PlayTV Cricket

Game Design Document v0.9

(Please note that all graphics are placeholders and subject to change.)

Developed by:

HiScore TV for Radica Innovations

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1. Game Overview

PlayTV Cricket is a 32Mbit 'Plug & Play' TV game that brings home all the action and excitement of a real cricket match. Via an innovative user interface (consisting of an IR bat, a tethered ball with built-in control functionality and a main console base unit) the user can compete in a full cricket match simulation against either the CPU or another user. In addition, the game features battery backed-up memory allowing the user to save their progress in a 5-Day Test or Tournament.

1.1 Hardware Interface

Cosmetic differences aside, the interface for PlayTV Cricket will be identical to that of PlayTV Baseball 3 (shown above left). The game consists of a main console unit, a motion-sensing bat and a tethered motion-sensing ball with extra control functionality:

Bat – The bat is able to detect three distinct swing speeds, which are transmitted to the main console unit via an IR signal. In addition, the bat has two buttons:

- **[Run]** – Tells batsmen to run/stop running; scrolls right through menu options
- **[Block]** – Performs a defensive block; scrolls left through menu options.
- **[Swing] –** Performing any swinging action selects highlighted menu option.

Ball – The ball is tethered to the main console unit via a cable (note that it's important for this cable to be longer than PlayTV Baseball 3's as cricket's throw radius is longer). The ball is capable of detecting three distinct throwing speeds and has the following controls:

- **[D-Pad]** – Guides bowling target; scrolls through menu options.
- **[A/Enter]** – Applies right spin; when used in conjunction with [B] applies additional top spin; when used in conjunction with [C] applies bottom spin; selects highlighted menu option.
- **[B]** – Applies top spin to ball; when used in conjunction with [A] or [C] applies additional right or left respectively.
- **[C]** – Applies left spin; when used in conjunction with [B] applies additional top spin; when used in conjunction with [C] applies bottom spin.

Main Console – The main console unit features the following buttons:

- **[Power]** – Turns the unit On/Off; console will automatically ‘power down’ if there’s no user input for an extended time period (to be specified by Radica).
- **[Reset]** – Resets the game.
- **[Right]** – Scrolls right through menu options.
- **[Left]** – Scrolls left through menu options.
- **[Up]** – Goes back to the previous set of menu options.
- **[Down]** – Pauses the in-game action and gives access to options.
- **[Enter]** – Selects highlighted menu option.

1.2 Key Product Features

- Motion-sensitive bat and ball detects three distinct batting or bowling strengths.
- Face one of 16 top international sides in either a 1- or 5-Day Test Match…
- …Or compete against all 16 sides in a challenging Tournament.
- Save progress in 5-Day Tests or Tournaments and resume whenever you wish.

