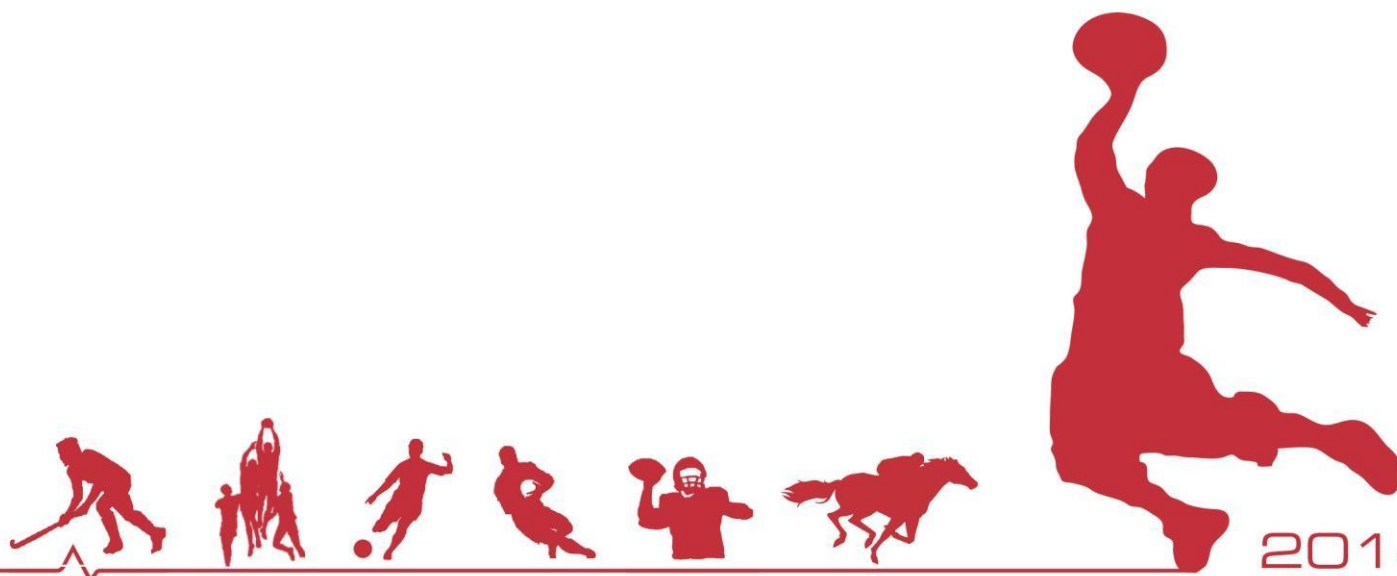


STATSports™

VIPER BASKETBALL MANUAL



2014

1. Adding Players and Editing Profiles

Adding Players

To add a new player to the system, click Data > Add Player. Enter the players' details and characteristics. A profile photo can also be added by double clicking on the silhouette in the top left and attaching the relevant file. Once the profile is complete, click save.

Once added, the player will appear in the player selector column on the left. Right clicking on the player allows you to further edit the player profile. Individual zones and thresholds can be changed here as well.

