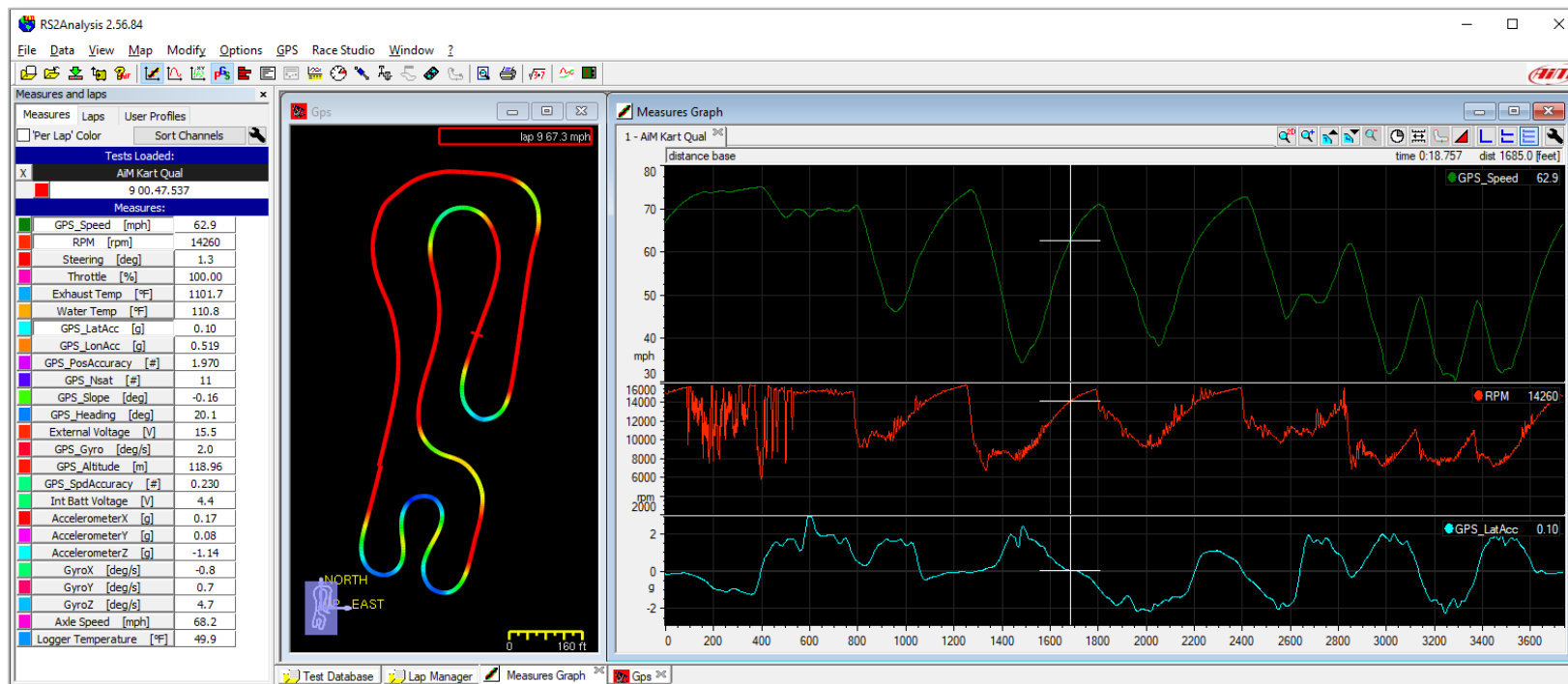


Introduction to Karting Data

Presented by AiM Sports & Point Karting



Presenter:

Roger Caddell

AiM Sports - National Training Manager



POINTKARTING



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Wednesday February 23rd, 2022

