REFERENCE	BT_2011_FR20_8_UK
DATE	13rd April, 2011
SUBJECT	New Omega code, new PI Toolset software, new chassis repair service, new front endplate, new nose tip
PART	Omega, chassis, front endplate, nose tip

1. New chassis repair service

It is now possible to repair your chassis within the **Automotive** facility, in Le Mans (France). This company has been approved by Renault Sport and the FIA to repair Formula Renault 2.0 chassis slightly damaged.

This small company has proven its knowledge providing nice repairs on previous Formula Renault 2.0, at really good prices.

Then Renault Sport recommends to send your chassis for repair to Automotive SARL in case your chassis is:

- showing damages on the floor
    - o Inner and/or outer floor skin cracked
    - o Floor insert moving or lost
    - o rear edge of the chassis damaged due to hard contact with the ground

- showing small surface damages wherever on the chassis

If your chassis needs major repairs (ie. Rocker inserts, whishbone pick up points or engine inserts moving or broken), it must be sent back to Caparo Vehicle Technologies, as explained in the Formula Renault 2.0 2011 User Manual.

Contact details :

Automotive
Technoparc des 24 heures
72100 LE MANS
France

Mr. Christophe BIHR
Tel : +33 (0)2 43 21 30 45
Fax: +33 (0)2 43 21 30 58
@: automotive@hotmail.fr

2. New Omega code

DEPLOYEMENT: EUROCUP: 1st meeting in Motorland
NEC: done during 1st meeting in Hockenheim
UK: 2nd meeting in Donington
ALPS: 2nd meeting in Imola

All the Omega dataloggers must be upgraded to the new release **L2 2011.1**. This release includes a new sticker which is now mandatory to compete in a 2011 Formula Renault 2.0 championship.

The main improvements are described below:

- possibility to calibrate spare channels and to set up their acquisition frequency (refer to the new Toolset release hereafter)

- new datalogging table :

Channel name	Meaning	Units	Frequency
Accel Lateral	Lateral Acceleration	g	100 Hz
Accel Longitudinal	Longitudinal Acceleration	g	100 Hz
Air Temp	Ambient Temperature	°C	20 Hz
Alarm Status	Alarm Status	-	10 Hz
Barometric Press	Atmospheric pressure	g	5 Hz
Battery Voltage	Battery voltage	V	50 Hz
Box Temp	Omega temperature	°C	2 Hz
Brake balance	Brake balance	%	100 Hz
Brake Press F	Brake pressure front	Bar	100 Hz
Brake Press R	Brake pressure rear	Bar	100 Hz
CAN Packet Count Rx	CAN diagnostic	-	5 Hz
CAN Packet Count Tx	CAN diagnostic	-	5 Hz
Corrected distance	Corrected distance	m	10 Hz
Corrected speed	Corrected speed	m/s	100 Hz
Damper F	Front damper displacement	mm	200 Hz
Damper RL	Rear left damper displacement	mm	200 Hz
Damper RR	Rear right damper displacement	mm	200 Hz
Display Alarm status	Display status	-	50 Hz
Display Page status	Display status	-	1 Hz
Display reset count	Display status	-	20 Hz
Display Switch status	Display status	-	10 Hz
Distance	Covered Distance	m	10 Hz
ECU Battery Voltage	Battery voltage	V	50 Hz
ECU Box Temp	ECU temperature	°C	1 Hz
ECU Cam Angle	Cam angle	°	50 Hz
ECU Cam Target	Cam target	°	50 Hz
ECU Engine status	Engine diagnostic	-	100 Hz

