Connection Methods



AiM Sports Devices Have Used Several Different Methods to Download Your Valuable Data Over the Years.

- Infrared PC Loader for the MyChron 2 was the First!
- Serial Cable
- USB Cable
- MemoryKey
- Memory Module
- **Wi-Fi**



AiM Sports Wi-Fi

Data Sharing & Integration

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Why Do We Use Wi-Fi Connection



Some AiM Sports Devices Have Multiple Ways of Connecting and Some are **Wi-Fi** only.

Here are the Main Reasons You Need Your AiM Sports Device to Connect to Your Computer:

- Configuration
- Live Measures
- Data Download
- Firmware Upgrades



AiM Sports Wi-Fi

Why Connect?



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We Have Answers!

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Potential Conflicts



- Both Comcast and AiM Sports Use the IP Address of 10.0.0.1 (for Router and for AIM device)
 - This Can Create a Conflict
 - Most Likely Visible if Your Computer is Using Wired Ethernet and Accessing an AiM Sports Device via Wi-Fi
- Symptoms
 - “Can’t Communicate with the Device. Trying Reconnection”
- Comcast Address can be Changed on your Cable Modem/Router:

<https://www.merrimack.edu/live/files/3713-special-considerations-for-those-using-xfinity>



Wi-Fi Modes



- Access Point
 - AiM Sports Device Creates a Wi-Fi Network
- Existing Network
 - AiM Sports Device Joins a Network Created by Another Router/Hotspot
 - Ideal for Multi-Car Teams

Solo 2 DL ID 6500903

Search Boxes Download **WiFi and Properties** Settings Tracks Counters Logo Firmware

Refresh Transmit

Device

Device Name Solo 2 DL ID 6500903

WiFi

WiFi Power Mode Auto

WiFi Mode Access Point

WiFi Network Name Access Point

WiFi Password Existing network ☐ Show

AiM Sports Wi-Fi

Wi-Fi Modes

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Hotspot vs. Router



- Hotspot
 - Create a Wi-Fi network and Give Access to the Internet via Cellular Data
- Router
 - Create a Wi-Fi Network, but no Internet Access



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Hotspot vs. Router



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Hotspots for the Paddock



- Your Smartphone
- Portable Devices like Verizon JetPack
- Hardwired for the Trailer or Car
 - <https://mofinetwork.com/product/mofi4500-4gxelte-sim8-combo-v3/>
 - Can Run on 12V or 120V/240V



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Hotspots for the Paddock



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Smartphone Personal Hotspot



- Your Smartphone Can Be a Hotspot in the Paddock
 - May Need to Have the Feature on Your Cellular Plan/Account



WiFi Mode	Existing network	
WiFi Network Name	JeffPhone	
WiFi Password	LearnFast	☒ Show



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Smartphone Personal Hotspot

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Virtualization



- VMware or Parallels
- AiM Sports Wi-Fi Tips at:
 - <https://www.aim-sportline.com/en/faqs/hardware/wi-fi.htm>
 - https://www.aim-sportline.com/download/faqs/eng/hardware/wi-fi/shared/FAQ_Wi-Fi_VMware_101_eng.pdf
 - https://www.aim-sportline.com/download/faqs/eng/hardware/wi-fi/shared/FAQ_Wi-Fi_VirtualWindows_100_eng.pdf
- Consider using Memory Module for Data Download if Supported



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Virtualization



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Wi-Fi Module

Hardware



BlueGiga (now) vs ESP32 (now/future)

- When we chose the BlueGiga Wi-Fi module, well it simply was the only one that granted us a good data transfer speed with a low consumption and the respect of a good number of standards
- BlueGiga was recently bought by another company, and its developments/fixes stopped as well
- We moved into ESP32, that's now available, it's manufactured in way bigger numbers, its firmware features constant improvements and should grant us some future developments we have in mind
- The ESP32 is now used into our MyChron5S and Solo2/Solo2DL, it has been our choice since when we reached the same or slightly better performances.
- The ESP32 will be in our complete production in some months

Wi-Fi Management

Firmware



Future Firmware Improvements

- Possibility to choose among more than one IP address, for the device to “create” networks different from 10.0.0.x
- Possibility to configure the Wi-Fi module:
 - To behave as an Access Point (already available)
 - To connect to Existing Networks (more than one network, so to be able to store for example two networks, one at the shop or at home and another one at the trackside)