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Roger Caddell

AiM Sports - National Training Manager
roger@aimsports.com



Roger Caddell

AiM Sports National Training Manager

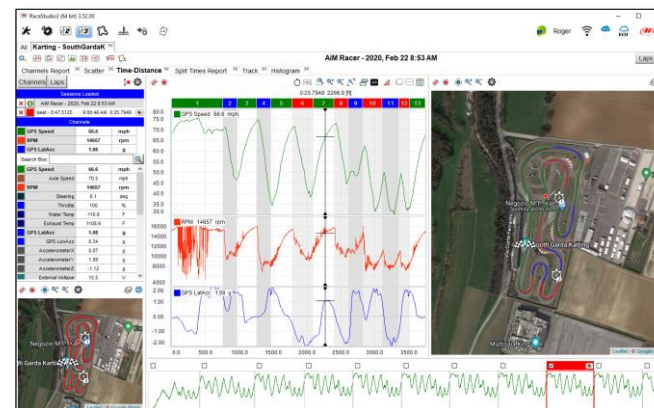


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Today's Agenda

- Introductions
- *About* AiM Sports
- *What* is Data Acquisition
 - Different Methods of Data Acquisition
 - Data = Knowledge
- *Why* Use Data Acquisition
- *How* to Use Data Acquisition
 - Introducing Race Studio Software
 - Data Concepts
 - **What** Happened
 - **Where** Did It Happen
 - **Why** Did It Happen
 - Data Analysis - Data Triangle
 - Driver Performance
 - Vehicle Performance
 - Vehicle Health
 - Actual Data Analysis Examples



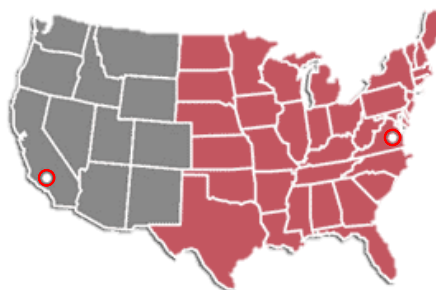


AiM Sports

- AiM Sports has been providing cutting-edge data and video solutions for the motorsports industry for over 25 years. From track-day users to top tier teams, when it comes to electronic instrumentation, data acquisition, and video, AiM Sports is the most trusted name in racing
- Many AiM Sports products combine the functions of traditional tachometer, speedometer, temperature gauge, pressure gauge and lap timer all into one compact, high-performance unit
- Opened in 1996 in Lake Elsinore, CA and expanded with Roanoke, VA in 2002

AiM Sports

31889 Corydon, Suite 130
Lake Elsinore, CA 92530
Tel: 951.674.9090
Fax: 951.674.5699



AiM Sports SE

1636 9th St SE #B
Roanoke, VA 24013
Tel: 540.342.9680
Fax: 540.342.9682

Toll Free: 1.800.718.9090
www.aimsports.com



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Introduction to Karting Data

About AiM Sports

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What Is Data Acquisition

What is Data Acquisition

Different Methods

- Seat of the Pants
- Stopwatch
- Video, Especially 'SmartVideo'
- Data Acquisition Systems
 - Hardware and Software

