



AIM
LEARN FAST™

SEMINAR SERIES

BRINGING DATA SUPPORT AND TRAINING TO YOU

PRACTICAL DATA ACQUISITION

FOR AUTOMOTIVE RACERS & ENTHUSIASTS

REFERENCE MATERIALS




www.aimsports.com

 facebook.com/aimsports
 [twitter: @aimsports](https://twitter.com/aimsports)

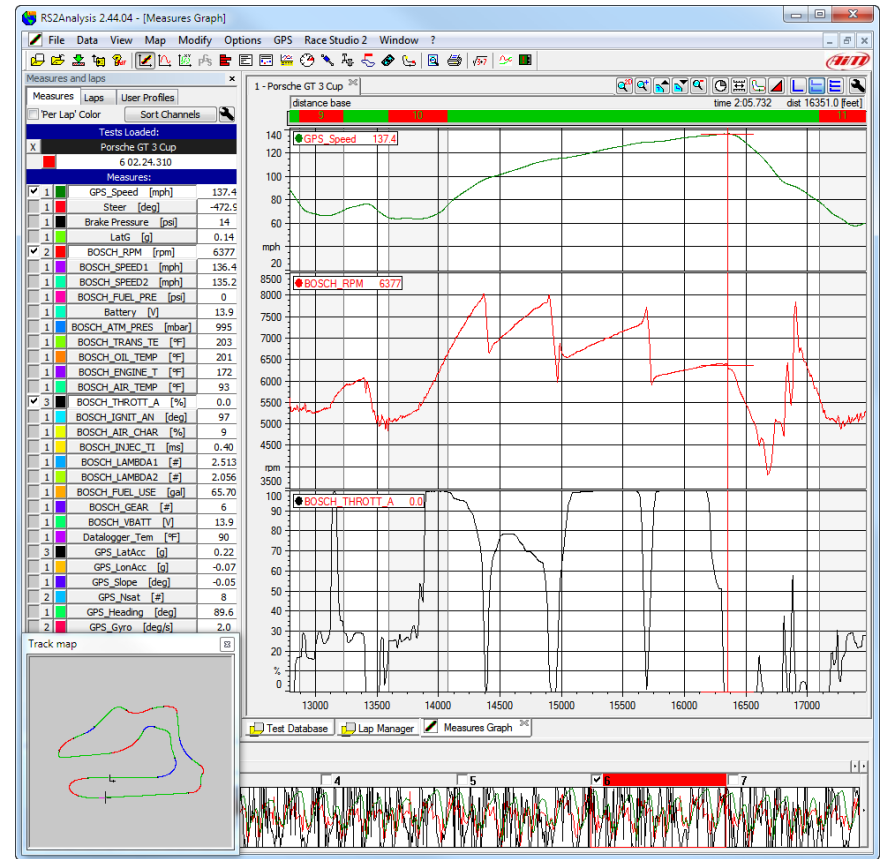
1.800.718.9090


Dec 2012




Race Studio 2

RACE STUDIO 2 IS WHERE YOU PERFORM ALL OF THE CONFIGURATION AND PREPARATION STEPS BEFORE USING YOUR AIM SPORTS DATA SYSTEM TO GATHER DATA




Race Studio
Analysis

RACE STUDIO 2 ANALYSIS MANAGES DATA FROM ALL AIM SPORTS DATA SYSTEMS. RACE STUDIO 2 WILL HELP IMPROVE THE VEHICLE AND DRIVER'S PERFORMANCE.



Racing Data Power

AIM Sportline

The World Leader in Data Acquisition



Analysis



Download Data



Device Configuration



Device Info



Online



Device Calibration



Customize Sensor



Language

HOW TO USE DATA ACQUISITION RACE STUDIO 2 CONFIGURATION



THE RACE STUDIO 2 CONFIGURATION USER INTERFACE.

THIS IS THE OPENING PAGE OF THE RACE STUDIO 2 CONFIGURATION SOFTWARE. LETS LOOK AT THE OPTIONS AVAILABLE.

AIM
Racing Data Power

AIM Sportline
The World Leader in Data Acquisition

Analysis

Download Data

Device Configuration

Device Info

Online

Device Calibration

Customize Sensor

Language

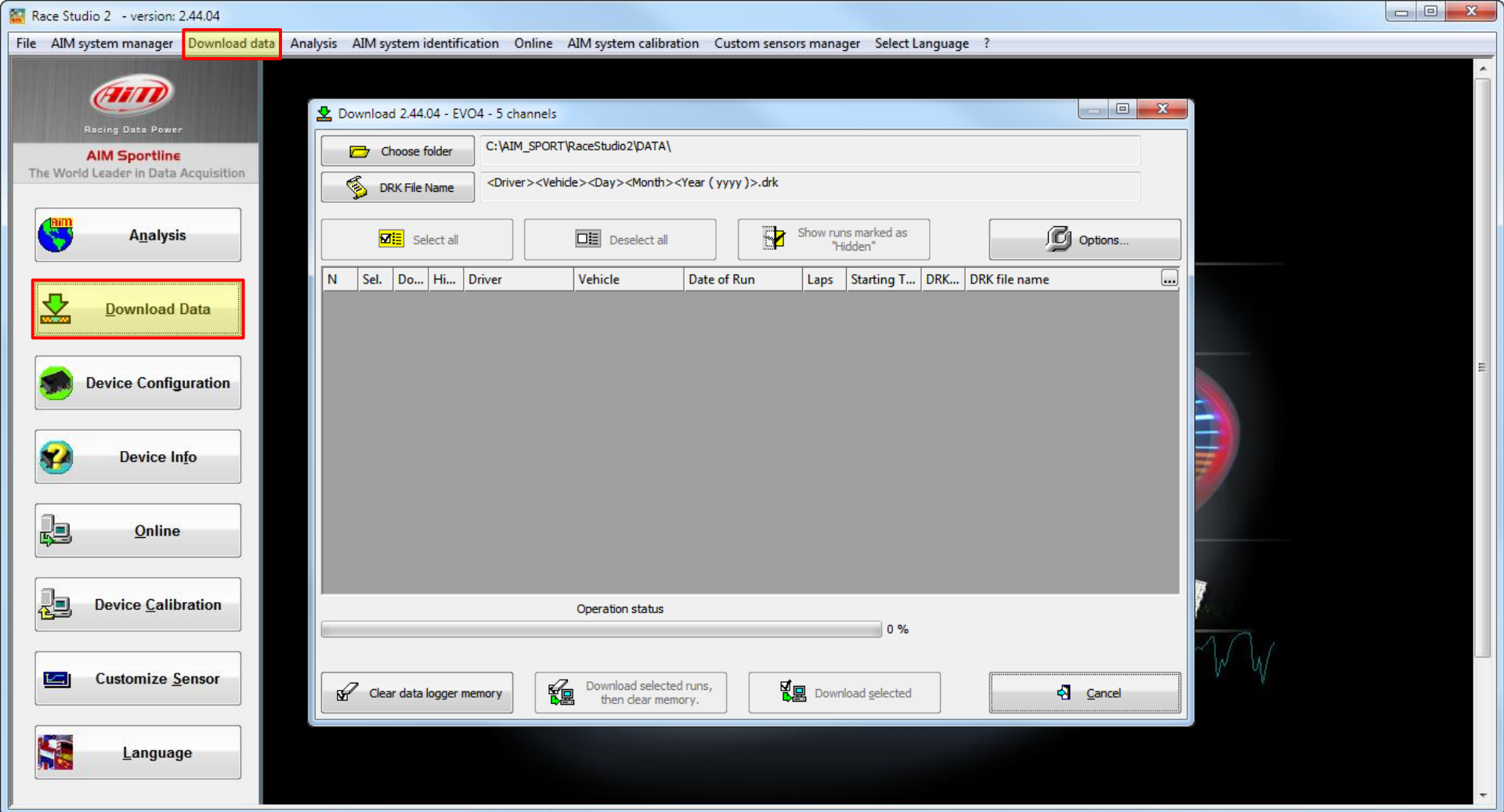
Oil Temp	44
Oil Over	551
Deto_over	2.5
Deto_under	0.0
LatAcc	0.00
Gear	1
WaterTemp	23
Battery	14.5
Speed	162.3
R_Nsat	10
LatAcc	0.06

```
function makehash
pass=pw.toUpperCase
hash=0
for i=0 to len(pass)-1
letter=pass.sub(i, i+1)
c=alpha.indexof(letter)
hash=hash*multiplier+i+c
return(hash)
endfunction

//CHATAL
//max 10 2000
```

AIM
Racing Data Power

THE FIRST CHOICE IN THE LEFT COLUMN IS **ANALYSIS**. THIS WILL TAKE YOU DIRECTLY TO THE RACE STUDIO 2 **ANALYSIS** PORTION OF THE SOFTWARE. THE MENU ITEM **ANALYSIS** ALSO WILL PERFORM THE SAME ACTION.



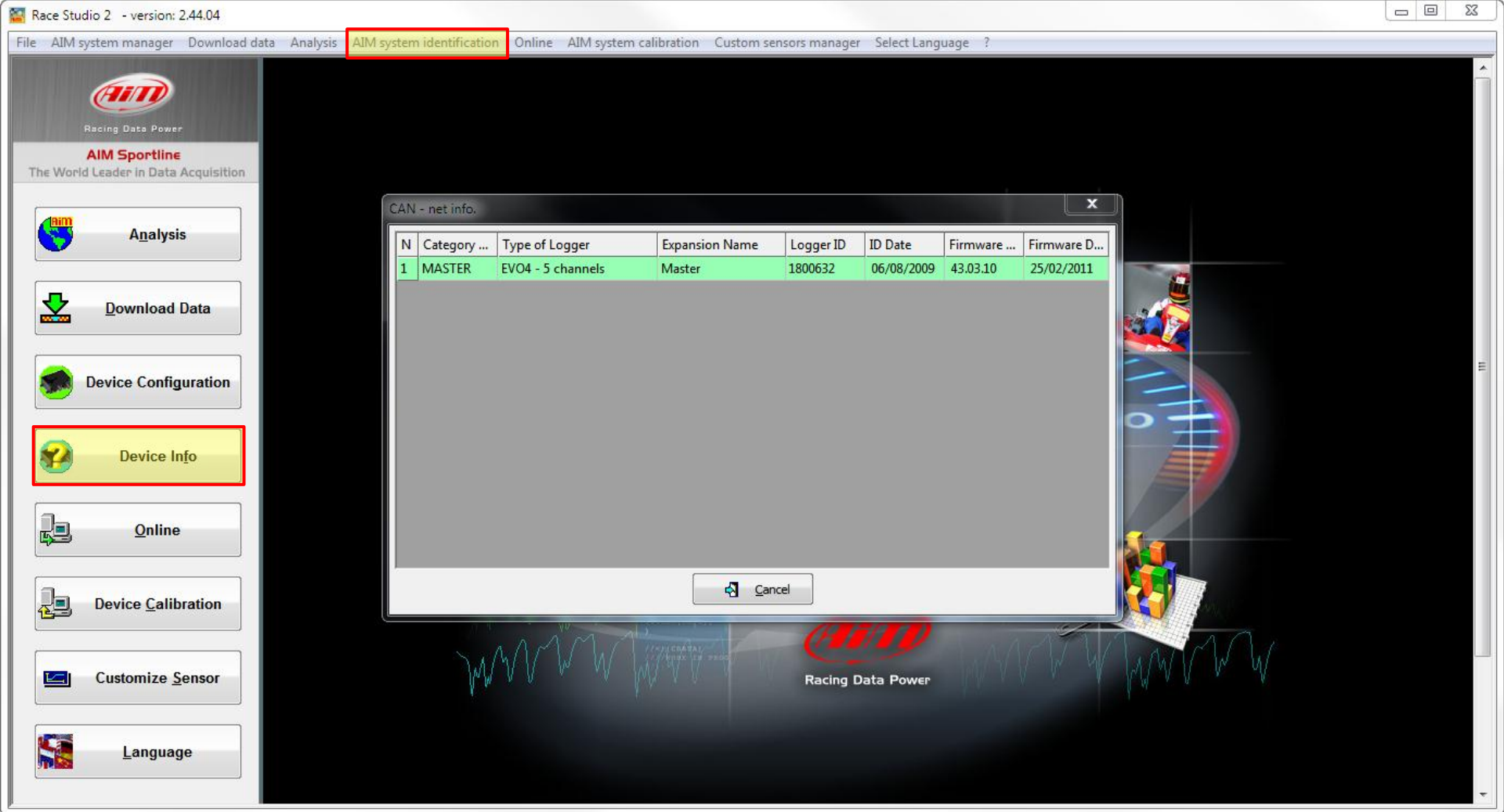
THE NEXT CHOICE IN THE LEFT COLUMN IS “**DOWNLOAD DATA**”. WHEN CONNECTED TO A DATA LOGGER, THIS SCREEN WILL APPEAR AND SHOW THE AVAILABLE TESTS FOR DOWNLOAD, IN THIS EXAMPLE THERE ARE NO TESTS ON THE DATA LOGGER. HERE YOU CAN ALSO; CHOOSE THE FOLDER TO STORE DATA INTO, CREATE A UNIFORM FILE NAMING STRUCTURE AND UNDER THE OPTIONS BUTTON YOU CAN GIVE YOU CHOICES IN HOW TO GROUP YOUR TESTS IF WANTED. THE MENU ITEM “**DOWNLOAD DATA**” ALSO WILL PERFORM THE SAME ACTION.

The screenshot shows the 'AIM system manager' window in the Race Studio 2 software. The window title is 'AIM system manager' and it has a menu bar with 'File', 'Download data', 'Analysis', 'AIM system identification', 'Online', 'AIM system calibration', 'Custom sensors manager', and 'Select Language ?'. The main content area of the window is a grid of buttons for different data systems and products:

- MyChron3 Kart Plus/Gold/Ext
- EVO3 Pro/Pista
- MyChron3 Auto/Moto Plus/Gold/Ext
- EVO4** (highlighted)
- M3Log/Visor XGLog
- SMC Bridge
- MXL
- DaVid
- EVO3

At the bottom of the window, there are two buttons: 'Go to' (with a green checkmark icon) and 'Exit' (with a red X icon). Below the buttons is an image of a black electronic device with several circular ports. The background of the software interface features a racing data dashboard with various metrics and images of racing vehicles.

THE NEXT CHOICE IN THE LEFT COLUMN IS “**DEVICE CONFIGURATION**”. THIS SCREEN WILL APPEAR AND SHOW THE AVAILABLE AIMSPORTS DATA SYSTEMS AND PRODUCTS THAT RACE STUDIO 2 CAN CONFIGURE. IN THIS CASE I HAVE HIGHLIGHTED THE EVO4 CHOICE. THE MENU ITEM “**AIM SYSTEM MANAGER**” ALSO WILL PERFORM THE SAME ACTION.



THE NEXT CHOICE IN THE LEFT COLUMN IS “**DEVICE INFO**”. THIS SCREEN WILL APPEAR AND SHOW THE INFORMATION AVAILABLE ABOUT THE LOGGER AND ATTACHED CAN DEVICES. IN THIS CASE THERE ARE NO ATTACHED DEVICES. THE MENU ITEM “**AIM SYSTEM IDENTIFICATION**” ALSO WILL PERFORM THE SAME ACTION.

AIM
Racing Data Power

AIM Sportline
The World Leader in Data Acquisition

Analysis

Download Data

Device Configuration

Device Info

Online

Device Calibration

Customize Sensor

Language

Online

Logger type: EVO4 - 5 channels Firmware version: 43.03.10 Total frequency: 71 (Hz)

N	Channel i...	Channel name	Sensor type	Meas...	Measure
1	RPM	Engine	Engine revolution speed	rpm	0
2	SPD_1	Speed1	Speed	mph .1	0.0
3	SPD_2	Speed2	Speed	mph .1	0.0
4	CH_1	Water_Temp	Thermoresistance PT100	°F	67
5	CH_2	Oil_Pressure	Pressure VDO 0-5 bar	psi .1	-5.1
6	CH_3	Channel_3	Generic linear 0-5 V	V .1	0.0
7	CH_4	Channel_4	Generic linear 0-5 V	V .1	0.0
8	CH_5	Channel_5	Generic linear 0-5 V	V .1	0.0
9	CALC_GE...	Calculated_Gea	Calculated Gear	#	0
10	ACC_1	Lateral_acc	Lateral accelerometer	g .01	0.00
11	ACC_2	Longitudinal_a	Longitudinal accelerometer	g .01	-0.00
12	ACC_3	Vertical_acc	Vertical internal accelerometer	g .01	1.00
13	LOG_TMP	Datalogger_Tem	Cold joint	°F	86
14	BATT	Battery	Battery	V .1	13.1

Show ADC counts

Show mV

Battery V ref

13.068 5000

Memory

0 %

Logger isn't storing data

Lap marker

0.00.00.000

Waiting.. - Last lap nr.0

Logger-PC link

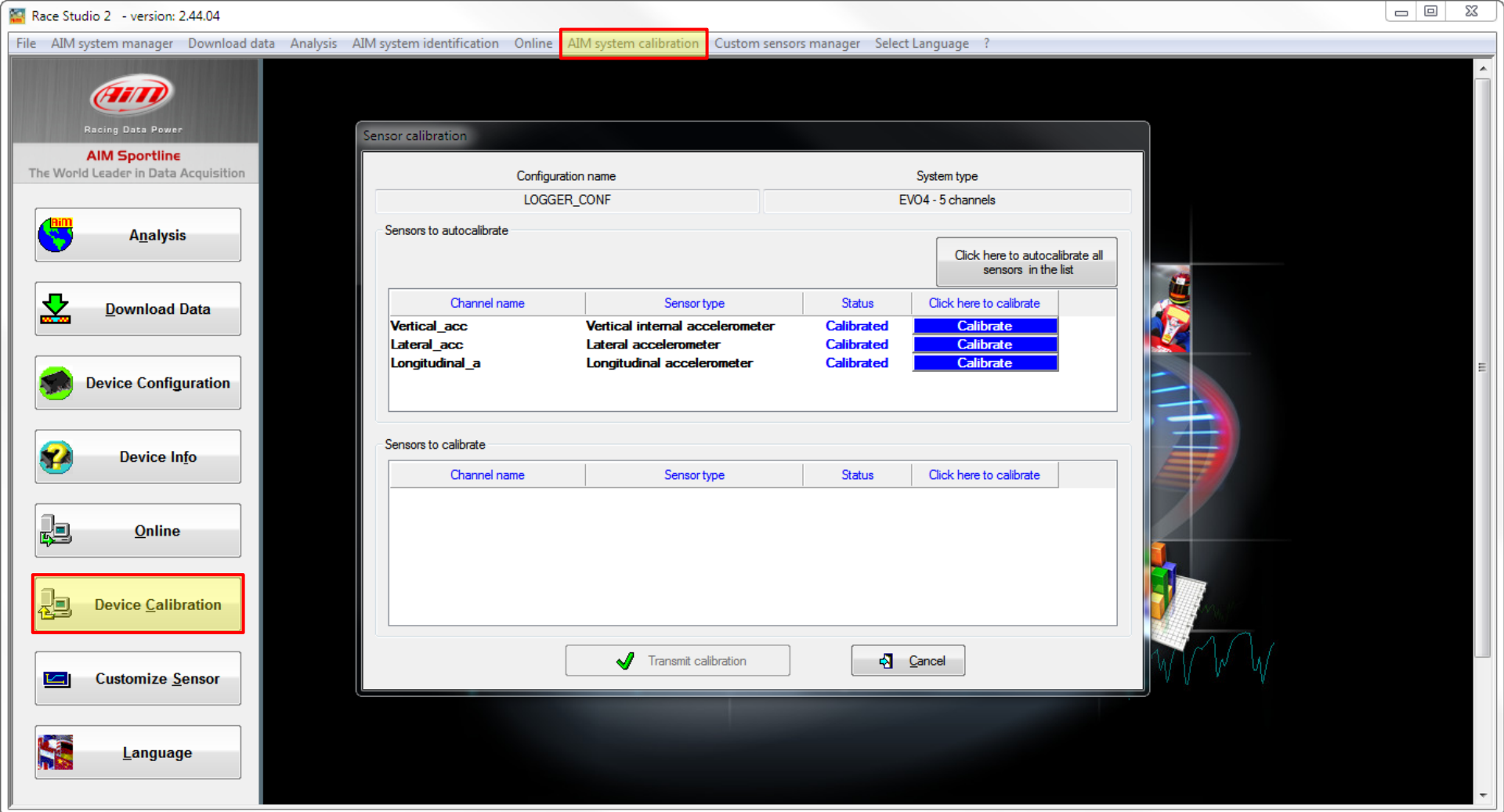
Communication line: OK

Configuration status

Configuration is OK

Exit

THE NEXT CHOICE IN THE LEFT COLUMN IS **“ONLINE”**. THIS SCREEN WILL APPEAR AND SHOW THE INFORMATION AVAILABLE “REAL TIME” DIRECTLY FROM THE CONNECTED DATA LOGGER. THE MENU ITEM **“ONLINE”** ALSO WILL PERFORM THE SAME ACTION.



THE NEXT CHOICE IN THE LEFT COLUMN IS “**DEVICE CALIBRATION**”. THIS SCREEN WILL APPEAR AND ALLOW YOU TO CALIBRATE THE LOGGER AND ATTACHED SENSORS THAT NEED TO BE CALIBRATED. THE MENU ITEM “**AIM SYSTEM CALIBRATION**” ALSO WILL PERFORM THE SAME ACTION.

The screenshot shows the 'Customize sensor' dialog box in the AIM Sportline software. The dialog box is titled 'Customize sensor' and contains the following elements:

- Type of measure:** Pressure
- Compute Curve:** A button to calculate the curve.
- Select sensor:** A list of sensors including 'MSI Brake' and 'Delphi Intake Air Temp.'.
- Sensor name:** A text field containing 'MSI Brake'.
- Buttons:** Save sensor, Delete sensor, Import sensors, Export selected sensor, Export all sensor, and Exit.
- Table:** A table with columns for 'x [mV]', 'y', and 'Curve Error'. The first two rows are checked, showing values (0, 0) and (4500, 2000) with a Curve Error of 0.000.
- Graph:** A graph showing a linear relationship between x and y. The x-axis ranges from 0 to 4500 mV, and the y-axis ranges from 0 to 2000 psi. A red line is plotted through the points (0, 0) and (4500, 2000).
- Equation:** The equation $y = a_0 + a_1 * x + a_2 * x^2 + a_3 * x^3 + a_4 * x^4$ is displayed, with coefficients:
 - a0: 0.000000e+000
 - a1: 0.444444
 - a2: 0.000000e+000
 - a3: 0.000000e+000
 - a4: 0.000000e+000

THE NEXT CHOICE IN THE LEFT COLUMN IS “**CUSTOMIZE SENSOR**”. THIS SCREEN WILL APPEAR AND ALLOW YOU TO BUILD CUSTOM SENSOR CALIBRATIONS IN THE UNLIKELY EVENT THE SENSOR YOU WANT TO USE IS NOT ALREADY INCLUDED IN THE EXTENSIVE SENSOR LIBRARY IN RACE STUDIO 2. THE MENU ITEM “**CUSTOM SENSORS MANAGER**” ALSO WILL PERFORM THE SAME ACTION.



THE NEXT CHOICE IN THE LEFT COLUMN IS “**LANGUAGE**”. THIS SCREEN WILL APPEAR AND ALLOW YOU TO CHOOSE THE LANGUAGE THAT RACE STUDIO 2 WILL USE. THE MENU ITEM “**SELECT LANGUAGE**” ALSO WILL PERFORM THE SAME ACTION.

File AIM system manager Download data Analysis AIM system identification Online AIM system calibration Custom sensors manager Select Language ?

Load wallpaper
Exit F10

Racing Data Power

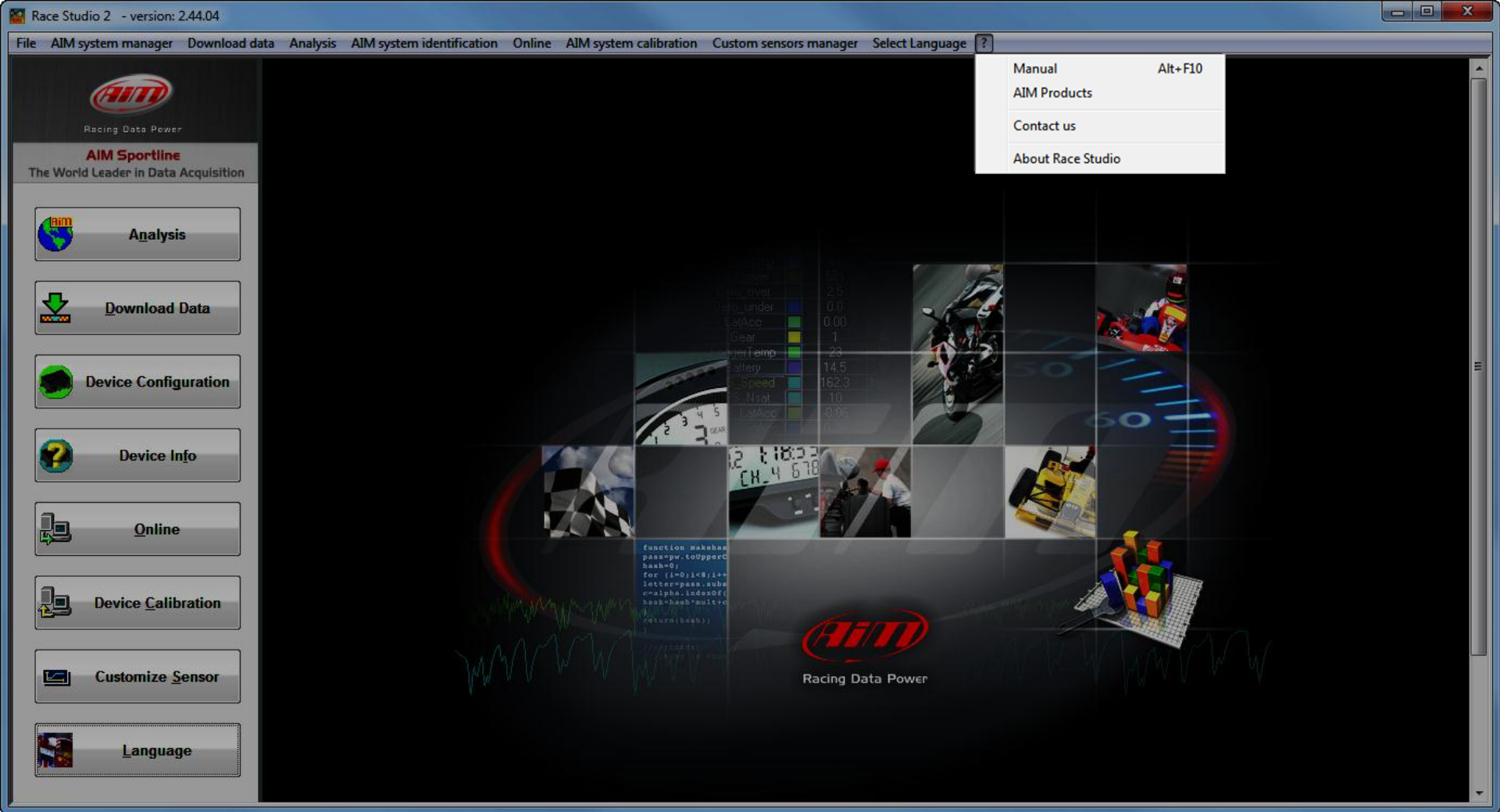
AIM Sportline
The World Leader in Data Acquisition

Analysis
Download Data
Device Configuration
Device Info
Online
Device Calibration
Customize Sensor
Language

function makehash
pass=pw.toUpperCase
hash=0;
for (i=0;i<8;i++)
letter=pass.substr
c=alpha.indexOf(
hash=hash*multi
);
return(hash);


AIM
Racing Data Power

THERE ARE TWO MENU TOOLBAR ITEMS THAT DID NOT HAVE MATCHING CHOICES IN THE LEFT TOOLBAR. THE "FILE" PULL-DOWN MENU ALLOWS YOU TO LOAD PERSONALIZED WALLPAPER FOR YOUR RACE STUDIO 2 BACKGROUND AND PROVIDES AN EXIT COMMAND.



THE “?” PULL-DOWN MENU ALLOWS YOU TO OPEN A (CURRENTLY NOT UPDATED) MANUAL AND YOU CAN ALSO CHECK FOR AIM PRODUCTS. YOU CAN ALSO CLICK ON THE CONTACT US ITEM AND BE TAKEN TO THE AIM SPORTLINE WEBSITE FOR FURTHER INFORMATION. THE BOTTOM ITEM WILL GIVE YOU DETAILED VERSION INFORMATION ABOUT RACE STUDIO 2.

File AIM system manager Download data Analysis AIM system identification Online AIM system calibration Custom sensors manager Select Language ?



Racing Data Power

AIM Sportline
The World Leader in Data Acquisition

Analysis

Download Data

Device Configuration

Device Info

Online

Device Calibration

Customize Sensor

Language

System manager

Transmit Receive CAN-Net info SmartyCam Functions setting Set acquisition system time

Current configuration

Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	Master frequency	Expansions freq...	Tot. Expansions
BMW Z4	MXL PISTA	BMW - Z4M_CO...	Optical	BMW	3.11.56 (h.m.s)	2.12.59 (h.m.s)	361 (Hz)	281 (Hz)	80 (Hz)	2

Select configuration Channels System configuration CAN-Expansions configurator

New Delete Clone Import Export

N	Installation name	Logger	ECU Manufactu...	ECU Model	Lap Timer	Vehicle name	Obs...	Split ...	Speed	Temp	Created	Tot. E...
1	Neon	MXL PISTA	FORD	MUSTANG_2005/...	Optical	Test	8	1	mph	°F	February 14, 2...	2
2	roger	MXL PISTA	PORSCHE	EMS SDI 3.1 SIEM...	Optical	DEFAULT	155	1	mph	°F	February 15, 2...	0
3	Neon	MXL PISTA	FORD	MUSTANG_2005/...	Optical	Test	8	1	mph	°F	February 14, 2...	2
4	DEFAULT	MXL PISTA	EF_USA	2.1_V7	Optical	DEFAULT	8	1	mph	°F	March 30, 2010	0
5	Curry ProLite#2	MXL PISTA	None	None	by GPS	Ford	8	1	mph	°F	May 19, 2010	0
6	Curry ProLite#2	MXL PISTA	None	None	by GPS	Ford	8	1	mph	°F	May 19, 2010	0
7	BMW Z4	MXL PISTA	BMW	Z4M_COUPE_OE...	Optical	BMW	8	1	mph	°F	July 03, 2011	2

THE CONFIGURATION **SYSTEM MANAGER**. THIS IS WHERE YOU MAKE ALL THE SETTINGS FOR YOUR DATA SYSTEM FROM YOUR PC AND THEN TRANSMIT THE SETTINGS INTO YOUR SYSTEM. YOU GET TO THIS SCREEN FROM THE **DEVICE CONFIGURATION** BUTTON.

AIM
Racing Data Power

AIM Sportline
The World Leader in Data Acquisition

Analysis

Download Data

Device Configuration

Device Info

Online

Device Calibration

Customize Sensor

Language

System manager

Transmit Receive CAN-Net info SmartyCam Functions setting Set acquisition system time

Current configuration

Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	Master frequency	Expansions freq...	Tot. Expansions
BMW Z4	MXL PISTA	BMW - Z4M_CO...	Optical	BMW	3.11.56 (h.m.s)	2.12.59 (h.m.s)	361 (Hz)	281 (Hz)	80 (Hz)	2

Select configuration Channels System configuration CAN-Expansions configurator

New Delete Clone Import Export

N	Installation name	Logger	ECU Manufactu...	ECU Model	Lap Timer	Vehicle name	Obs...	Split ...	Speed	Temp	Created	Tot. E...
1	Neon	MXL PISTA	FORD	MUSTANG_2005/...	Optical	Test	8	1	mph	*F	February 14, 2...	2
2	roger	MXL PISTA	PORSCHE	EMS SDI 3.1 SIEM...	Optical	DEFAULT	155	1	mph	*F	February 15, 2...	0
3	Neon	MXL PISTA	FORD	MUSTANG_2005/...	Optical	Test	8	1	mph	*F	February 14, 2...	2
4	DEFAULT	MXL PISTA	EFI_USA	2.1_V7	Optical	DEFAULT	8	1	mph	*F	March 30, 2010	0
5	Curry ProLite#2	MXL PISTA	None	None	by GPS	Ford	8	1	mph	*F	May 19, 2010	0
6	Curry ProLite#2	MXL PISTA	None	None	by GPS	Ford	8	1	mph	*F	May 19, 2010	0
7	BMW Z4	MXL PISTA	BMW	Z4M_COUPE_OEM_	Optical	BMW	8	1	mph	*F	July 03, 2011	2

MXL PISTA
MXL STRADA
MXL PRO 05
MXL PRO

BMW
BOSCH
BRIGHTWATER
CARMO
CHEVROLET
CITROEN
DALLARA
DELPHI
DTA
DUCATI
DUCATI_ENERC
DYNO
E-RACE
ECS
EFI_EUROPE
EFI_USA
ELECTROMOTI
EMERALD

BMW_PT6
M6
Z4M_COUPE_24H_R
Z4M_COUPE_OEM


Optical
by GPS

km/h
mph

*C
*F

THE CONFIGURATION **SYSTEM MANAGER**. THE FIRST TIME YOU ARE SETTING UP YOUR SYSTEM YOU NEED TO CONFIGURE SEVERAL ITEMS. THIS IS THE STARTING PAGE. HERE YOU SET THE NAME, THE LOGGER TYPE, THE ECU (IF APPLICABLE) AND MODEL. YOU SET IF YOU WILL BE USING GPS OR OPTICAL LAP TIMING METHODS AND WHAT THE OBSCURING TIME WILL BE. (HOW LONG AFTER RECORDING A BEACON BEFORE IT WILL AGAIN) THEN SET THE OVERALL TEMP TYPE (F OR C).

File AIM system manager Download data Analysis AIM system identification Online AIM system calibration Custom sensors manager Select Language ?



