

G L O B A L L Y P O S I T I O N I N G S P O R T S



SPI Realtime



User Manual

G L O B A L L Y P O S I T I O N I N G S P O R T S

Document : SPI Realtime User Manual
Date : 12 October 2007
Version : 3

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Introduction

This Document describes the installation and operation of the GPSports SPI-REALTIME Athlete tracking system. The SPI-REALTIME System allows -

- Position
- Speed
- Heart Rate
- Acceleration in 3 Axis's
- and Impacts

to be wirelessly monitored on up to 20 Wi-SPI devices with one second updates at distances of up to 200m.

The SPI-REALTIME System is shown in Figure 1. The SPI-REALTIME System consists of the following components:

1. Wi-SPI Devices
2. 2.4 GHZ Receiver(s)
3. RECEIVER USB Connection
4. SPI-REALTIME Software

SPI-REALTIME System

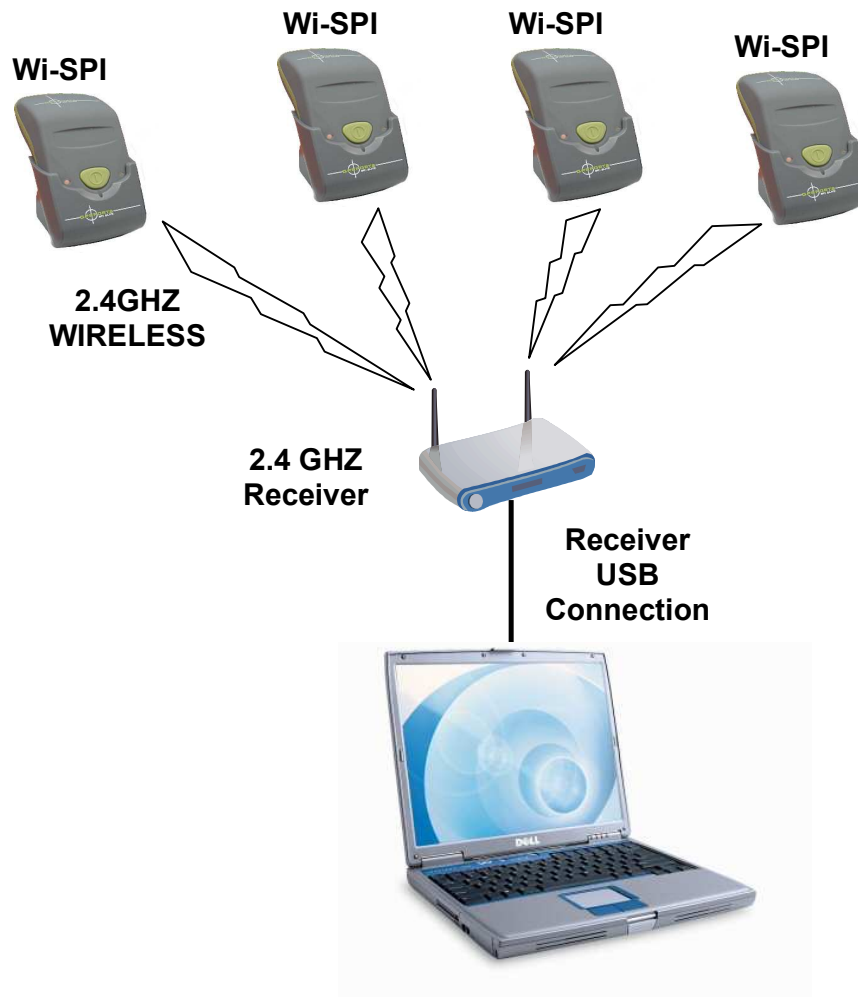


FIGURE 1 SPI-REALTIME SYSTEM

Wi-SPI

The GPSports Wi-SPI is a small data logging device capable of logging Position, Speed, Heart Rate, Acceleration in the X, Y, Z planes and Impacts. The Wi-SPI is capable of transmitting the data wirelessly to the SPI-REALTIME software

2.4 GHZ Receiver

The 2.4 GHZ Receiver receives the data transmitted from a number Wi-SPI devices and forwards this information to the SPI-REALTIME PC Software using a USB Interface.

SPI-REALTIME PC Software

The SPI-REALTIME Software receives the data streams from the 2.4 GHZ Receiver(s) and check the data integrity and displays:

- Position
- Speed
- Heart Rate
- Acceleration in 3 Axis's
- and Impacts

Installation of SPI-REALTIME PC Software

To install the SPI-REALTIME PC Software, place the Installation CD in the CD Drive and run the Setup.exe program.



The Installation program will by install the Software in the Program Files\GPSports Systems\SPI Realtime folder and place a link on the Desktop



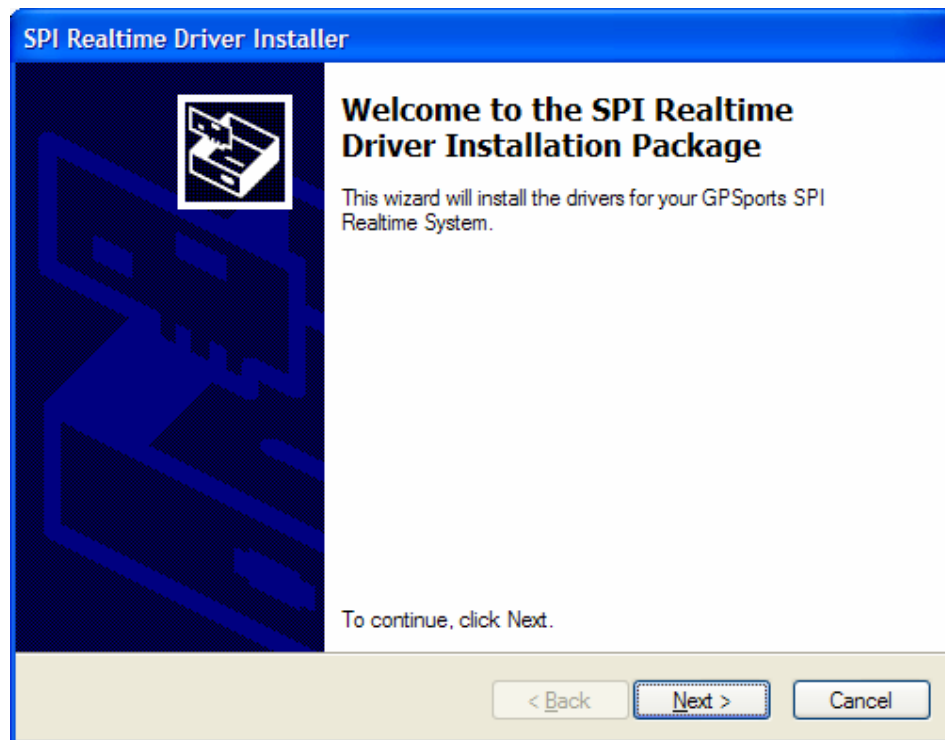
USB Driver Installation

To install the SPI-REALTIME USB Driver Software, place the Installation CD in the CD Drive.