Wi-Fi Management

Software



Recent developments on the Wi-Fi

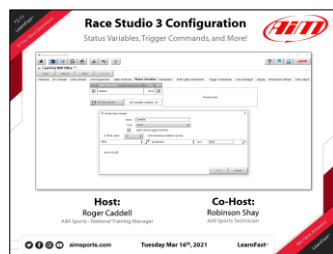
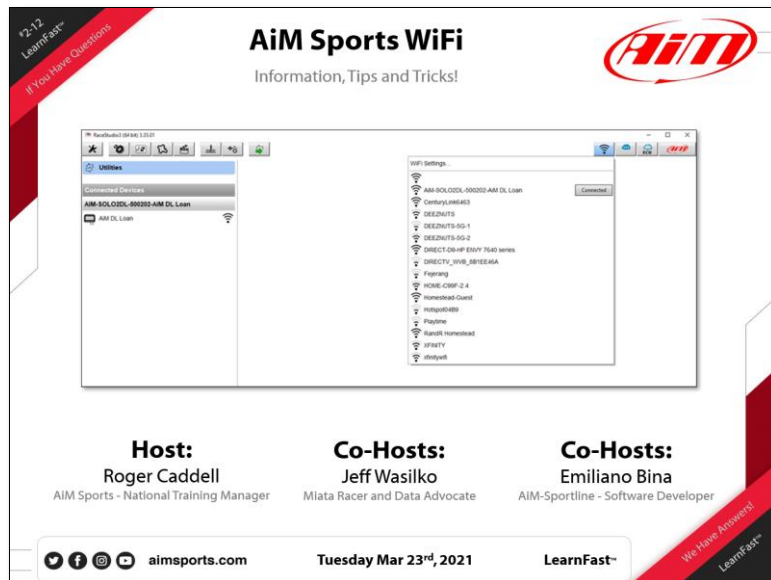
- Improved Wi-Fi device scan speed for AiM devices when RS3 is running on a virtualized Windows.
- Start of Wi-Fi connection has been made quicker.
- Improved Wi-Fi password verification function device window.
- Fix to Wi-Fi choice menu, in which AiM devices could be erroneously placed into other networks. Notice: this NOT being a bug in communication but only a user interface menu sorting.
- Introduced a Wi-Fi warning icon (in the Wi-Fi menu) to inform users when they're possibly connected to two networks sharing the same IP addresses.

LearnFast™ E-Training Videos



Currently 151 Videos and Growing

YouTube www.youtube.com/aimdata



- All New 2020 - 21 Webinar Videos
- Software Updates with Race Studio 3
- Pre-Calculated Gear Position Function
- Configuring WiFi Communication
- Customizing AiM Device Logos
- Race Studio 3 Basic Configuration - Part 1
- Race Studio 3 Basic Configuration - Part 2
- **I Have Downloaded my Data, Now What - Part 1*
- **I Have Downloaded my Data, Now What - Part 2*
- GPS Lap Insert
- Data Views
- Measure Units
- Sort Channels
- Test Properties
- Per Lap Color
- Export Tests
- Channel Reports
- Setting Time
- Track Mapping
- Selection Criteria
- Sensor Calibration
- Conditional Alarms
- Gear Position
- Firmware Update
- Solo Configuration
- Transmit Tracks
- Gps Manager Overview
- New GPS Track
- Webinars

* *Most Popular and Recommended*

Additional Materials

LearnFast™ E-Training Videos

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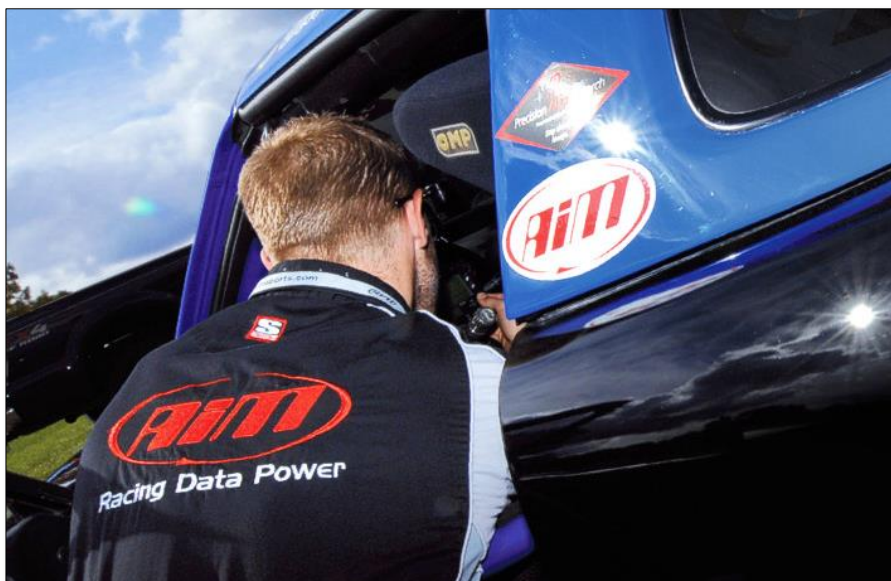
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Customer Support