Racing Data Power

AIM Sportline
The World Leader in Data Acquisition

Analysis

Download Data

Device Configuration

Device Info

Online

Device Calibration

Customize Sensor

Language

System manager

Transmit Receive CAN-Net info SmartyCam Functions setting Set acquisition system time

Current configuration

Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	Master frequency	Expansions freq...	Tot. Expansions
BMW Z4	MXL PISTA	BMW - Z4M_CO...	by GPS	BMW	2.48.35 (h.m.s)	2.01.20 (h.m.s)	411 (Hz)	331 (Hz)	80 (Hz)	2

Select configuration Channels System configuration CAN-Expansions configurator

Speed_1

Wheel circumference inch 65.59

Pulses per wheel revolution 4

Channel iden...	Enabled/disabled	Channel name	Sampling freq...	Sensor type	Measure unit	Low scale	High scale
RPM	<input type="checkbox"/> Disabled	Engine	10 Hz	Engine revolution speed	rpm	2000	10000
SPD_1	<input checked="" type="checkbox"/> Enabled	Speed_1	20 Hz	Speed	mph .1	20.0	150.0
CH_1	<input checked="" type="checkbox"/> Enabled	Rad_Press	10 Hz	Pressure VDO 0-2 bar	psi .1	0.0	30.0
CH_2	<input checked="" type="checkbox"/> Enabled	Brake_Press_F	20 Hz	MSI Brake	psi	0	1500
CH_3	<input checked="" type="checkbox"/> Enabled	Brake_Press_R	20 Hz	MSI Brake	psi	0	1500
CH_4	<input checked="" type="checkbox"/> Enabled	Steering	20 Hz	Mid zero potentiometer	deg .1	-180.0	180.0
CH_5	<input checked="" type="checkbox"/> Enabled	Throttle	20 Hz	Zero based potentiometer	% .1	0.0	105.0
CH_6	<input checked="" type="checkbox"/> Enabled	Trans_Temp	10 Hz	Thermoresistance PT100	°F	100	300
CH_7	<input checked="" type="checkbox"/> Enabled	RearEnd_Temp	10 Hz	Thermoresistance PT100	°F	100	300
CH_8	<input checked="" type="checkbox"/> Enabled	Gear	10 Hz	Gear potentiometer	#	1	6
CALC_GEAR	<input type="checkbox"/> Disabled	Calculated_Gear	10 Hz	Calculated Gear	#	0	9
ACC_1	<input checked="" type="checkbox"/> Enabled	LatAcc	20 Hz	Lateral accelerometer	g .01	-2.00	2.00
LOG_TMP	<input checked="" type="checkbox"/> Enabled	Datalogger_Temp	10 Hz	Cold joint	°F	20	120
BATT	<input checked="" type="checkbox"/> Enabled	Battery	1 Hz	Battery	V .1	5.0	15.0
ECU_1	<input checked="" type="checkbox"/> Enabled	Z4M_RPM	10 Hz	Engine speed sensor	rpm	2000	10000
ECU_2	<input checked="" type="checkbox"/> Enabled	Z4M_SPEED	10 Hz	Speed sensor	mph .1	20.0	150.0
FCU 3	<input checked="" type="checkbox"/> Enabled	Z4M WH FI	10 Hz	Speed sensor	mph .1	20.0	150.0

THE CONFIGURATION **SYSTEM MANAGER** THEN ALLOWS YOU TO DESIGNATE A SENSOR TYPE FOR EACH CHANNEL AS WELL AS THE SAMPLING FREQUENCY, MEASURE UNIT, LOW AND HIGH SCALE. THE LOW AND HIGH SCALE IS THE SCALING THAT WILL BE SET WHEN YOU VIEW THE DATA IN RACE STUDIO 2. YOU ARE ALSO ABLE FINE TUNE SETTINGS FOR THE ECU PROVIDED CHANNELS.

File AIM system manager Download data Analysis AIM system identification Online AIM system calibration Custom sensors manager Select Language ?

AIM
Racing Data Power

AIM Sportline
The World Leader in Data Acquisition

Analysis

Download Data

Device Configuration

Device Info

Online

Device Calibration

Customize Sensor

Language

System manager

Transmit Receive CAN-Net info SmartyCam Functions setting Set acquisition system time

Current configuration

Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	Master frequency	Expansions freq...	Tot. Expansions
BMW Z4	MXL PISTA	BMW - Z4M_CO...	by GPS	BMW	2.48.35 (h.m.s)	2.01.20 (h.m.s)	411 (Hz)	331 (Hz)	80 (Hz)	2

Select configuration Channels System configuration CAN-Expansions configurator


Speed_1

Wheel circumference inch 65.59

Pulses per wheel revolution 4

Channel iden...	Enabled/disabled	Channel name	Sampling freq...	Sensor type	Measure unit	Low scale	High scale
RPM	<input type="checkbox"/> Disabled	Engine	10 Hz	Engine revolution speed	rpm	2000	10000
SPD_1	<input checked="" type="checkbox"/> Enabled	Speed_1	20 Hz	Speed	mph .1	20.0	150.0
CH_1	<input checked="" type="checkbox"/> Enabled	Rad_Press	10 Hz	Pressure VDO 0-2 bar	psi .1	0.0	30.0
CH_2	<input checked="" type="checkbox"/> Enabled	Brake_Press_F	20 Hz	MSI Brake	psi	0	1500
CH_3	<input checked="" type="checkbox"/> Enabled	Brake_Press_R	20 Hz	MSI Brake	psi	0	1500
CH_4	<input checked="" type="checkbox"/> Enabled	Steering	20 Hz	Mid zero potentiometer	deg .1	-180.0	180.0
CH_5	<input checked="" type="checkbox"/> Enabled	Throttle	20 Hz	Zero based potentiometer	% .1	0.0	105.0
CH_6	<input checked="" type="checkbox"/> Enabled	Trans_Temp	10 Hz	Thermoresistance PT100	°F	100	300
CH_7	<input checked="" type="checkbox"/> Enabled	RearEnd_Temp	10 Hz	Thermoresistance PT100	°F	100	300
CH_8	<input checked="" type="checkbox"/> Enabled	Gear	10 Hz	Gear potentiometer	#	1	6
CALC_GEAR	<input type="checkbox"/> Disabled	Calculated_Gear	10 Hz	Calculated Gear	#	0	9
ACC_1	<input checked="" type="checkbox"/> Enabled	LatAcc	20 Hz	Lateral accelerometer	g .01	-2.00	2.00
LOG_TMP	<input checked="" type="checkbox"/> Enabled	Datalogger_Temp	10 Hz	Cold joint	°F	20	120
BATT	<input checked="" type="checkbox"/> Enabled	Battery	1 Hz	Battery	V .1	5.0	15.0
ECU_1	<input checked="" type="checkbox"/> Enabled	Z4M_RPM	10 Hz	Engine speed sensor	rpm	2000	10000
ECU_2	<input checked="" type="checkbox"/> Enabled	Z4M_SPEED	10 Hz	Speed sensor	mph .1	20.0	150.0
FCU_3	<input checked="" type="checkbox"/> Enabled	Z4M_WH_FI	10 Hz	Speed sensor	mph .1	20.0	150.0

THE **CURRENT CONFIGURATION** SECTION ALLOWS YOU TO VIEW IMPORTANT INFORMATION ABOUT YOUR CONFIGURATION.



Racing Data Power

AIM Sportline
The World Leader in Data Acquisition

Analysis

Download Data

Device Configuration

Device Info

Online

Device Calibration

Customize Sensor

Language

System manager

Current configuration

Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	Master frequency	Expansions freq...	Tot. Expansions
BMW Z4	MXL PISTA	BMW - Z4M_CO...	by GPS	BMW	2.33.38 (h.m.s)	1.53.24 (h.m.s)	451 (Hz)	331 (Hz)	120 (Hz)	2

Select configuration | Channels **System configuration** | CAN-Expansions configurator |

Rpm

AIM sensor Multiply factor / 1

ECU signal MAX value 10000

Over-rev log Alarm led None Over-rev threshold 0

Gear sensor

None Calculated

Potentiometer Channel 8 Calculated with neutral signal: Channel 8

ECU Highest gear number 6

Shift Lights

7000 7000 6500 6000 5500

Speed Channel Z4M_SPEED

Lap Obscuring time (sec.) 30

Lap segments 1

Show lap time
 Show odometer
 Show running lap time

Condition enabling checked alarms
Z4M_RPM > 800

Channel for alarm

Channel for alarm	Threshold	Conditioned
Z4M_WATER_TEMP	220	Off
Rad_Press	18	On
Battery	12	On

Link alarm to measure fields

Measure	Short name
Z4M_WATER_TEMP	WATER
Battery	BATT
Brake_Press_F	BRKF

Field 1 - always displayed

Field 3 - page 1

Field 3 - page 2

Channel for alarm

Channel for alarm	Threshold	Conditioned
Oil_Press	20	On
Z4M_OIL_TEMP	250	Off
Trans_Temp	250	Off

Enable static string

Measure	Short name
Brake_Press_F	OIL P
RearEnd_Temp	RTMP
Brake_Press_R	BRKR

Field 2 - always displayed

Field 4 - page 1

Field 4 - page 2

Use GPS Lap Timer

Track width (for GPS Lap Timer precision):

Car/Bike 33 ft


Boat 328 ft

Specific 33 ft

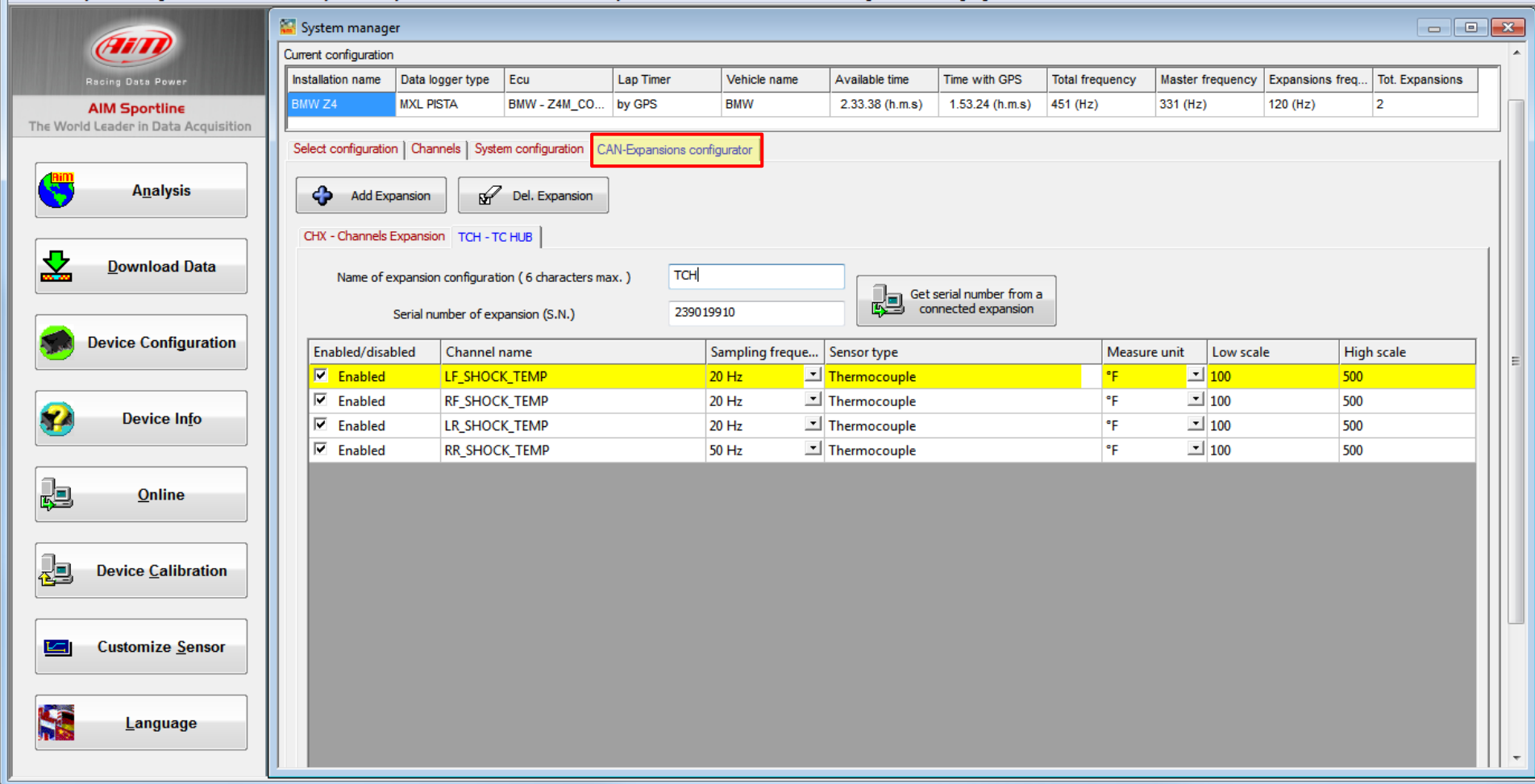
THE SYSTEM CONFIGURATION ALLOWS YOU TO SET ALL THE VARIABLES ON YOUR DISPLAY.

DECEMBER 2012

HOW TO USE DATA ACQUISITION
SYSTEM CONFIGURATION



AIM
LEARN FAST™



AIM Sportline
The World Leader in Data Acquisition

System manager

Current configuration

Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	Master frequency	Expansions freq...	Tot. Expansions
BMW Z4	MXL PISTA	BMW - Z4M_CO...	by GPS	BMW	2.33.38 (h.m.s)	1.53.24 (h.m.s)	451 (Hz)	331 (Hz)	120 (Hz)	2

Select configuration | Channels | System configuration | **CAN-Expansions configurator**

+ Add Expansion ✎ Del. Expansion

CHX - Channels Expansion TCH - TC HUB

Name of expansion configuration (6 characters max.) TCH


Serial number of expansion (S.N.) 239019910

Get serial number from a connected expansion

Enabled/disabled	Channel name	Sampling freque...	Sensor type	Measure unit	Low scale	High scale
<input checked="" type="checkbox"/> Enabled	LF_SHOCK_TEMP	20 Hz	Thermocouple	°F	100	500
<input checked="" type="checkbox"/> Enabled	RF_SHOCK_TEMP	20 Hz	Thermocouple	°F	100	500
<input checked="" type="checkbox"/> Enabled	LR_SHOCK_TEMP	20 Hz	Thermocouple	°F	100	500
<input checked="" type="checkbox"/> Enabled	RR_SHOCK_TEMP	50 Hz	Thermocouple	°F	100	500

THE CAN-EXPANSIONS CONFIGURATOR ALLOWS YOU TO CONFIGURE ANY EXPANSIONS YOU HAVE INSTALLED, IN THIS CASE WE HAVE A CHANNEL EXPANSION AND A THERMOCOUPLE HUB IN PLACE.

File AIM system manager Download data Analysis AIM system identification Online AIM system calibration Custom sensors manager Select Language ?



Racing Data Power

AIM Sportline
The World Leader in Data Acquisition

Analysis

Download Data

Device Configuration

Device Info

Online

Device Calibration

Customize Sensor

Language

System manager

Transmit Receive CAN-Net info SmartyCam Functions setting Set acquisition system time

Current configuration

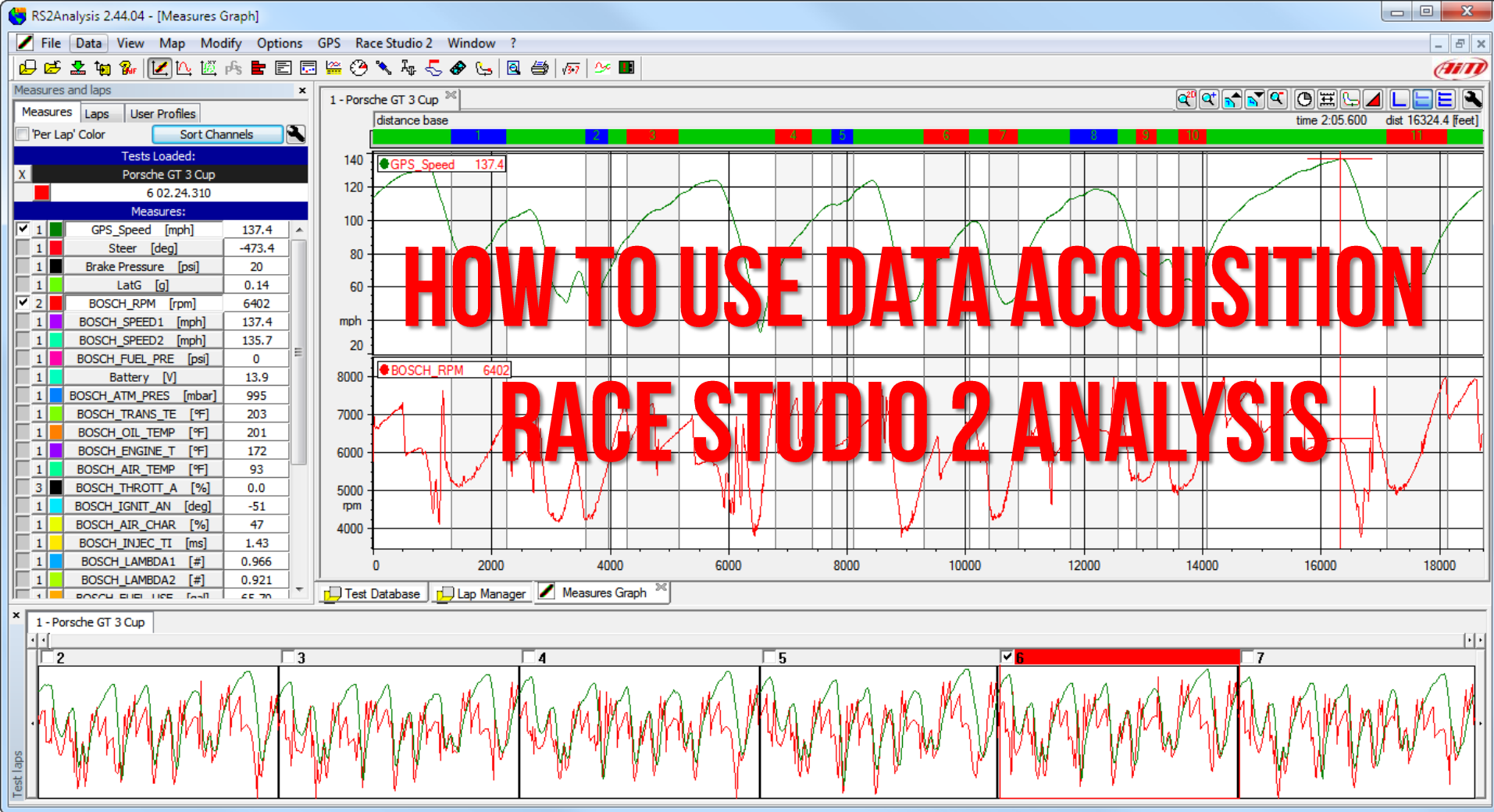
Installation name	Data logger type	Ecu	Lap Timer	Vehicle name	Available time	Time with GPS	Total frequency	Master frequency	Expansions freq...	Tot. Expansions
BMW Z4	MXL PISTA	BMW - Z4M_CO...	Optical	BMW	3.11.56 (h.m.s)	2.12.59 (h.m.s)	361 (Hz)	281 (Hz)	80 (Hz)	2

Select configuration Channels System configuration CAN-Expansions configurator

New Delete Clone Import Export

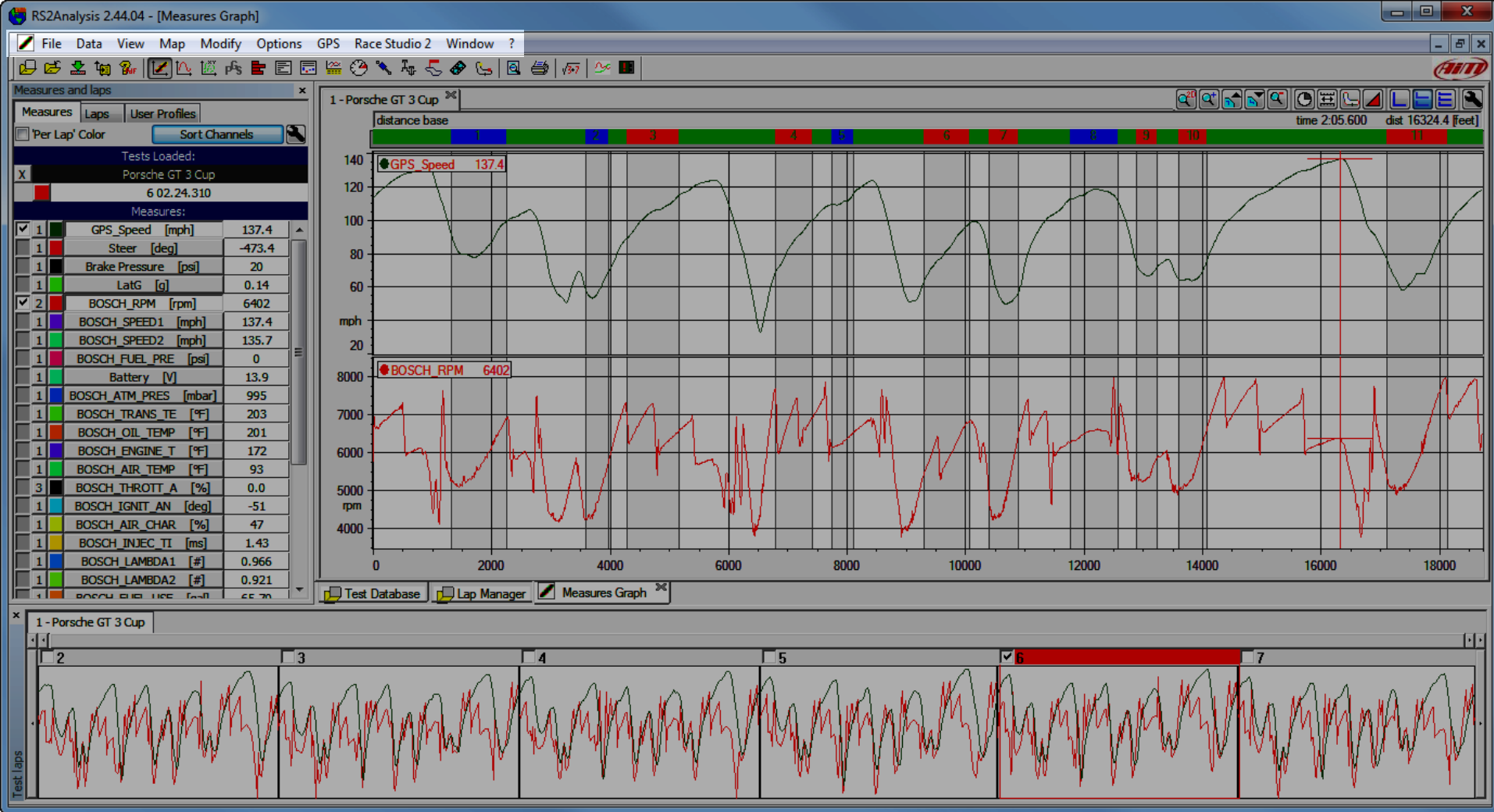
N	Installation name	Logger	ECU Manufactu...	ECU Model	Lap Timer	Vehicle name	Obs...	Split ...	Speed	Temp	Created	Tot. E...
1	Neon	MXL PISTA	FORD	MUSTANG_2005/...	Optical	Test	8	1	mph	°F	February 14, 2...	2
2	roger	MXL PISTA	PORSCHE	EMS SDI 3.1 SIEM...	Optical	DEFAULT	155	1	mph	°F	February 15, 2...	0
3	Neon	MXL PISTA	FORD	MUSTANG_2005/...	Optical	Test	8	1	mph	°F	February 14, 2...	2
4	DEFAULT	MXL PISTA	EF_USA	2.1_V7	Optical	DEFAULT	8	1	mph	°F	March 30, 2010	0
5	Curry ProLite#2	MXL PISTA	None	None	by GPS	Ford	8	1	mph	°F	May 19, 2010	0
6	Curry ProLite#2	MXL PISTA	None	None	by GPS	Ford	8	1	mph	°F	May 19, 2010	0
7	BMW Z4	MXL PISTA	BMW	Z4M_COUPE_OE...	Optical	BMW	8	1	mph	°F	July 03, 2011	2

WHEN YOU HAVE FINISHED ALL OF THE SETTINGS AND CONFIGURATION, YOU MUST CONNECT YOUR PC TO YOUR DATA SYSTEM AND **TRANSMIT** THE INFORMATION.

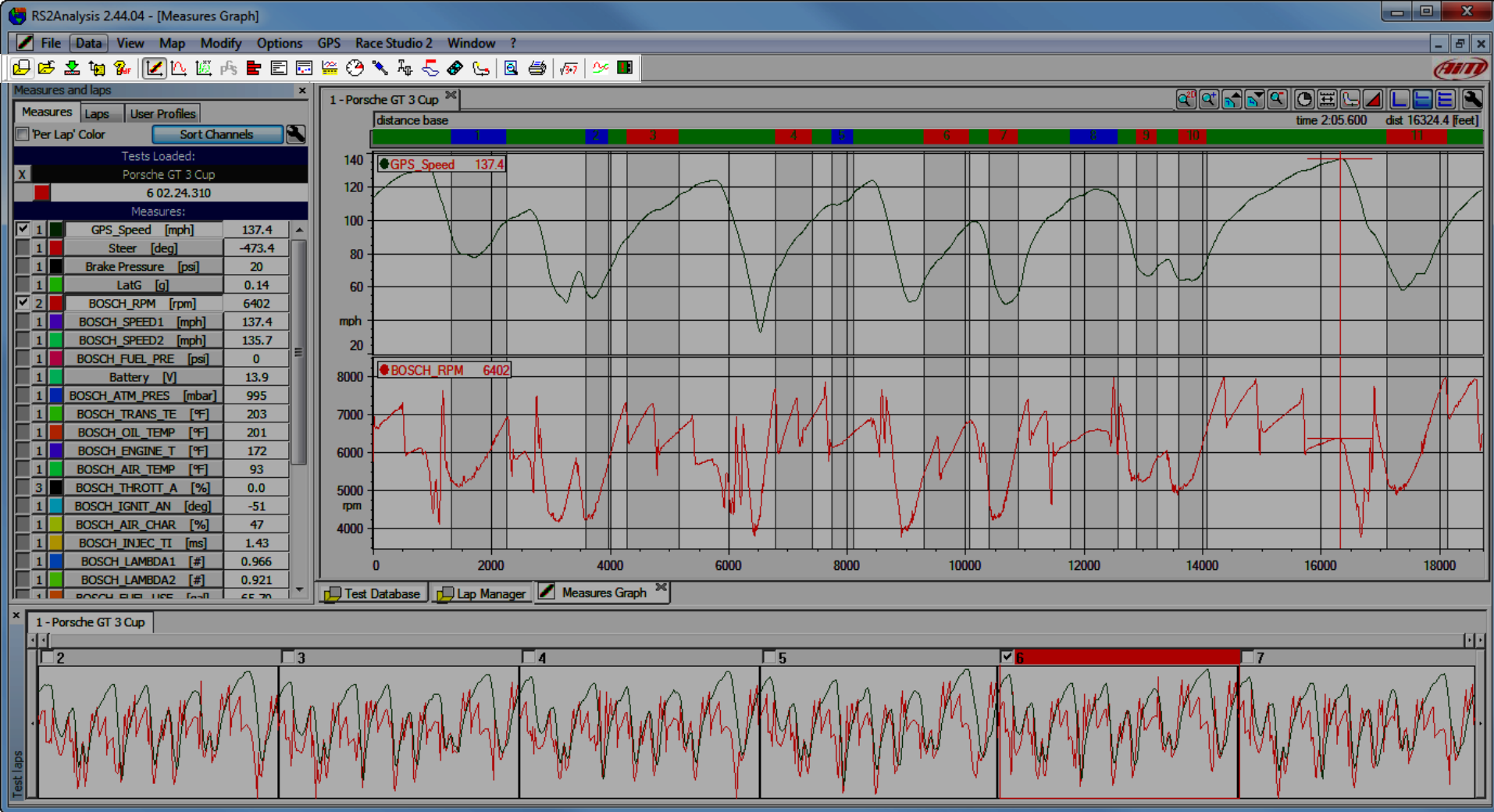


HOW TO USE DATA ACQUISITION RACE STUDIO 2 ANALYSIS

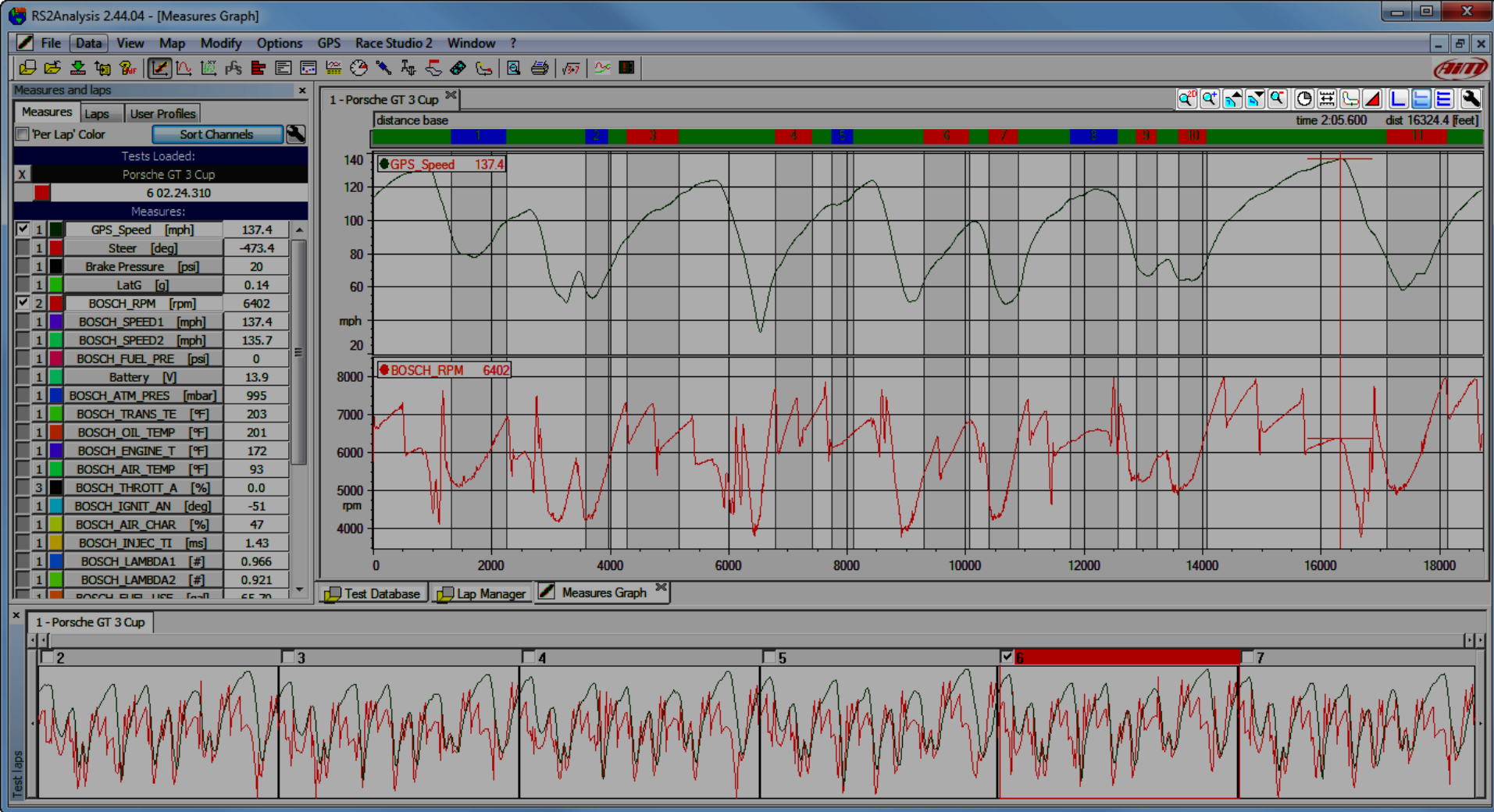
LET'S LOOK AT THE PARTS OF THE RACE STUDIO 2 ANALYSIS USER INTERFACE.



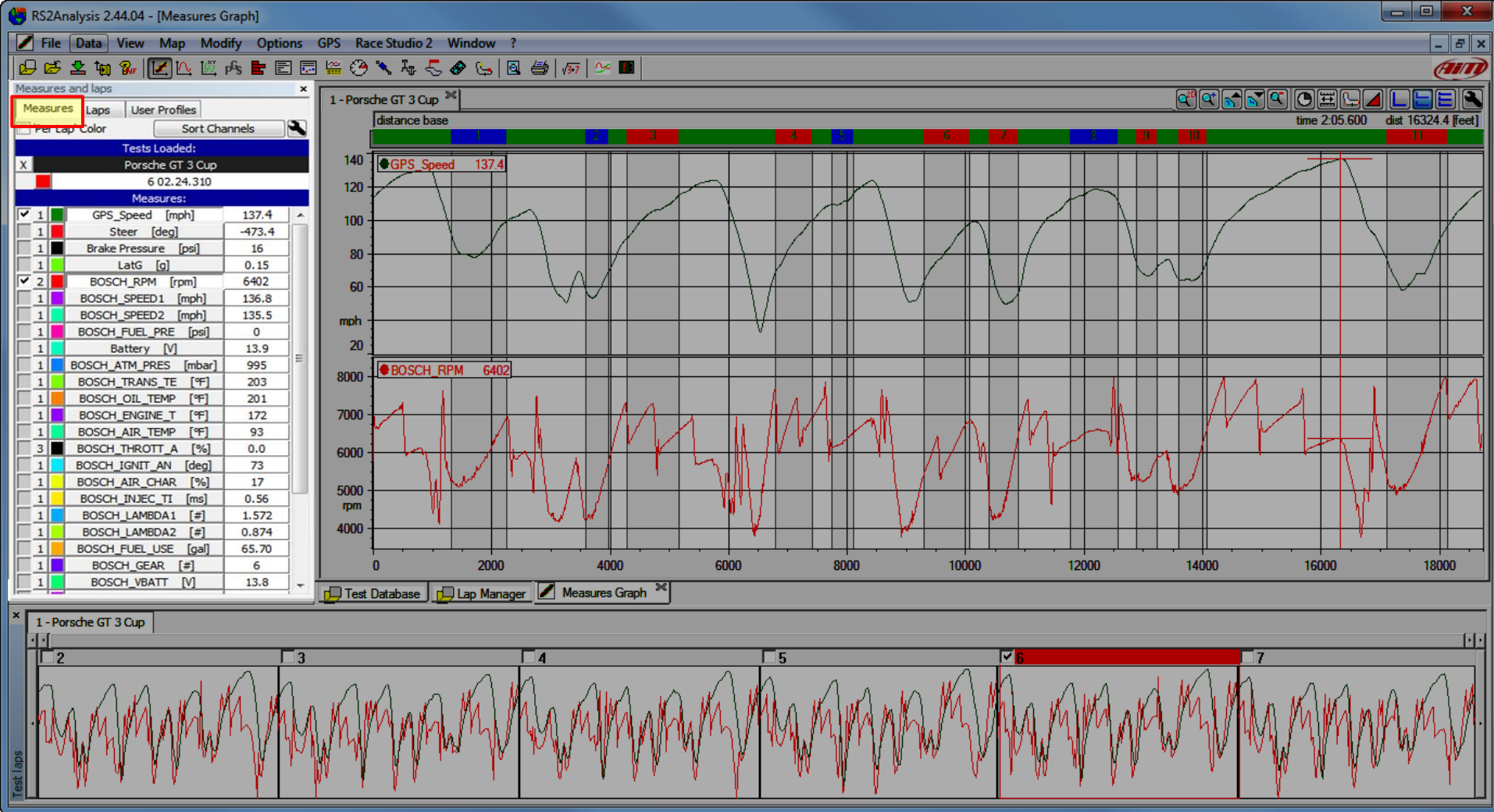
THIS IS THE **PULL-DOWN MENU** AREA OF THE WINDOW, THIS IS SIMILAR TO ALL OF YOUR WINDOWS PROGRAMS AND INCLUDES ALL THE COMMANDS FOR THE ANALYSIS OF DATA.