- Select the MaxStream Folder and Run the DPInst.exe Program

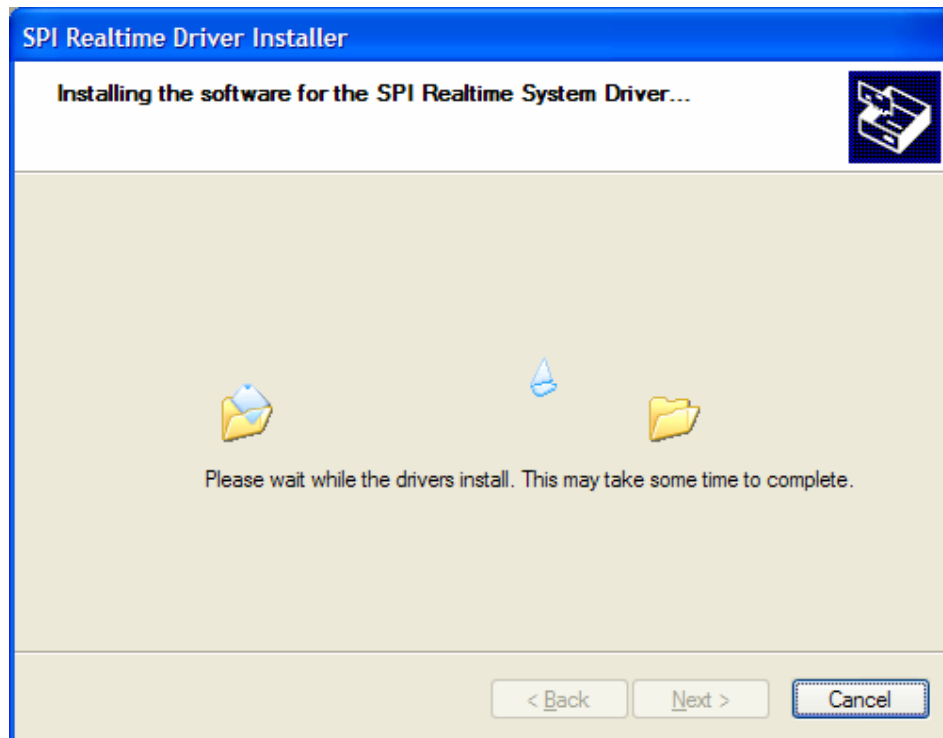


The SPI Realtime Driver Installer Wizard will start in a few seconds



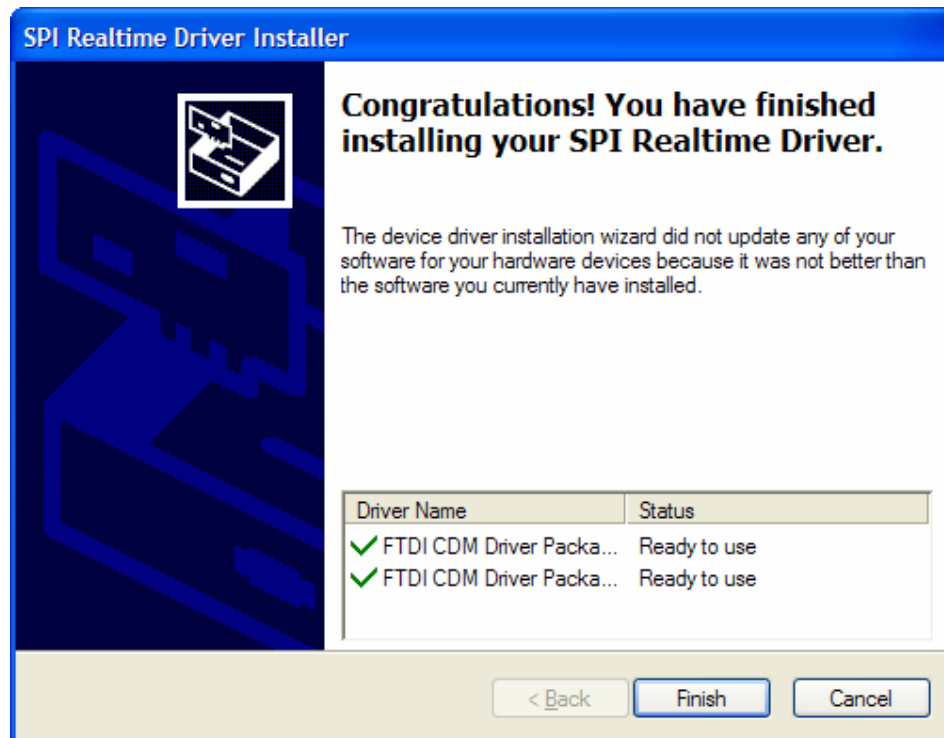
- Click on the Next Button

The SPI Realtime Driver Installer Wizard will indicate that the drivers are being installed. This process may take a few seconds to complete.



- Wait till the installation process completes

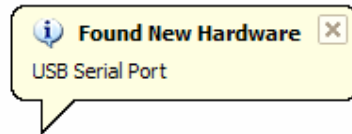
The SPI Real Time Driver Installer will indicate that the drivers have been installed successfully.



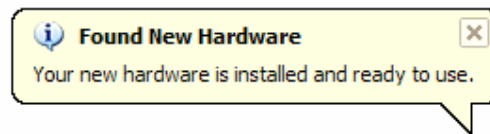
- Click on the Finish Button

Connect the GPSports SPI-REALTIME USB Receiver to your computer

After a few seconds the **Found New Hardware – USB Serial Port** taskbar tool tip will be displayed



After a few more seconds the **Found New Hardware – Your new hardware is installed and ready to use.** Taskbar tool tip will be displayed.



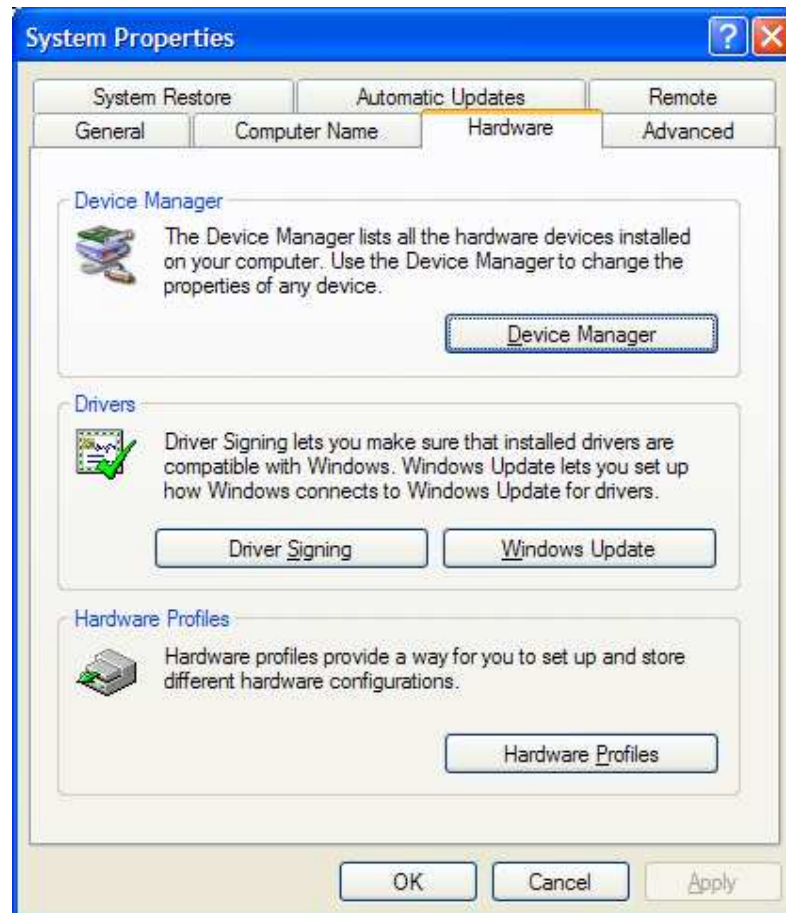
Verifying USB Driver Installation

Verify that the USB Driver Installation was successful by

- Clicking on the Windows Start Button
- Clicking on the Settings Menu Item
- Clicking on the Control Panel Menu Item
- Clicking on the System Icon