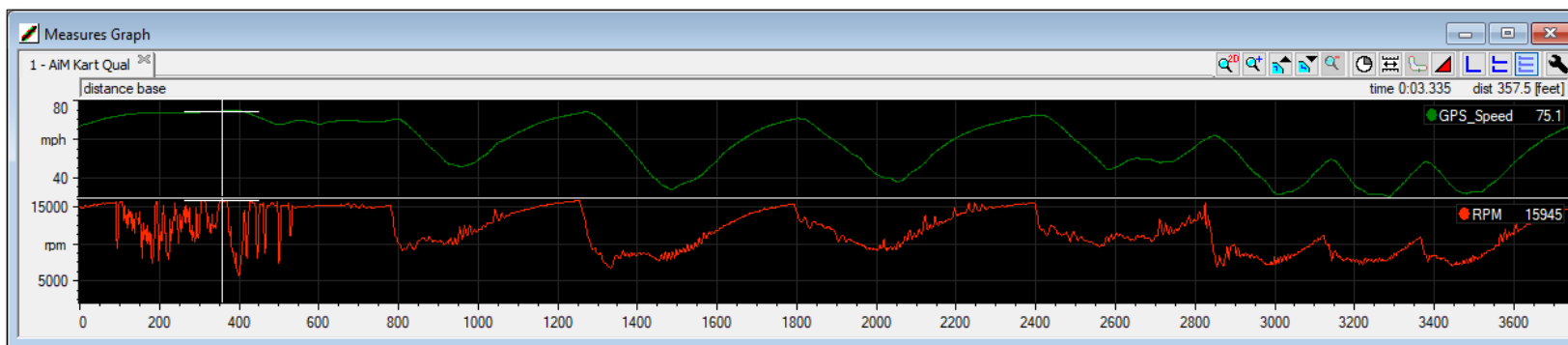


What is Data Acquisition

Another Tool in the Toolbox



- Just like an engine or shock dyno, the data system measures and records performance
- Not just **Vehicle** performance
- Not just **Driver** performance
- But **Overall** performance!
- Sensors gather values and hardware stores the data of the dynamics of what the vehicle is doing
- Software makes the detailed data analysis possible

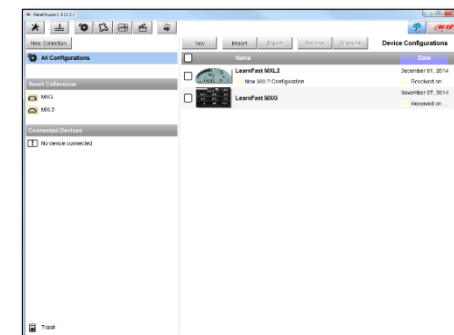


What is Data Acquisition

Software Concepts

Configuration (Pre-Session)

- Race Studio has Powerful Functions for Configuring Your AiM Sports Data System
- Sensors
- Expansion Modules
- Sampling Rates
- Alarms
- Shift Lights



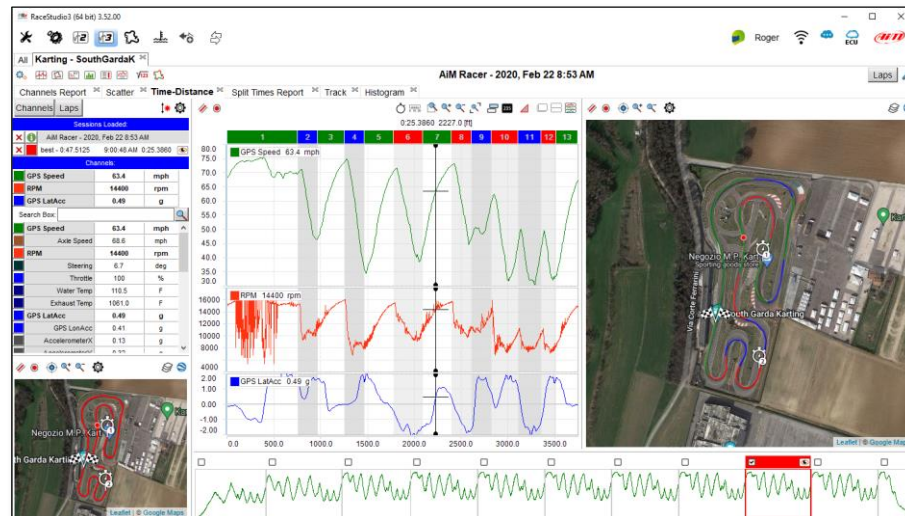
Data Analysis (Post-Session)

- Race Studio Features the Functions Needed to View, Analyze, and Understand Your Recorded Data
- Measure Plots
- X/Y Plots
- Channel Reports
- Suspension Analysis
- And Much More!