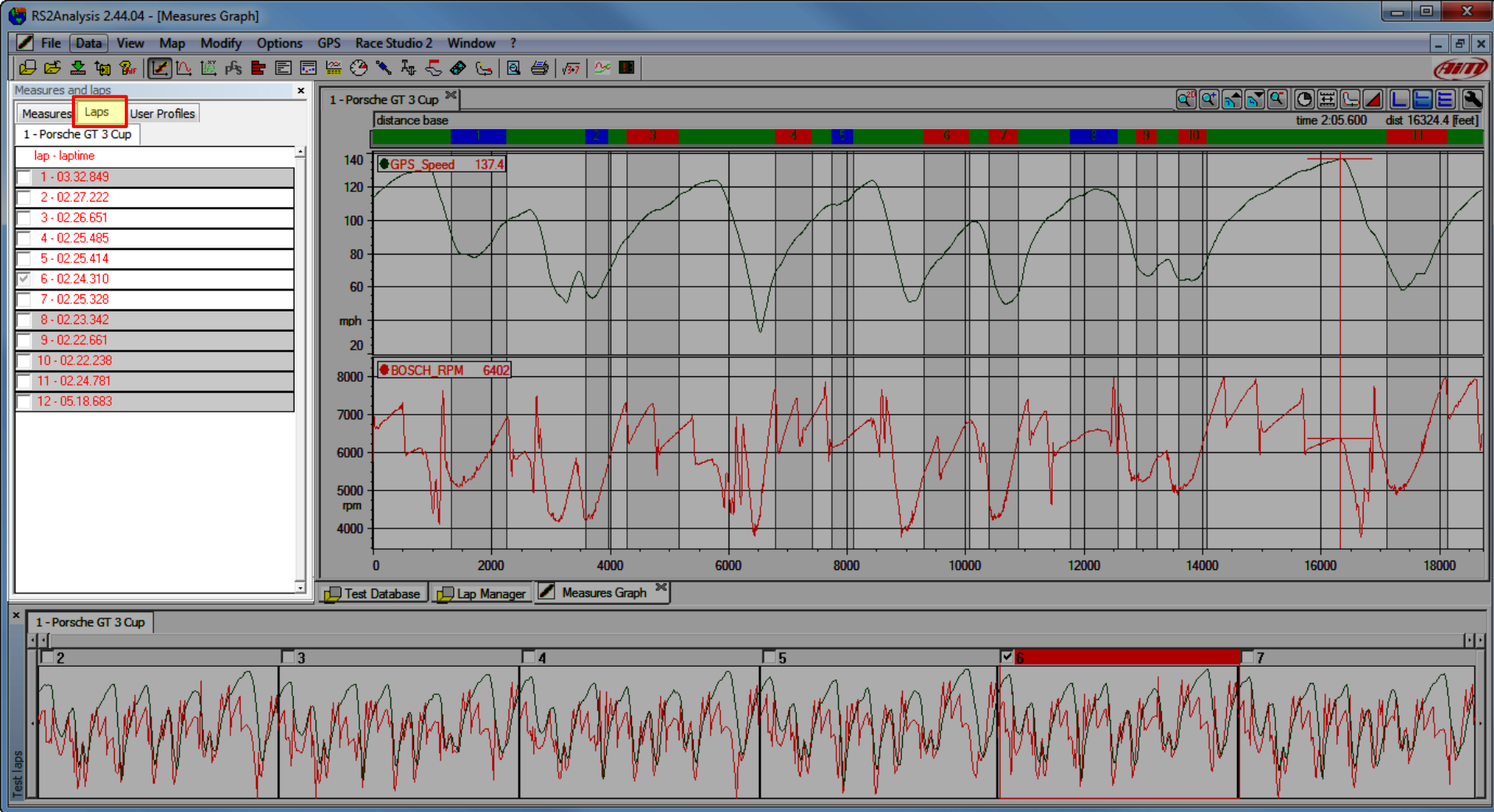
THIS IS THE **PRIMARY ICON TOOLBAR**, THESE ARE SHORTCUTS FOR THE MOST POPULAR TASKS IN RACE STUDIO 2. THIS TOOLBAR CHANGES TO THE MOST USEFUL ICONS DEPENDING ON WHAT AREA OF THE SOFTWARE YOU HAVE OPEN.



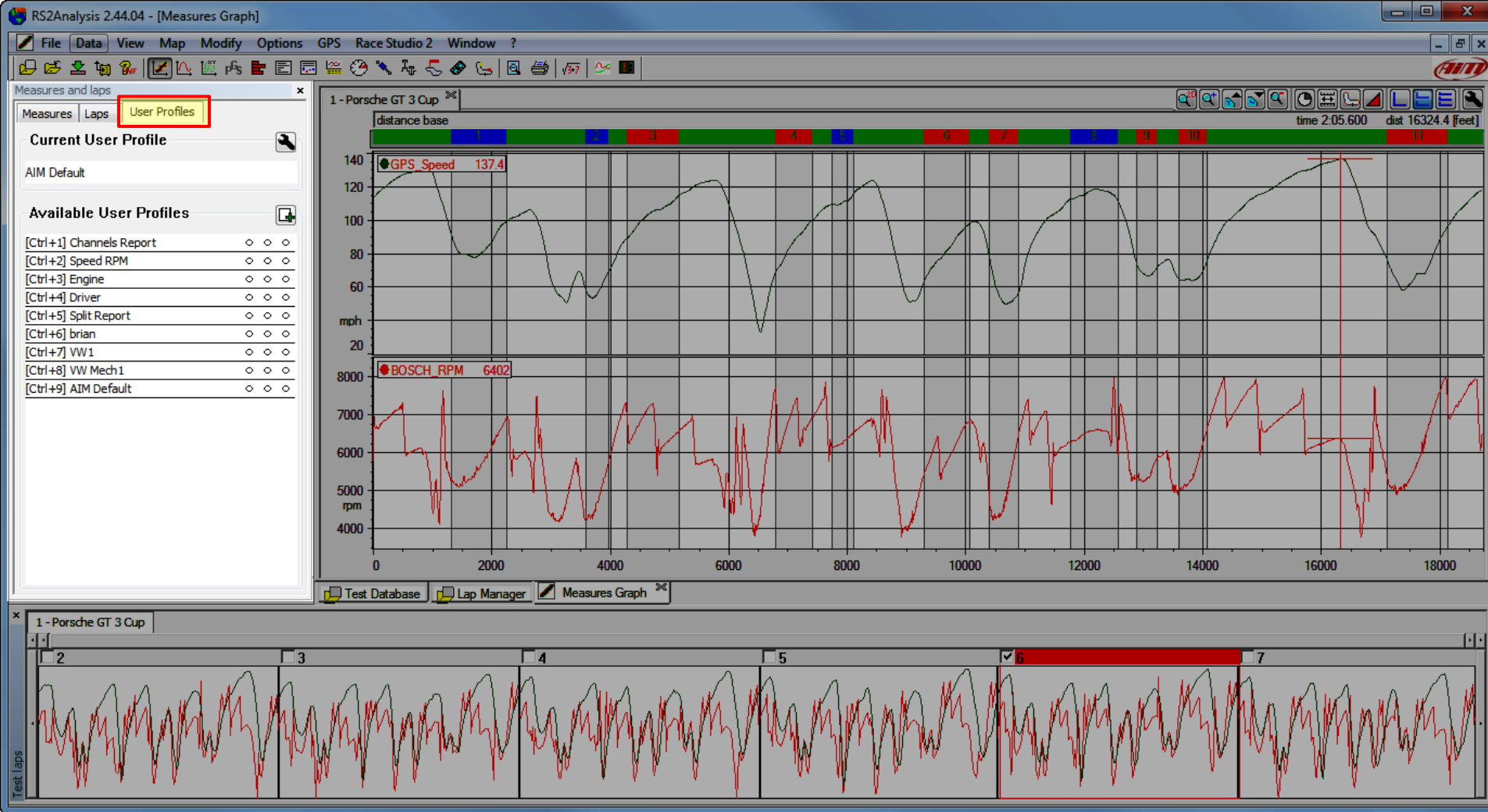
THIS IS THE **SECONDARY ICON TOOLBAR**, THIS IS ONLY AVAILABLE ON FUNCTIONS THAT USE THE FUNCTIONS OF ZOOMING, MOVING, ETC. OF AVAILABLE DATA.



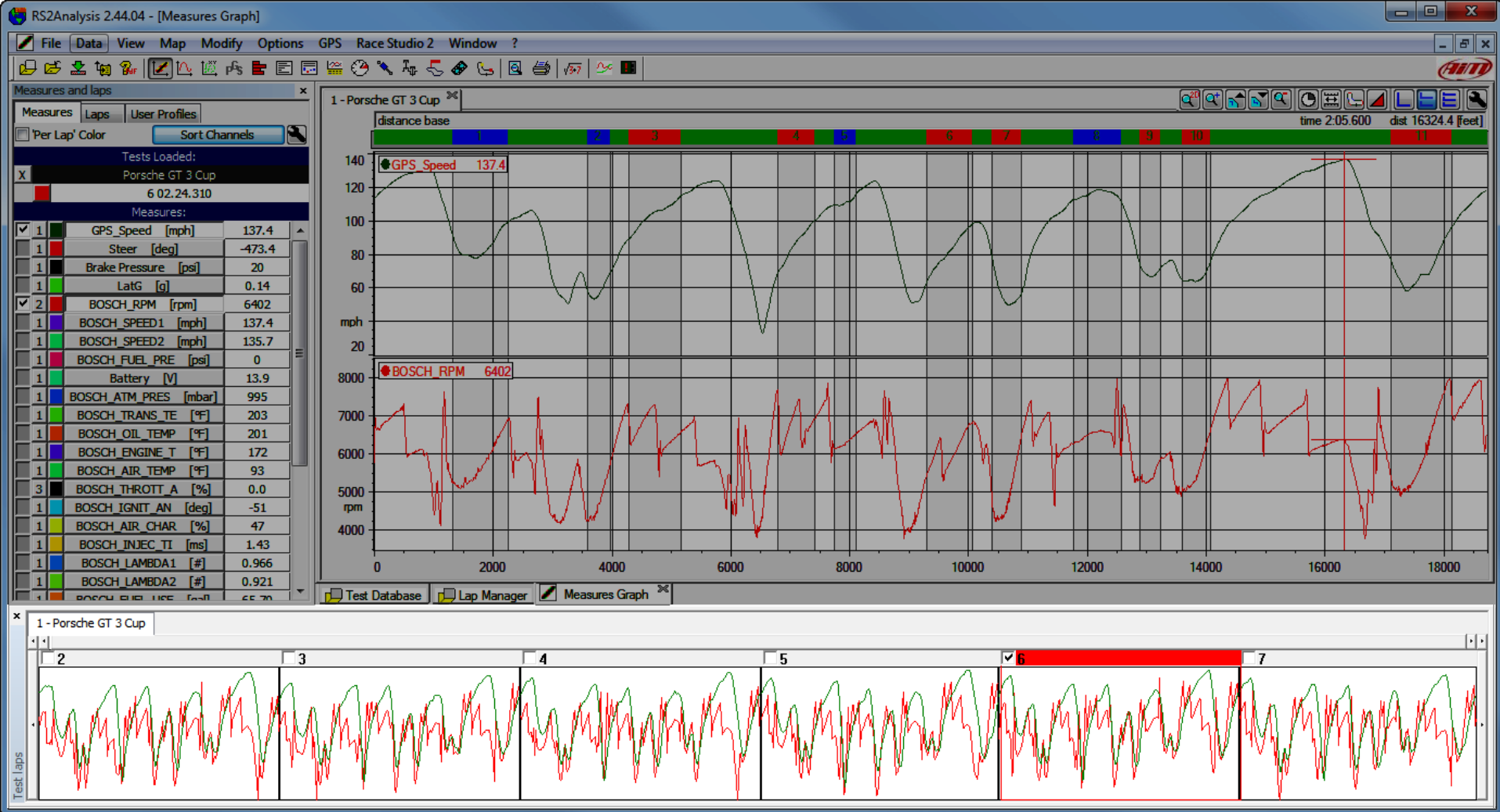
THIS IS THE **MEASURES AND LAPS TOOLBAR** AND IT IS VERY FULL OF INFORMATION. NOTICE THE 3 TABS, FIRST IS THE **MEASURES TAB**. SHOWN ON THE MEASURES TAB IS ALL OF THE VALUES FOR THE ACTIVE LAPS WHERE THE CURSER IS POSITIONED, SORT CHANNELS, CHANGE TRACE COLORS, ABILITY TO POSITION TRACES IN THE MAIN WINDOW, SEE YOUR CURRENT TEST, LAP NUMBER AND LAP TIME, AND CAN TURN ON/OFF THE GRAPH SCALING VALUES.



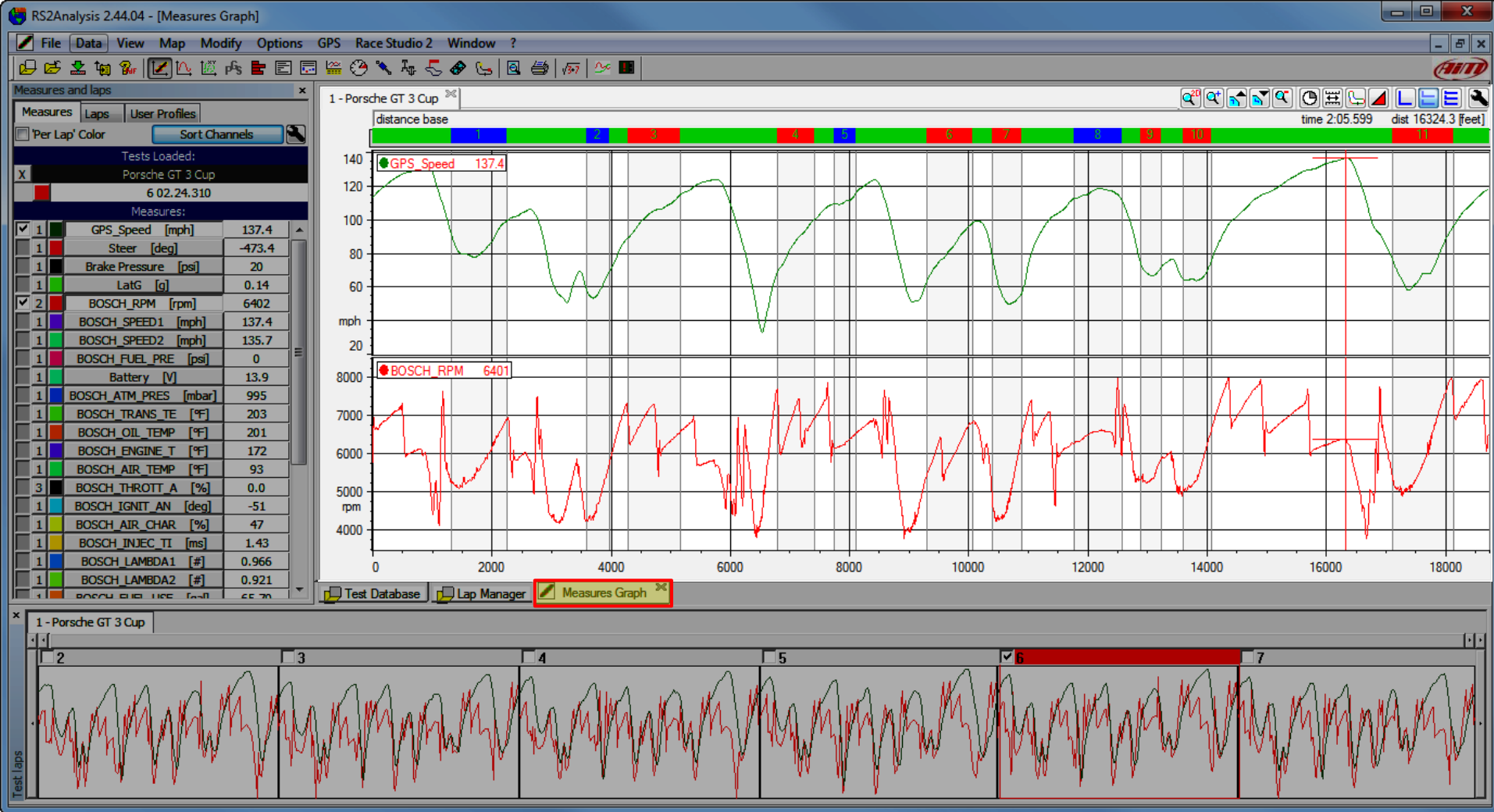
THIS IS THE **MEASURES AND LAPS TOOLBAR** AND IT IS VERY FULL OF INFORMATION. NOTICE THE 3 TABS, SECOND IS THE **LAPS TAB**. THE LAPS TAB ALLOWS YOU TO SELECT THE CURRENT TESTS LAPS AND MAKE THEM ACTIVE LAPS. THIS IS ALSO A PLACE YOU CAN SEE THE ENTIRE SESSIONS LAP TIMES.



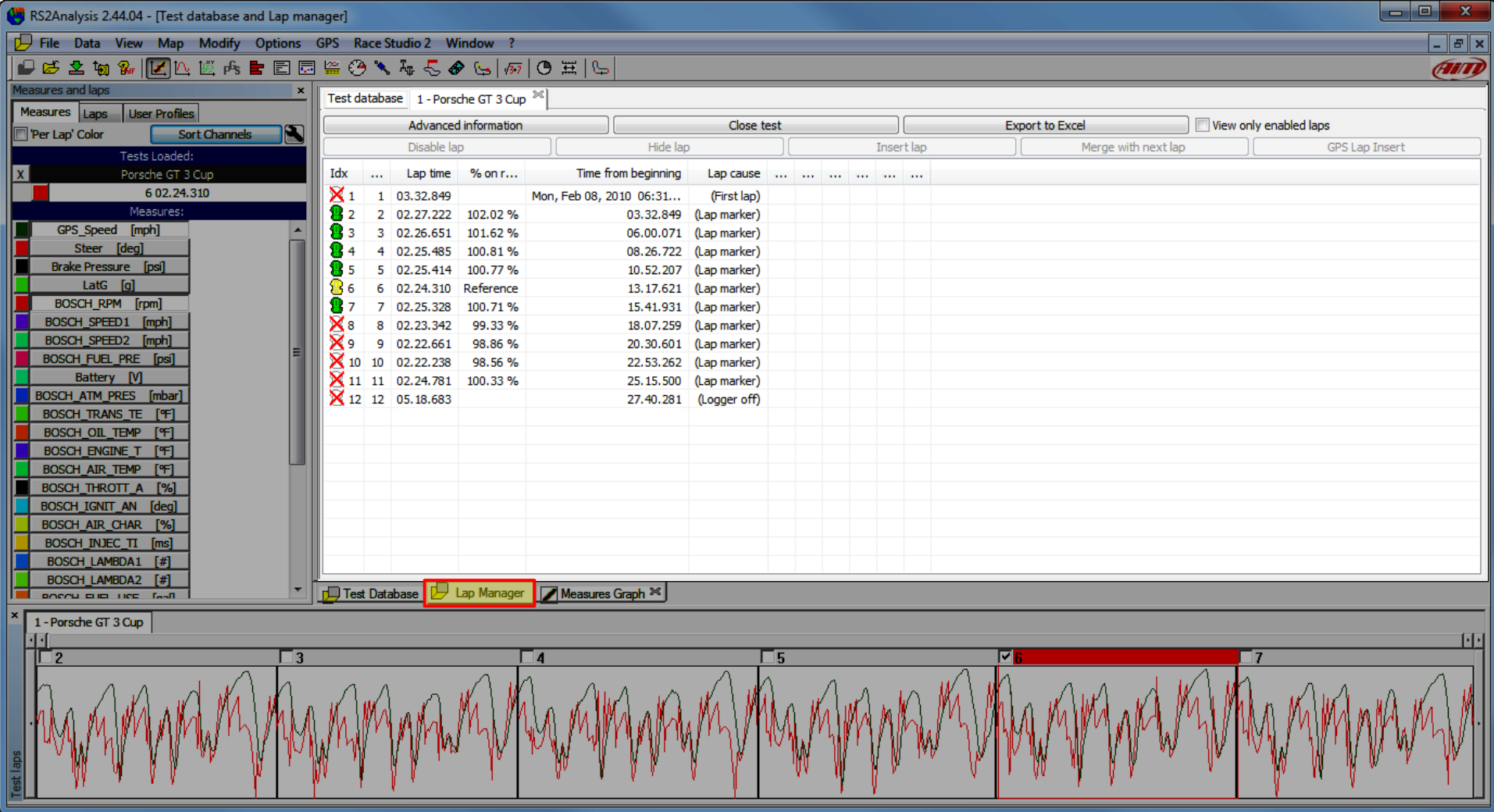
THIS IS THE **MEASURES AND LAPS TOOLBAR** AND IT IS VERY FULL OF INFORMATION. NOTICE THE 3 TABS, THIRD IS THE **USER PROFILES TAB**. THIS TAB ALLOWS YOU TO LOAD, DELETE AND SAVE YOUR USER PROFILES.



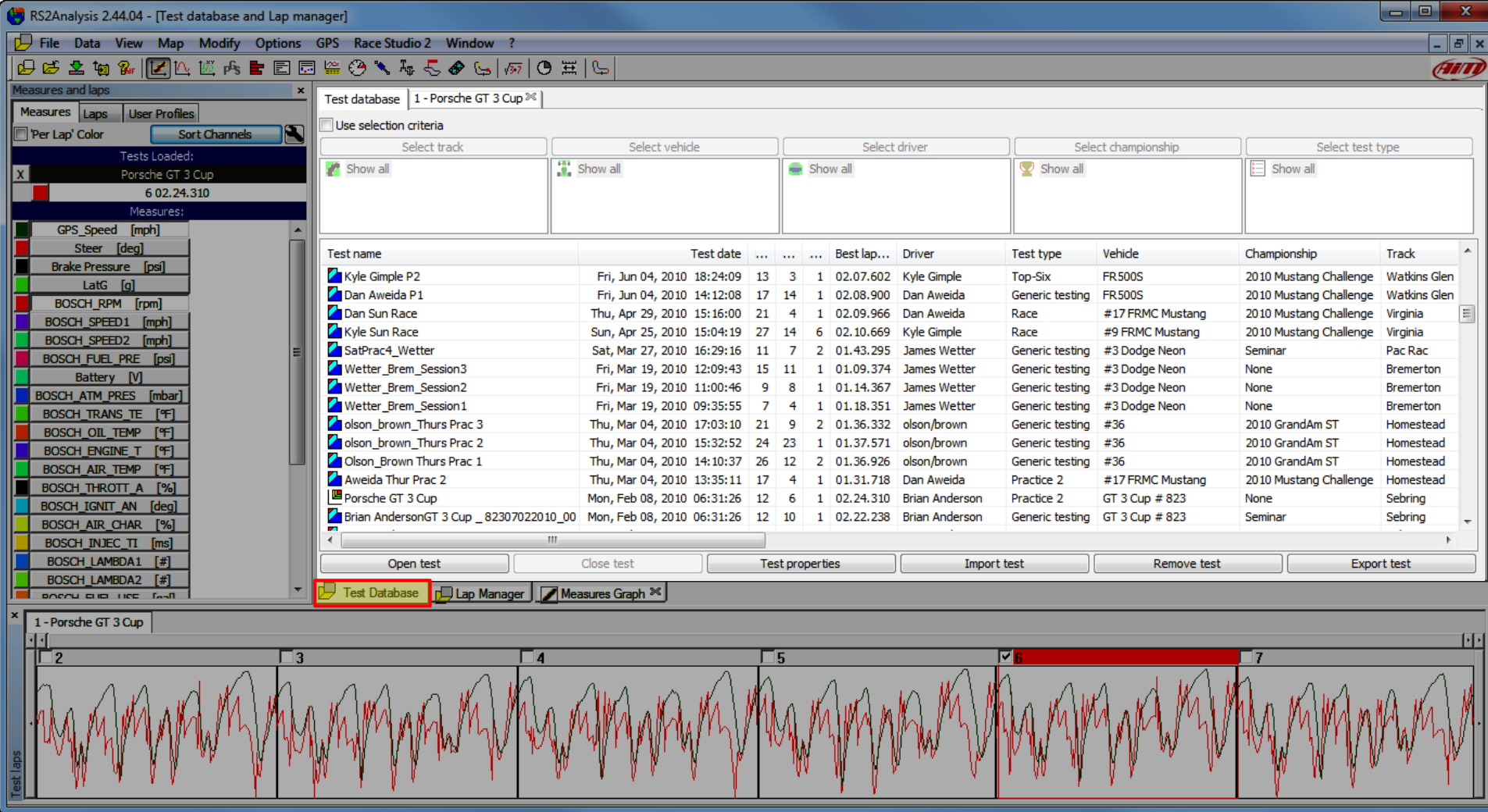
THIS IS THE **TEST LAPS TOOLBAR**, THIS IS WHERE YOU CAN EASILY SEE YOUR ACTIVE LAPS AND ADD OR REMOVE A LAP FROM THE MAIN WINDOW. IT ALSO SHOWS YOU THE PRIMARY COLOR FOR EACH LAP THAT IS HELPFUL WHEN USING THE "PER LAP" COLOR FUNCTION. ALSO YOU CAN EASILY CHANGE THE ACTIVE LAP BY DRAGGING AND DROPPING THE ACTIVE LAP TO ANOTHER LAP.



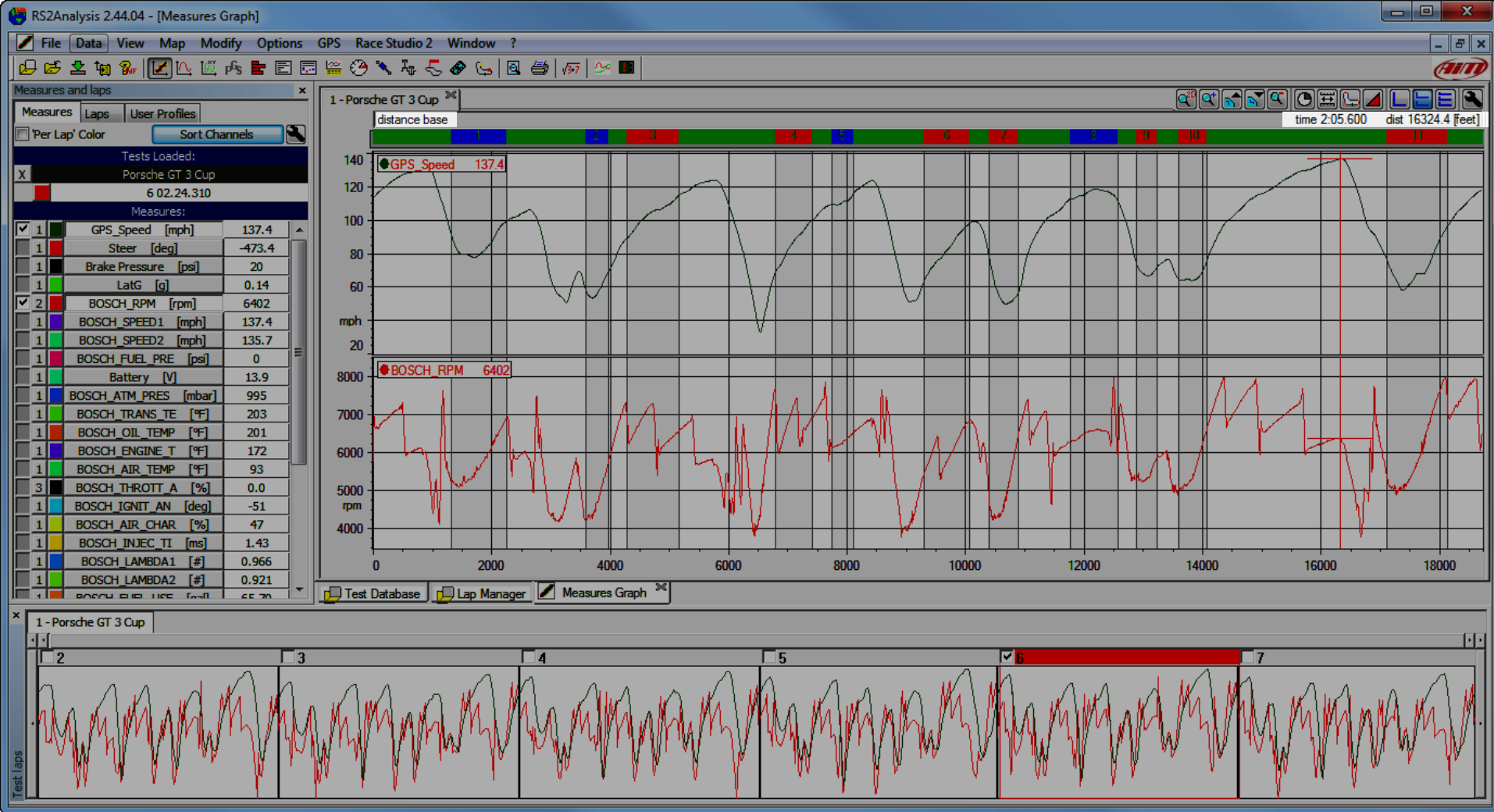
THIS IS THE **MAIN WINDOW AREA**, THIS IS WHERE DETAILED INFORMATION IS SHOWN CONTROLLED BY THE **ACTIVE TAB** YOU HAVE CHOSEN. HERE THE **"MEASURES GRAPH"** IS SHOWN. TO ADD MORE FUNCTIONS (HISTOGRAMS, SUSPENSION ANALYSIS, X-Y PLOTS, ETC.) CLICK ON THEIR ICON ABOVE OR CHOOSE FROM THE "VIEW" PULL-DOWN MENU.



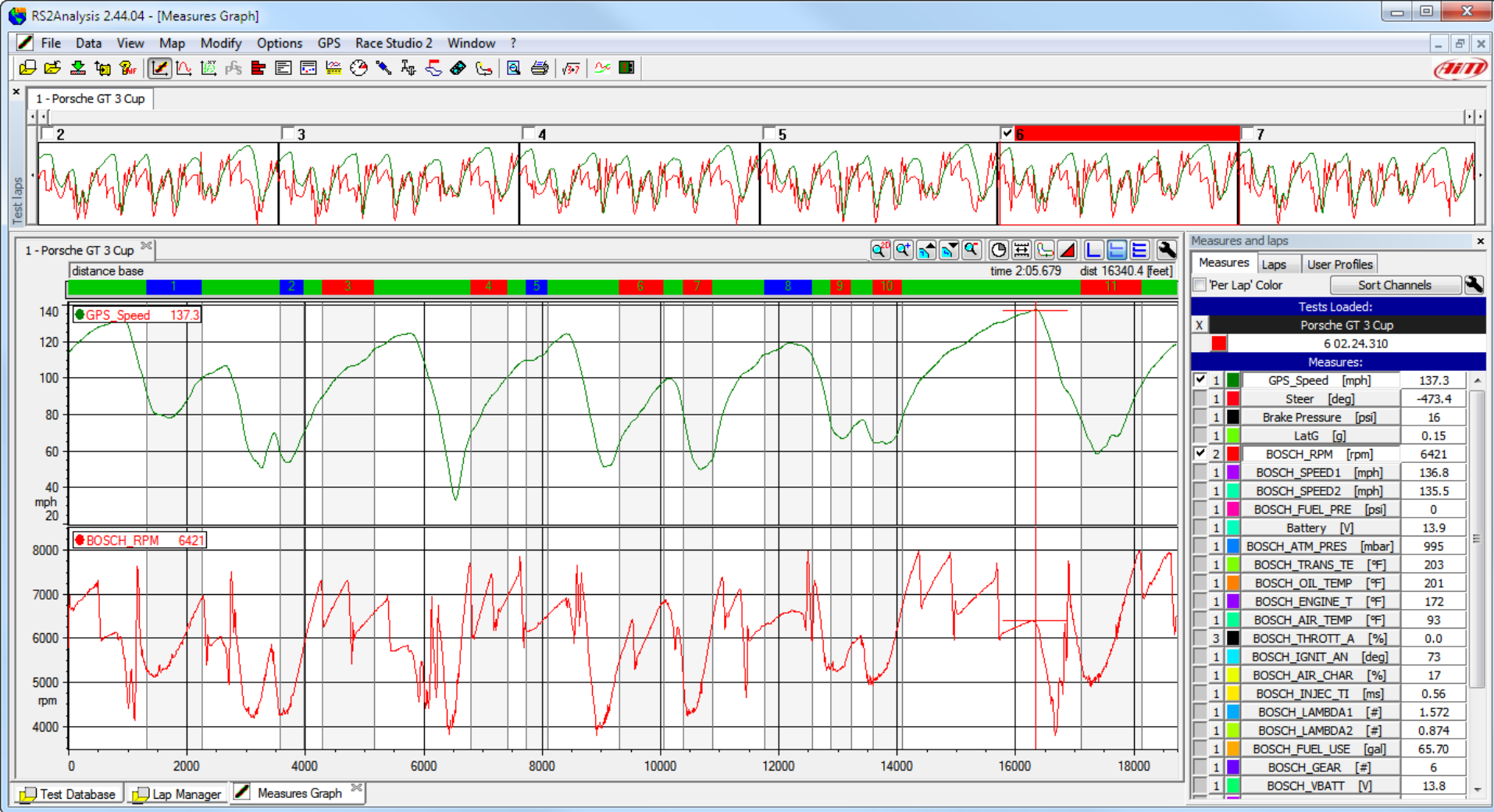
THIS IS THE **MAIN WINDOW AREA**, THIS IS WHERE DETAILED INFORMATION IS SHOWN CONTROLLED BY THE **ACTIVE TAB** YOU HAVE CHOSEN. HERE THE **"LAP MANAGER"** IS SHOWN. TO ADD MORE FUNCTIONS (HISTOGRAMS, SUSPENSION ANALYSIS, X-Y PLOTS, ETC.) CLICK ON THEIR ICON ABOVE OR CHOOSE FROM THE "VIEW" PULL-DOWN MENU.