The **System Properties** Window will be displayed



- Click on the **Hardware** Tab
- Click on the **Device Manager** Button

The **Device Manager Window** will be displayed

- Click on the **+** next to the **Ports (COM & LPT)** entry

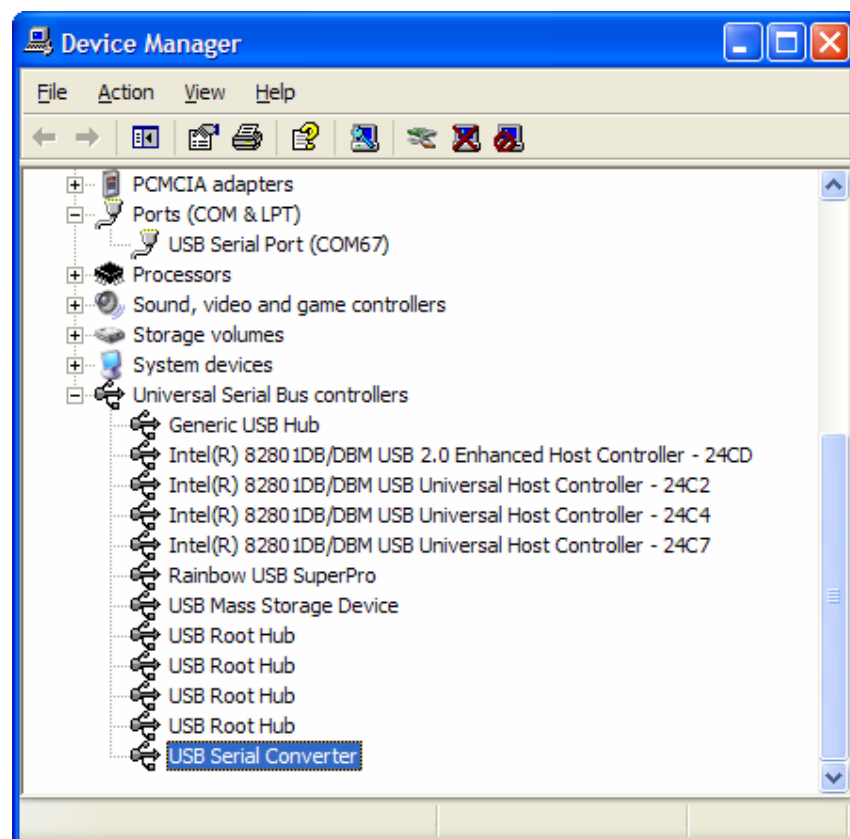
There should be an entry

USB Serial Port (COMXX)

Where XX is the number of the COM port the adapter has been installed on

- Click on the **+** next to the **Universal Serial Bus Controllers** entry

There should be an entry **USB Serial Converter** present.



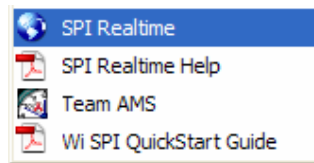
Starting the SPI-REALTIME Software

To start the **SPI-REALTIME** software -

- Double click on the **SPI-REALTIME** Desktop Link



- Or Navigate to the GPSports start menu entry and select the SPI Realtime menu item.



After a few seconds the **SPI-REALTIME** software will start displaying the Quick Summary Window, See **Figure 1 – SPI-REALTIME**

SPI-REALTIME User Manual – Starting the Software

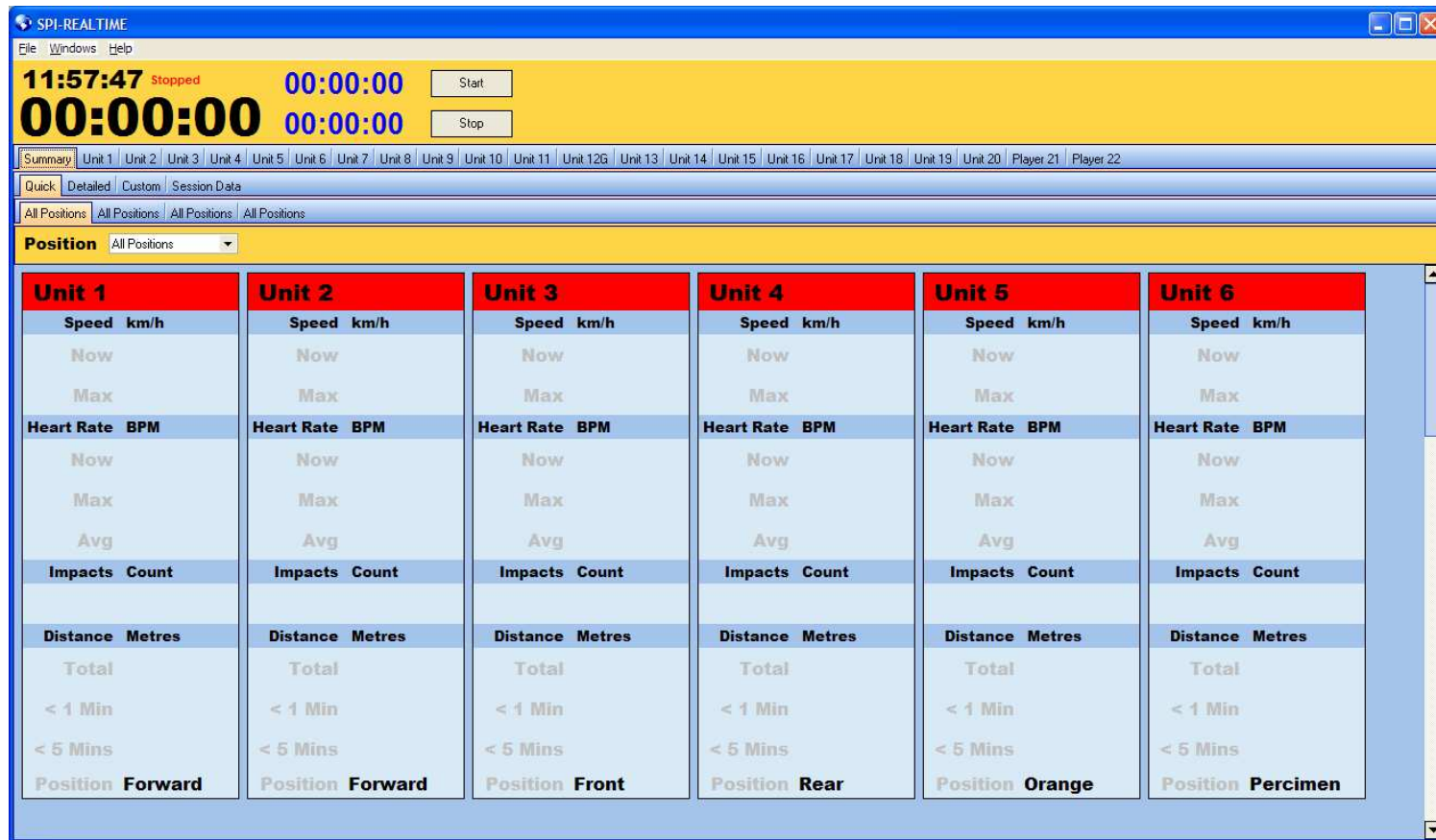
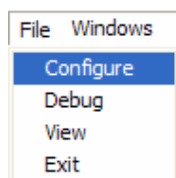


Figure 1 – SPI-REALTIME

Configuration

You can access the **Configuration Windows** by Clicking on the **File – Configure** Menu item.