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ECU FBW Learn Status	Fly by wire diagnostic	-	10 Hz
ECU FBW status	Fly by wire diagnostic	-	10 Hz
ECU Switches Status	Switch diagnostic	-	50 Hz
ECU Vcam learn State	Not used yet	-	10 Hz
ECU VCam Status	Cam diagnostic	-	50 Hz
Elapsed Lap Time	Elapsed Lap Time	s	100 Hz
Elapsed Time	Elapsed Time	s	50 Hz
Engine Coolant Temp	Engine coolant temperature	°C	20 Hz
Engine Oil Press	Engine oil pressure	Bar	100 Hz
Engine Oil Temp	Engine oil temperature	°C	10 Hz
Free CPU	Omega diagnostic	%	10 Hz
Fuel Economy		Km/l	1 Hz
Fuel Pulse Width		ms	200 Hz
Fuel Used	Fuel consumption tool	L	10 Hz
Fuel Used Lap		L	1 Hz
Fuel Used Lap Rolling		L	10 Hz
Fuel Press	Fuel pressure	bar	50 Hz
GCU Shift Diag Status	Gearbox diagnostic	-	100 Hz
GCU Switch Status		-	50 Hz
Gear	Gear engaged	-	10 Hz
Gear Voltage	Barrel potentiometer voltage	V	200 Hz
Gearshift Status 1	gearshift diagnostic	-	200 Hz
Global Time	Global Time	s	1 Hz
Ignition Angle	Ignition angle	°	100 Hz
Lap distance	Distance covered during the lap	m	10 Hz
Lap Number	Lap number during the run	-	1 Hz
Logging Memory Remaining	Memory remaining	%	1 Hz
Manifold Press	Intake pressure	mbar	50 Hz
Map position D	Map position distance from the start point	m	10 Hz
Map position X	Map coordinates of the car from the start point	m	10 Hz
Map position Y		m	10 Hz
Map position Z		m	10 Hz
Outing Number	Outing number	-	1 Hz
Outing Time	Outing time	s	1 Hz
Paddle failed status	Gear paddle diagnostic	-	20 Hz
PCM Box Temp	Powerbox temperature	°	2 Hz
PCM Box Temp CBNT	Fusebox temperature	°	2 Hz
PCM Capacitor Current	Not used	A	5 Hz
PCM Capacitor Voltage 1	Capa1 voltage	V	2 Hz
PCM Capacitor Voltage 2	Capa2 voltage	V	2 Hz
PCM Capacitor Voltage 3	Capa3 voltage	V	2 Hz
PCM Capacitor Voltage 4	Capa4 voltage	V	2 Hz
PCM Charge Duty	Current loading capacity	%	10 Hz
PCM Coil current	Actuactor current	A	10 Hz
PCM coil voltage	Actuator voltage	V	10 Hz
PCM Free 1	Not used	-	2 Hz
PCM Free 2	Not used	-	2 Hz

PCM Input Status CBNT	Diag CBNT Input	-	1 Hz
PCM Output Status 1A	Diag CBNT 1A output	-	1 Hz
PCM Output Status 5A	Diag CBNT 5A output	-	1 Hz
PCM Output Status 5A SWT	Diag CBNT 5A SWT output	-	1 Hz
PCM Output Status HC	Diag CBNT HC output	-	1 Hz
PCM Shift Ratio	Not used	-	2 Hz
PCM Status	Diag powerbox	-	10 Hz
QM Cum Segment Time		s	10 Hz
QM Cum Segment Time Diff		s	10 Hz
QM Lap Time Predicted		s	10 Hz
QM Ref Lap Time		s	2 Hz
QM Ref Segment Time	Qualifying mode diagnostic	s	10 Hz
QM Segment number		-	10 Hz
QM Segment Time		s	10 Hz
QM Segment Time diff		s	10 Hz
QM Status		-	10 Hz
Roll F	Front roll	mm	200 Hz
RPM	Engine speed	rpm	200 Hz
Sensor Failed Status	Sensor diagnostic	-	50 Hz
Spare 1 Raw	Front spare sensor	mV	1 to 200 Hz
Spare 2 raw	Front spare sensor	mV	1 to 200 Hz
Spare 3 raw	Rear spare sensor	mV	1 to 200 Hz
Spare 4 raw	Rear spare sensor	mV	1 to 200 Hz
Spare 5 raw	Front spare sensor	mV	1 to 200 Hz
Spare 7 raw	Rear spare sensor	mV	1 to 200 Hz
Speed	Vehicle speed	Km/h	100 Hz
Speed Corner Min	Minimum speed previous corner	Km/h	10 Hz
Speed FL	Front left wheel speed	Km/h	100 Hz
Speed FR	Front right wheel speed	Km/h	100 Hz
Speed Straight Max	Max speed in the previous straight line	Km/h	10 Hz
Steering angle	Steering angle	°	50 Hz
Throttle 1 Raw	Throttle angle 1	°	100 Hz
Throttle 2 Raw	Throttle angle 2	°	100 Hz
Throttle Pedal	Throttle Pedal	%	100 Hz
Throttle.angle	Throttle angle (max value between 1 & 2)	°	100 Hz
Video Status	Not used yet	-	5 Hz

Channels in red are added or modified. New diagnostics for throttle body and gearshift system are now available. Renault Sport will issue an updated diagnostic tool as soon as possible.