THIS IS THE **MAIN WINDOW AREA**, THIS IS WHERE DETAILED INFORMATION IS SHOWN CONTROLLED BY THE **ACTIVE TAB** YOU HAVE CHOSEN. HERE THE **"TEST DATABASE"** IS SHOWN. TO ADD MORE FUNCTIONS (HISTOGRAMS, SUSPENSION ANALYSIS, X-Y PLOTS, ETC.) CLICK ON THEIR ICON ABOVE OR CHOOSE FROM THE "VIEW" PULL-DOWN MENU.



THIS IS THE **STATUS BAR AREA**, THIS IS WHERE DETAILED INFORMATION IS SHOWN IN THE "MEASURES GRAPH" WINDOW. ON THE LEFT THIS WILL BE EITHER THE SHOWN "DISTANCE BASE" OR "TIME BASE" DEPENDING ON WHAT YOU HAVE SET FOR THE X AXIS. ON THE RIGHT IS THE CURSER POSITION SHOWN IN TIME AND DISTANCE SINCE THE START OF THE ACTIVE LAP.

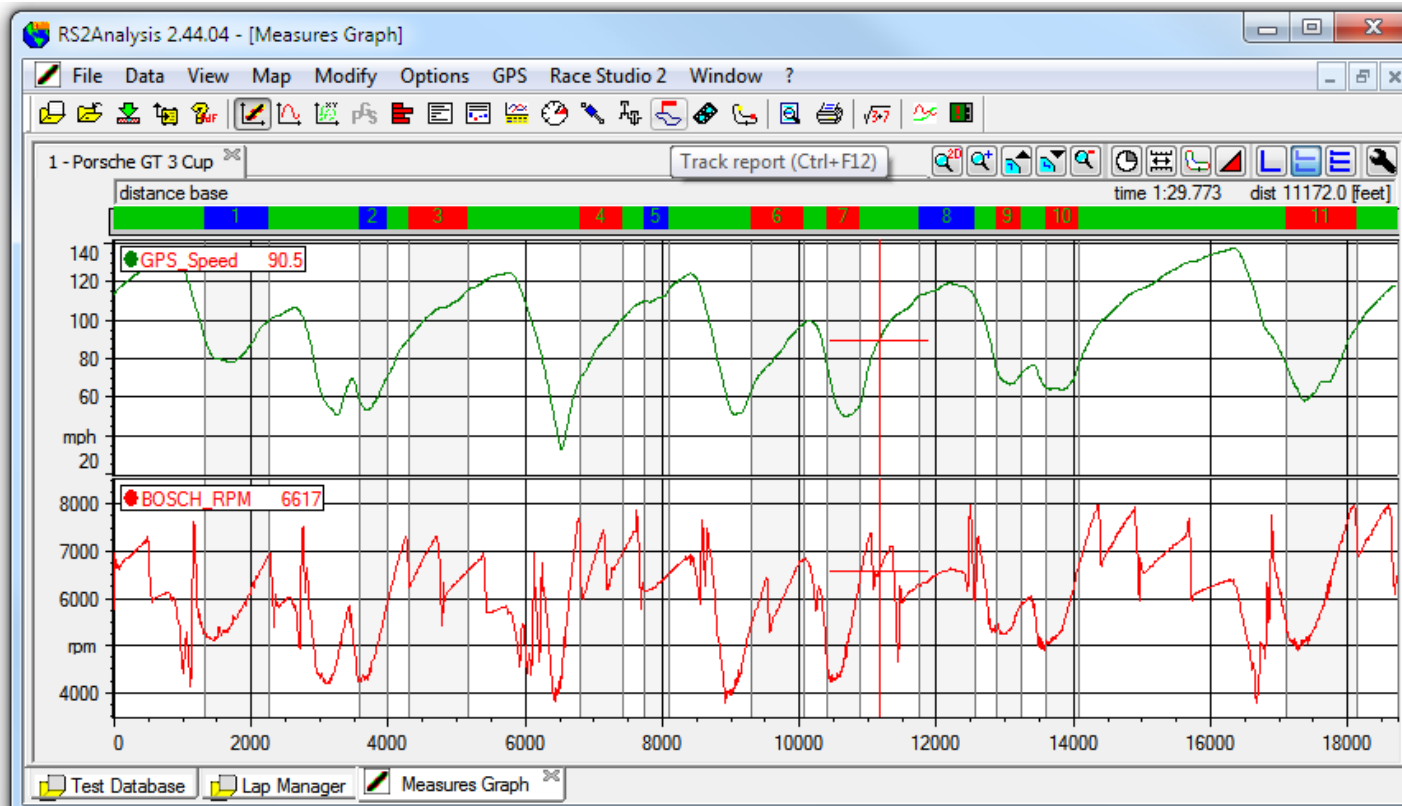


NOW, ALL THESE SECTIONS OF THE RACE STUDIO 2 SOFTWARE ARE ACTUALLY **"DOCK ABLE"** SECTIONS AND CAN BE PLACED WHERE YOU WANT THEM.

DECEMBER 2012

HOW TO USE DATA ACQUISITION
MOVING TOOLBARS

Aim
LEARN FAST™



Measures and laps

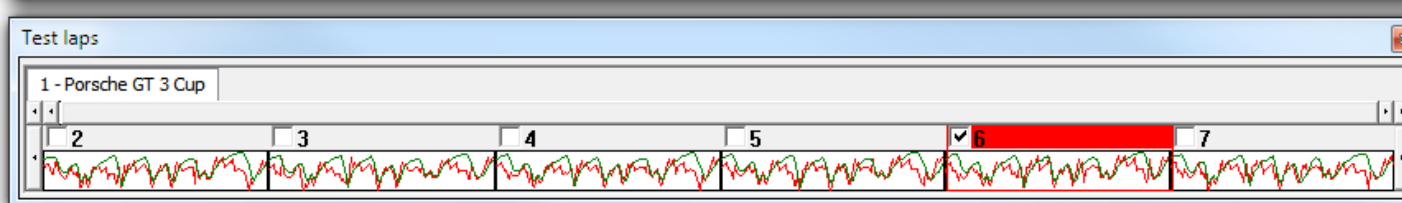
Measures Laps User Profiles

'Per Lap' Color

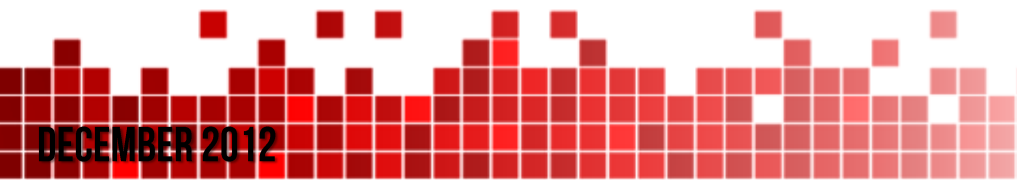
Tests Loaded:
X Porsche GT 3 Cup
6 02.24.310

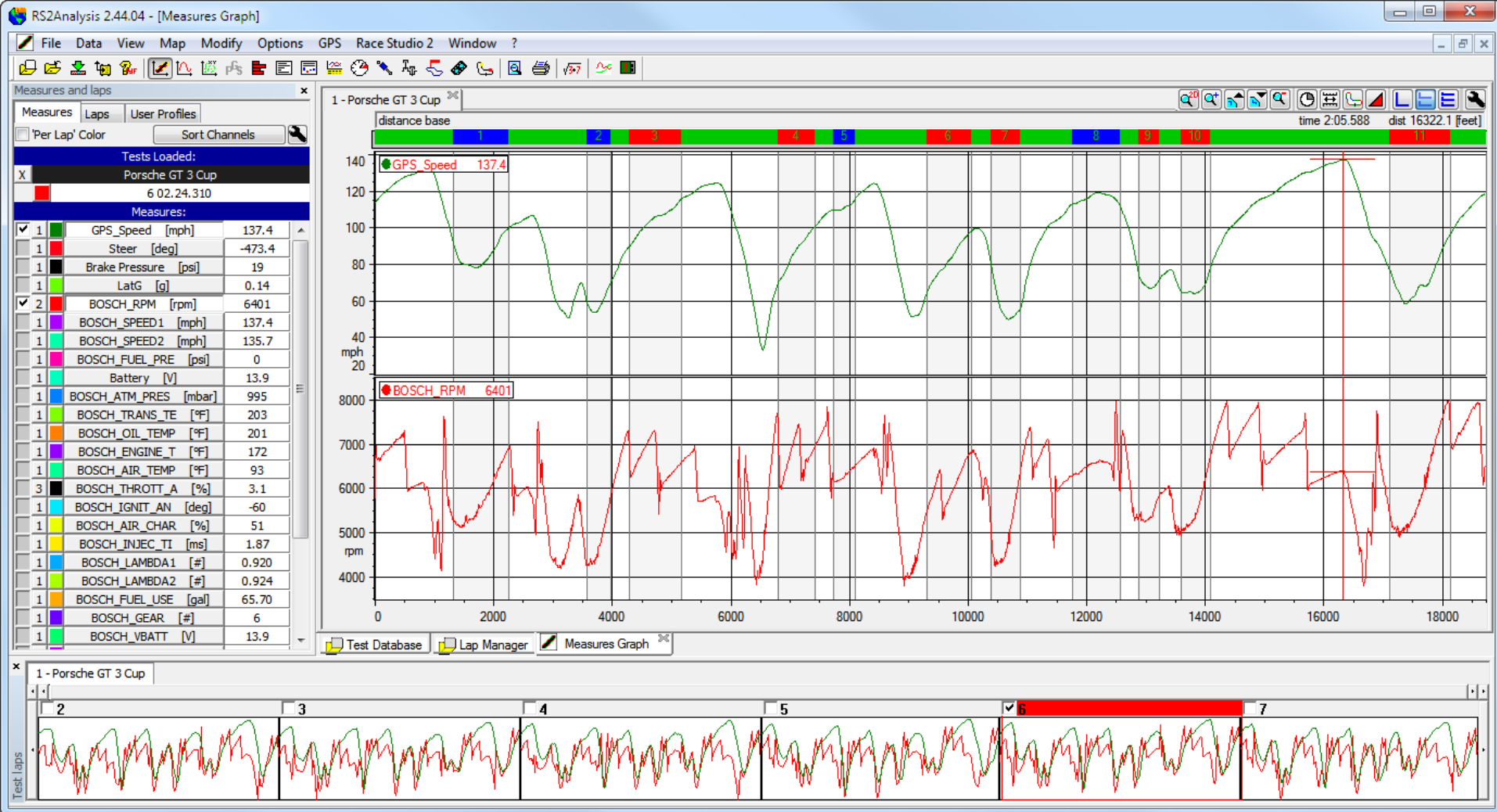
Measures:

<input checked="" type="checkbox"/>	1	GPS_Speed [mph]	90.5
<input type="checkbox"/>	1	Steer [deg]	-473.1
<input type="checkbox"/>	1	Brake Pressure [psi]	15
<input type="checkbox"/>	1	LatG [g]	0.01
<input checked="" type="checkbox"/>	2	BOSCH_RPM [rpm]	6617
<input type="checkbox"/>	1	BOSCH_SPEED1 [mph]	97.9
<input type="checkbox"/>	1	BOSCH_SPEED2 [mph]	97.4
<input type="checkbox"/>	1	BOSCH_FUEL_PRE [psi]	0
<input type="checkbox"/>	1	Battery [V]	13.9
<input type="checkbox"/>	1	BOSCH_ATM_PRES [mbar]	1001
<input type="checkbox"/>	1	BOSCH_TRANS_TE [°F]	199
<input type="checkbox"/>	1	BOSCH_OIL_TEMP [°F]	201
<input type="checkbox"/>	1	BOSCH_ENGINE_T [°F]	172
<input type="checkbox"/>	1	BOSCH_AIR_TEMP [°F]	93
<input type="checkbox"/>	3	BOSCH_THROTT_A [%]	100.0
<input type="checkbox"/>	1	BOSCH_IGNIT_AN [deg]	-62
<input type="checkbox"/>	1	BOSCH_AIR_CHAR [%]	99
<input type="checkbox"/>	1	BOSCH_INJEC_TI [ms]	9.41
<input type="checkbox"/>	1	BOSCH_LAMBDA1 [#]	0.911
<input type="checkbox"/>	1	BOSCH_LAMBDA2 [#]	0.922
<input type="checkbox"/>	1	BOSCH_FUEL_USE [gal]	65.54
<input type="checkbox"/>	1	BOSCH_GEAR [#]	4
<input type="checkbox"/>	1	BOSCH_VBATT [V]	13.6
<input type="checkbox"/>	1	Datalogger_Tem [°F]	90
<input type="checkbox"/>	3	GPS_LatAcc [g]	0.12
<input type="checkbox"/>	1	GPS_LonAcc [g]	0.40

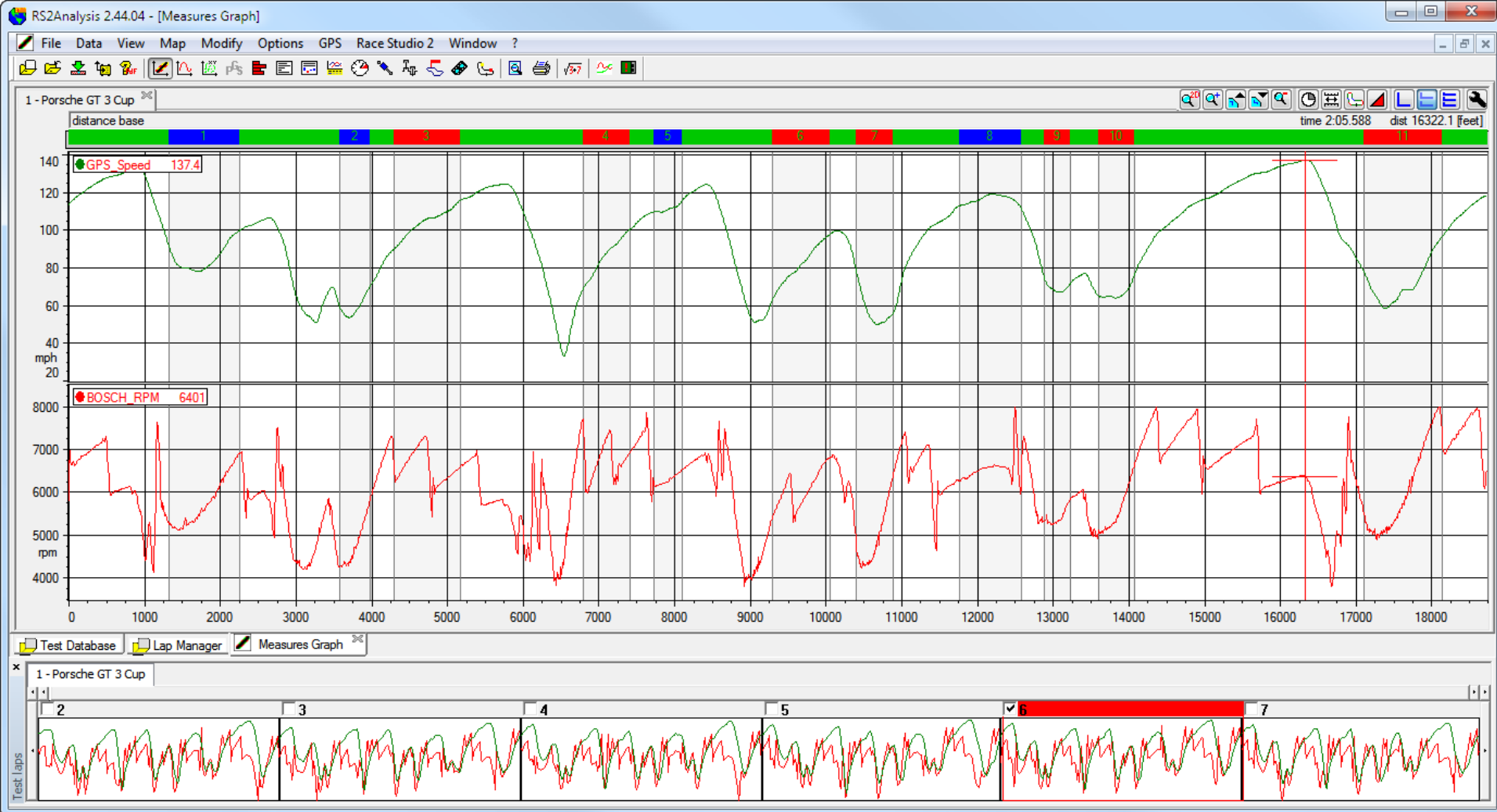


OR CAN EVEN BE "UN DOCKED" COMPLETELY IF YOU WANT BY JUST DRAGGING AND DROPPING THEM WHERE YOU WANT.

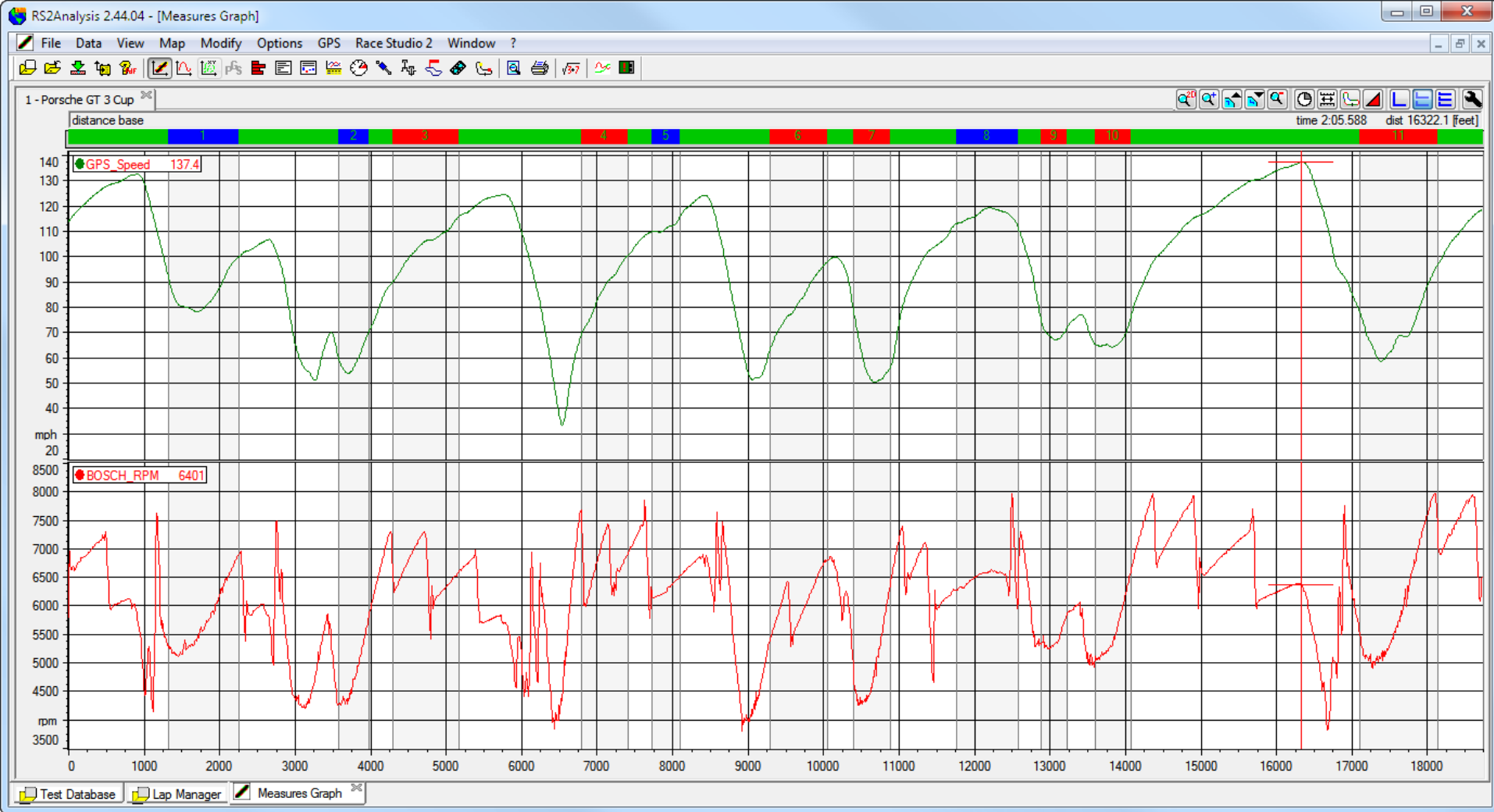




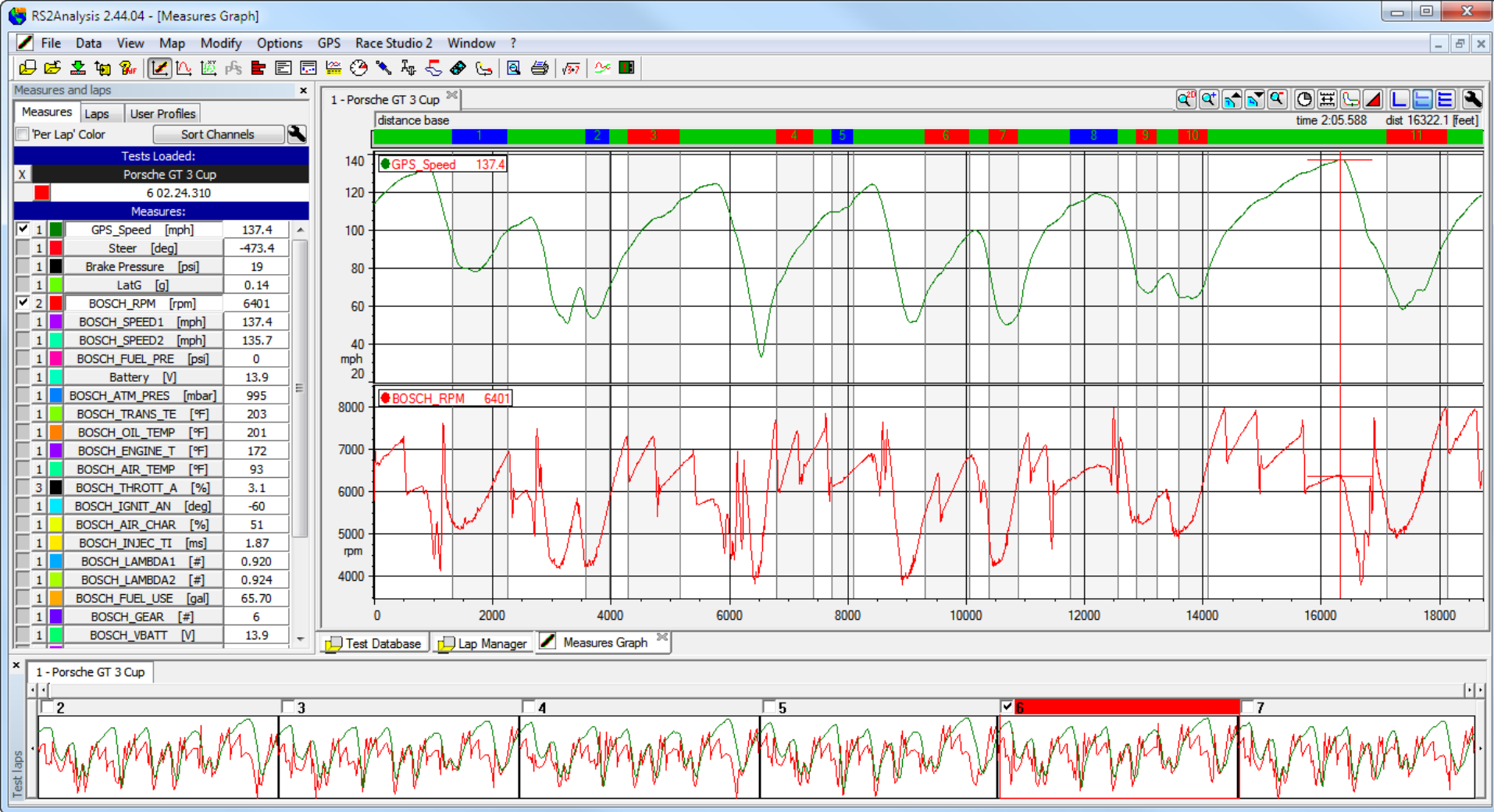
BUT REALLY THE TYPICAL VIEW IS BEST AS SHOWN HERE. BUT ANOTHER COUPLE OF TRICKS CAN BE USED TO MAKE THIS VIEW EVEN BETTER. TO MAXIMIZE SCREEN AREA QUICKLY ESPECIALLY WHEN ANALYZING DATA ON A SMALLER LAPTOP, WE CAN QUICKLY "HIDE" THE MEASURES AND LAPS TOOLBAR BY JUST PRESSING THE SPACEBAR ON YOUR KEYBOARD ONCE.



NOTICE HOW THE MAIN WINDOW IS NOW FULL WIDTH AND WE HAVE MORE ROOM TO ANALYZE OUR DATA. WE CAN ALSO QUICKLY "HIDE" THE TEST LAPS TOOLBAR BY HOLDING THE CONTROL KEY AND PRESSING THE SPACEBAR ON YOUR KEYBOARD ONCE.



NOTICE HOW THE MAIN WINDOW IS NOW FULL WIDTH AND HEIGHT AND WE HAVE **MAXIMUM ROOM TO ANALYZE** OUR DATA. THE TOOLBARS CAN BE TOGGLED BACK ON VERY QUICKLY BY PRESSING THE CONTROL AND SPACEBAR AGAIN FOR THE TEST LAPS TOOLBAR AND THE SPACEBAR ALONE FOR THE MEASURES AND LAPS TOOLBAR.

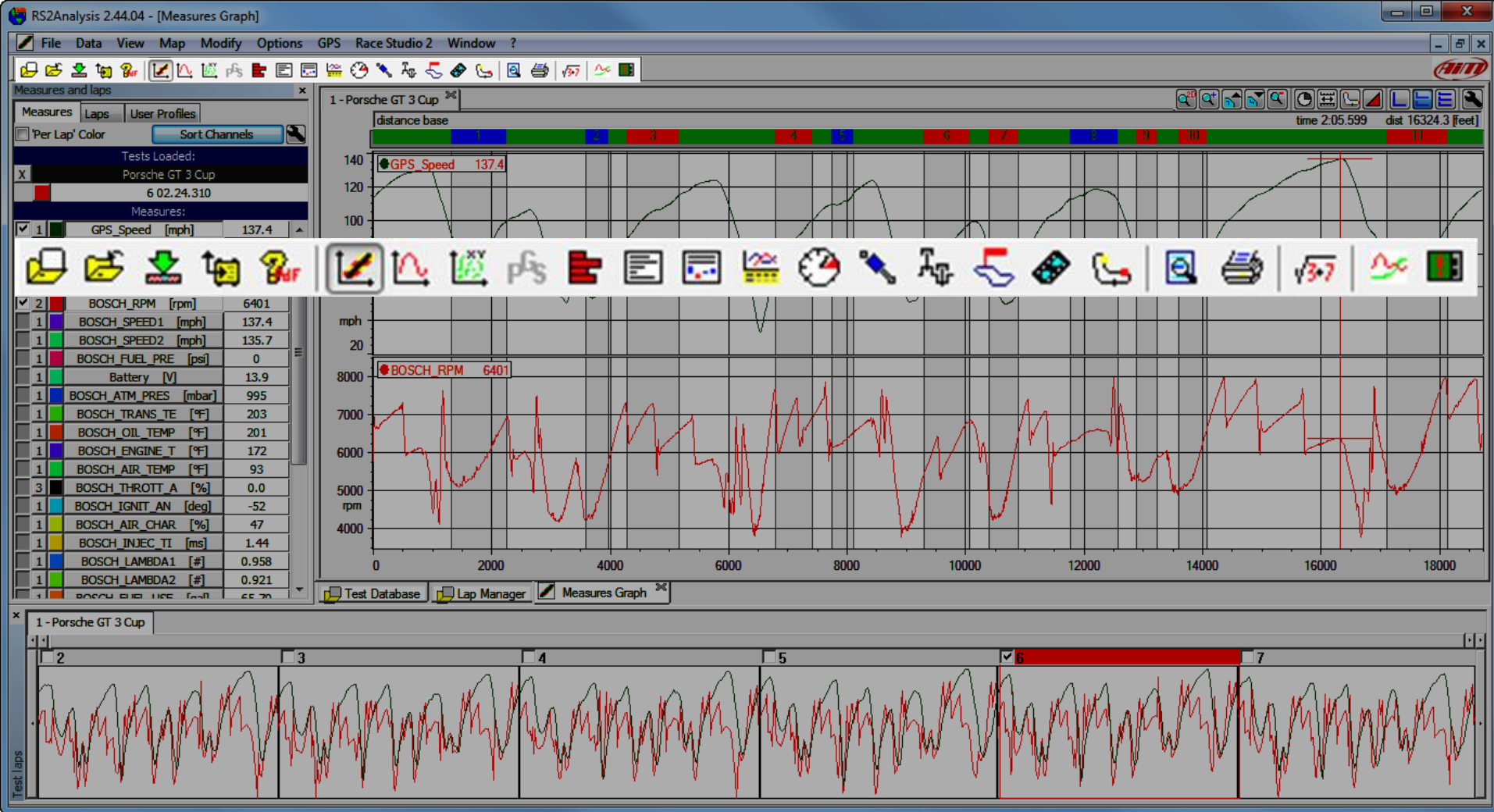


AND IT IS BACK TO OUR **DEFAULT VIEW**.

DECEMBER 2012

HOW TO USE DATA ACQUISITION
UN-HIDING TOOLBARS



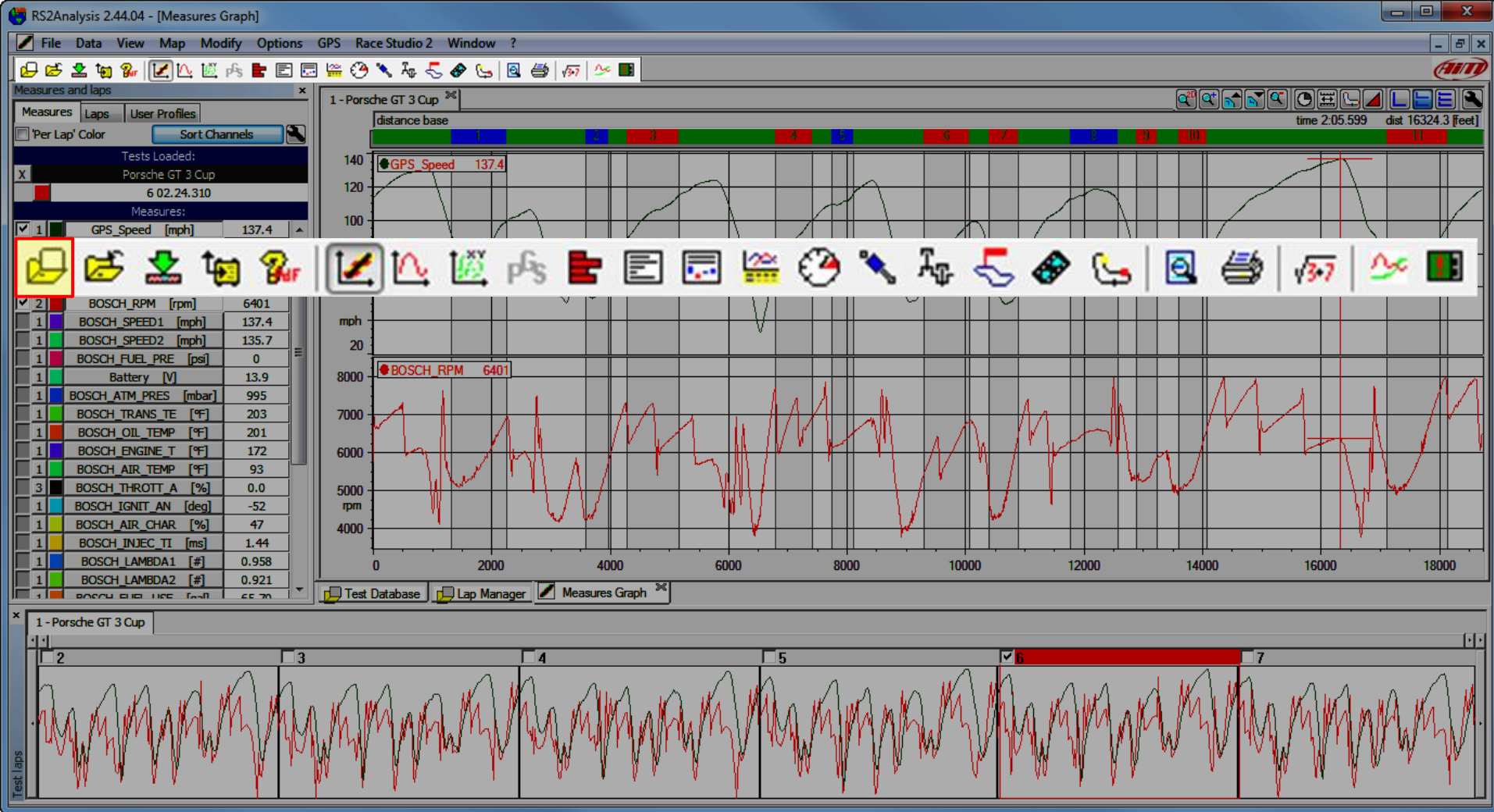


LET'S TAKE A TOUR OF THE **PRIMARY ICON TOOLBAR ITEMS**.