The Configuration Window will be displayed, See **Figure 2 – Configuration Settings Window**

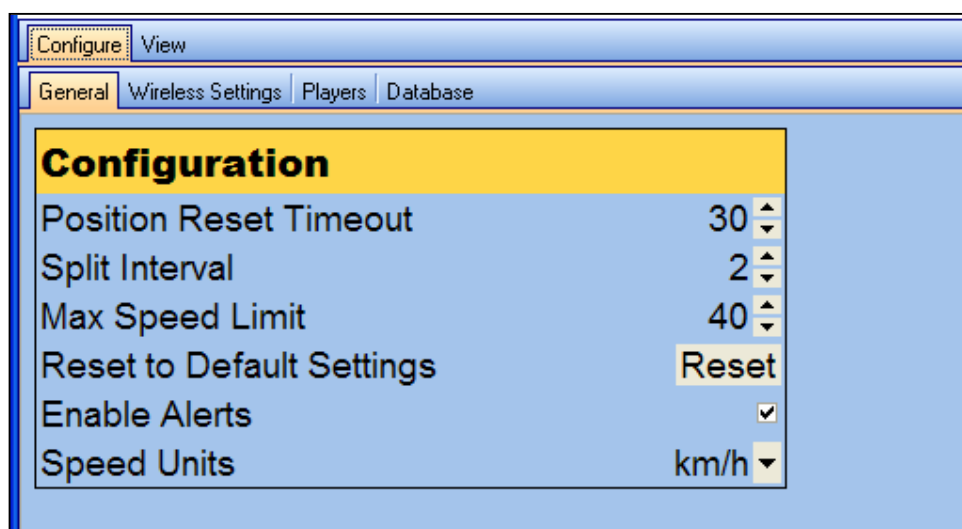


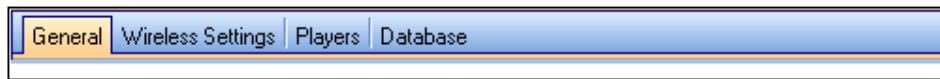
Figure 2 – Configuration Settings Window

Item	Description
General	General settings including Split Intervals, max speed limits and Speed Units to be configured.
Wireless Settings	Settings pertaining to the Wireless receiver module.
Players	Allows the Players Name, Position, Heart Rate, Speed, Impact Zones and Distance Alert to be set.
Database	Database related settings and actions.

Table 1

General Configuration

Click on the **General** Tab on the Configuration Settings Window.



The **General Configuration Window** will be displayed as shown in **Figure 3 – General Configuration Window**

Configuration	
Position Reset Timeout	30 <input type="button" value="▲"/> <input type="button" value="▼"/>
Split Interval	2 <input type="button" value="▲"/> <input type="button" value="▼"/>
Max Speed Limit	40 <input type="button" value="▲"/> <input type="button" value="▼"/>
Reset to Default Settings	<input type="button" value="Reset"/>
Enable Alerts	<input checked="" type="checkbox"/>
Speed Units	km/h <input type="button" value="▼"/>

Figure 3 – General Configuration Window

The **General Configuration Window** allows the following items to be configured.

Item	Description
Position Reset Interval	The time in seconds after reception of no data the position will be reset to the next valid position. The default value is 30 seconds.
Split Interval	The time in minutes that the data will be split into for analysis purposes. The default value is 2 minutes.
Max Speed Limit	The Speed above which data will be considered invalid and rejected. The default value is 40 km/h
Speed Units	The units to display speed information km/h or m/s. The default setting is km/h.
Enable Alerts	Enables the display of Alerts for Speed, Distance and Heart Rate. The default setting is Off.
Reset to Default Settings	Resets the above settings to their Default values.

Table 2

Wireless Settings Configuration

Click on the **Wireless Setting** Tab on the Configuration Settings Window.



The **Wireless Settings Window** will be displayed as shown in **Figure 4 – Wireless Settings Window**.

The image shows a window titled 'Communications Settings' with a yellow header. Below the header, there are three sections:

- Communications Settings**: Contains 'Communication Port' (set to COM73), 'Open/Close Communications Port' (with an 'Open' button), and 'Auto Find Wireless Module' (with a 'Find' button).
- Wireless Settings**: Contains 'Channel Number' (set to 1), 'Encryption Key' (empty), 'Enable Encryption' (checked), and 'Wireless Protocol' (set to Version 3).
- Configuration**: Contains 'Configure Wireless Module' (with a 'Configure' button) and 'USB Drivers' (with an 'Install' button).

Figure 4 – Wireless Settings Window

The **Wireless Configuration Window** allows the following **Communications Settings** to be configured

Item	Description
Communication Port	Allows the COM port of the Wireless Receiver Module to be specified
Open/Close Communications Port	Allows the COM Port to be opened or closed
Auto Find Wireless Module	Clicking on the Find Button will start a search for the Wireless Receiver Module

Table 3

The **Wireless Configuration Window** allows the following **Wireless Settings** to be configured

Item	Description
Channel Number	Wireless Channel Number to use 1 to 12
Encryption Key	Encryption Key to use when receiving data from the Wi-SPI devices. Up to 16 characters in length.
Enable Encryption	Enables or Disables the use of encryption
Wireless Protocol	Allow the Wireless protocol to be selected <ol style="list-style-type: none">1. Auto2. Version 13. Version 24. Version 3 The Default setting is Auto . Note: This setting should not be altered unless advised by technical support.

Table 4

The **Wireless Configuration Window** allows the following **Configuration** setting to be altered

Item	Description
Configure Wireless Module	Allows the Wireless Communication module to be configured.
USB Drivers	Installs the USB Drivers required by the Wireless Communication Module

Table 5

Players Configuration



Click on the **Players** Tab on the Configuration Settings Window

The **Players Settings Window** will be displayed as shown in **Figure 5 – Players Configuration**.

No	Player Name	Position	Weight	HR Zone 1	HR Zone 2	HR Zone 3	Speed Zone 1	Speed Zone 2	Speed Zone 3	Impact Threshold	Distance Alert
1	Unit 1	Forward	75	40	50	55	25.0	27.0	30.0	6.5	10000
2	Unit 2	Forward	70	160	170	180	25.0	27.0	33.0	6.5	10000
3	Unit 3	Front	80	160	170	180	16.0	20.0	24.0	6.5	10000
4	Unit 4	Rear	80	160	170	180	16.0	20.0	24.0	6	10000
5	Unit 5	Orange	80	160	170	180	16.0	20.0	24.0	6	10000
6	Unit 6	Percimen	80	160	170	180	16.0	20.0	24.0	6	10000
7	Unit 7	Grape	80	160	170	180	16.0	20.0	24.0	6	10000
8	Unit 8	Nutella	80	160	170	180	16.0	20.0	24.0	6	10000
9	Unit 9	Forward	80	160	170	180	16.0	20.0	24.0	6	10000
10	Unit 10	Apple	80	160	170	180	16.0	20.0	24.0	6	10000
11	Unit 11	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000
12	Unit 12G	Test	80	160	170	180	16.0	20.0	24.0	6	10000
13	Unit 13	Grape Fruit	80	160	170	180	16.0	20.0	24.0	6	10000
14	Unit 14	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000
15	Unit 15	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000
16	Unit 16	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000
17	Unit 17	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000
18	Unit 18	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000
19	Unit 19	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000
20	Unit 20	Back	80	160	170	180	16.0	20.0	24.0	6	10000
21	Player 21	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000
22	Player 22	Not Set	80	160	170	180	16.0	20.0	24.0	6	10000