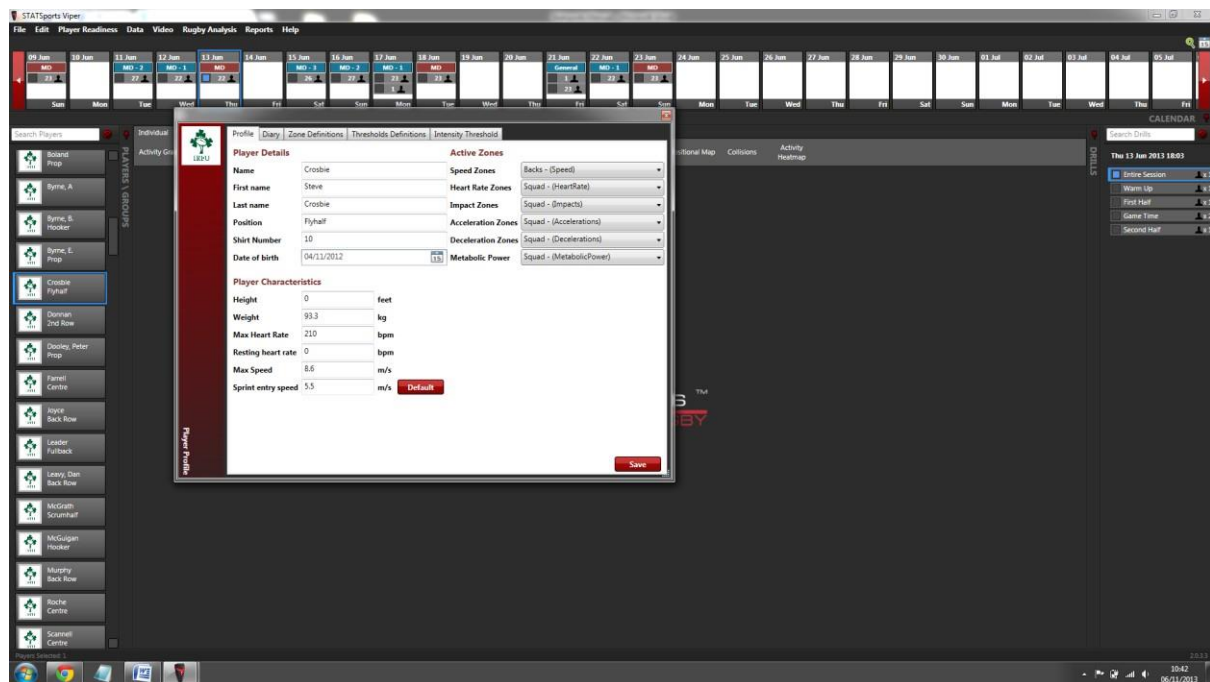


Figure 1.1

Setting Zones

Default zones for Speed, Heart Rate, Impacts, Accelerations/Decelerations and Metabolic Power are automatically set within the system. Use default settings for Max Speed and Sprint entry, and ensure the following HR zones are selected: 100% (Zone 6), 85% (Zone 5), 75% (Zone 4), 65% (Zone 3), 55% (Zone 2) and 45% (Zone 1)

These zones can be altered individually or for a whole squad, right clicking on an individual player or the 'Squad' group allows you to make these changes. The zone which the player is assigned to (squad or individual) can then be selected under the 'Active Zones' heading on the player profile page. New groups (positional or otherwise) can be easily created by right clicking on an individual player and selecting Assign to > New group.

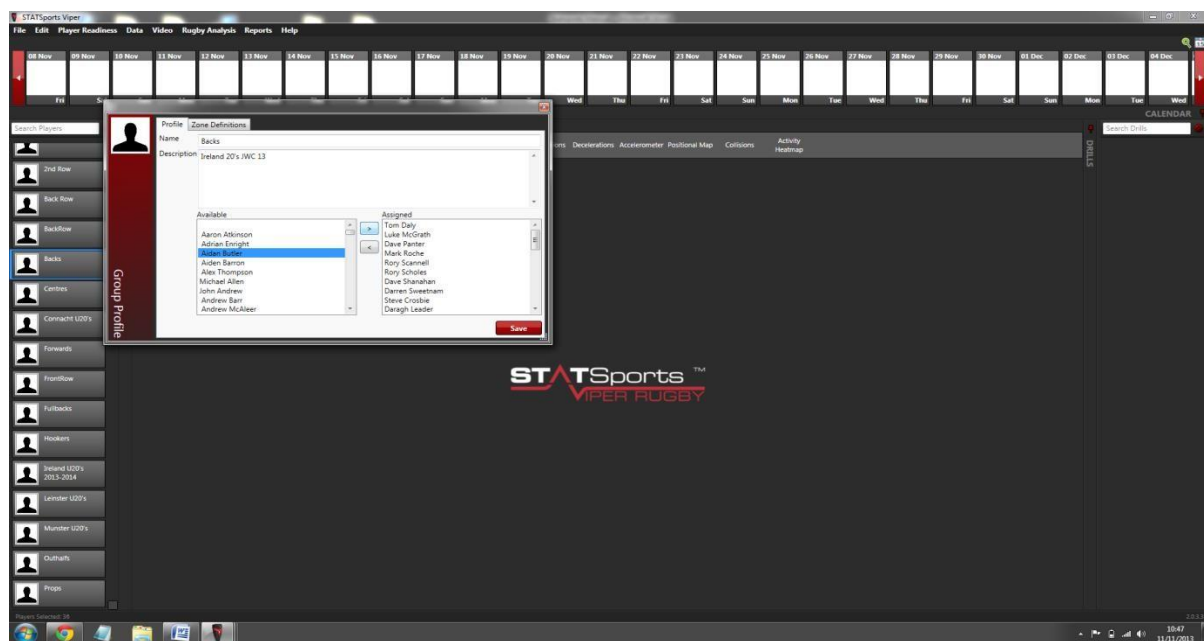


Figure 1.2

Downloading Units

1. Make sure all players are added to the system. If you are unsure you can search for them in the 'Search players' box on the left-hand side of the home screen. If a player is not on the system they can be added selecting 'Data' on the toolbar at the top of the screen, 'Add Player' and then complete their details. (see page 2)

2. Plug the docking station into a power source and then turn it on.

3. Connect USB from docking station to the laptop.

Ensure that there are no Viper Pods in the dock. If it's the first time the dock has been connected to that laptop, we advise installing it through all available USB ports. A pop-up should appear informing you that drivers are being installed. Allow this process to finish. Once finished, a message should appear telling you that all drivers were successfully installed. Repeat this process in all USB ports.