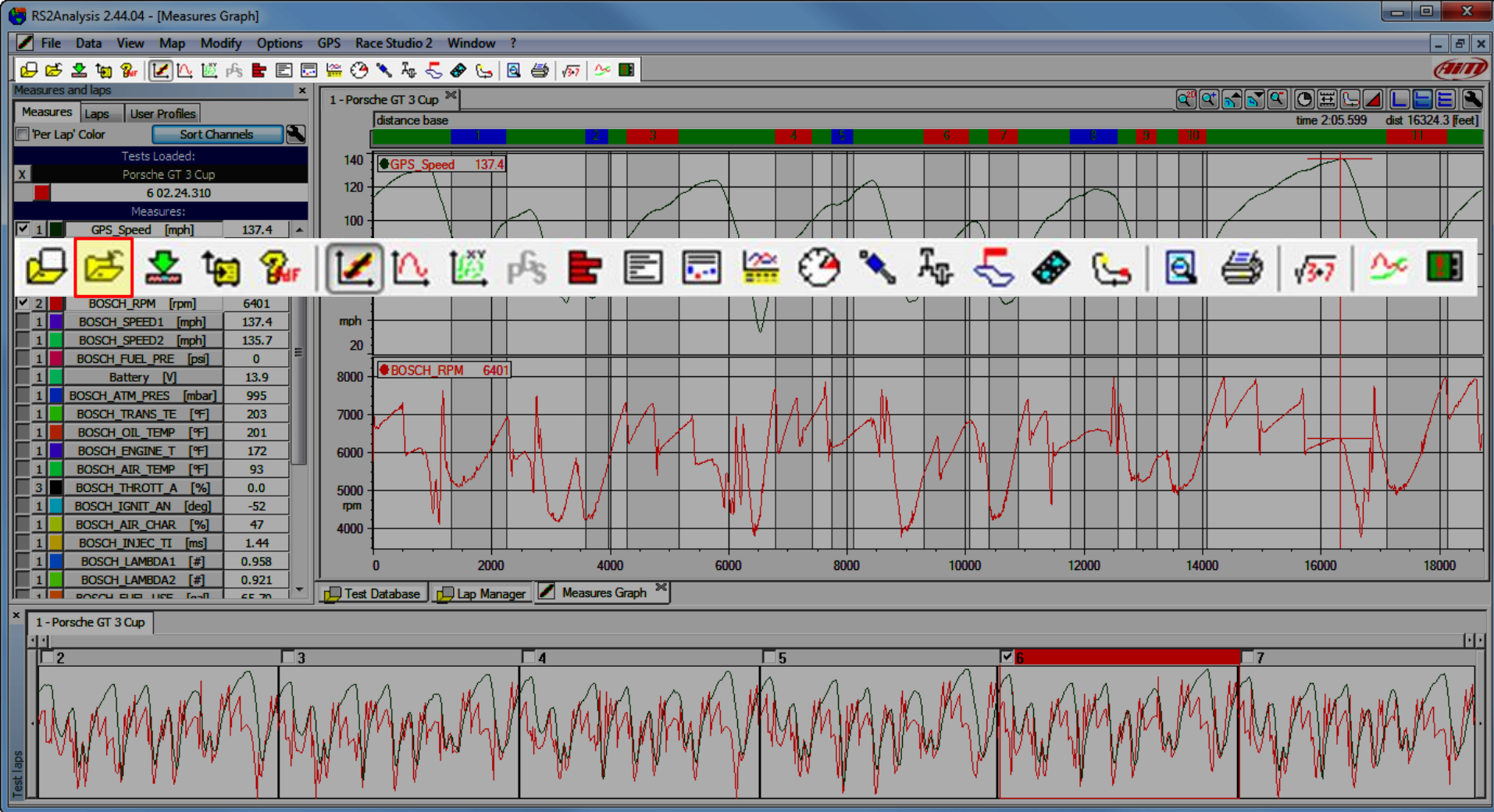
DECEMBER 2012

HOW TO USE DATA ACQUISITION
PULL-DOWN MENU ITEMS

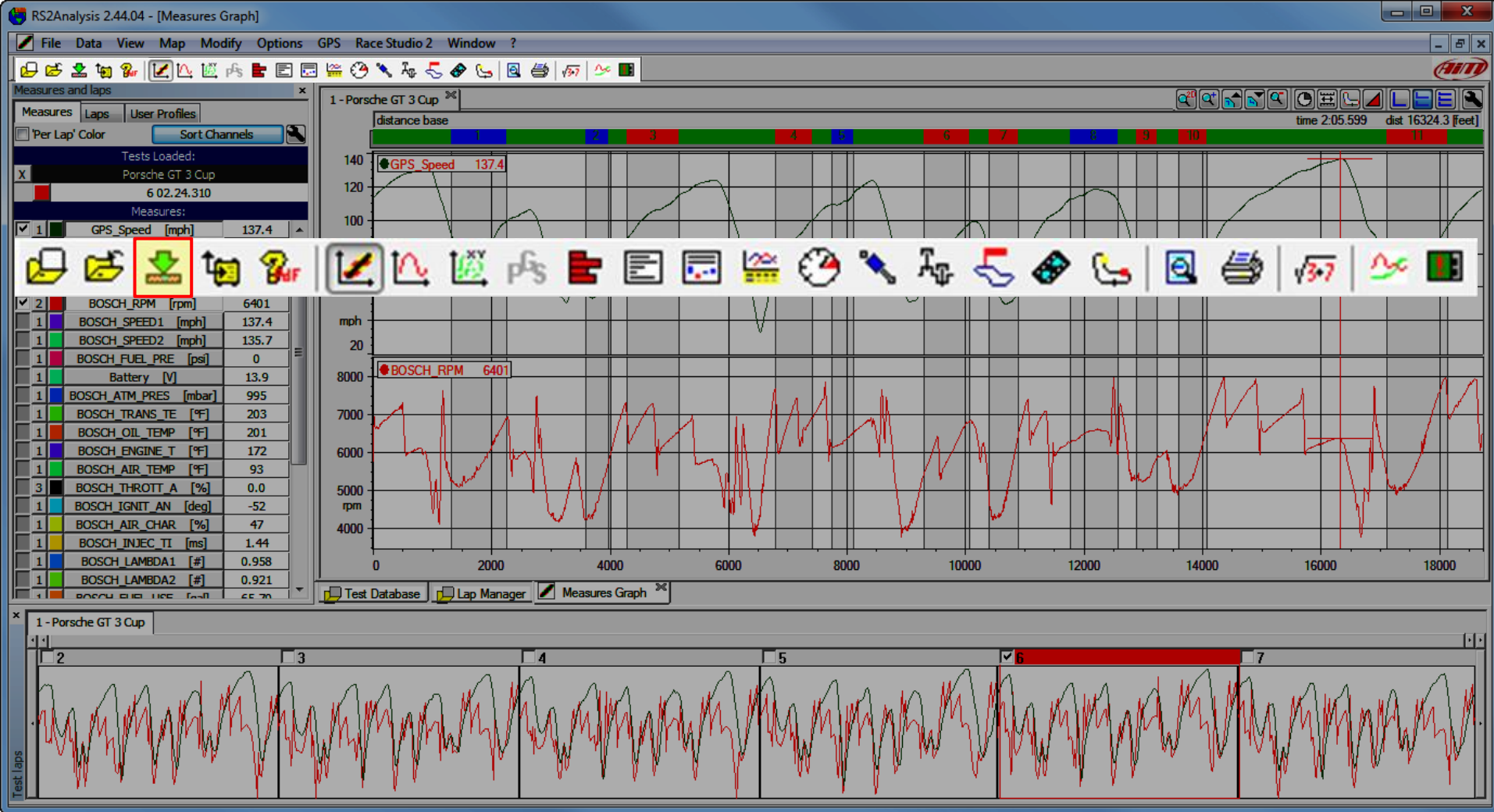
Aim
LEARN FAST™



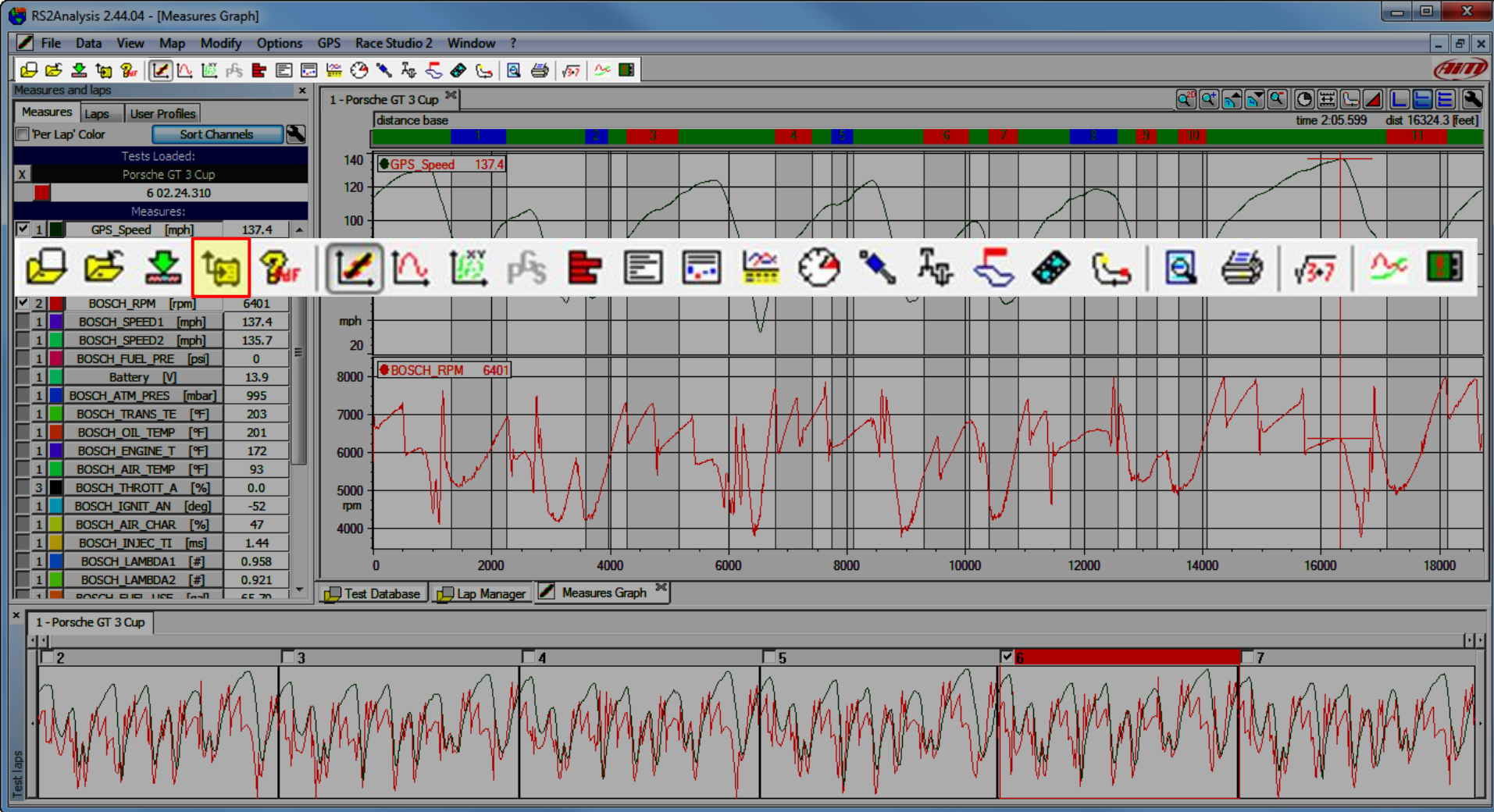
PRIMARY ICON TOOLBAR ITEM: **OPEN A TEST**, USE THIS OR THE TEST DATABASE TAB TO OPEN A NEW TEST.



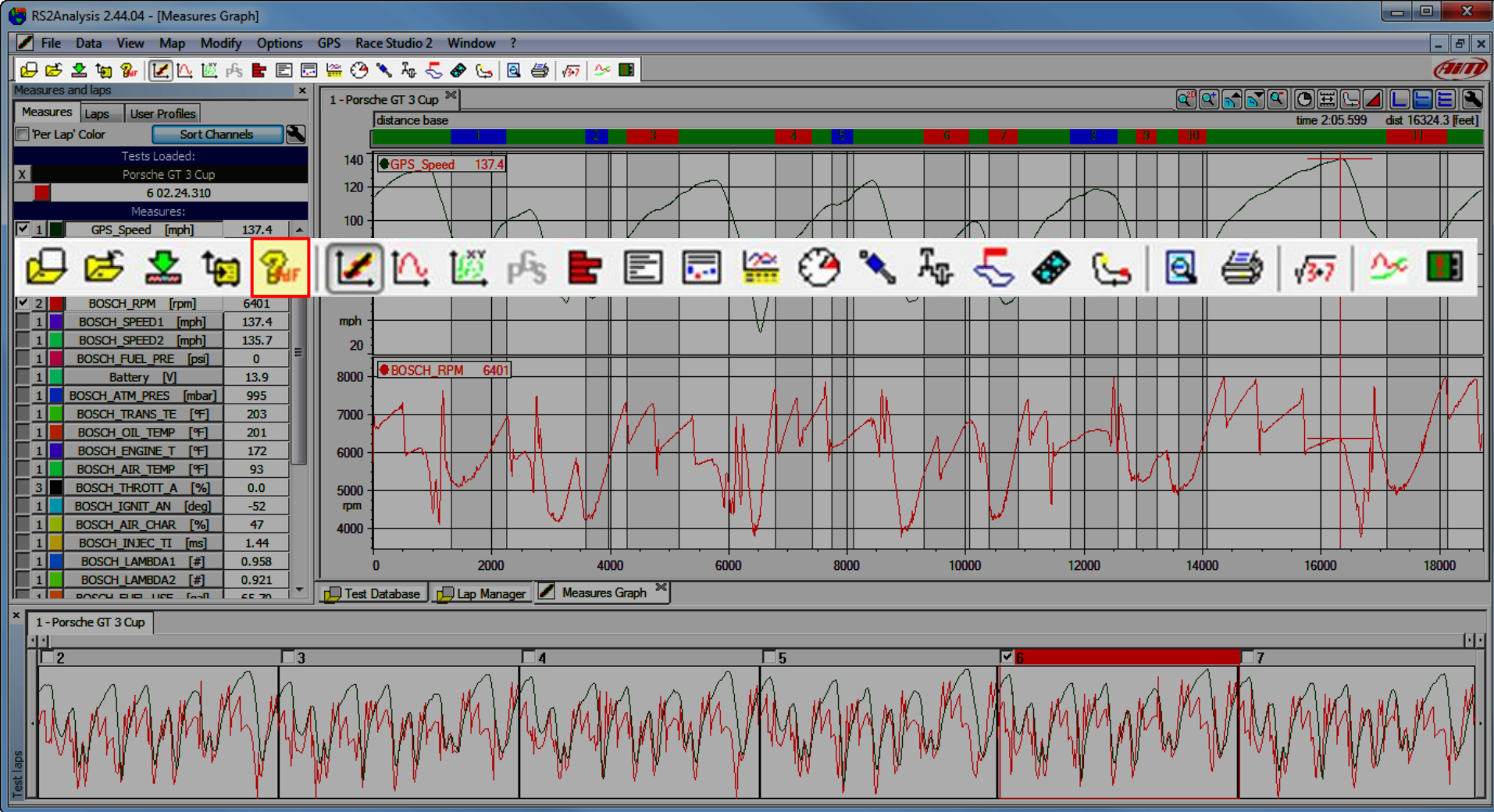
PRIMARY ICON TOOLBAR ITEM: CANCEL A TEST FROM THE SELECTED SET. USE THIS OR THE TEST DATABASE TAB TO CLOSE A TEST.



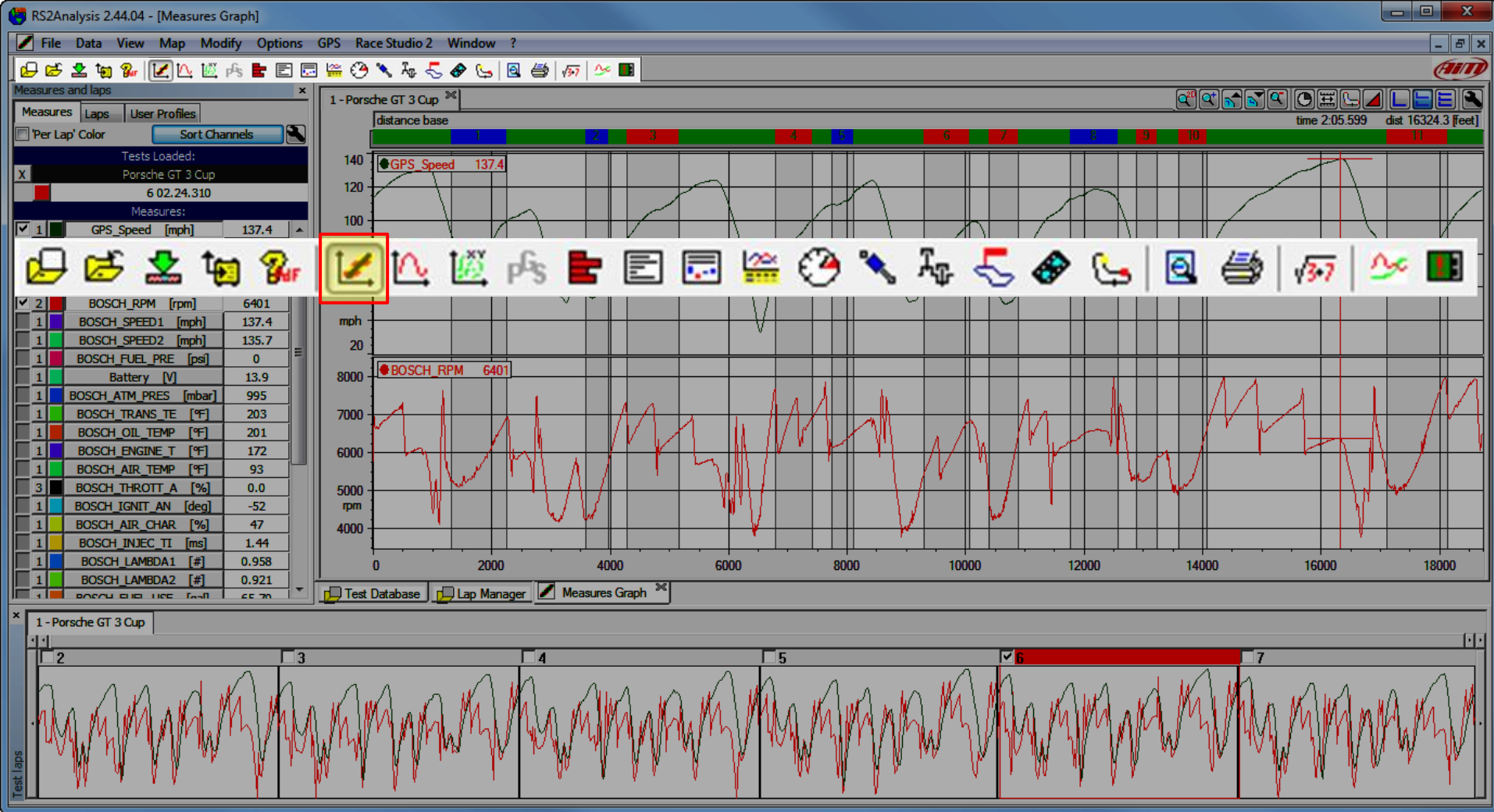
PRIMARY ICON TOOLBAR ITEM: **DOWNLOAD**. USE THIS TO JUMP OUT AND DOWNLOAD A TEST FROM YOUR DATA SYSTEM.



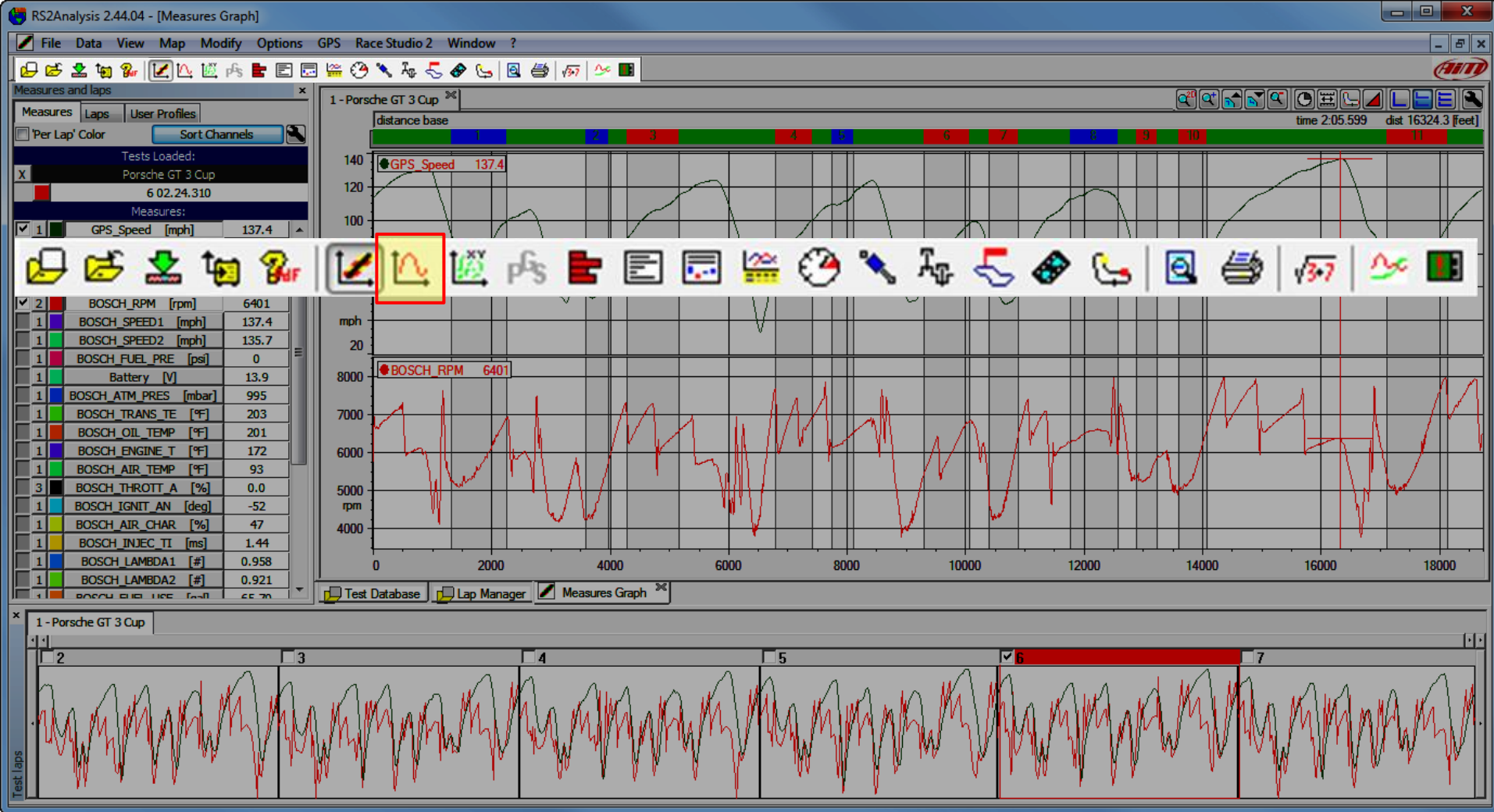
PRIMARY ICON TOOLBAR ITEM: RACE STUDIO 2. USE THIS TO JUMP DIRECTLY TO THE RACE STUDIO 2 CONFIGURATION SOFTWARE OR USE THE RACE STUDIO 2 ITEM IN THE PULL-DOWN MENU BAR.



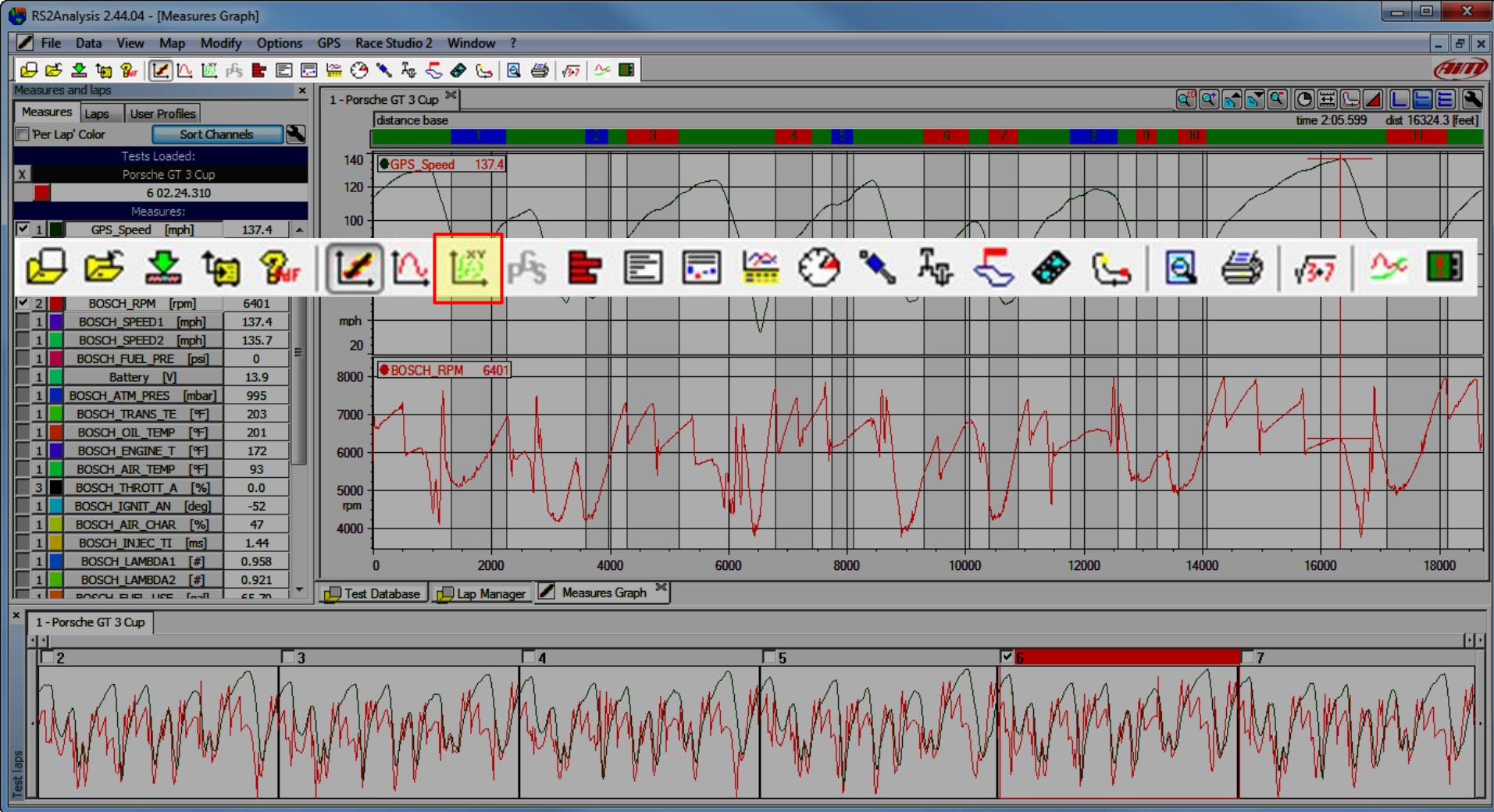
PRIMARY ICON TOOLBAR ITEM: **ONLINE MANUAL**. USE THIS TO OPEN THE (CURRENTLY NOT UPDATED) ONLINE MANUAL. ALSO GET THE MANUAL FROM THE ? ON THE PULL-DOWN MENU



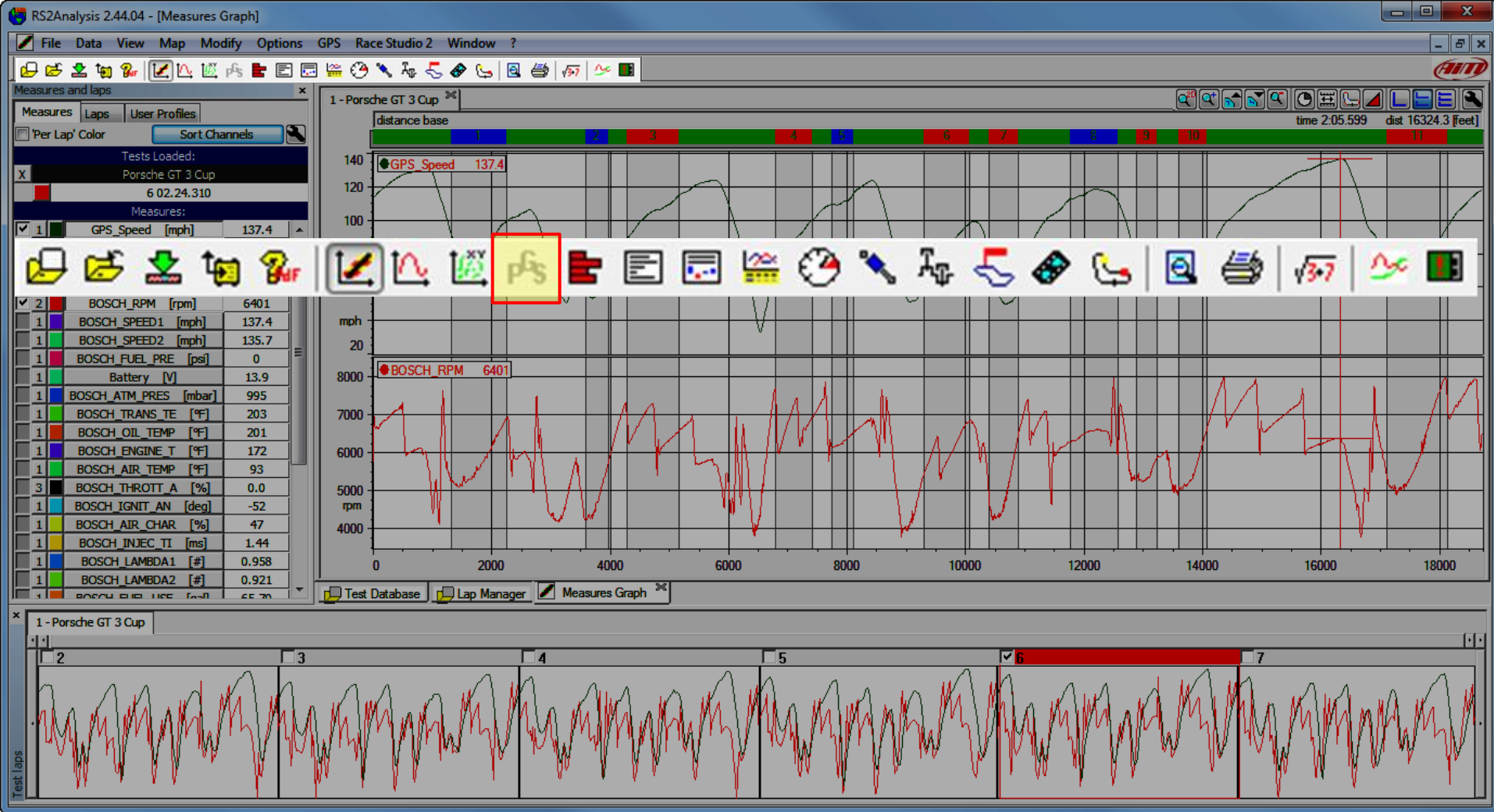
PRIMARY ICON TOOLBAR ITEM: PLOT MEASURES IN A GRAPH. THIS IS THE MOST USED ICON IN THE LIST AND IS HOW YOU VIEW CHANNELS VS. TIME OR DISTANCE. ALSO GET THE PLOT MEASURES IN A GRAPH FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



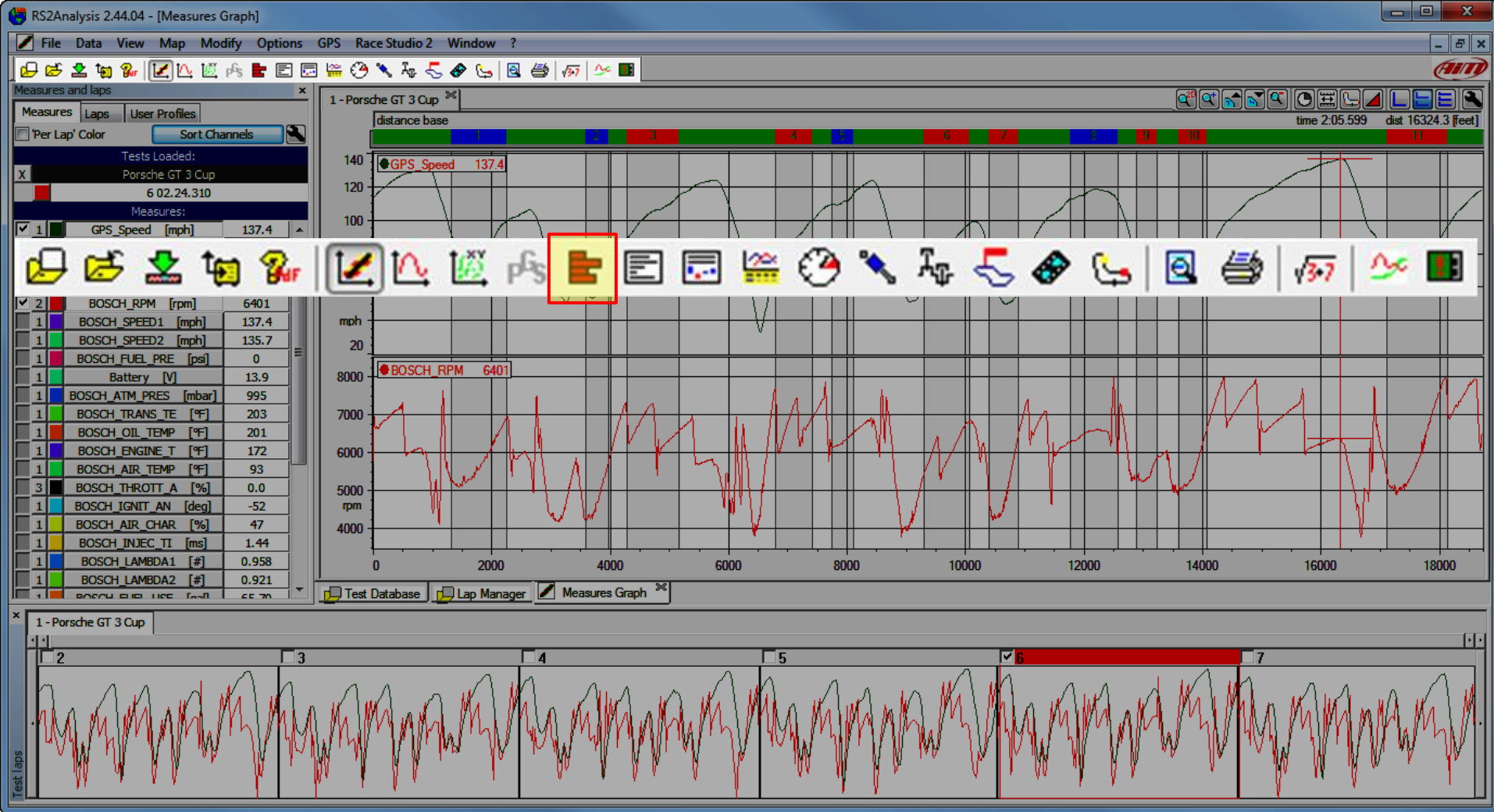
PRIMARY ICON TOOLBAR ITEM: PLOT MEASURES VS. FREQUENCY. THIS IS USED FREQUENTLY FOR SUSPENSION ANALYSIS. ALSO GET THE PLOT MEASURES VS. FREQUENCY FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