Figure 5 – Players Configuration

Item	Description
Player name	Enter the Players Name.
Position	Enter the Players position, this allows the SPI-REALTIME software to group players by their position on the Quick Summary Tab
Weight	Enter the Players Weight.
HR Zone 1	Enter the Players Zone 1 heart rate threshold.
HR Zone 2	Enter the Players Zone 2 heart rate threshold.
HR Zone 3	Enter the Players Zone 3 heart rate threshold.
Speed Zone 1	Enter the Players Zone 1 speed threshold.
Speed Zone 2	Enter the Players Zone 2 speed threshold.
Speed Zone 3	Enter the Players Zone 3 speed threshold.
Impact Threshold	Enter the Impact threshold.
Distance Alert	Enter the Distance Alert threshold in metres.

Table 6

Database Configuration

Click on the **Database** Tab on the Configuration Settings Window.



The **Database Utilities Window** will be displayed as shown in **Figure 6 – Database Utilities Window**

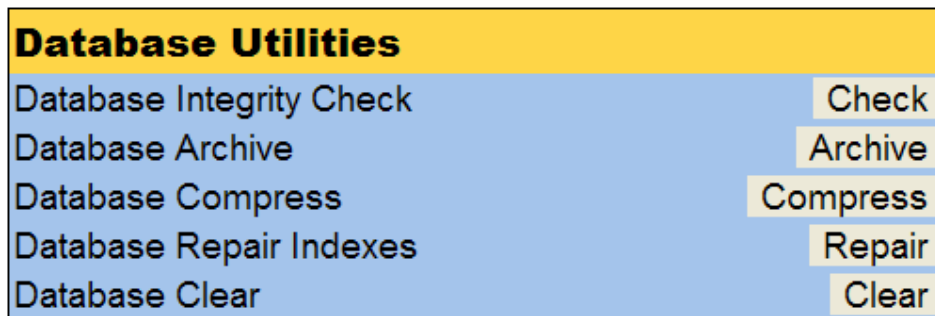


Figure 6 – Database Utilities Window

Item	Description
Database Integrity Check	Click on the Check button to test the integrity of the database.
Database Archive	Click on the Archive button to archive and remove old data from the database
Database Compress	Click on the Compress button to compress the database.
Database Repair Indexes	Click on the Repair button to repair the indexes on the database.
Database Clear	Click on the Clear button to clear the entire contents of the database

Table 7

Team AMS Integration

The **Wi-SPI** unit has a number of configuration settings that can only be changed by using the Team AMS Software. See **Table 8 - Wi-SPI Settings**

Item	Description
1	Wi-SPI Identifier (0 – 255)
2	Wireless Channel (Channel 1 – 11)
3	Encryption Enabling / Disabling (On – Off)
4	Encryption Key (16 Alphanumeric characters)

Table 8 - Wi-SPI Settings

There several items that must be configured on the SPI-REALTIME

- COM Port that the XBEE-Pro-PKG receiver is connected
- Setting the Player Name
- The Realtime Id for each Player
- Enable the Player(s) to be used

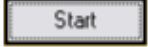
Click on the Configuration Tab. Set the Com Port of the XBEE-Pro-PKG.

Click on the Player 1 – 20 tab and select the Realtime Id for each unit to be used.

Type in a Player Name to be used on the Display

Ensure the Enable tick box is ticked for each player to be used.

Starting Real Time Display

Click on the  start button to start storing the Wi-SPI information to the database and display it in real time.

Click on the  stop button to stop storing the Wi-SPI data.

SPI REALTIME User Manual – Player Speed Window

Player Speed Window



Figure 7 – Player Speed Window

SPI REALTIME User Manual – Player Heart Rate Window

Player Heart Rate Window

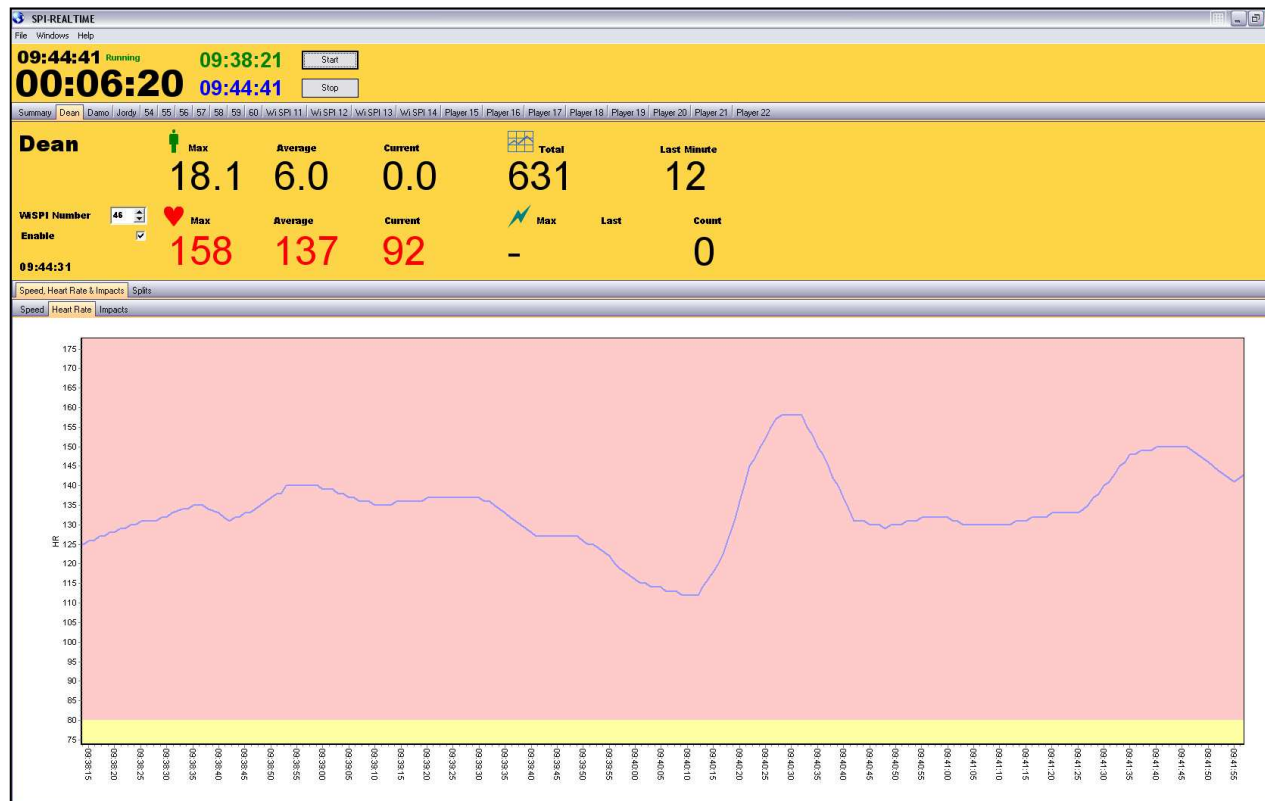





Figure 8 – Player Heart Rate Window

Shortcut Keys

A series of **Shortcut Keys** have been allocated to allow simplified navigation amongst the SPI-REALTIME Windows. Use a  function key or   to toggle quickly between the various screens.