What is Data Acquisition

Data = Knowledge



Knowledge = *Speed* ... How **Fast** Do You Want to Go?

Why Use Data Acquisition

Why Use Data Acquisition

Constant Improvement



To Constantly Improve:

- Driver Performance
- Vehicle Performance
- Vehicle Health
- Results!



With the Proper and Consistent Use of Data, Your Race Program Will Improve

*Remember, it is just as important to understand what went **'Right'** as well as what went **'Wrong'***



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Introduction to Karting Data

Constant Improvement

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How to Use Data Acquisition

How to Use Data Acquisition



Best Practices

- Hardware
 - Design
 - Install
 - Configure
 - Calibrate
 - *Use*
 - *Download*
- Software
 - Open
 - Analyze
 - What Happened?
 - Where Did it Happen?
 - Why Did it Happen?

← Repeat



How to Use Data Acquisition



Data Analysis Concepts

Basic Data Analysis Steps

- What **Happened?** (many stop here!)
- Where **Did it Happen?**
- Why **Did it Happen?**
 - Probable Additional Question... Vehicle **or** Driver?
 - Is the Driver **Reacting** to the Vehicles Movement? or
 - Is the Driver **Creating** the Vehicles Movement
 - This can be a **Critical** Component of 'Why'



Money Channels

- Lap Times and Speed
- All Other Channels Strongly Support the Money Channels



Data Analysis Triangle