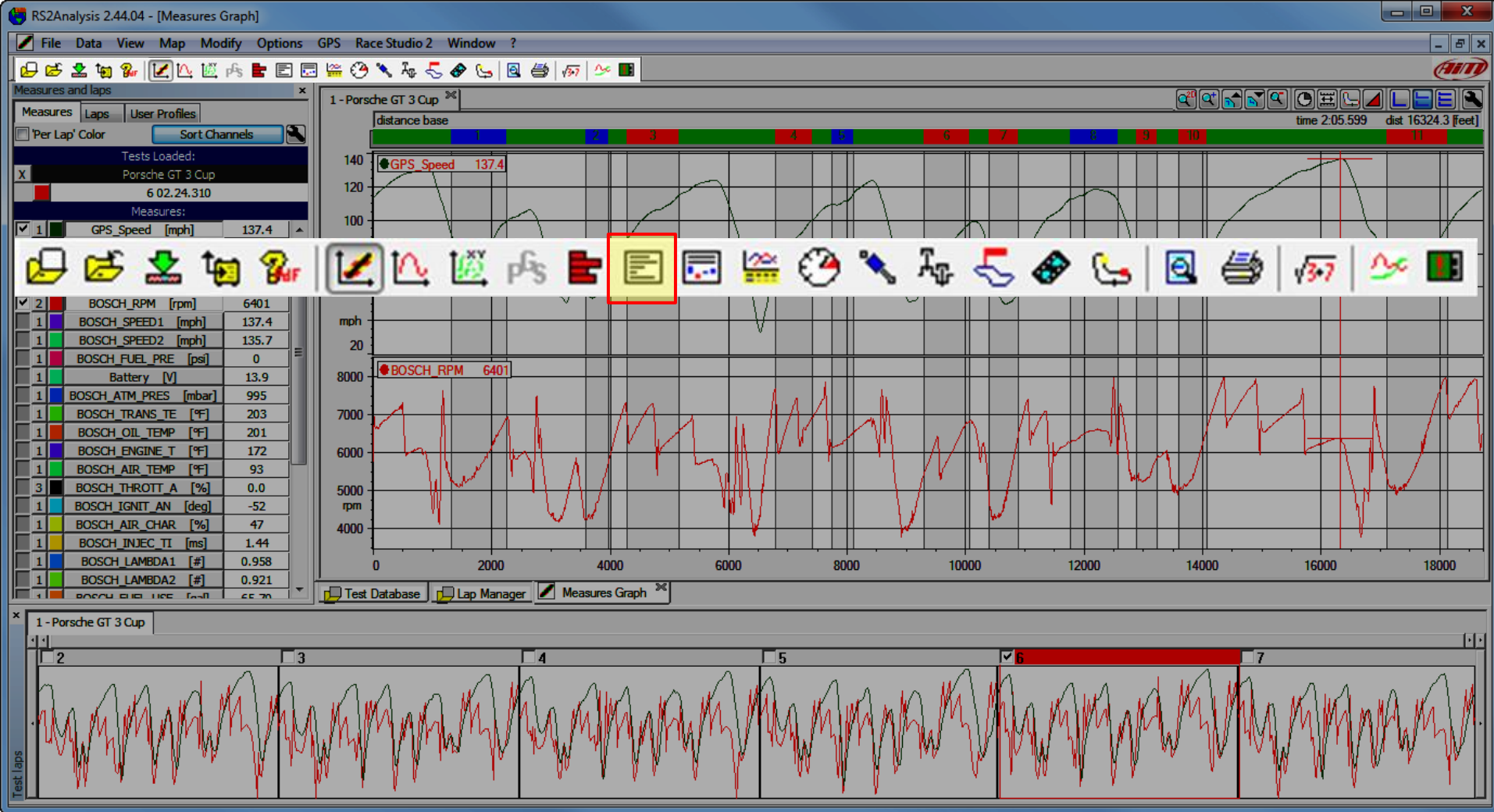
PRIMARY ICON TOOLBAR ITEM: **PLOT CHANNELS VS. CHANNELS**. THIS ALLOWS PLOTTING TWO CHANNELS AGAINST EACH OTHER. ALSO GET THE PLOT CHANNELS VS. CHANNELS FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



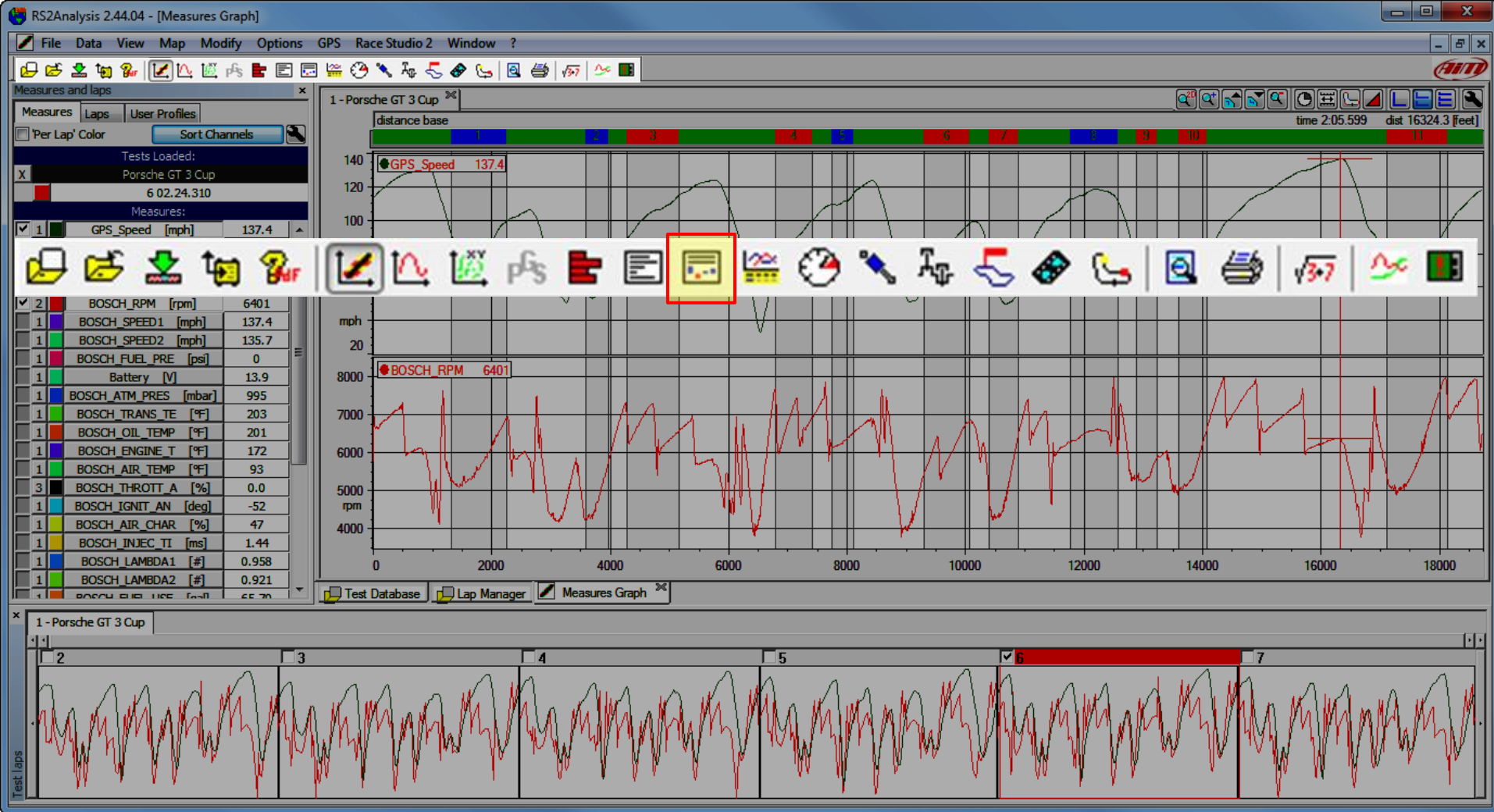
PRIMARY ICON TOOLBAR ITEM: **GPS DATA**. THIS ALLOWS YOU TO VIEW YOUR GPS DATA. ALSO GET THE GPS DATA FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



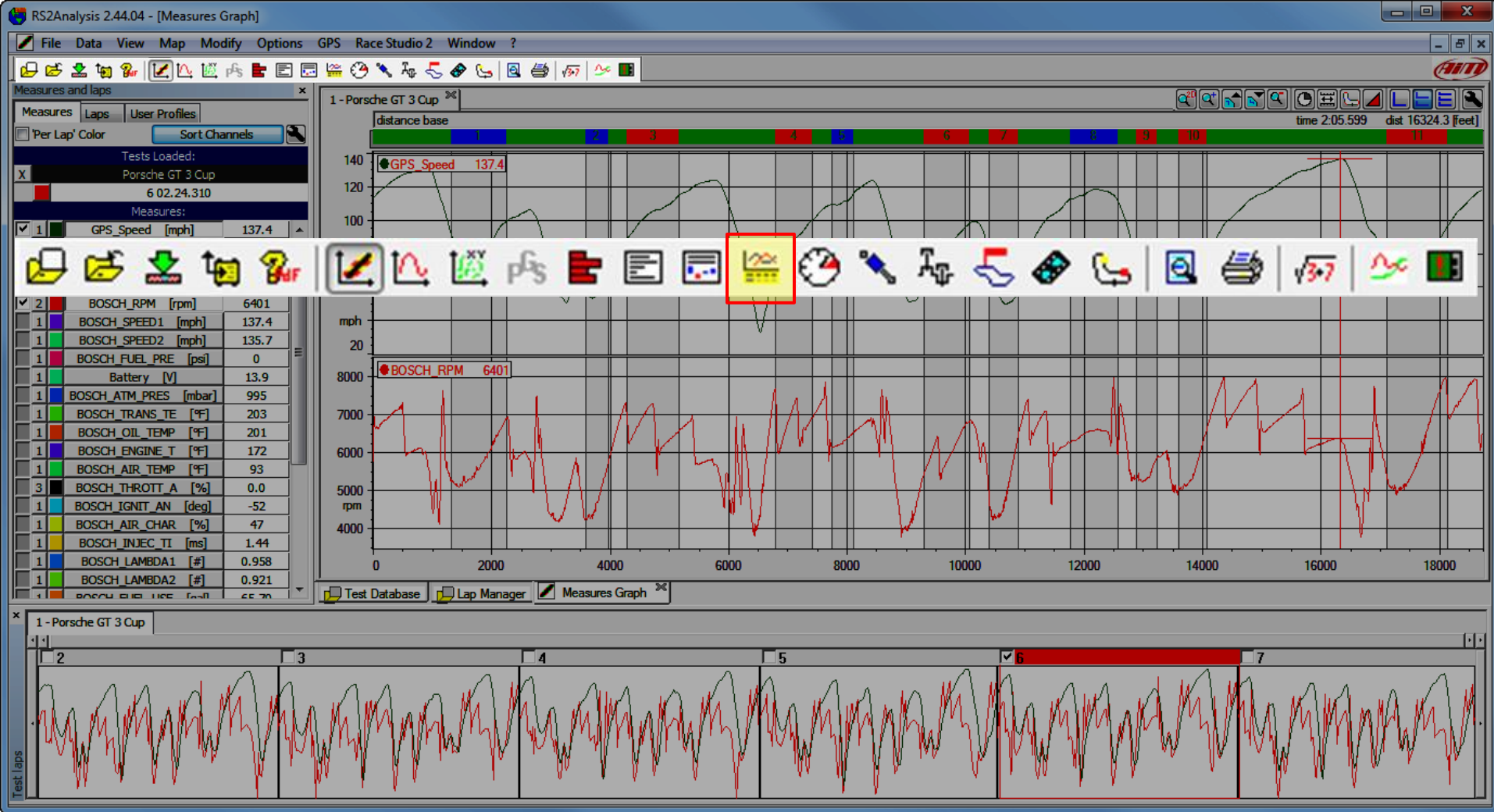
PRIMARY ICON TOOLBAR ITEM: **HISTOGRAM**. THIS ALLOWS YOU TO VIEW YOUR DATA AS % OR TIME INSIDE A RANGE AGAINST TIME OR DISTANCE. ALSO GET THE HISTOGRAM FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



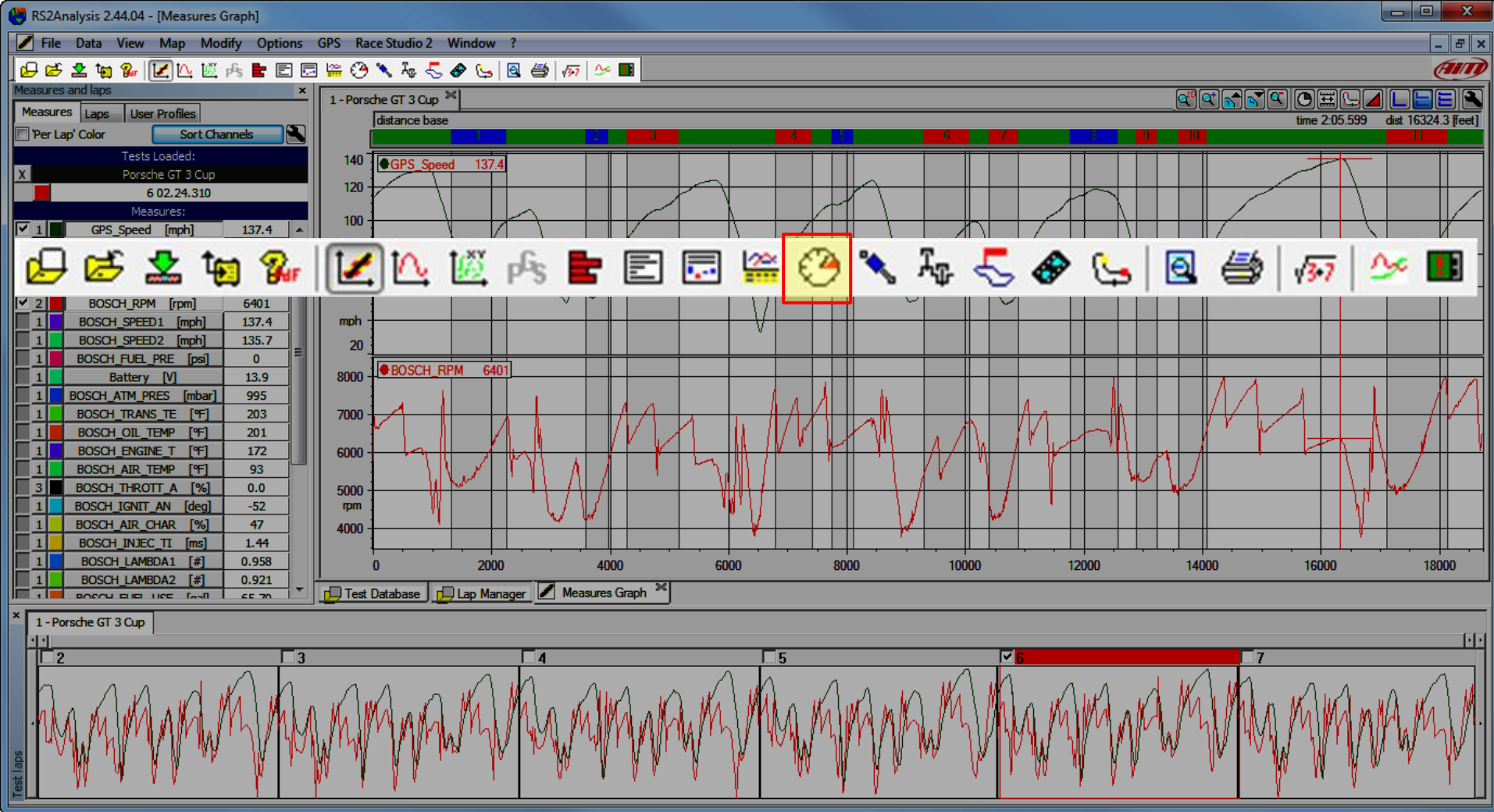
PRIMARY ICON TOOLBAR ITEM: LAP TIMES. THIS ALLOWS YOU TO VIEW YOUR LAP TIMES AND A LAP TIME REPORT. ALSO GET THE LAP TIMES FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



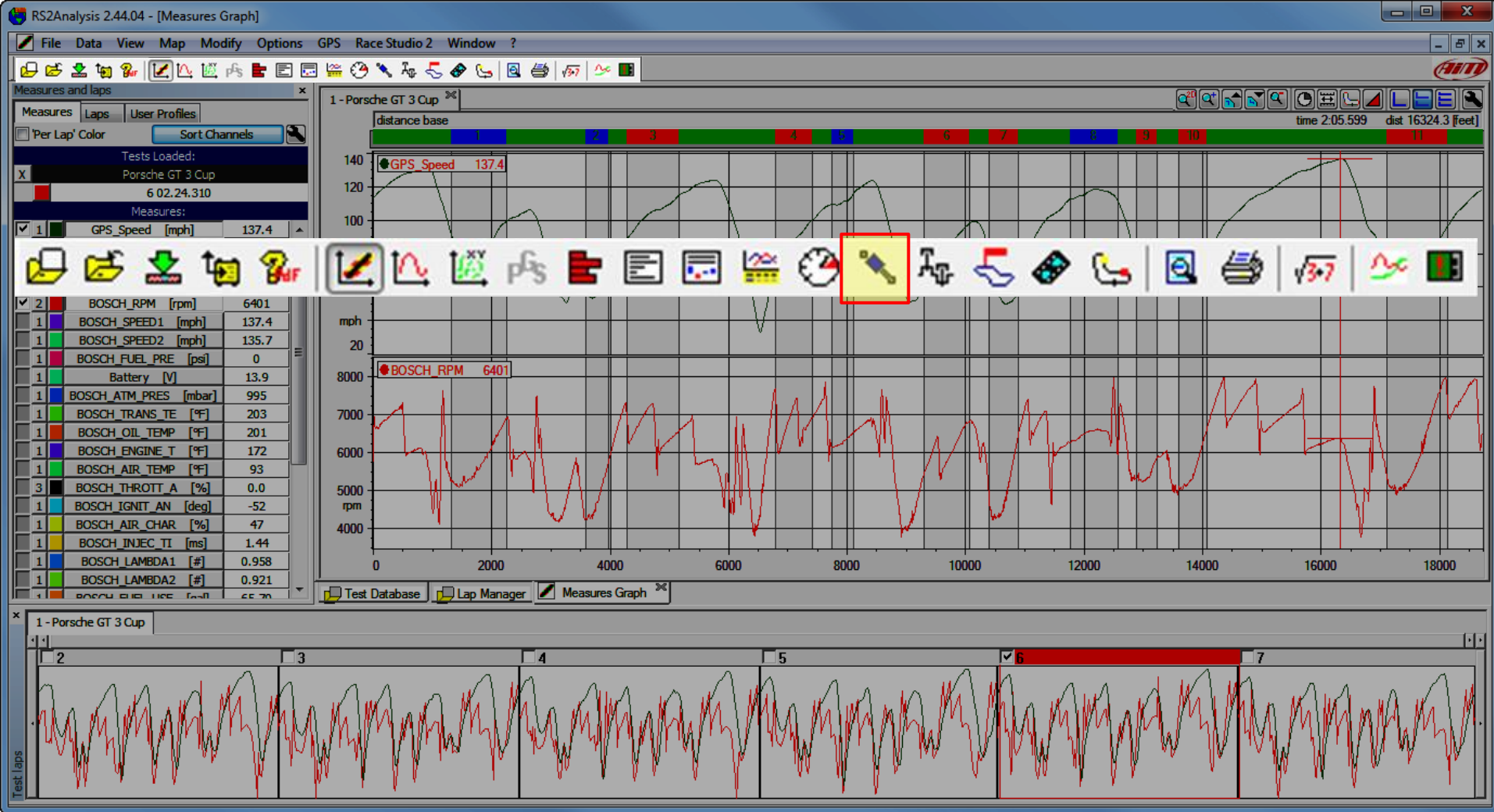
PRIMARY ICON TOOLBAR ITEM: **SPLIT TIMES**. THIS ALLOWS YOU TO VIEW YOUR SPLIT TIMES IN A REPORT. ALSO GET THE SPLIT TIMES FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



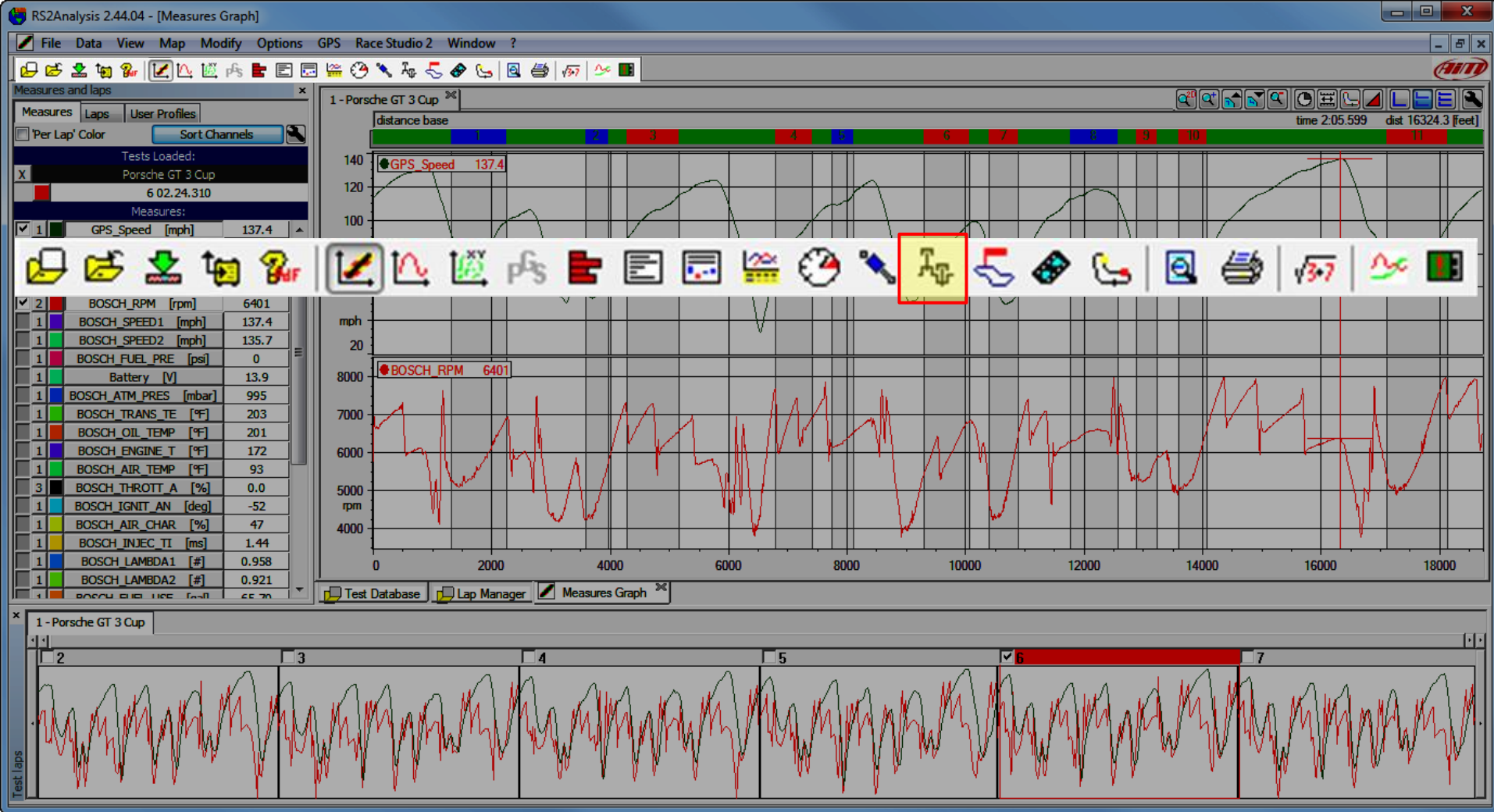
PRIMARY ICON TOOLBAR ITEM: **CHANNELS REPORT**. THIS ALLOWS YOU TO VIEW A COMPLETE USER DEFINED SUMMARY OF BOTH YOUR SAMPLED DATA AND YOUR LAP TIMES. ALSO GET THE CHANNELS REPORT FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



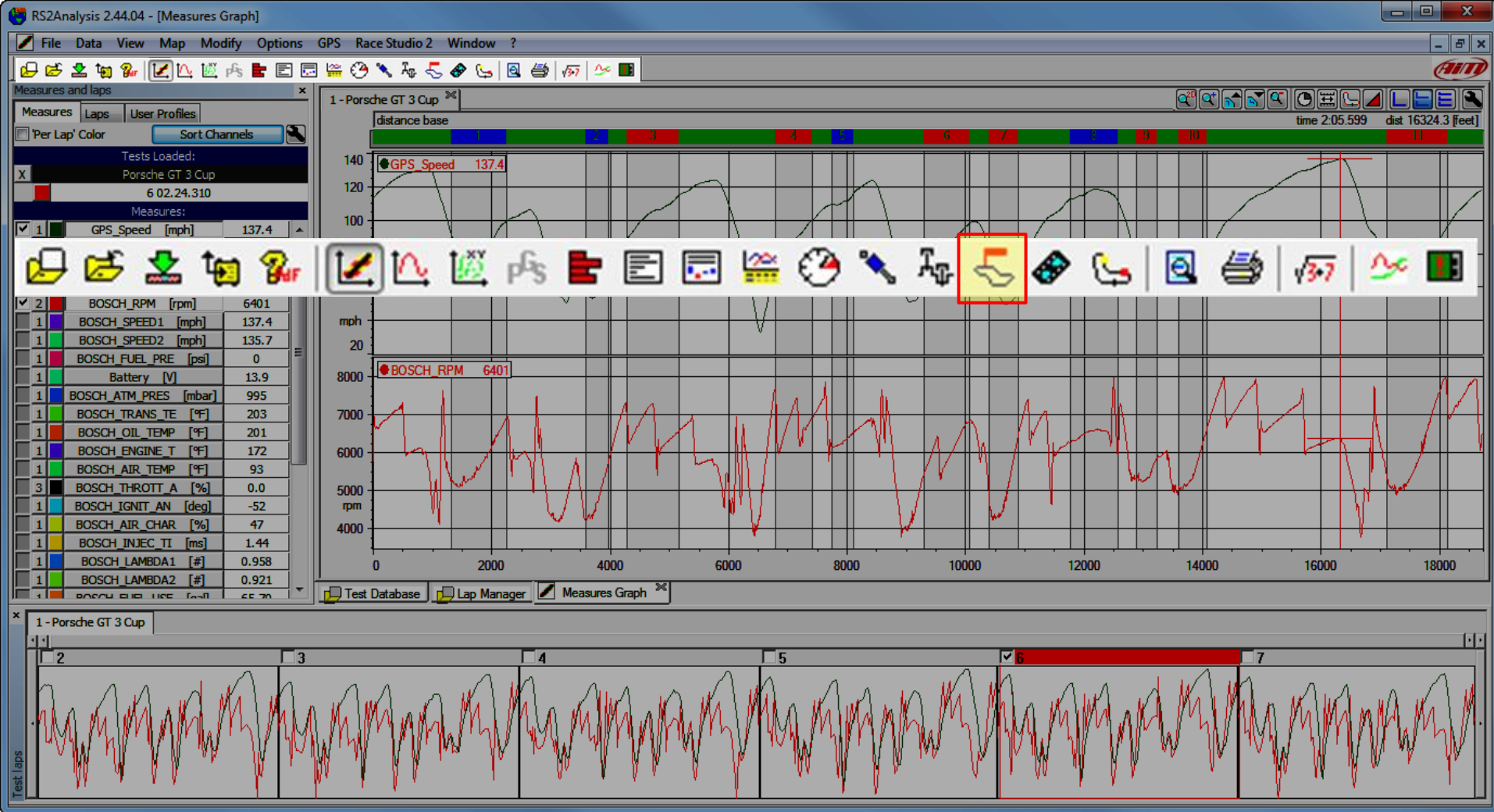
PRIMARY ICON TOOLBAR ITEM: DASHBOARD SIMULATION. THIS ALLOWS YOU TO VIEW A USER DEFINED ANIMATED DASHBOARD OF YOUR DATA. ALSO GET THE DASHBOARD SIMULATION FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



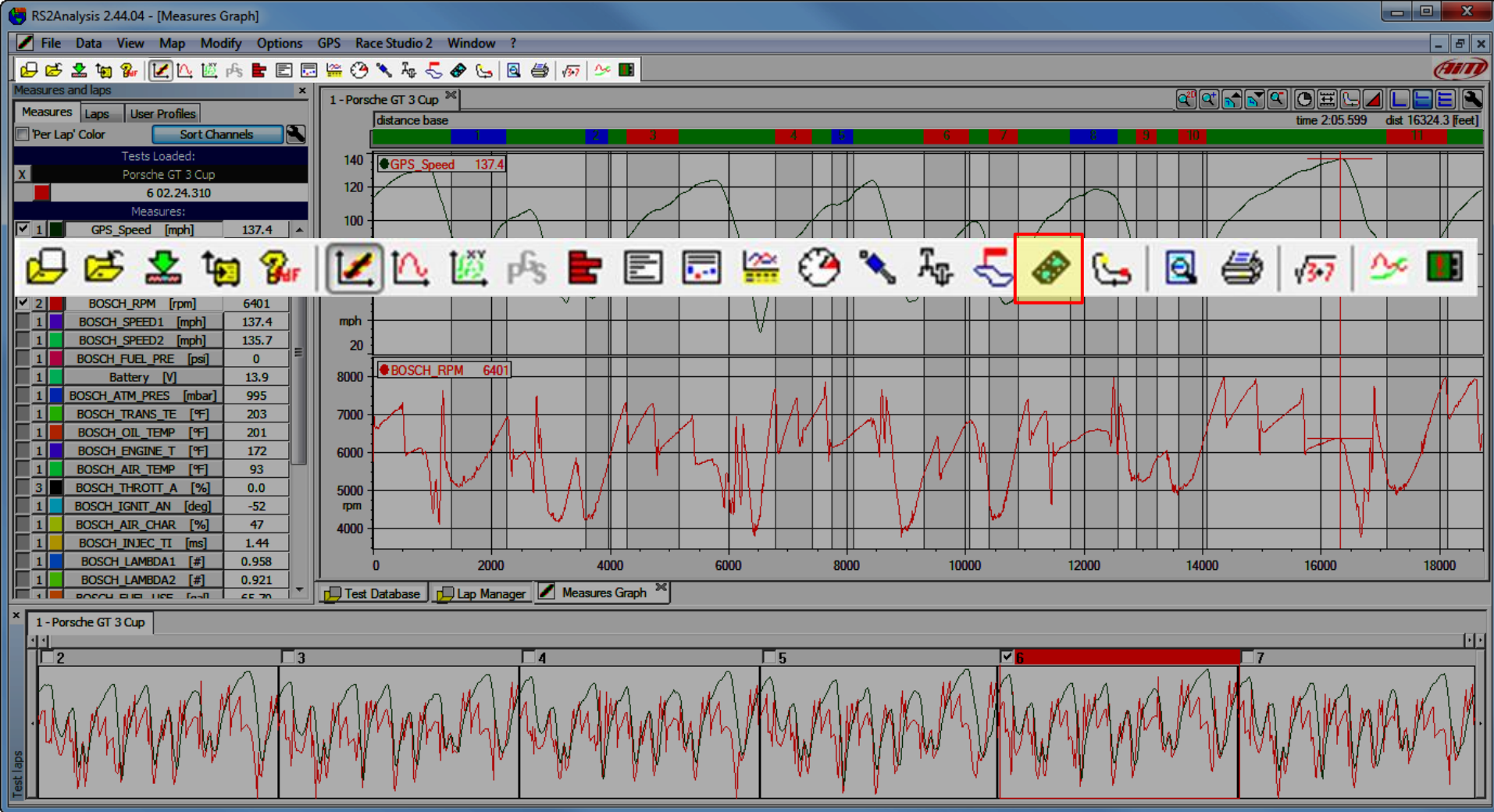
PRIMARY ICON TOOLBAR ITEM: **SUSPENSION ANALYSIS**. THIS ALLOWS YOU DEEPLY ANALYZE SUSPENSION INFORMATION FROM YOUR DATA. ALSO GET THE SUSPENSION ANALYSIS FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