4. Once fully installed open STATSports Viper.

5. Go to 'File' and 'Download from units'. (Figure 1.3)





Figure 1.3

6. One at a time insert the 12 units into the dock and clip them in. As you insert each unit, the LED should turn solid red (not flashing) and the corresponding box on the 'Unit Selection' page should turn green. If there are any empty slots, the corresponding box will remain grey (Figure 1.4).

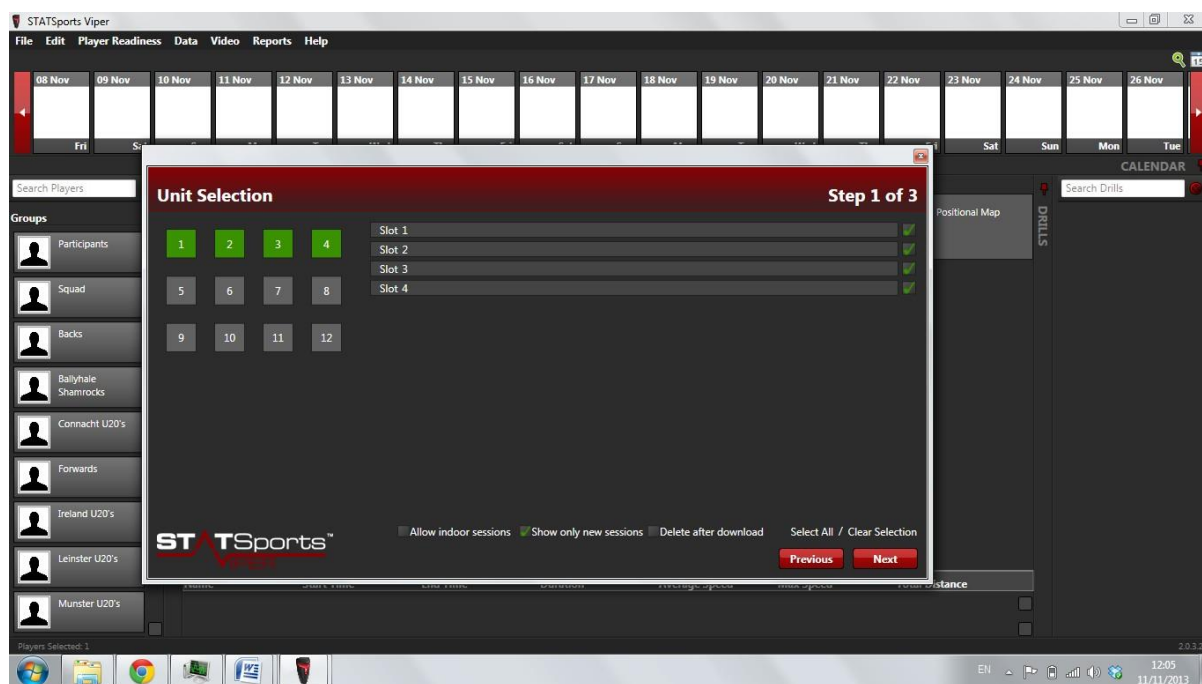


Figure 1.4

7. When the last unit registers in the dock, wait 15-20 seconds before clicking 'Next'. This allows all units to register correctly.

8. For new sessions ensure 'Show only new sessions' is *ticked*. For previously downloaded sessions that you would like to re-download, ensure that 'Show only new sessions' is *un-ticked*.

9. If you trained indoors then 'Allow indoor sessions' should also be ticked. This feature allows accelerometer and heart rate data to be displayed while eliminating GPS data.

10. Clicking 'Next' allows the software to scan the units. If, for some reason, any of the boxes turn orange during this stop, simply remove it from the dock and re-download it at the end with the 'Show only new sessions' un-ticked.

11. Once the units have been scanned, the 'Session Selection' page appears. Here you can allocate each unit to the relevant player from the drop down menu. This screen also allows you to name the session and label the type of session i.e. MD (match day) MD -1, general etc. If drills were

created during live streaming they can also be applied here by ticking the 'Apply realtime drills' box (Figure 1.5).