Shortcut Key	Description
	Toggles between Player Window 1 and the Quick Summary Window
	Toggles between Player Window 2 and the Quick Summary Window
	Toggles between Player Window 3 and the Quick Summary Window
	Toggles between Player Window 4 and the Quick Summary Window
	Toggles between Player Window 5 and the Quick Summary Window
	Toggles between Player Window 6 and the Quick Summary Window
	Toggles between Player Window 7 and the Quick Summary Window
	Toggles between Player Window 8 and the Quick Summary Window
	Toggles between Player Window 9 and the Quick Summary Window
	Toggles between Player Window 10 and the Quick Summary Window
	Toggles between Player Window 21 and the Quick Summary Window
	Toggles between Player Window 22 and the Quick Summary Window

Figure 9 – Shortcut Keys










Shortcut Key	Description
	Toggles between Player Window 11 and the Quick Summary Window
	Toggles between Player Window 12 and the Quick Summary Window
	Toggles between Player Window 13 and the Quick Summary Window
	Toggles between Player Window 14 and the Quick Summary Window
	Toggles between Player Window 15 and the Quick Summary Window
	Toggles between Player Window 16 and the Quick Summary Window
	Toggles between Player Window 17 and the Quick Summary Window
	Toggles between Player Window 18 and the Quick Summary Window
	Toggles between Player Window 19 and the Quick Summary Window
	Toggles between Player Window 20 and the Quick Summary Window

Figure 10 – Shortcut Keys

Fault Finding

Monitor Window

Click on the Monitor Tab

Ensure the Display Received Data tick box is ticked

You should be able to see the data coming from the Wi-SPI unit.

The first byte displayed is the Protocol marker, it can be one of the following

Item	Description
<1E>	Protocol Version 1
<1F>	Protocol Version 2
<20>	Protocol Version 3

Tips the second byte ie after the first <1E> or <1F> or <20> is the real time unit number ie in this case <01>

The Unit Number is in Hexadecimal so convert to decimal before using on the Player Display Windows.

Decoded Data

Switch to the Decoded Window and you should see the decoded data from the Wi-SPI units.

The decoded data may be blank if the SPI-RT has lost the time. Make sure it is outdoors and tracking (checking flashing light on Wi-SPI) or the Wi-SPI Number has not been set in one of the Players tabs.

Real Time Display

Switch to the Player Detail Display

Here the Max, Current, Average Speed, Max, Current, Average Heart Rate, Total Distance and Distance in the last minute, Max Impacts, last Impact and Count of impacts are displayed.

The Graphs display second by second information of the players performance.

Item	Description
①	Player Name The players name as configured on the Player Configuration Window
②	Wi-SPI Number Set the Wi-SPI identifier here (0-255)
③	✓ Enable Enables the display of data from this Wi-SPI device
④	🏃 Maximum Speed The maximum speed in km/h or m/s
⑤	🏃 Average Speed The average speed in km/h or m/s
⑥	🏃 Current Speed The current speed in km/h or m/s
⑦	📊 Total Distance The distance traveled in metres
⑧	📊 Distance Last Minute The distance traveled in the last minute in metres
⑨	❤️ Maximum Heart Rate The maximum heart rate in BPM
⑩	❤️ Average Heart Rate The average heart rate in BPM
① ①	❤️ Current Heart Rate The current heart rate in BPM
① ②	⚡ Maximum Impact The largest impact exceeding the Players Impact Threshold (Units in G)
① ③	⚡ Last Impact The last impact exceeding the Players Impact Threshold (Units in G)
① ④	⚡ Impact Count The number of impacts exceeding the Players Impact Threshold.

Table 9

Player Detail Display

Quick Summary Window

The Quick Summary Window allows you to quickly see the important statistics of up to four **Positions** of players. See **Figure 11 – Quick Summary Window**

Quick Detailed Custom Session Data			
All Positions All Positions All Positions All Positions			
Position All Positions			
Unit 1		Unit 2	
Speed km/h		Speed km/h	
Now		Now	
Max		Max	
Heart Rate BPM		Heart Rate BPM	
Now		Now	
Max		Max	
Avg		Avg	
Impacts Count		Impacts Count	
Distance Metres		Distance Metres	
Total		Total	
< 1 Min		< 1 Min	
< 5 Mins		< 5 Mins	
Position Forward		Position Forward	
Unit 3		Unit 3	
Speed km/h		Speed km/h	
Now		Now	
Max		Max	
Heart Rate BPM		Heart Rate BPM	
Now		Now	
Max		Max	
Avg		Avg	
Impacts Count		Impacts Count	
Distance Metres		Distance Metres	
Total		Total	
< 1 Min		< 1 Min	
< 5 Mins		< 5 Mins	
Position Front		Position Front	

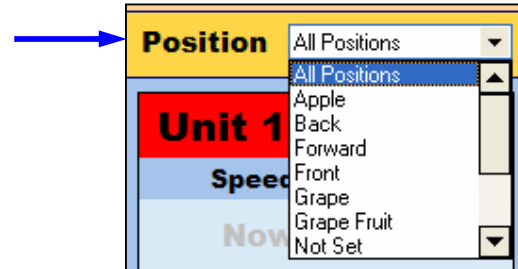
Figure 11 – Quick Summary Window

Use the Position drop down selection box to select the position of players you want to display together. You can display all players by selecting the **All Positions** option.

All Positions All Positions All Positions All Positions			
Position All Positions			

Quick Summary – Position Selection

Use the **Position** drop down list to select which positions to display on the Quick Summary Window.



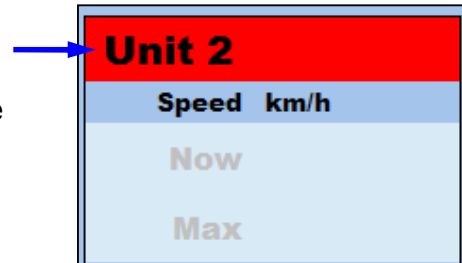
Item	Description
Speed	1 Now The current Speed now in km/h or m/s
	2 Max The maximum Speed in this session in km/h or m/s
	3 Now The current Heart Rate now in BPM
	4 Max The maximum Heart Rate in this session in BPM
	5 Avg The average heart rate this session in BPM
Impacts	6 Count The count of impacts exceeding the threshold in this session
Distances	7 Total The total distance in this session
	8 < 1 min The distance traveled in the last minute
	9 < 5 min The distance traveled in the last minute
Position	10 Position Displays the Players Position as set on the Player Configuration Window

Unit 2	
Speed km/h	
1	Now
2	Max
Heart Rate BPM	
3	Now
4	Max
5	Avg
Impacts Count	
6	
Distance Metres	
7	Total
8	< 1 Min
9	< 5 Mins
10	Position Forward

Table 10

Player Status Indication

The Player Name and Status Bar color indicate the status of the Wi-SPI unit sending information to the SPI-REALTIME system. See Table 11.



Item	Description
Red	Indicates that the Wi-SPI has not received data and has not tracked satellites.
Orange	Indicates that the Wi-SPI is receiving data and has not tracked satellites.
Green	Indicates that the Wi-SPI is receiving data and it tracking satellites.