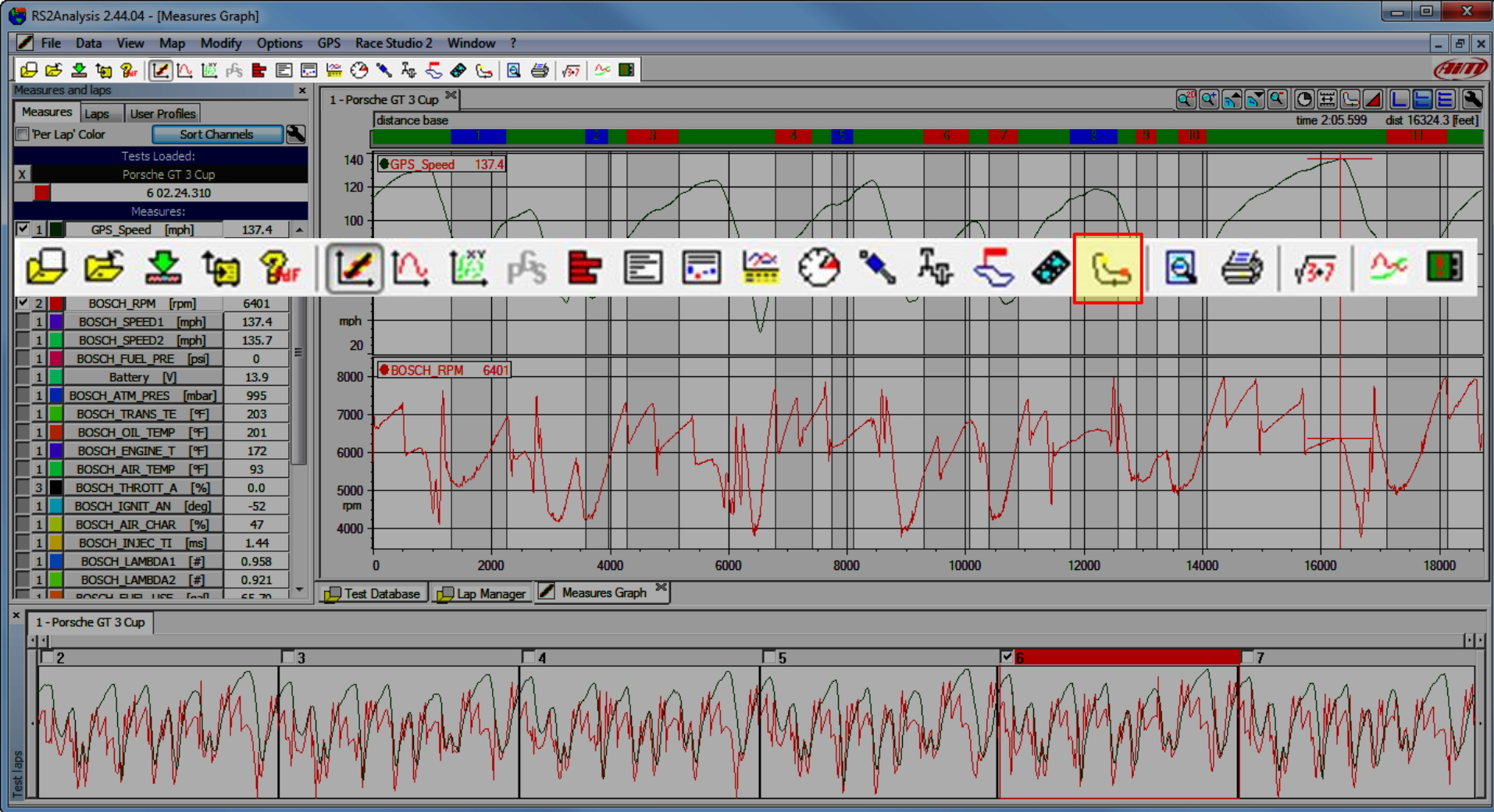
PRIMARY ICON TOOLBAR ITEM: ENGINE RPM ANALYSIS. THIS ALLOWS YOU CALCULATE AND VIEW CALCULATED HORSEPOWER AND TORQUE VALUES FROM YOUR DATA. ALSO GET THE ENGINE RPM ANALYSIS FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



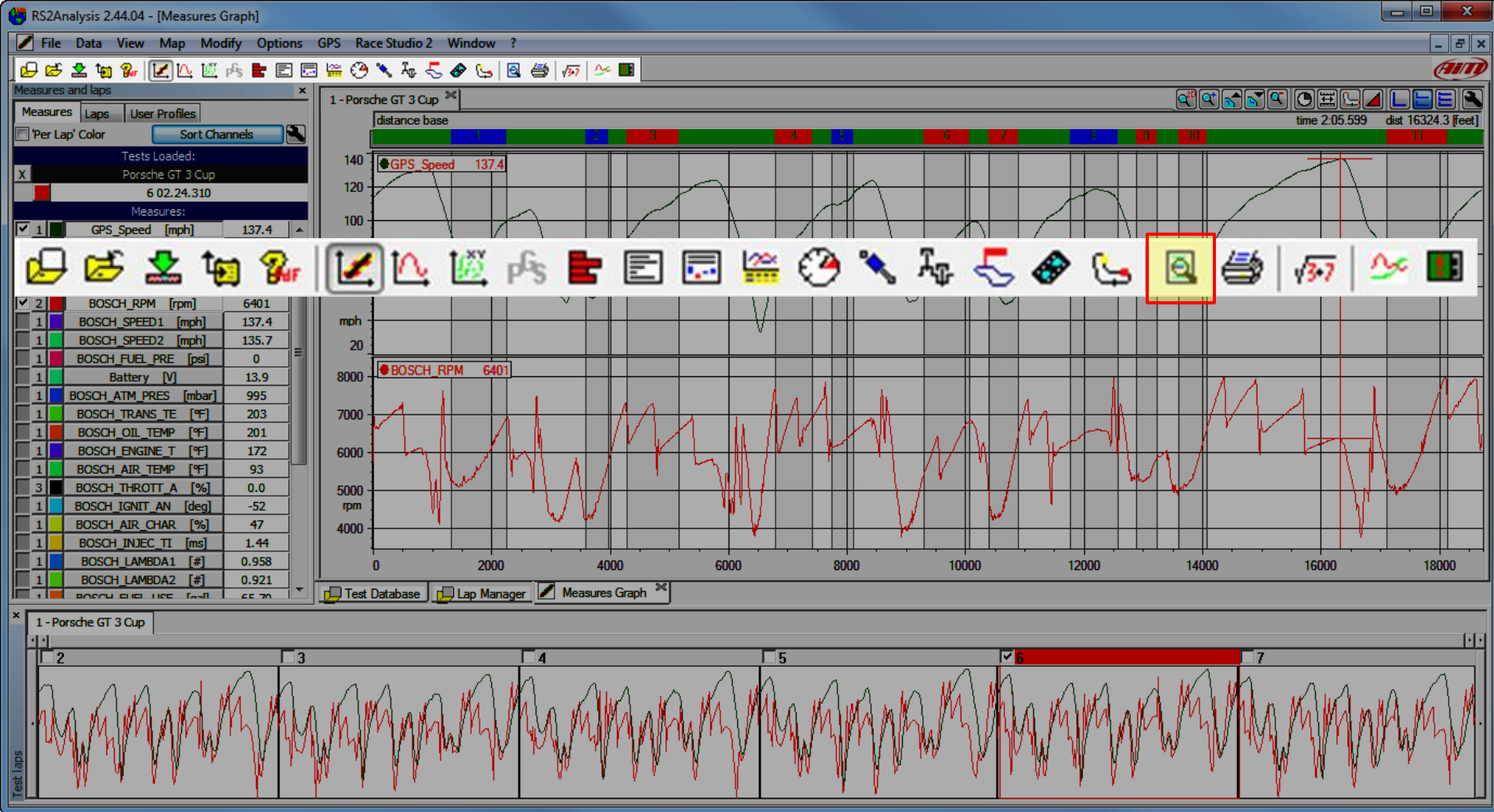
PRIMARY ICON TOOLBAR ITEM: TRACK REPORT. THIS ALLOWS YOU TO PLOT DIFFERENT CHANNELS DIRECTLY ONTO A TRACK MAP INCLUDING HIGH AND LOW VALUES PER SEGMENT. ALSO YOU CAN COMPARE LAPS AGAINST EACH OTHER. ALSO GET THE TRACK REPORT FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



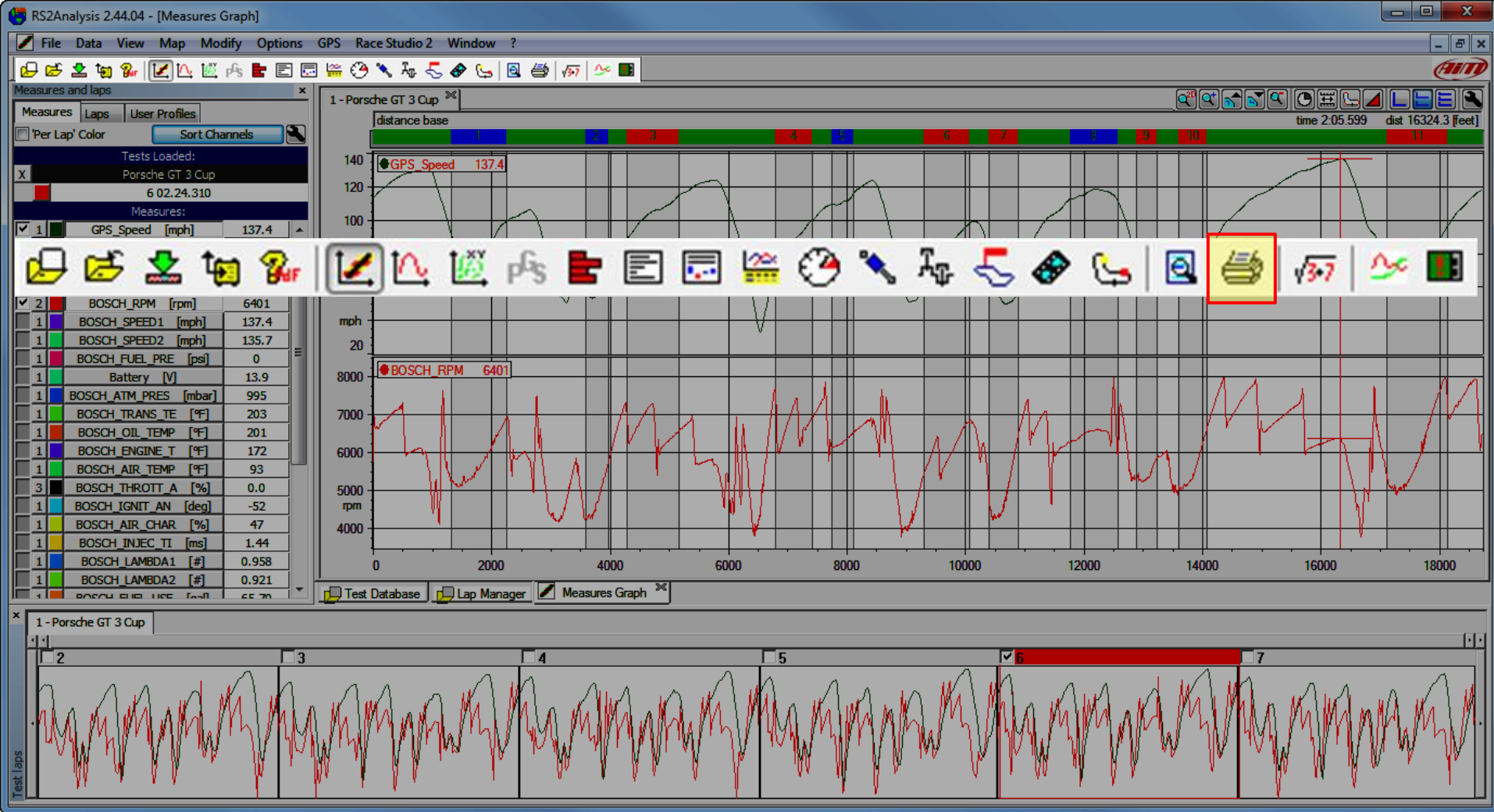
PRIMARY ICON TOOLBAR ITEM: DATA ANIMATION. THIS ALLOWS YOU TO ANIMATE YOUR DATA WHILE IT IS LINKED TO PLOTS, CURSERS, MAPS, REPORTS, DASHBOARDS, AND REPLAYS. ALSO GET THE DATA ANIMATION FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



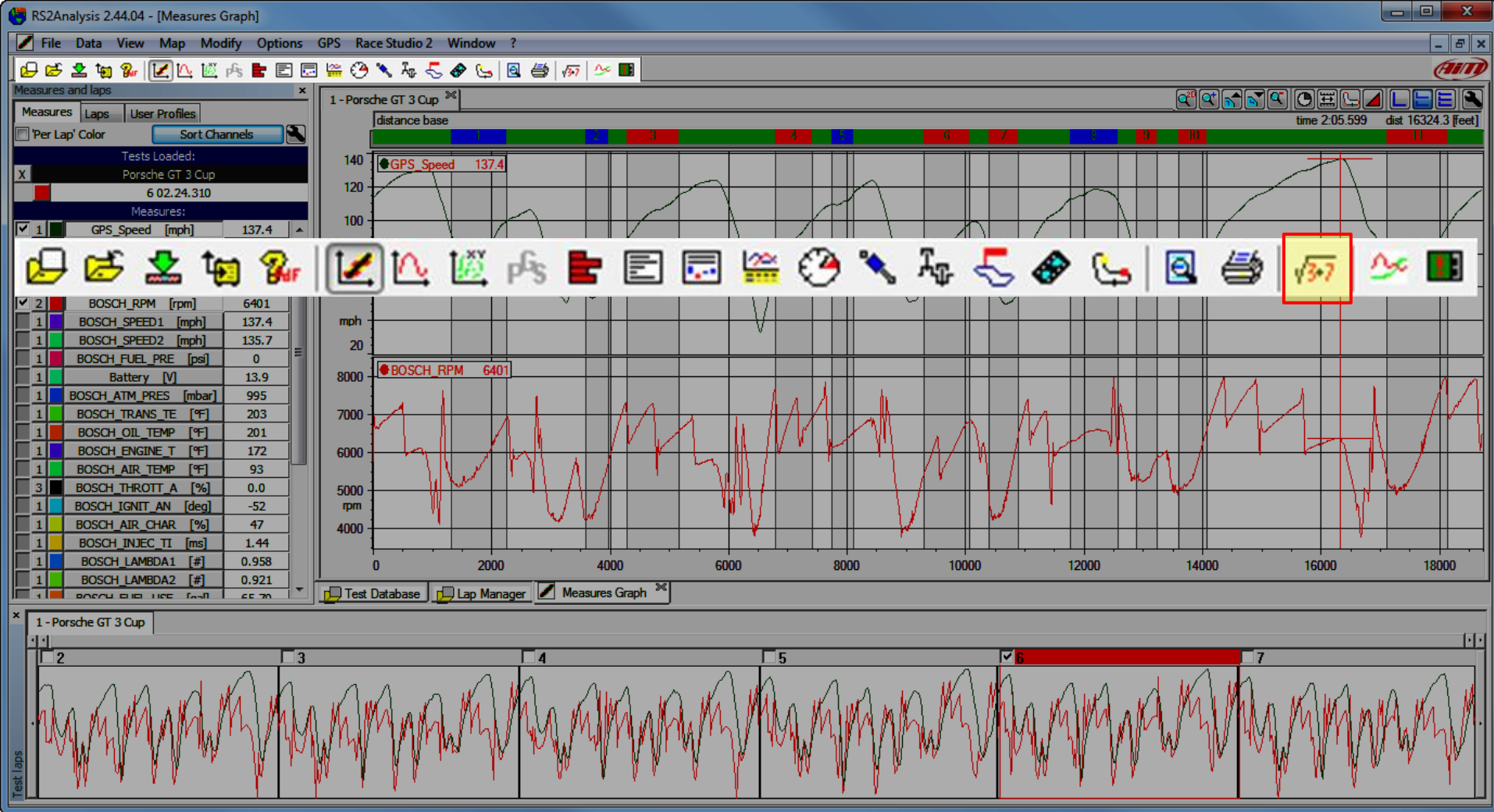
PRIMARY ICON TOOLBAR ITEM: LAP REPLAY. THIS ALLOWS YOU TO REPLAY 2 LAPS AGAINST EACH OTHER ON A TRACK MAP WITH DIFFERENT DATA CHANNELS ATTACHED. ALSO GET THE LAP REPLAY FROM THE VIEW ITEM ON THE PULL-DOWN MENU.



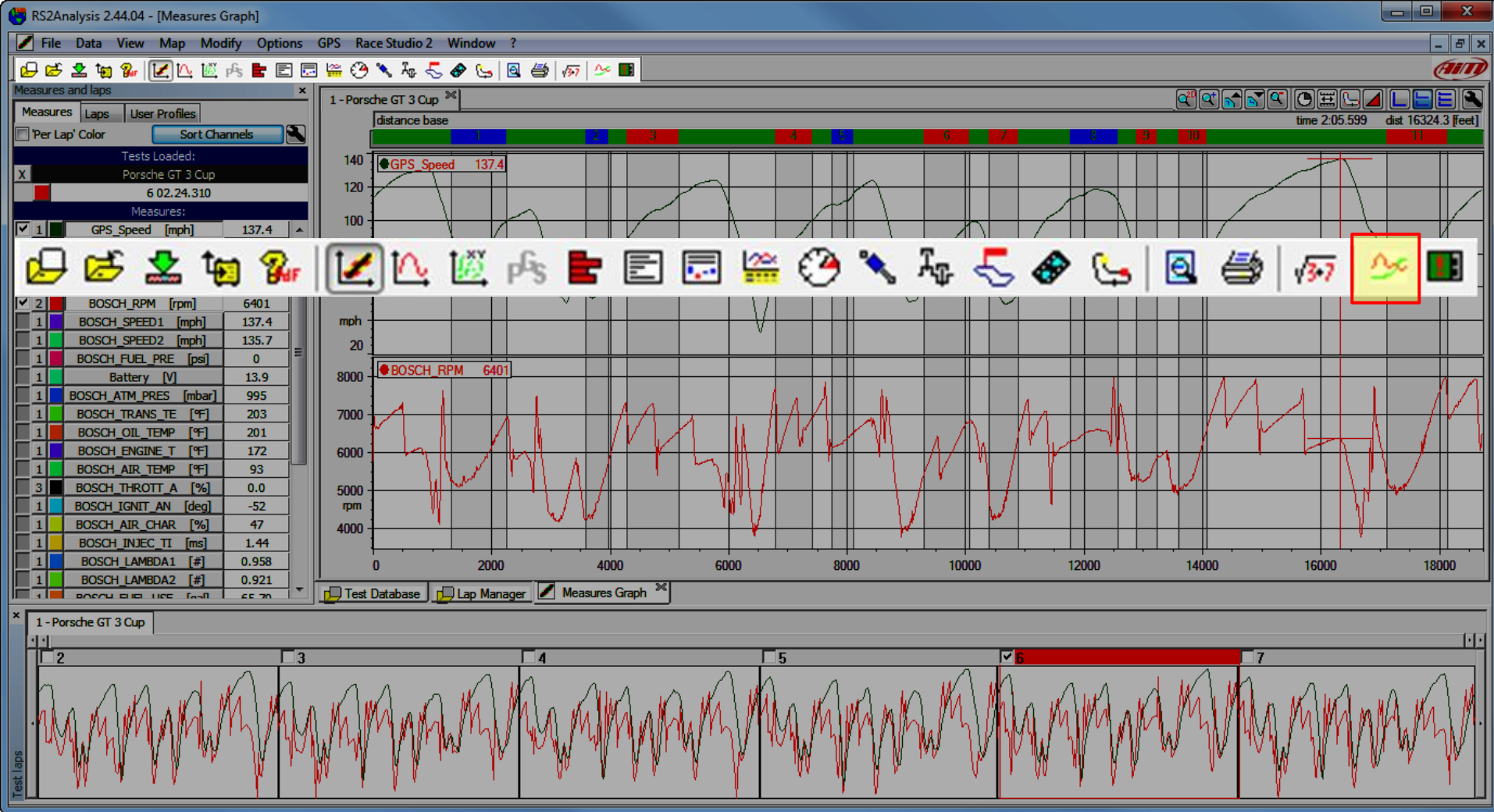
PRIMARY ICON TOOLBAR ITEM: PRINT PREVIEW. THIS ALLOWS YOU TO PREVIEW ANY ITEMS YOU ARE GOING TO PRINT. ALSO GET THE PRINT PREVIEW FROM THE FILE ITEM ON THE PULL-DOWN MENU.



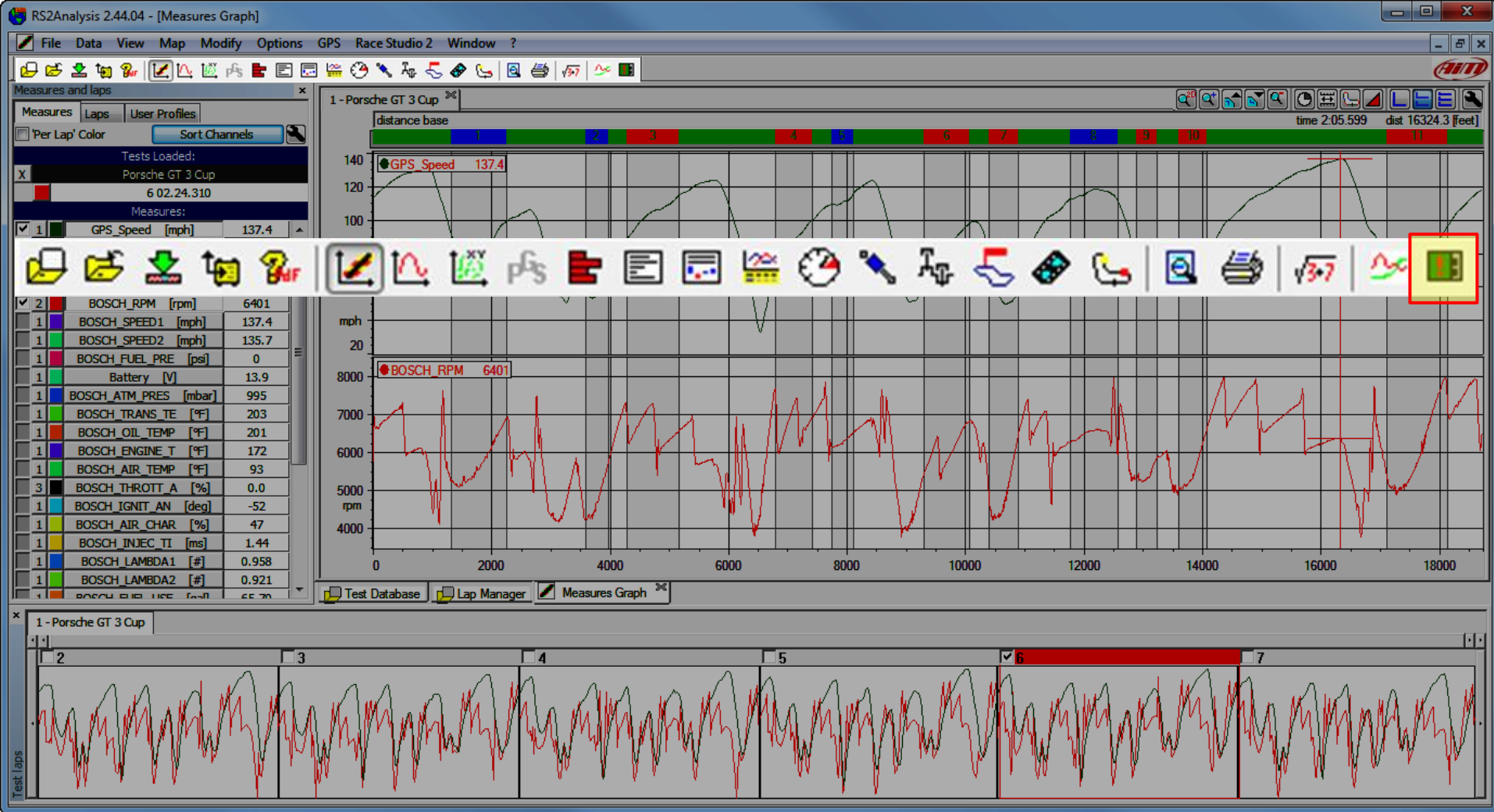
PRIMARY ICON TOOLBAR ITEM: **PRINT**. THIS ALLOWS YOU TO PRINT. ALSO GET THE PRINT FUNCTION FROM THE FILE ITEM ON THE PULL-DOWN MENU.



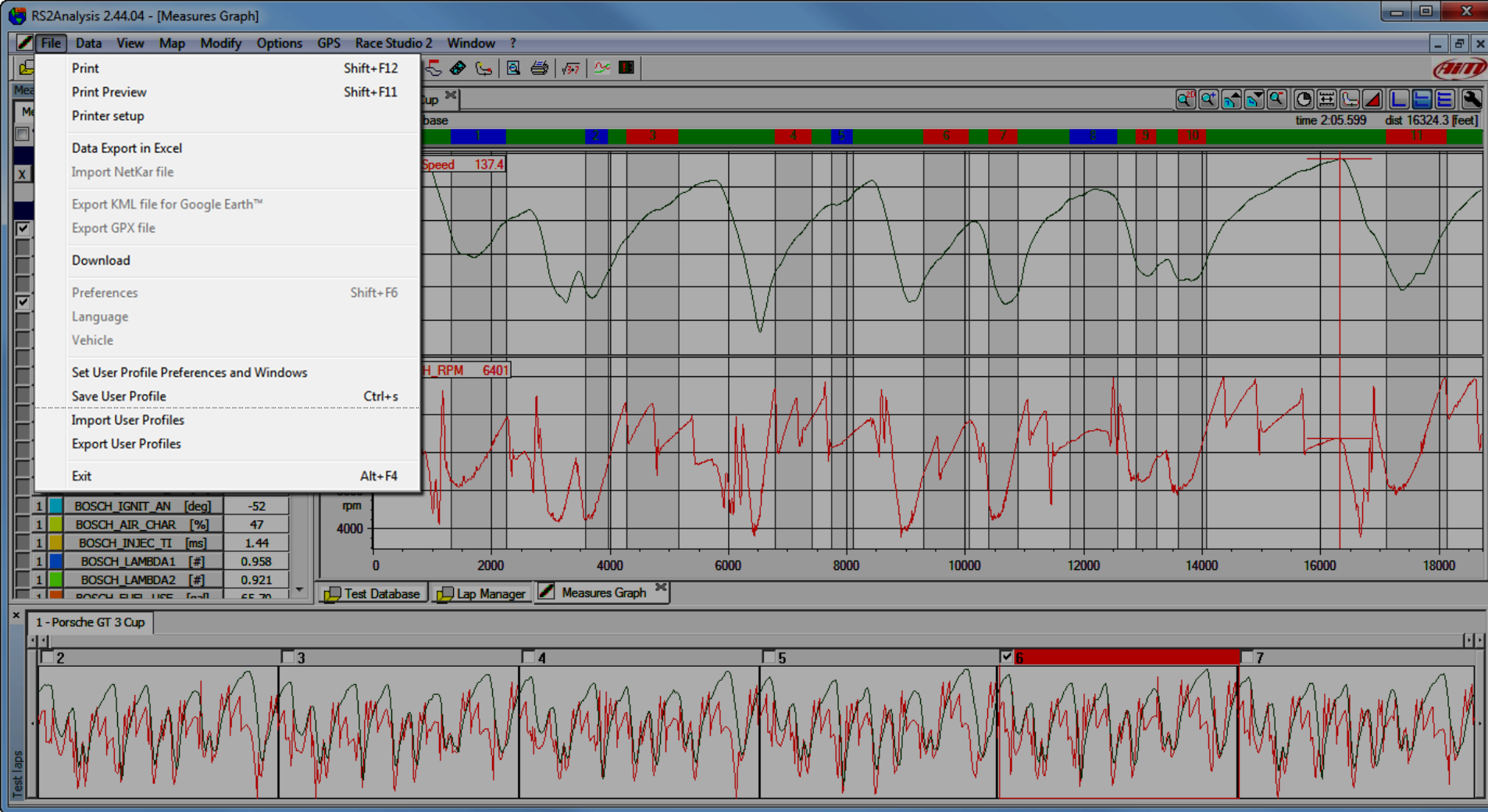
PRIMARY ICON TOOLBAR ITEM: MATH CHANNELS. THIS ALLOWS YOU TO CREATE, MODIFY AND DELETE MATH CHANNELS. ALSO GET THE MATH CHANNELS FUNCTION FROM THE MODIFY ITEM ON THE PULL-DOWN MENU.



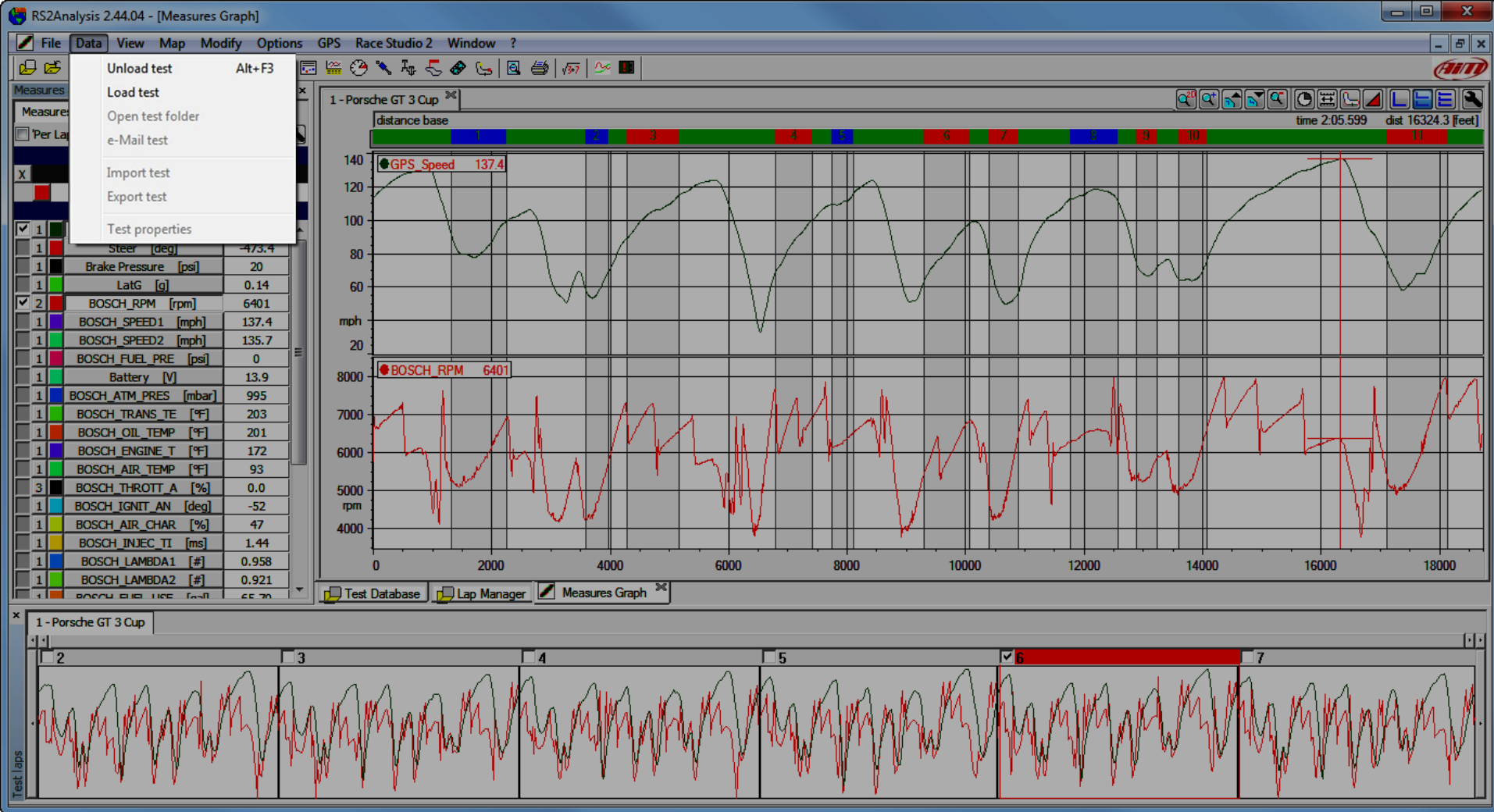
PRIMARY ICON TOOLBAR ITEM: PLOT SETTINGS. THIS ALLOWS YOU TO CHANGE YOUR PLOT SETTING NOT ONLY FOR ON THE SCREEN BUT ALSO IN PRINTOUTS. ALSO GET THE PLOT SETTINGS FUNCTION FROM THE OPTIONS ITEM ON THE PULL-DOWN MENU.