For an indoor session you must click the 'blue man' icon for each player as shown in Figure 1.5:

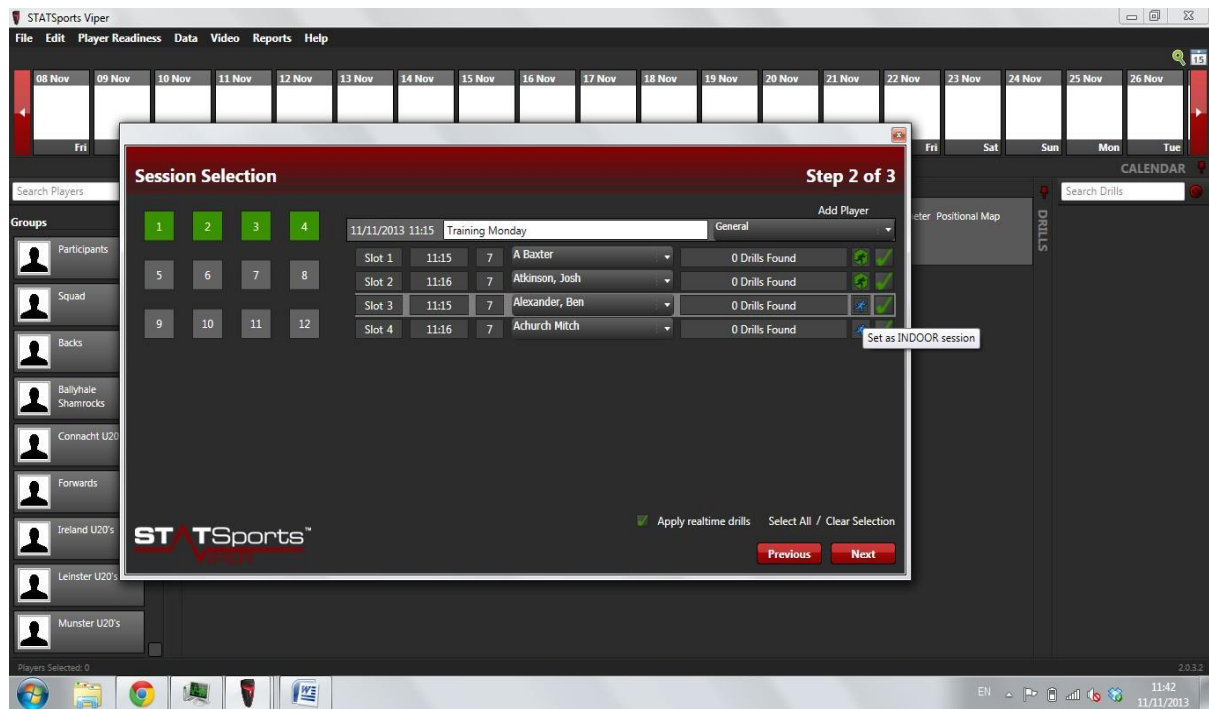


Figure 1.4

12. Once finished, click 'Next' and wait while the data is imported to your Viper system. Once import is complete, click 'Finish'.

13. The data will now appear in the STATSports Viper calendar at the top of the screen on the date on which the session occurred.

Removing players from Session:

To remove a player from a session, firstly select the session and desired player then go to Date > Remove Selected Players from Session.

2. Data Analysis

Individual Analysis

Individual > Activity Graph

1. An individual players' Activity graph can be viewed by selecting the session from the calendar along the top and the player from the player selector column on the left and then selecting Individual > Activity Graph. The left hand Y-axis shows speed in m/s or km/h (as preferred), represented by the blue trace and the right Y-axis show Heart Rate in bpm, represented by the red trace. The X-axis shows the actual time of day. (Figure 2.1).