- Driver Performance
- Vehicle Performance
- Vehicle Health

Introduction to Karting Data

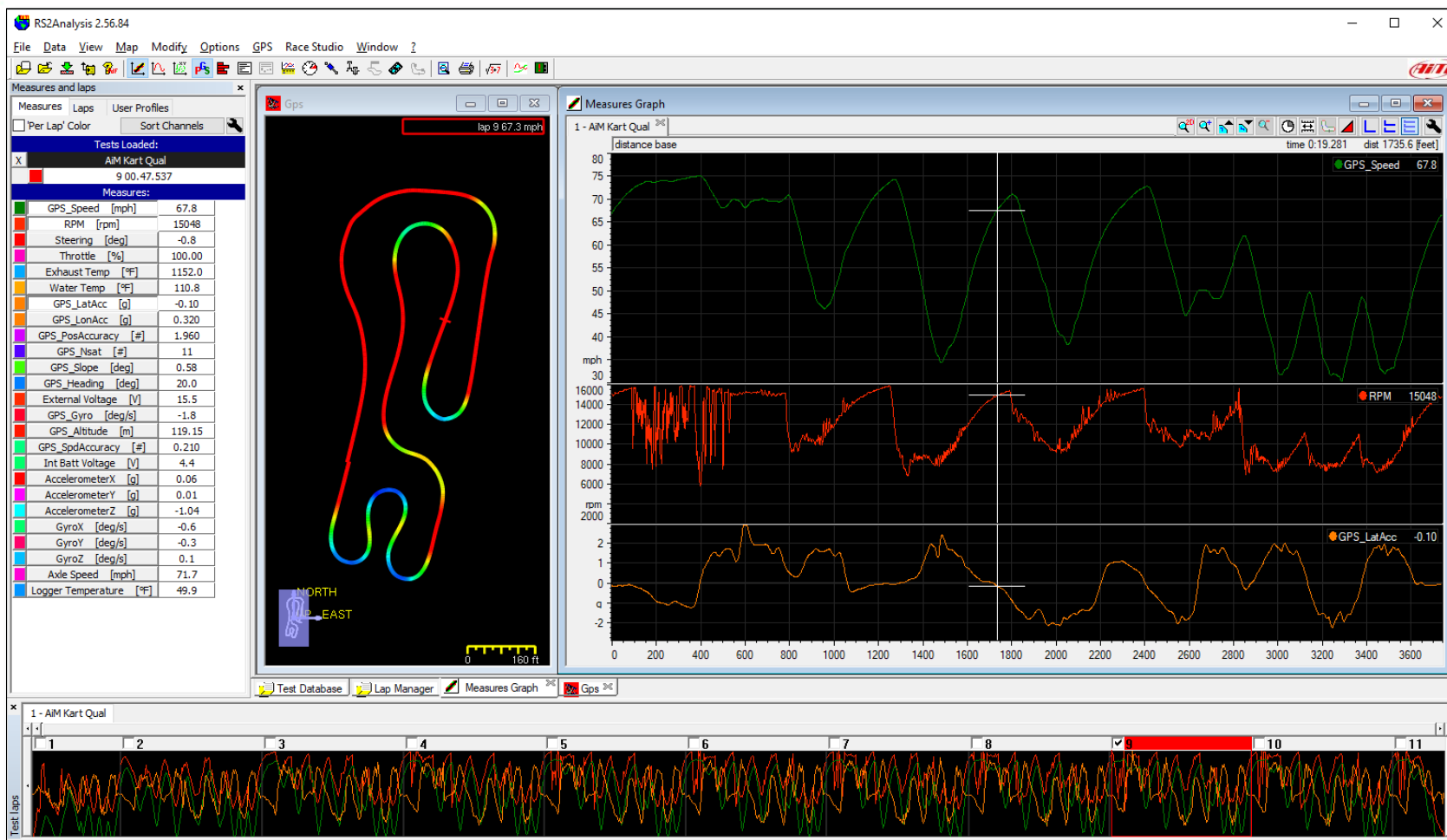
Data Analysis Concepts

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Live Data & Video



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Live Data Analysis

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LearnFast™ E-Training Videos



Currently **196** Videos and Growing

YouTube www.youtube.com/aimdata

Race Studio 3 Analysis
Beta Software - Update #10

Host:
Roger Caddell
AiM Sports - National Training Manager

Co-Host:
Emiliano Bina
AiM Sportline - Software

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- All New 2020 - 22 Live 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*

An AiM PDM Users Experience

Host:
Roger Caddell
AiM Sports - National Training Manager

Co-Host:
Robbie Yeoman
AiM Sports - National Training Manager

Guest:
Todd Burns
AiM Sports - National Training Manager

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Webinar Series
Bringing Data Support and Training to You

**Data Download Options
In Race Studio 3**

March 31st, 2020

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Additional Materials

LearnFast™ E-Training Videos

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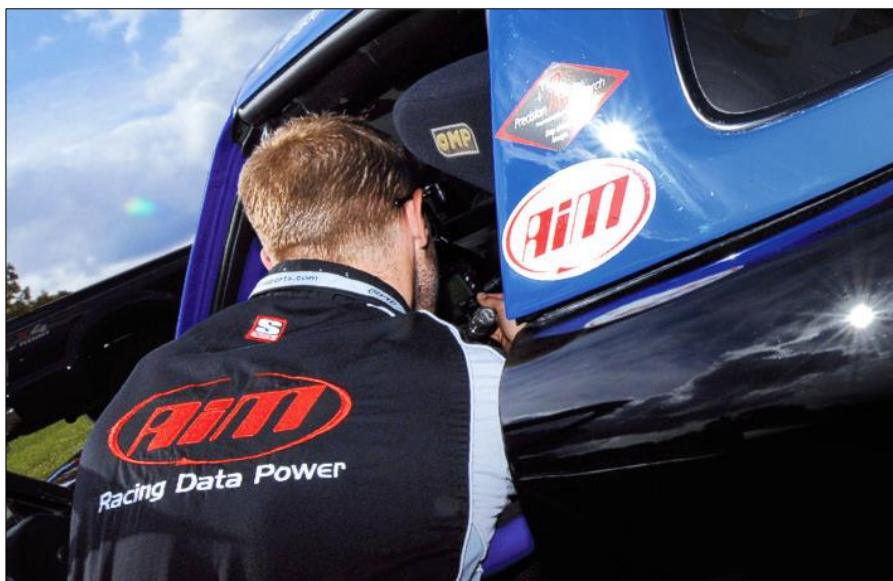
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Customer Support