3. New Toolset software 1.3.283

A new Toolset release 1.3.283 is now available from the Renault Sport Technical department. It is also available on the Renault Sport Extranet website in the **appendices** section. This release is absolutely necessary to download data from datalogger updated with the L2 2011.1 code.

- <u>SYSTEM:</u>

It is now possible to calibrate the 6 spare channels available through this section as shown below:

Click on the new Icon *CONFIGURE SPARES* (1), the following window appears:
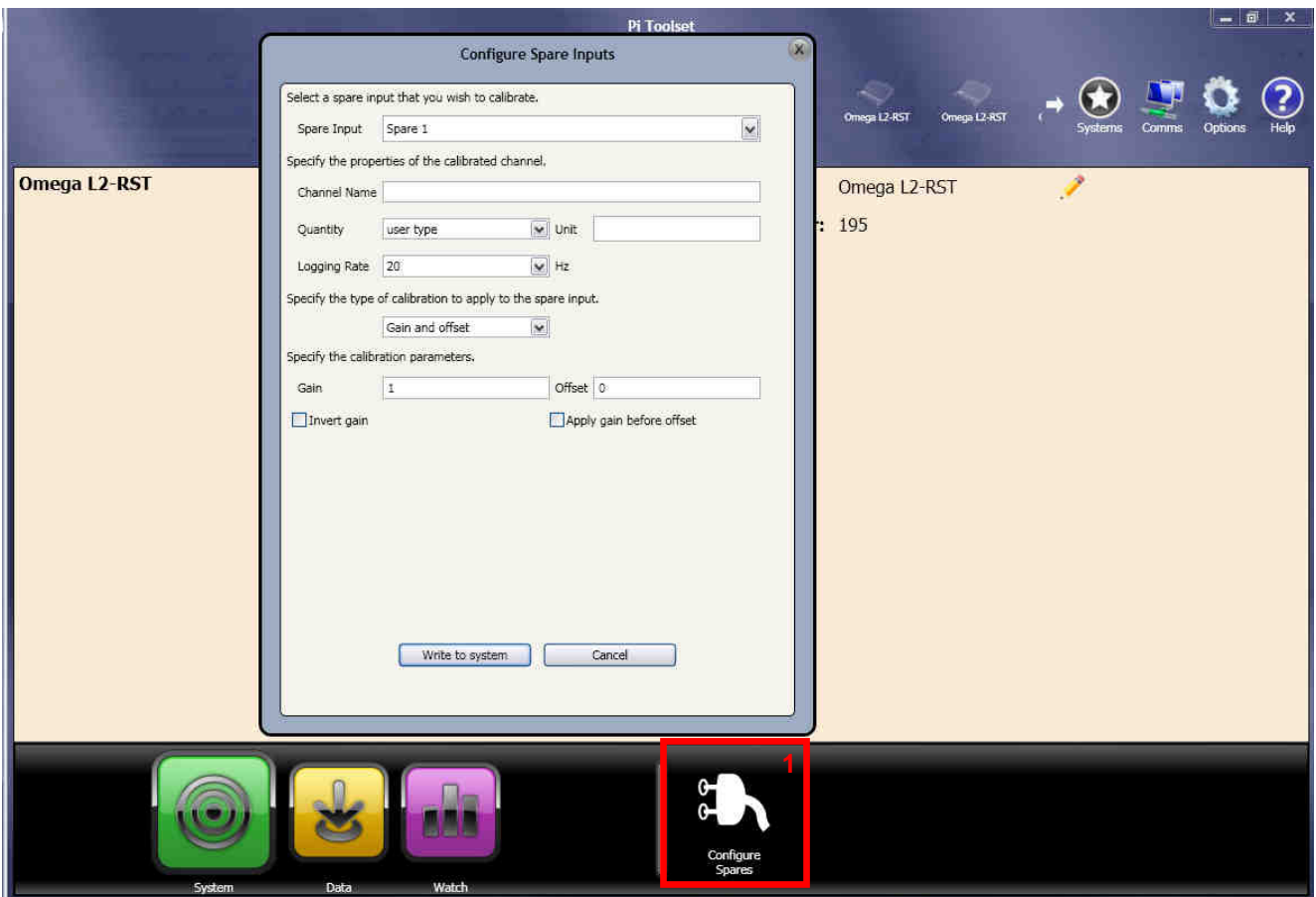
You must note that the spare channels can be calibrated by either entering a gain + an offset, or a table.
It is also possible to set the channel name, the channel quantity & unit and the logging frequency.