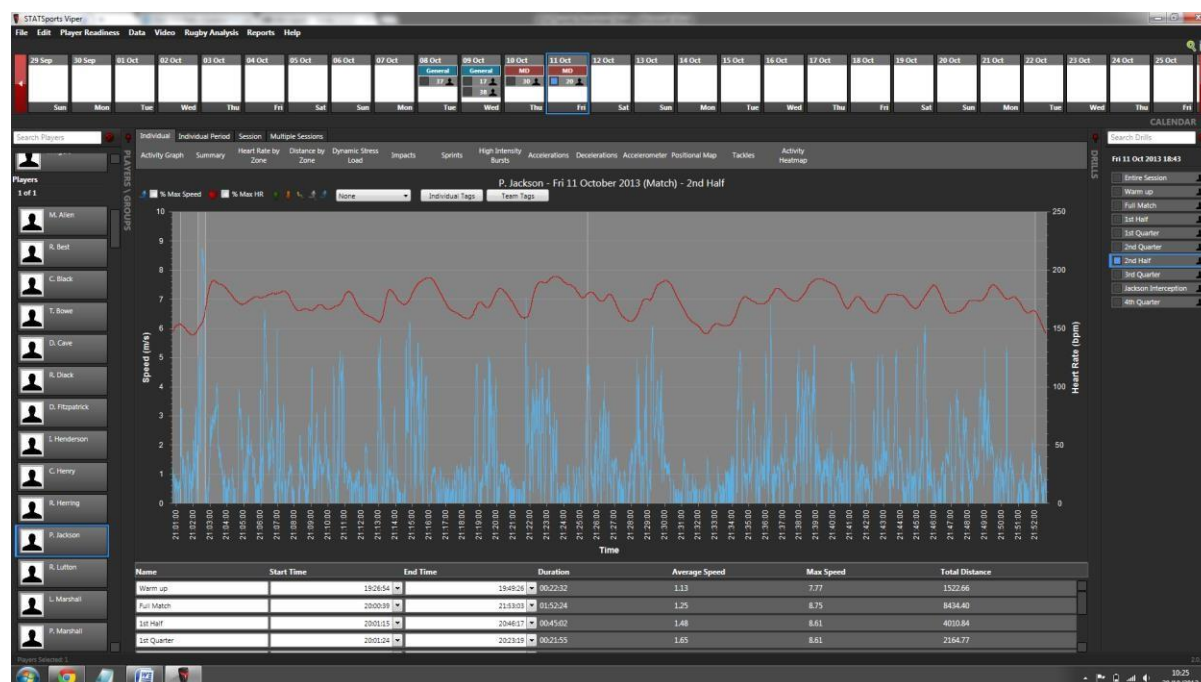


Figure 2.1

2. The icons on the top left of the graph allow you to view % of max speed, % of max HR, accelerations, decelerations, impacts, DSL and sprints respectively. Accelerations and decelerations are shown as green and orange boxes on the graph, with the height representing magnitude and the width representing duration. Sprints are shown as blue boxes. Impacts are shown as yellow spikes (Figure 2.2).

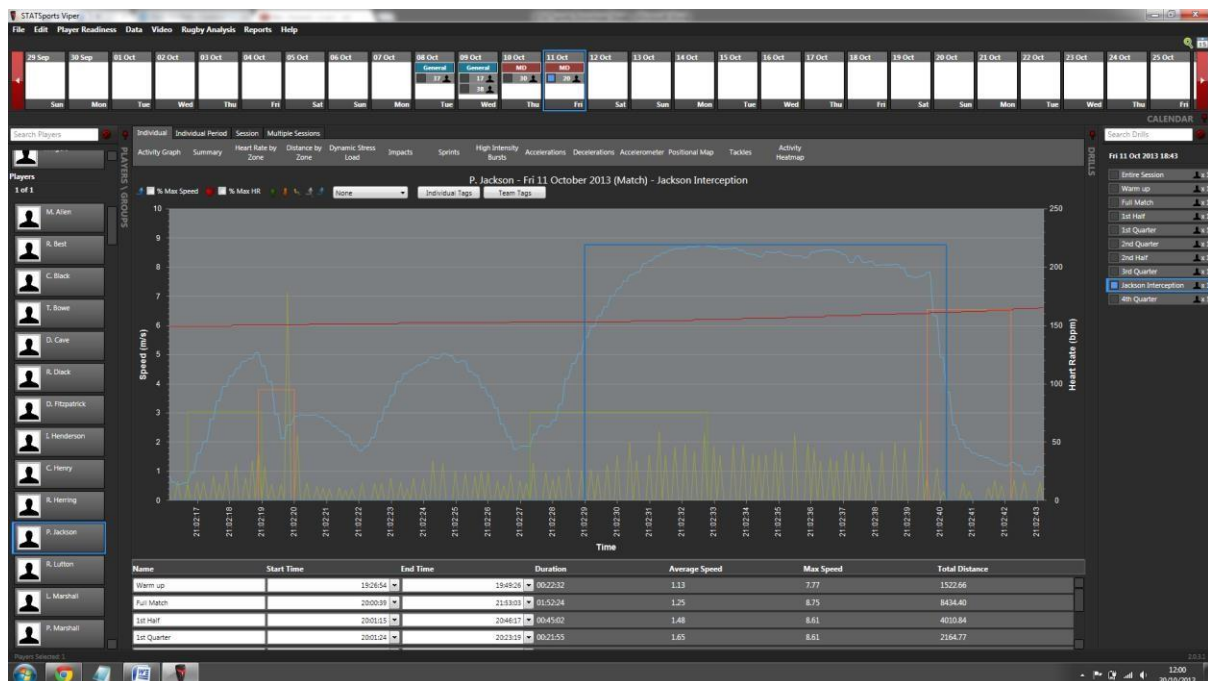


Figure 2.2

3. Drills can be created by clicking and dragging over the desired area, then right clicking and selecting 'Create Drill'. The drill then appears both underneath the graph (where it can be named) and in the drill column on the right. By right clicking the drill below the graph it can be deleted or applied to other players.