Table 11

Detailed Summary Display

Custom Summary Window

The Custom Summary Window allows you build, view and print reports of your Players performance both in Real Time and during post match analysis. Click on the **Custom** Tab on the Summary Window to access the Custom Summary Window.



The **Custom Summary Window** will be displayed as shown in **Figure 12 – Custom Summary Window**.

Quick | Detailed | Custom | Session Data

Print | Refresh

Session Name	Session Start Time	Session End Time	Custom Start Time	Custom End Time
25/09/2007 13:48:00	25/09/2007 13:48:00	25/09/2007 13:50:02	25/09/2007 13:48:00 ▾	25/09/2007 13:50:02 ▾
25/09/2007 13:50:37	25/09/2007 13:50:37	25/09/2007 13:51:23	25/09/2007 13:50:37 ▾	25/09/2007 13:51:23 ▾
25/09/2007 13:52:46	25/09/2007 13:52:46	25/09/2007 13:53:17	25/09/2007 13:52:46 ▾	25/09/2007 13:53:17 ▾
25/09/2007 14:02:05	25/09/2007 14:02:05	25/09/2007 14:03:02	25/09/2007 14:02:05 ▾	25/09/2007 14:03:02 ▾
25/09/2007 14:04:08	25/09/2007 14:04:08	25/09/2007 14:05:40	25/09/2007 14:04:08 ▾	25/09/2007 14:05:40 ▾
25/09/2007 16:34:45	25/09/2007 16:34:45	25/09/2007 16:35:27	25/09/2007 16:34:45 ▾	25/09/2007 16:35:27 ▾
25/09/2007 16:40:55	25/09/2007 16:40:55	25/09/2007 16:42:07	25/09/2007 16:40:55 ▾	25/09/2007 16:42:07 ▾
25/09/2007 16:41:47	25/09/2007 16:41:47	25/09/2007 16:42:12	25/09/2007 16:41:47 ▾	25/09/2007 16:42:12 ▾
25/09/2007 17:00:27	25/09/2007 17:00:27	25/09/2007 17:05:50	25/09/2007 17:00:27 ▾	25/09/2007 17:05:50 ▾
25/09/2007 17:05:50	25/09/2007 17:05:50	25/09/2007 17:37:23	25/09/2007 17:05:50 ▾	25/09/2007 17:37:23 ▾
Last Week				

Player Name	Session Name	♥	♥	♂	📊	↗	♥	♂
		Max	Avg	Max	Total	Count	t > z3	t > z3
Unit 4	25/09/2007 17:05:50	0	0	0.0	0.0	2	0	0
Unit 9	25/09/2007 17:05:50	0	0	0.0	0.0	0	0	0
Unit 13	25/09/2007 17:05:50	0	0	0.0	0.0	0	0	0
Unit 19	25/09/2007 17:05:50	0	0	22.2	3024.0	1	0	0


Figure 12 – Custom Summary Window

Date Range Selection Grid

The **Custom Summary Window** is split into two sections, the upper Date Range Selection Grid which groups sessions in date ranges – **Today**, **Yesterday**, **Last Week** and **Older**. See **Figure 13 – Date Range Selection Grid**

<div>Print</div> <div>Refresh</div>				
Session Name	Session Start Time	Session End Time	Custom Start Time	Custom End Time
+ Today				
+ Yesterday				
▶ + Last Week				

Figure 13 – Date Range Selection Grid

To select a Session Click on the plus  **+ Last Week** next to the date range of interest to expand the Date Range Selection Grid, See Figure XX.

Use the mouse to multi-select the sessions you want have displayed in the Custom Summary Grid, See **Figure 14- Expanded Date Range Selection Grid**.

Session Name	Session Start Time	Session End Time	Custom Start Time	Custom End Time
25/09/2007 13:50:37	25/09/2007 13:50:37	25/09/2007 13:51:23	25/09/2007 13:50:37 ▼	25/09/2007 13:51:23 ▼
25/09/2007 13:52:46	25/09/2007 13:52:46	25/09/2007 13:53:17	25/09/2007 13:52:46 ▼	25/09/2007 13:53:17 ▼
25/09/2007 14:02:05	25/09/2007 14:02:05	25/09/2007 14:03:02	25/09/2007 14:02:05 ▼	25/09/2007 14:03:02 ▼
25/09/2007 14:04:08	25/09/2007 14:04:08	25/09/2007 14:05:40	25/09/2007 14:04:08 ▼	25/09/2007 14:05:40 ▼
25/09/2007 16:34:45	25/09/2007 16:34:45	25/09/2007 16:35:27	25/09/2007 16:34:45 ▼	25/09/2007 16:35:27 ▼
25/09/2007 16:40:55	25/09/2007 16:40:55	25/09/2007 16:42:07	25/09/2007 16:40:55 ▼	25/09/2007 16:42:07 ▼
▶ 25/09/2007 16:41:47	25/09/2007 16:41:47	25/09/2007 16:42:12	25/09/2007 16:41:47 ▼	25/09/2007 16:42:12 ▼
• 25/09/2007 17:00:27	25/09/2007 17:00:27	25/09/2007 17:05:50	25/09/2007 17:00:27 ▼	25/09/2007 17:05:50 ▼
• 25/09/2007 17:05:50	25/09/2007 17:05:50	25/09/2007 17:37:23	25/09/2007 17:05:50 ▼	25/09/2007 17:37:23 ▼

Figure 14- Expanded Date Range Selection Grid

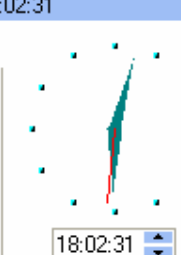
Use the ▼ button on the Custom Start and End Time to allow you to specify a custom start and end time for the date range grouping. See **Figure 15- Date Editing**

28/09/2007 18:02:31

September

2007

M	T	W	T	F	S	S
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
1	2	3	4	5	6	7



18:02:31

OK

Figure 15- Date Editing

Custom Summary Grid

The lower **Custom Summary Grid** displays a summary of the Sessions selected in the Date Range Selection Grid. See **Figure 16 – Custom Grid Summary**.

1	2	3	4	5	6	7	8	9
Player Name	Session Name	♥	♥	⚡	📊	⚡	♥	⚡
		Max	Avg	Max	Total	Count	t > z3	t > z3
Unit 4	25/09/2007 17:05:50	0	0	0.0	0.0	2	0	0
Unit 9	25/09/2007 17:05:50	0	0	0.0	0.0	0	0	0
Unit 13	25/09/2007 17:05:50	0	0	0.0	0.0	0	0	0
Unit 19	25/09/2007 17:05:50	0	0	22.2	3024.0	1	0	0

Figure 16 – Custom Grid Summary

Item	Description
1	Player Name - The players name
2	Session Name – The Session Name
3	Maximum Heart Rate – The Maximum heart rate in the session
4	Average Heart Rate – The Average heart rate in the session
5	Maximum Speed – The Maximum speed in the session
6	Total Distance – The total distance traveled by the player in the session
7	Impact Count – The number of impacts received in the session
8	Heart Rate t > z3 – The time the heart rate was in excess of the zone 3 threshold in this session
9	Speed t > z3 - The time the speed was in excess of the zone 3 threshold in this session

Table 12

Custom Summary Toolbar

The **Custom Summary Toolbar** allows you to Print and Refresh the Custom Summary. See **Figure 17 – Custom Summary Toolbar**



Figure 17 – Custom Summary Toolbar


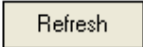


Button	Description
	Click on the Print button to display a Print Preview of the Summary Information displayed in the Custom Summary Grid.
	Click on the Refresh button to refresh the Summary Information displayed in the Custom Summary Grid. This is useful when summarizing the information in real time. This ensures the latest summary information is displayed.