- DATA SECTION:

It is now possible to setup the number of segment/split used by the Qualifying mode, in case of use of a reference lap. This number of segment corresponds to the refreshing rate of the Qualifying mode when used by the driver.
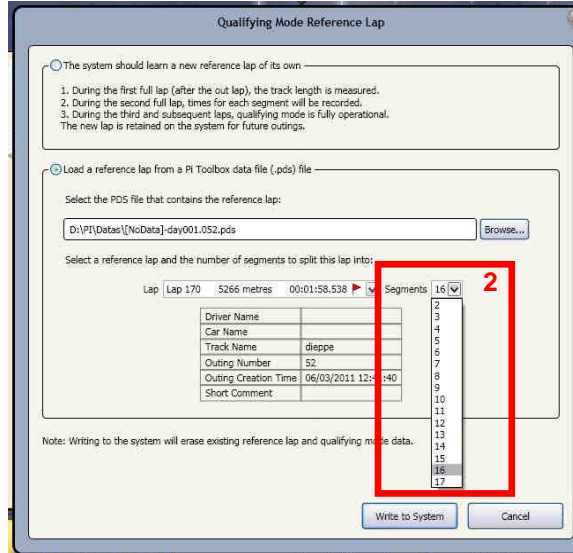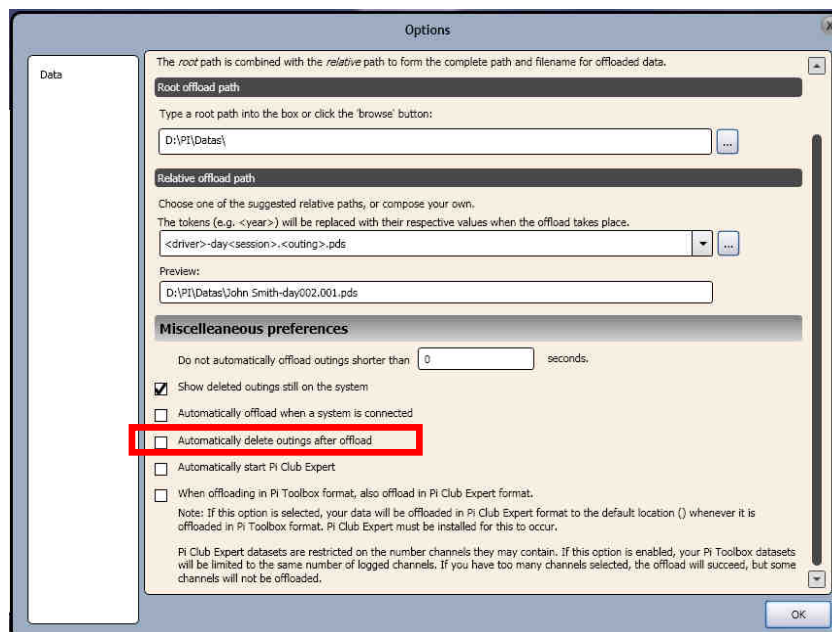

- WATCH SECTION:

This section has been slightly improved with the possibility to rename the different pages.

- OPTION:

It is now possible to leave datas in the logger's memory although they have been downloaded previously:

- HELP:

To know the Toolset release you are using, you must go to the HELP menu (3):

Note for NEC Teams: the release issued in hockenheim was 1.3.281. Release 1.3.283 solves several bugs encountered during the meeting.

4. New bodywork parts

The last front endplates are now made in carbone. They keep the same references (ref. 77 11 166 634 & 77 11 166 635) and the same price.

The last nose tips are now made in carbone. They keep the same reference (ref. 77 11 166 629) and the same price.

Both old and new types of endplate and nose tip are allowed.