Further Individual Analysis

The individual tabs along the top of the graph allow further individual analysis of the data.

Summary - a player summary shown in both table and bar chart format. Chart is shown as % of the set threshold for that session. Step balance is also shown in bottom left. This is calculated as the average of peak impact G-forces through the left and right foot.

Heart Rate by Zone - bar chart showing time (secs) spent in each HR zone.

Distance by Zone - bar chart showing distance (mts) covered in each speed zone.

Dynamic Stress Load - bar chart showing the weighted contribution of each of the impact zones to the total DSL.

Impacts - bar chart showing number of impacts broken down by zone.

Sprints - Number of sprints shown in table format with start time, duration (secs), distance (mts) and max speed (m/s) reached during each sprint.

High Intensity Bursts - Displayed in a similar format to sprints with start time, duration (secs), distance (mts) and max speed (m/s) reached during each HIB.

Accelerations - bar chart showing total number of accels broken down by zone.

Decelerations - bar chart showing total number of decels broken down by zone.

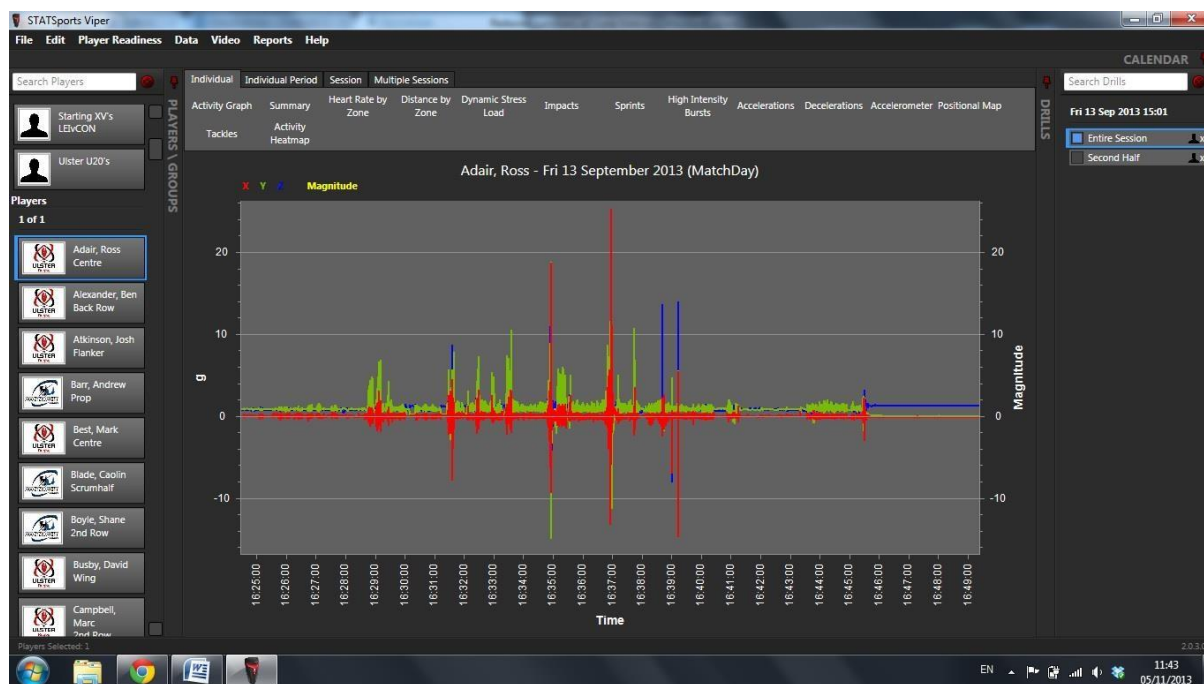


Figure 2.3

Accelerometer - shows the exact movements of the unit during the session in all 3 planes:

x axis: left to right

y axis: up and down

z axis: front to back

Longitudinal Individual Analysis

Individual Period > Performance

This is for comparison of multiple sessions for an individual player. All sessions selected from the calendar along the top are shown on the chart. (Metrics shown can be configured using the 'Config' option on the top right of the screen). This data can also be seen in table format in Individual Period > Summary.