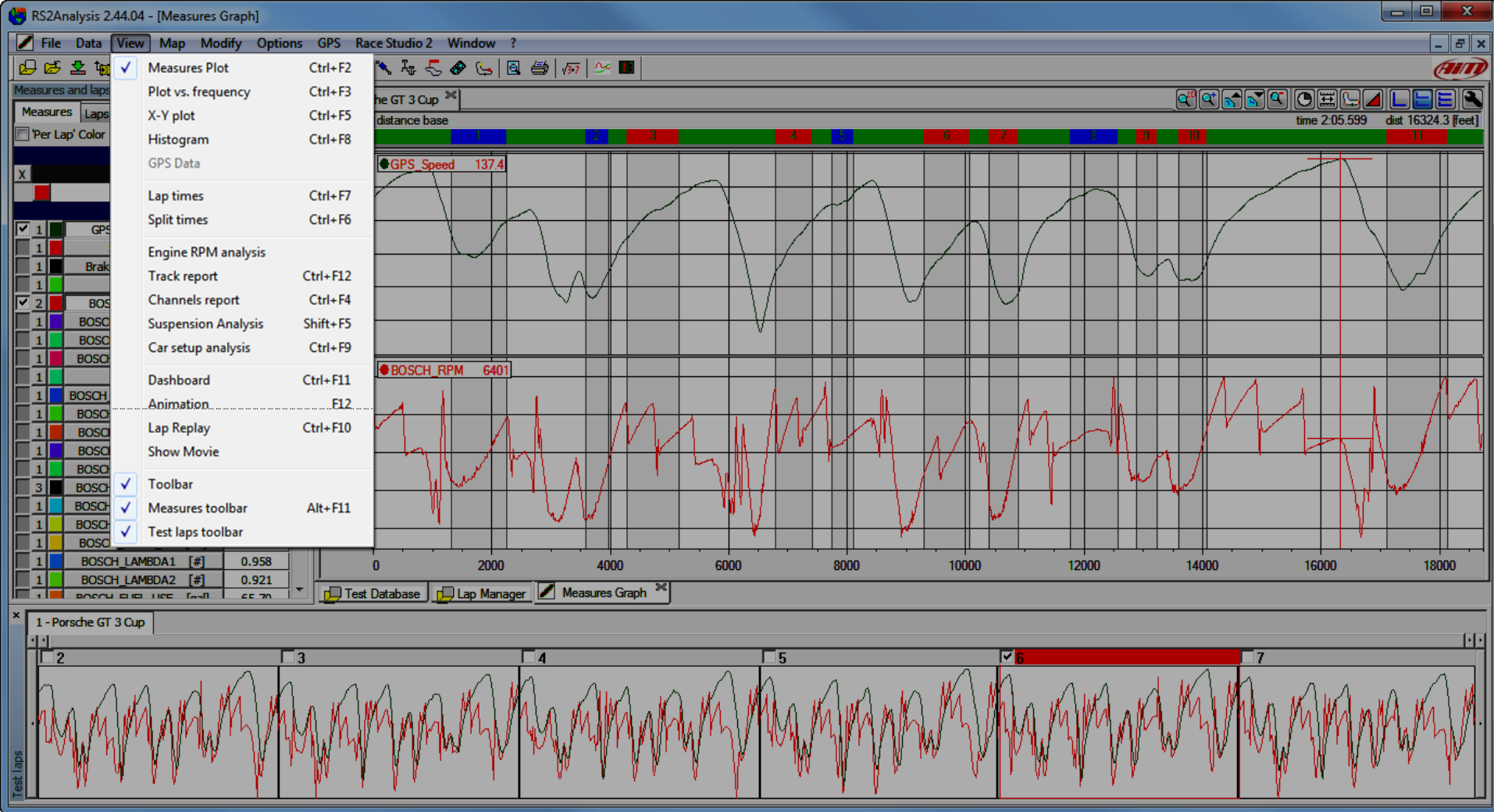
PRIMARY ICON TOOLBAR ITEM: MEASURES INFO. THIS ALLOWS YOU TO MODIFY MANY VARIABLES FOR EVERY CHANNEL OF DATA GATHERED. ALSO GET THE MEASURES INFO FUNCTION FROM THE MODIFY ITEM ON THE PULL-DOWN MENU.



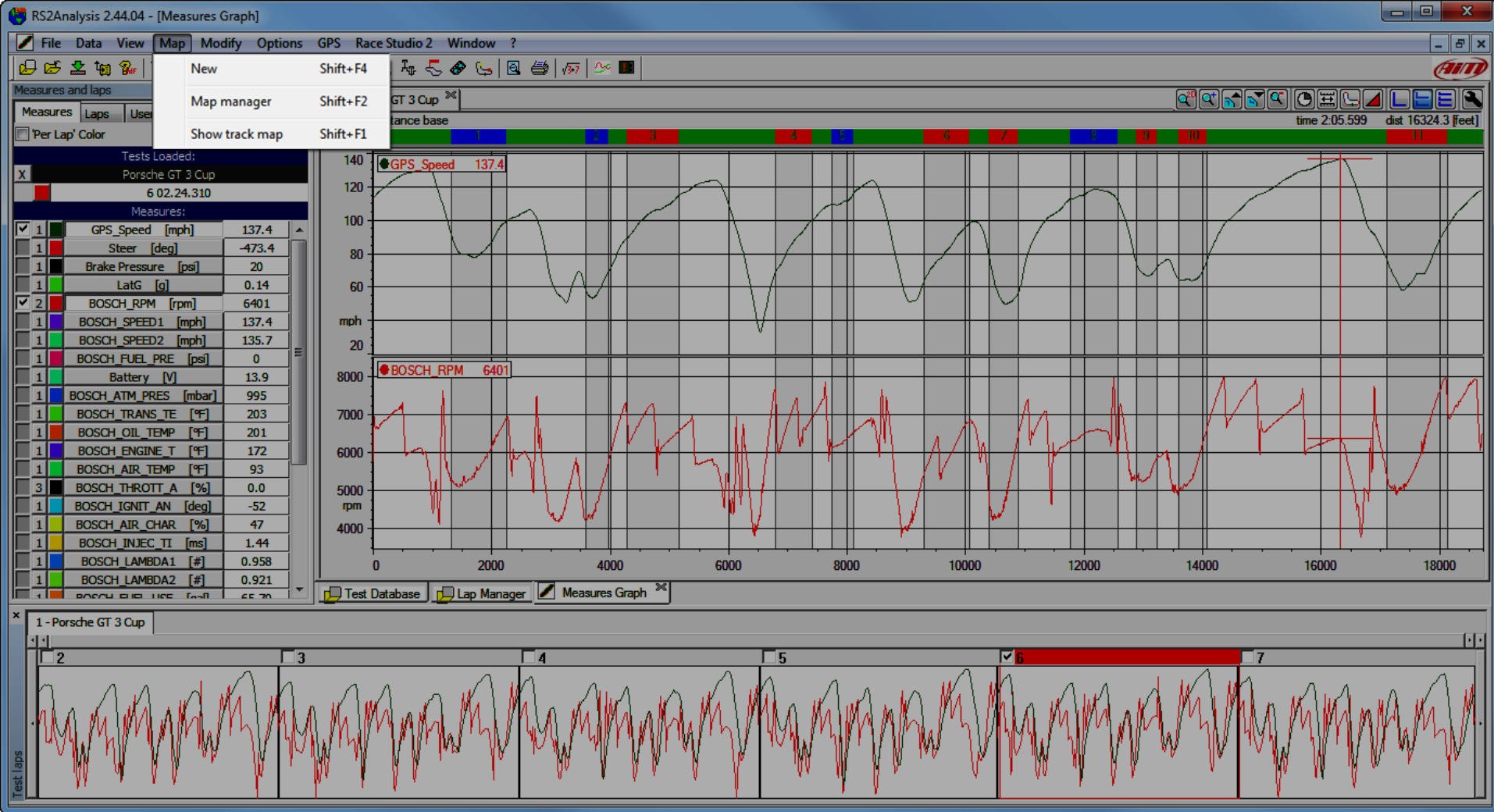
THE "FILE" PULL-DOWN MENU ALLOWS THE PRINTING OPTIONS, IMPORT AND EXPORT FUNCTIONS, DOWNLOADING OF DATA, SOFTWARE, LANGUAGE, AND VEHICLE PREFERENCES, USER PROFILE OPTIONS, AND A EXIT COMMAND. NOTICE SOME ARE "GRAYED OUT". THESE FUNCTIONS ARE ONLY AVAILABLE WHEN ALL TESTS ARE CLOSED.



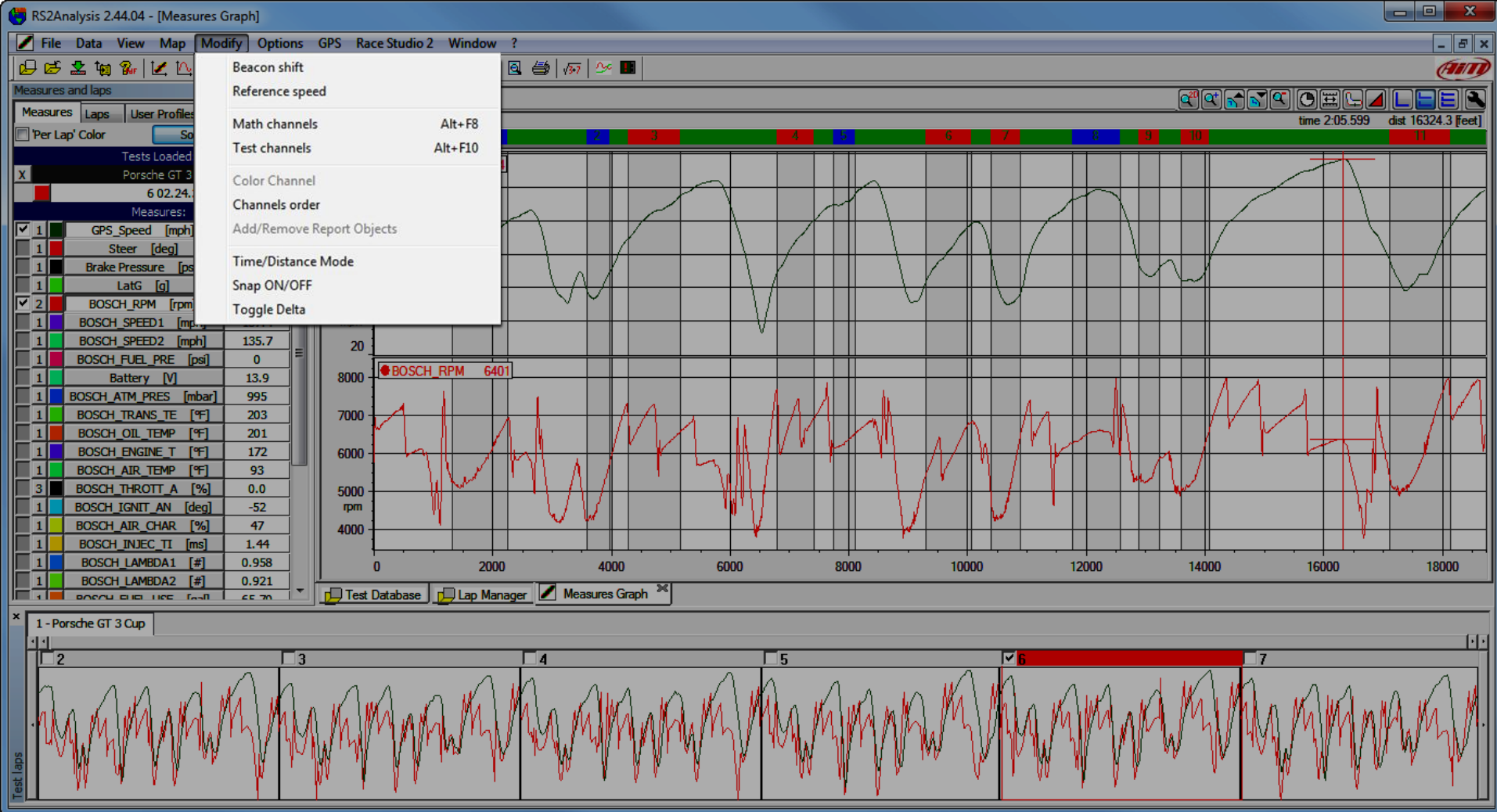
THE “DATA” PULL-DOWN MENU ALLOWS THE LOADING AND UNLOADING OF TESTS, THE OPENING OF A TEST FOLDER, THE ABILITY TO EMAIL A TEST DIRECTLY FROM THE SOFTWARE, IMPORT/EXPORT FUNCTIONS, AND THE ABILITY TO CHANGE THE TEST PROPERTIES. NOTICE SOME ARE “GRAYED OUT”. THESE FUNCTIONS ARE ONLY AVAILABLE WHEN ALL TESTS ARE CLOSED.



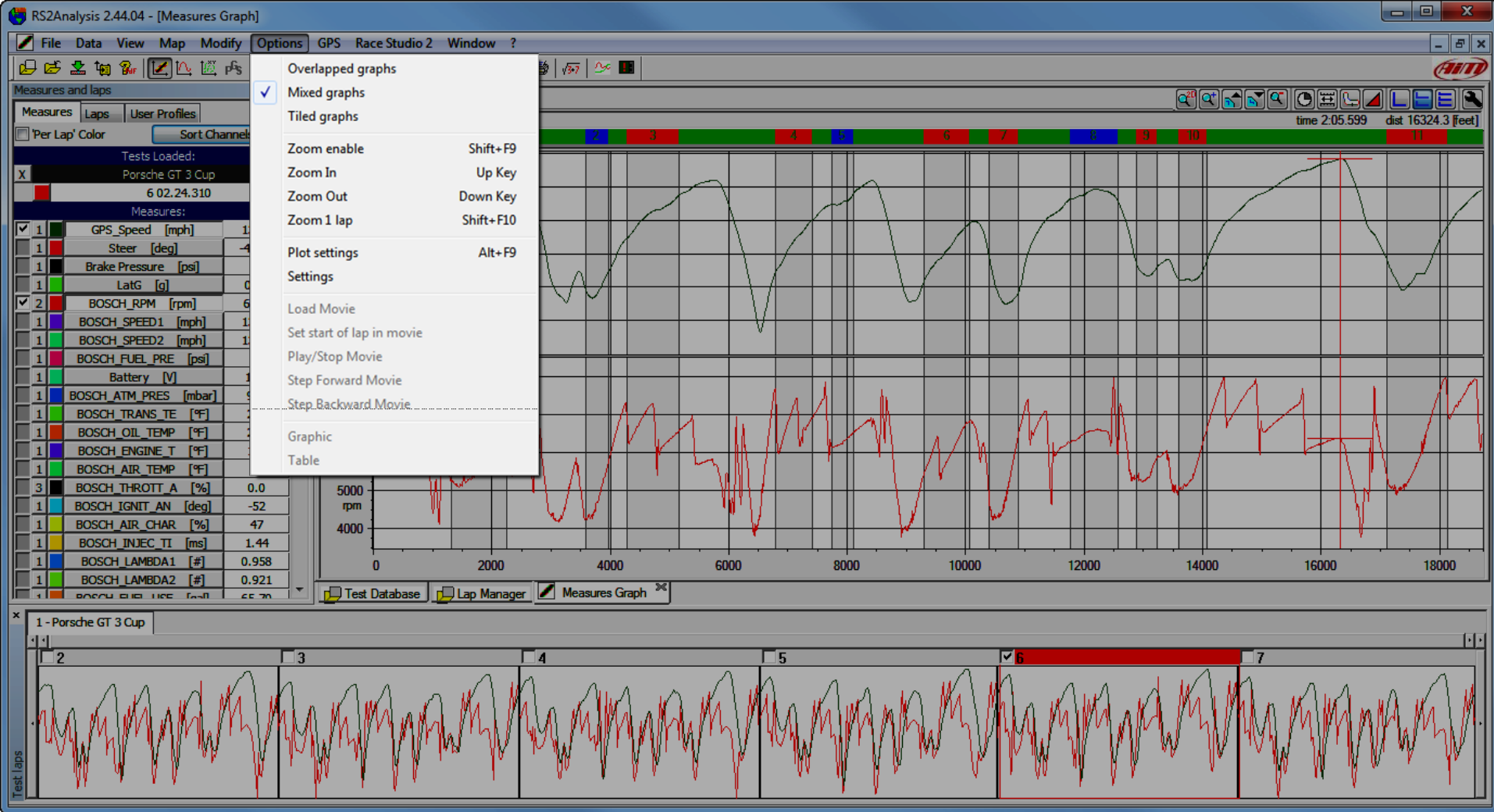
THE "VIEW" PULL-DOWN MENU ALLOWS YOU TO ACCESS ALL OF THE ANALYSIS COMMANDS, MOST ARE ALSO AVAILABLE ON THE ICON TOOLBAR. THE FINAL 3 ITEMS ARE THE TOGGLES FOR TURNING ON AND OFF THE TOOLBAR (PRIMARY ICON TOOLBAR), MEASURES TOOLBAR, AND TEST LAPS TOOLBAR. NOTICE THE GPS ITEM IS "GRAyed OUT". THIS FUNCTION IS ONLY ACTIVE WHEN GPS DATA IS AVAILABLE AND THIS SAMPLE DATA DOES NOT HAVE GPS DATA.



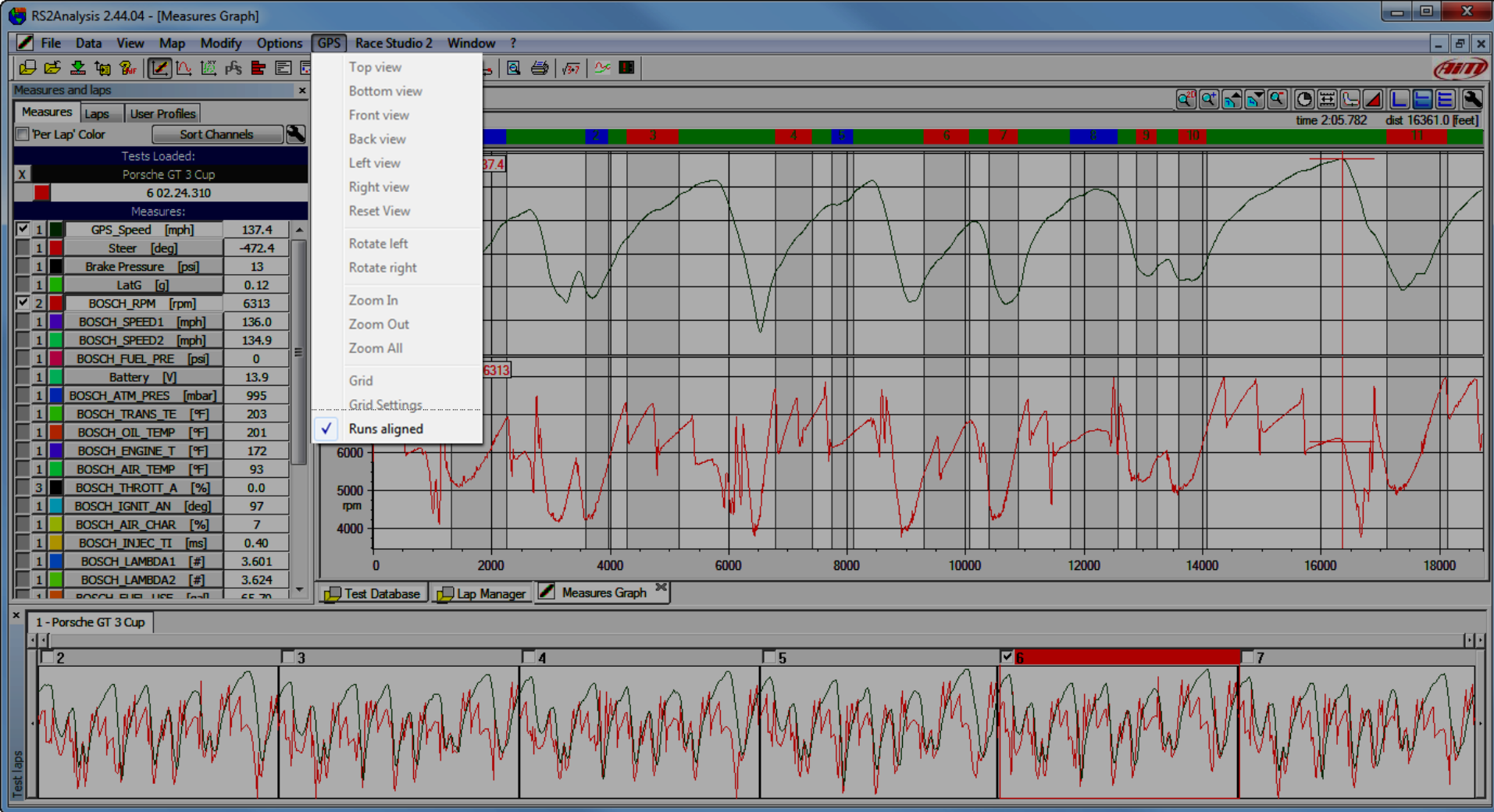
THE "MAP" PULL-DOWN MENU ALLOWS YOU TO CREATE NEW, MANAGE, AND SHOW TRACK MAPS.



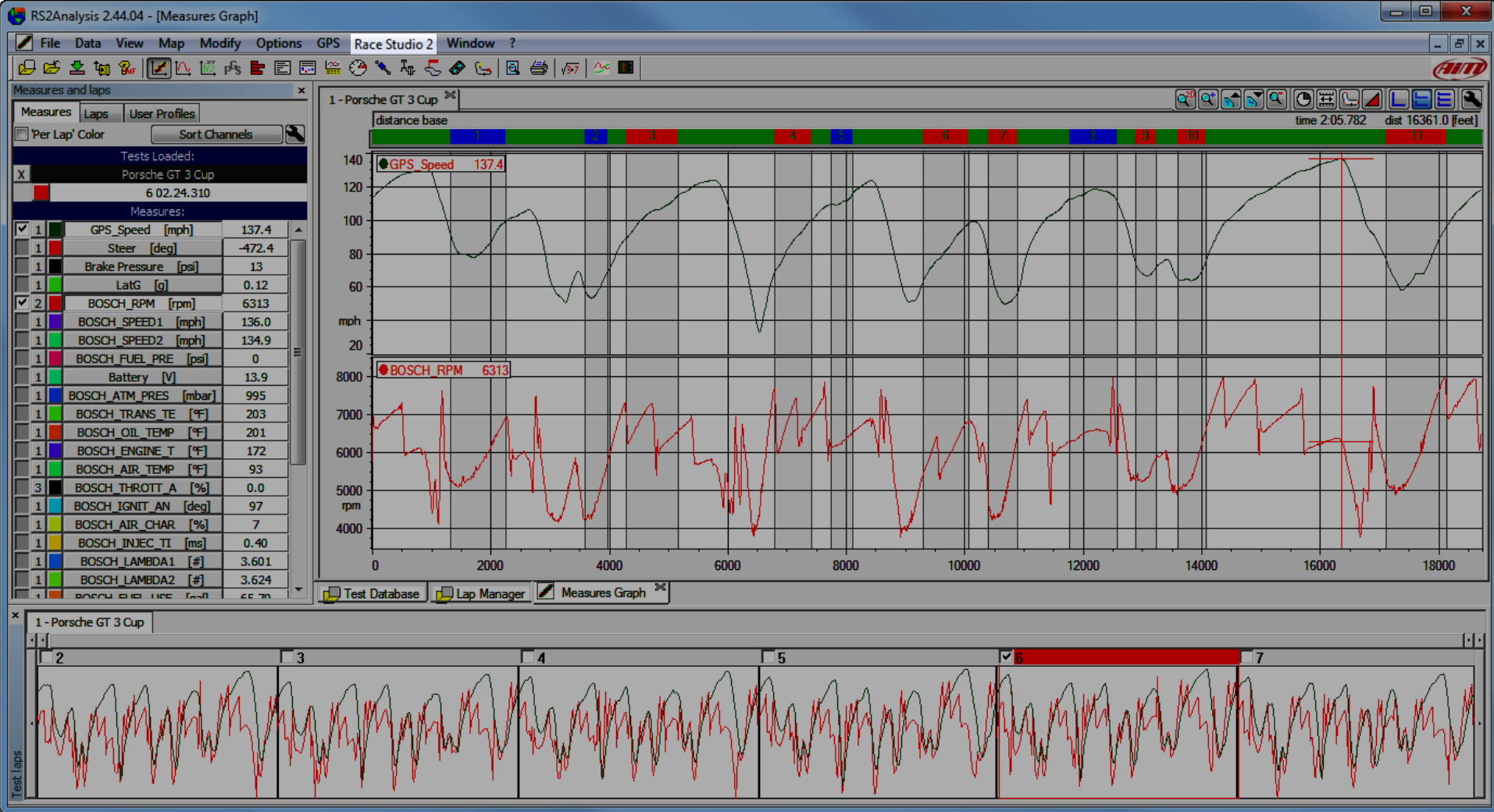
THE "MODIFY" PULL-DOWN MENU ALLOWS YOU TO MODIFY THE BEACON POSITION AND THE REFERENCE SPEED. MATH CHANNELS ARE MODIFIED, CREATED, AND DELETED HERE. ALL COMPONENTS OF YOUR TEST CHANNELS CAN BE MODIFIED UNDER THE TEST CHANNELS ITEM. CHANNEL ORDER AND COLOR ALONG WITH ADD/REMOVING REPORT OBJECTS COMMANDS ARE AVAILABLE IN SOME MODULES. CHANGING FROM TIME TO DISTANCE ON THE X AXIS, SNAP FUNCTIONS, AND THE DELTA FUNCTION ARE ALSO AVAILABLE HERE.



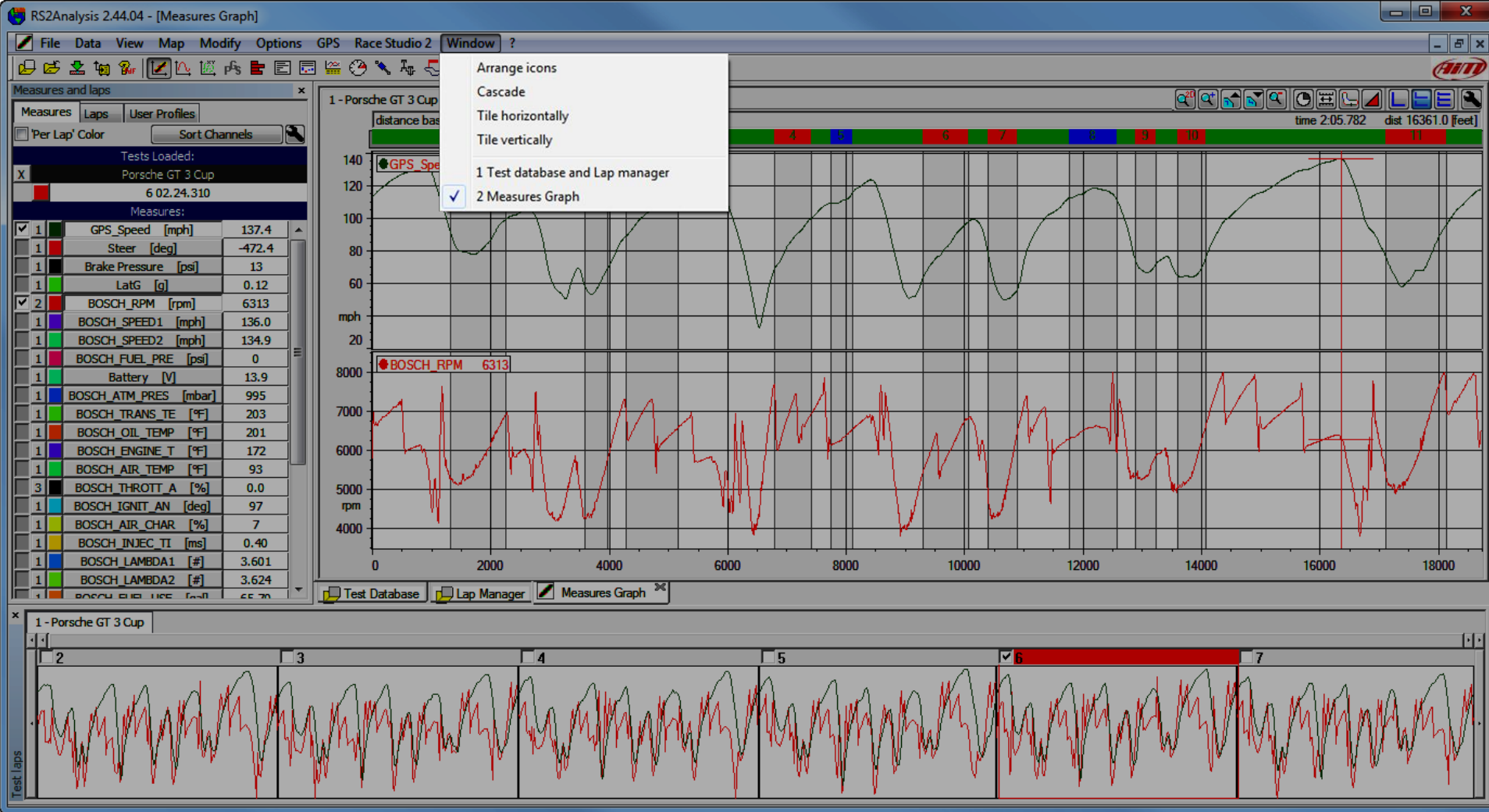
THE "OPTIONS" PULL-DOWN MENU ALLOWS YOU TO SWITCH FROM OVERLAPPED, MIXED, AND TILE GRAPH STYLES. ZOOM COMMANDS ARE ALSO HERE. THE SETTINGS DIALOG BOXES FOR PLOT SPECIFIC AND GENERAL SETTINGS IS HERE. THE MOVIE OPTIONS ARE ALL "GRAYED OUT" AND ARE FOR FUTURE USE. THE GRAPHIC AND TABLE SETTING ARE TO TOGGLE REPORTS (SUCH AS SPLIT REPORTS) BETWEEN TABLE AND GRAPHIC VIEWS.



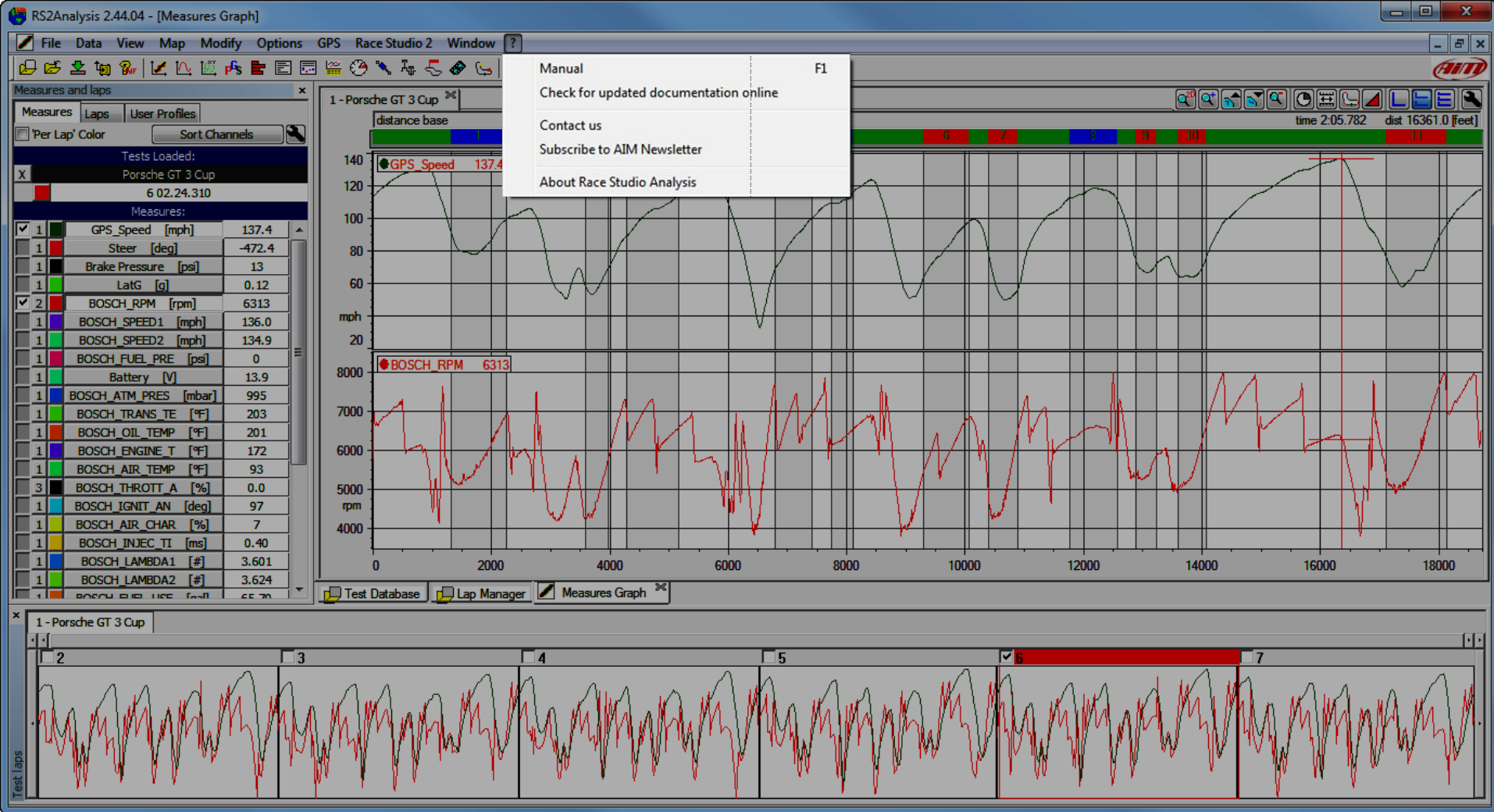
THE "GPS" PULL-DOWN MENU ALLOWS YOU TO MANIPULATE THE VIEW OF YOUR GPS DATA. THIS FUNCTION IS ONLY ACTIVE WHEN GPS DATA IS AVAILABLE AND THIS SAMPLE DATA DOES NOT HAVE GPS DATA. THE RUNS ALIGNED TOGGLE IS ALSO AVAILABLE.



THE "RACE STUDIO 2" PULL-DOWN MENU ITEM IS NOT REALLY A PULL-DOWN ITEM, IT IS RATHER A DIRECT MENU ITEM TO THE RACE STUDIO 2 CONFIGURATION HALF OF THE SOFTWARE.



THE “WINDOW” PULL-DOWN MENU ALLOWS YOU TO QUICKLY MODIFY THE LOOK AND FEEL OF THE MODULES IN THE MAIN WINDOW AREA BY CASCADING OR TILING HORIZONTALLY OR VERTICALLY. THE LOWER PART OF THIS MENU WILL SHOW YOU THE MODULES YOU HAVE OPEN AND WHICH ONE IS ACTIVE.



THE “?” PULL-DOWN MENU ALLOWS YOU TO OPEN A (CURRENTLY NOT UPDATED) MANUAL AND YOU CAN ALSO CHECK FOR UPDATED DOCUMENTATION. YOU CAN ALSO CLICK ON THE CONTACT OR SUBSCRIBE ITEMS AND BE TAKEN TO A WEBSITE TO GIVE FURTHER INFORMATION. THE BOTTOM ITEM WILL GIVE YOU DETAILED VERSION INFORMATION ABOUT RACE STUDIO 2.



AIM

LEARN FAST™

**CONTACT INFO:
ROGER CADDELL**

ROGER@AIMSPORTS.COM

VIDEO: WWW.VIMEO.COM/AIMSPORTS/VIDEOS



www.aimsports.com

f facebook.com/aimsports
t twitter: @aimsports

1.800.718.9090

Dec 2012