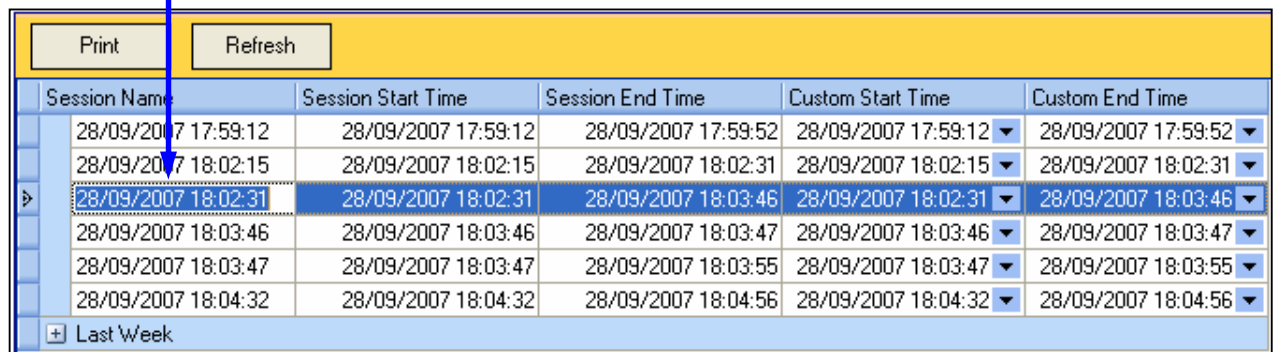
Table 13

Changing the Session Name

The **Session Name** can be changed by clicking in the **Session Name** cell, making any changes then pressing the  key to save the changes. You can discard any changes by pressing the  key.

See **Figure 18 – Changing Session Name**

Click in cell to
change name




	Session Name	Session Start Time	Session End Time	Custom Start Time	Custom End Time
	28/09/2007 17:59:12	28/09/2007 17:59:12	28/09/2007 17:59:52	28/09/2007 17:59:12 ▼	28/09/2007 17:59:52 ▼
	28/09/2007 18:02:15	28/09/2007 18:02:15	28/09/2007 18:02:31	28/09/2007 18:02:15 ▼	28/09/2007 18:02:31 ▼
▶	28/09/2007 18:02:31	28/09/2007 18:02:31	28/09/2007 18:03:46	28/09/2007 18:02:31 ▼	28/09/2007 18:03:46 ▼
	28/09/2007 18:03:46	28/09/2007 18:03:46	28/09/2007 18:03:47	28/09/2007 18:03:46 ▼	28/09/2007 18:03:47 ▼
	28/09/2007 18:03:47	28/09/2007 18:03:47	28/09/2007 18:03:55	28/09/2007 18:03:47 ▼	28/09/2007 18:03:55 ▼
	28/09/2007 18:04:32	28/09/2007 18:04:32	28/09/2007 18:04:56	28/09/2007 18:04:32 ▼	28/09/2007 18:04:56 ▼

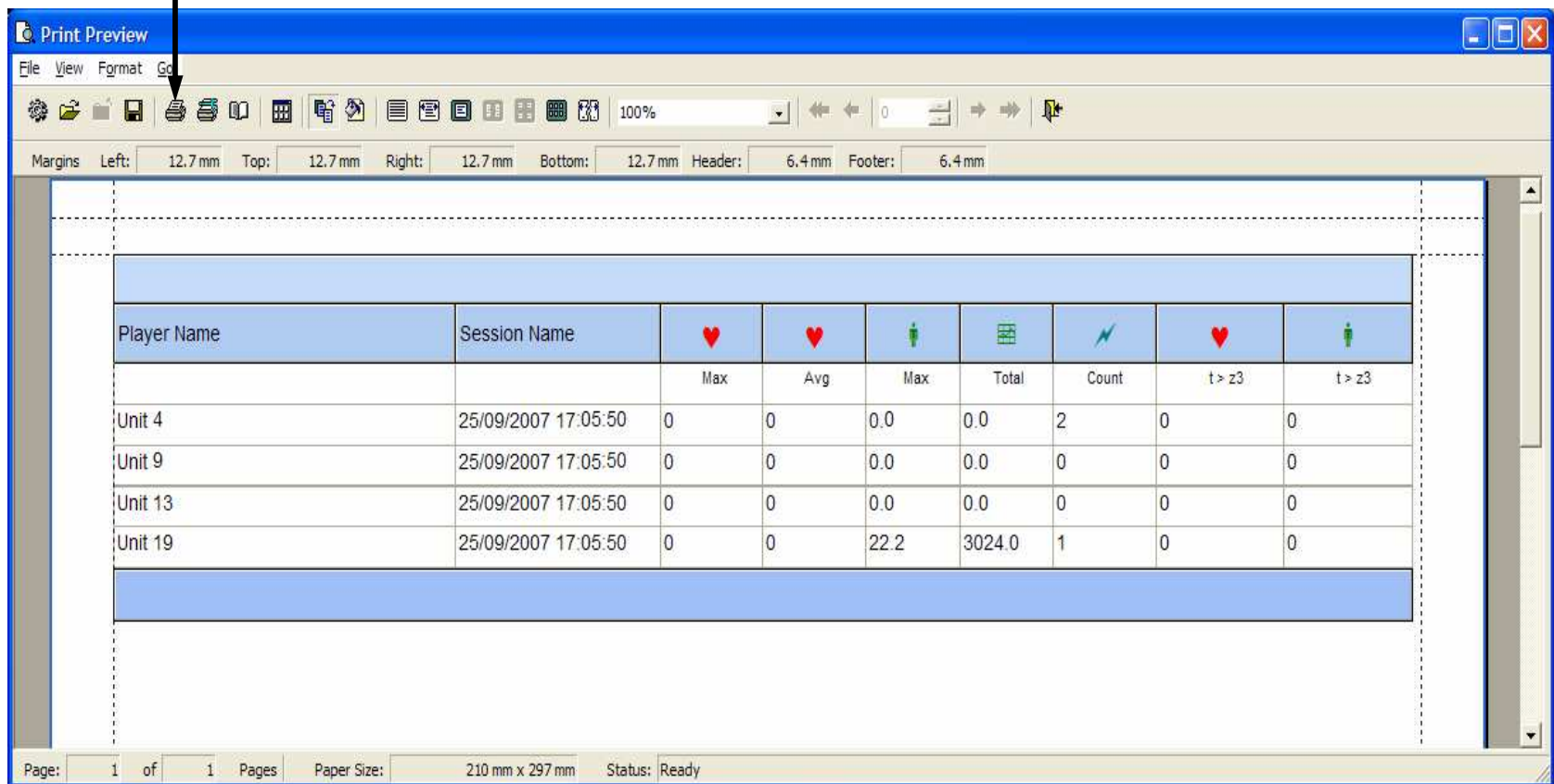
+ Last Week

Figure 18 – Changing Session Name

Printing Custom Summaries

The **Custom Summary** is displayed in the Print Preview Window which allows you to customize the look a feel of the summary information. To print the report simply click on the  button on the Print Preview Toolbar

Click to Print Report



Suggestions and Improvements

GPSports Systems always welcomes suggestions and new ideas concerning the use of the SPI Elite and its associated software. Please contact us if you have found errors in the documentation or have a request for new features to be included in the SPI Elite software.

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