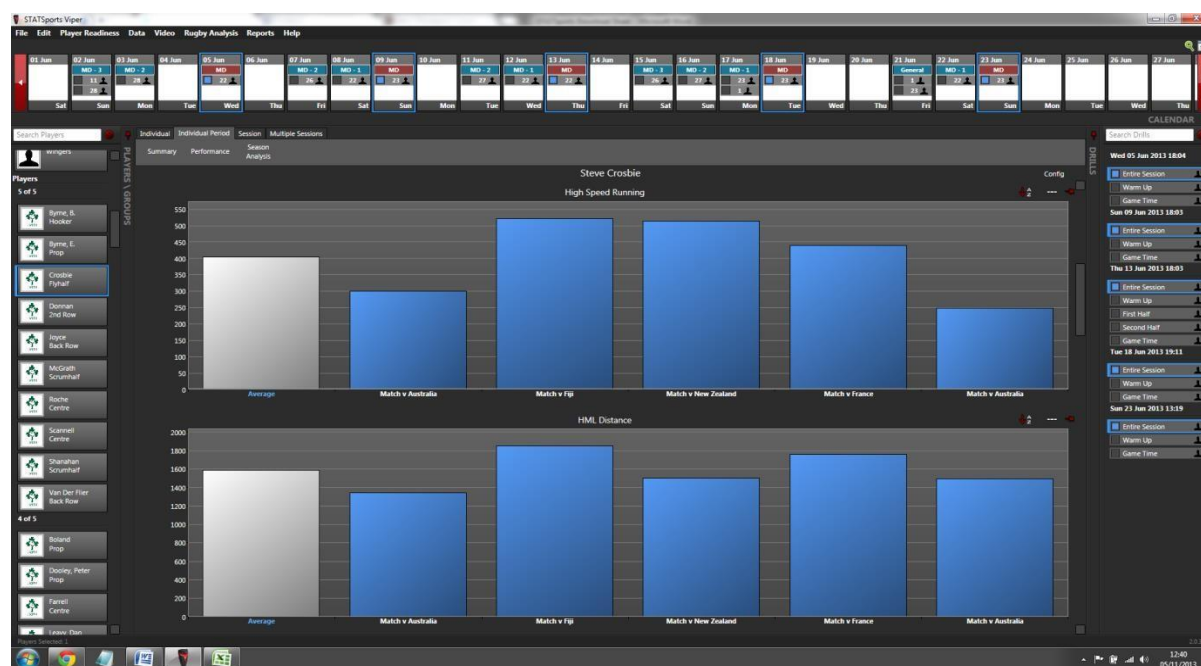


Figure 2.4

Team Analysis

For any team analysis, ensure 'Participants' (or relevant group) is selected beforehand.

Session > Performance

Allows comparison between players for a single session. (Metrics shown can be configured using the 'Config' option on the top right of the screen). This data can also be seen in table format in Session > Summary.

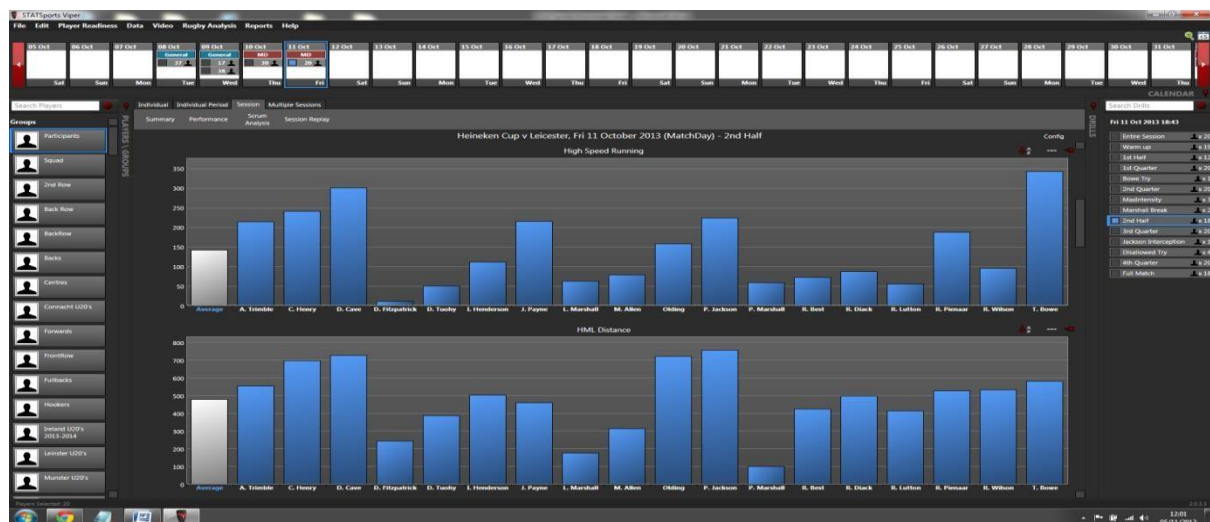


Figure 2.5

Multiple Sessions > Performance

Allows comparison between players for multiple sessions. The graphs show the cumulated total of all the sessions selected along the calendar for each player. Ensure that all desired drills are also selected from the drill tab on the right. (Metrics shown can be configured using the 'Config' option on the top right of the screen). This data can also be seen in table format in Multiple Sessions > Summary. This feature is useful for monitoring weekly loads.