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

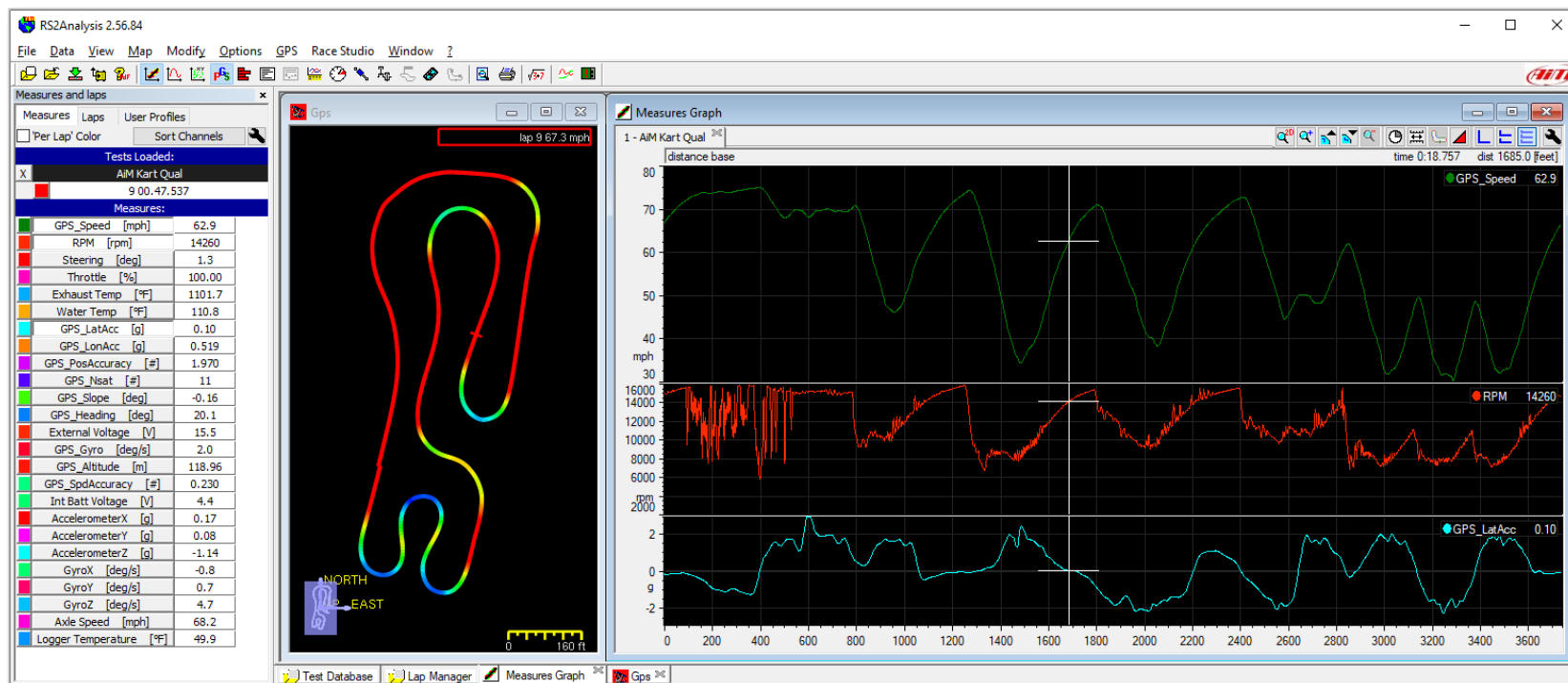
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Contact Information



Presenter:

Roger Caddell

AIM Sports - National Training Manager

roger@aimsports.com



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Saturday February 23rd, 2022

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