AiM Sports Technical Support Staff Regularly
Attend Races and Other Events

Look For Us At An Event Near You
Or Call Us At **800.718.9090**



Customer Support

At An Event Near You!

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MyChron 5s

MyChron5s, What's New?



Host:

Roger Caddell

AiM Sports - National Training Manager

Co-Host:

Cory Terrell

AiM Sports Technician

Next Webinar: Tuesday March 30th, 2021 - 10:00am Pac/1:00pm East



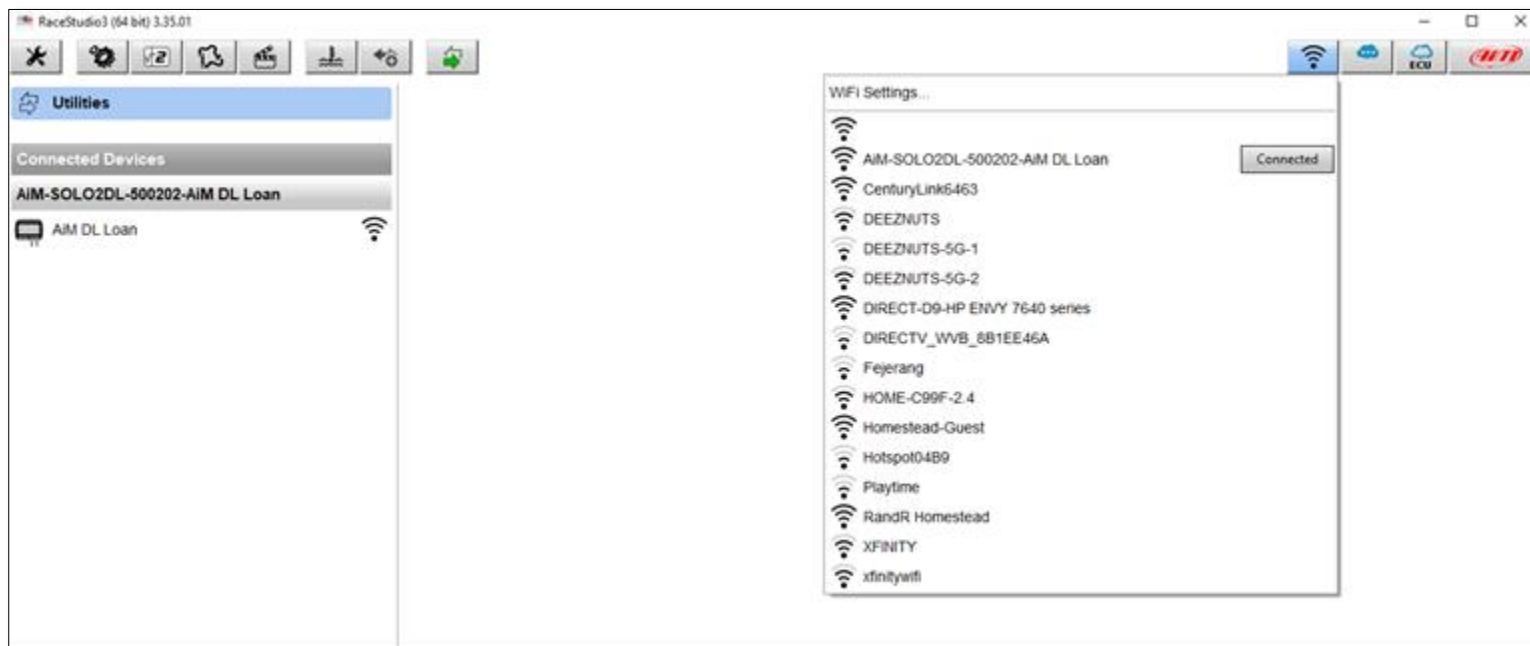
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Next Webinar Topic

MyChron5s, What's New?

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Tuesday Mar 23rd, 2021

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