Figure 2.6

3. Reports

PDF Reports

PDF reports can be generated by selecting *Reports > Generate > Session*. The contents of this report will correspond to the session, the participants and the drills selected in the Viper system. Individual Period and Multiple Session reports can also be generated.

To save the report: Click Print (top left) > CutePDF Writer and then click print.



Figure 3.1

This will give you the option to save the file where desired.

PDF reports can be configured by selecting *Reports > Configure Reports*.

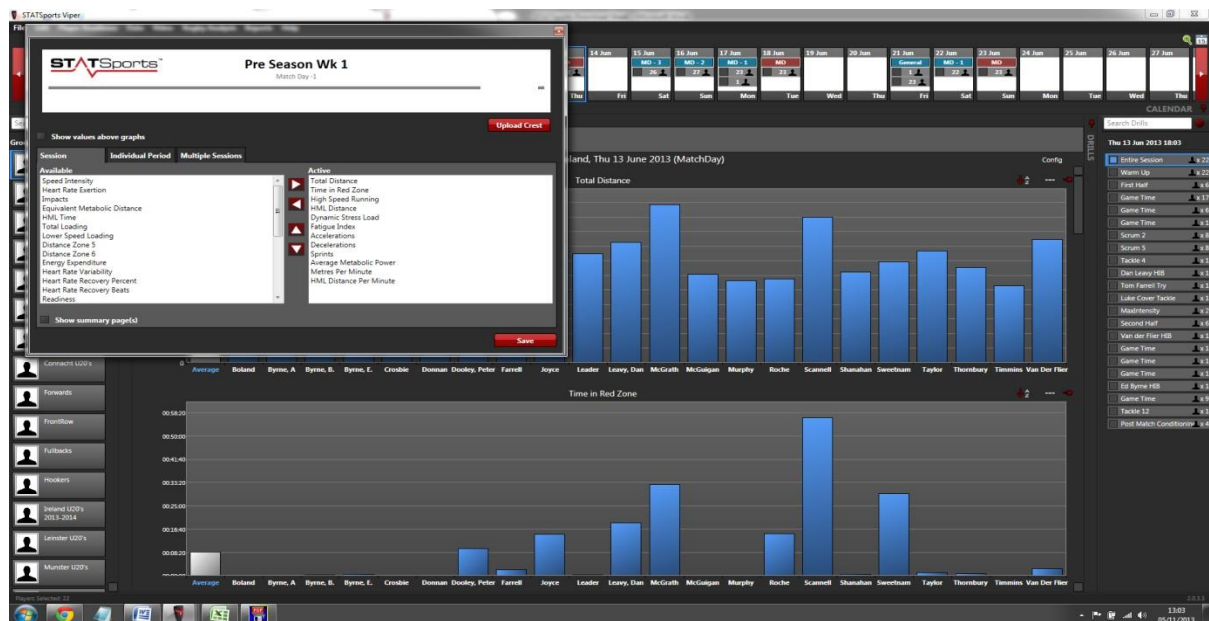


Figure 3.2

Excel Reports

Data can be exported to Excel by selecting Reports > Excel Export (Custom). This will give you the option to save the report where desired.

Excel Reports can be configured by selecting Reports > Configure Custom Export. Multiple templates can be created and saved by selecting 'New' and saving the template as desired.



Figure 3.3

Exporting Raw Files

If you want to export your session and send it on to somebody else you can do. To export the raw VR1 data file simply click your session in the calendar above, then click 'Participants' and go to File > Export > Export Viper Archive File.

This will then give you the option to save the VR1 file to the location of your choice.

Frequently Asked Questions

How many hertz are the VIPER Units?

The STATSports VIPER gps units are 10Hertz (Hz) units and contain a 100hz accelerometer and gyroscope.

Battery life?

The battery life of a fully charged VIPER unit is over 5.5 hours.

How do I know the units are charged?

If a Viper unit is completely dead and will not turn on, place the unit in the dock and it will flash red initially. This flashing will stop after 5 mins and the LED will turn solid red. When this red LED goes off, the unit is fully charged and can be removed from the dock.

How long does charging usually take?

Charging the units depends totally on how long they have previously been active for. The VIPER units will 90 minutes to charge if they are completely dead. If you are simply charging units between sessions, then a unit should take no more than 35mins to charge.

If a VIPER unit has been fully charged and then left un-used for a period of time, then the battery life will drain and not perform to its best capabilities. If this is the case, then a simple charge in the dock is advised before use.

Can I use the units in another country?

Yes, the VIPER units can be used anywhere in the world.

Are the units waterproof?

No the units are not waterproof.



This device complies with Part 15 of the FCC Rules

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

WARNING: *Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.*