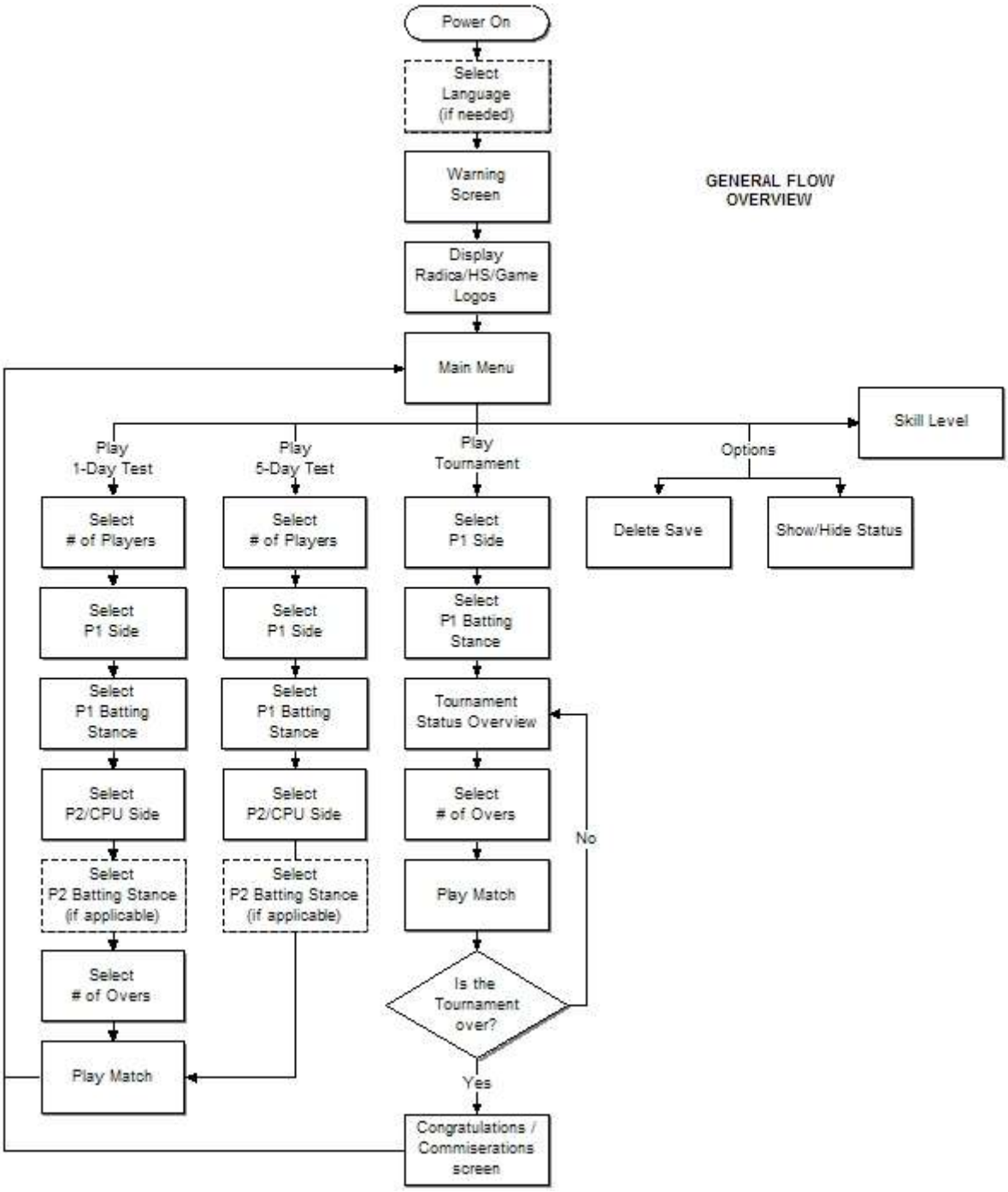
1.3 Gameplay Modes

PlayTV Cricket contains three match modes – 1-Day Match, 5-Day Test and Tournament.

In the 1-Day Matches and 5-Day Tests the user plays one-off matches of varying duration. The user is able to select their own side, their rival’s (human or CPU) side and, in the 1-Day Match, the number of Overs bowled (in the 5-Day Test the number of Overs is fixed at 90 per day).

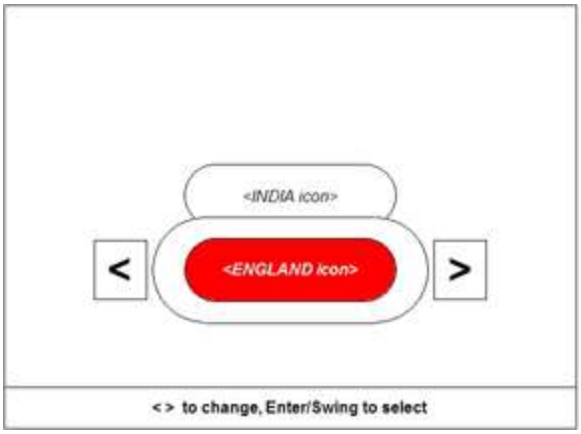
In the Tournament the user competes against all 15 international rivals in an attempt to claim the World Trophy. Before the Tournament the user is able to select their own side, and during the Tournament they can also configure the number of Overs per match.

2. Game Overview



2.1 Intro Screens

Select Language *(default: English) – Note that this will not appear in the first version of the game; however, the game will still require 'behind the scenes' functionality so that should a multiple language version be required, it will be relatively easy to implement.*



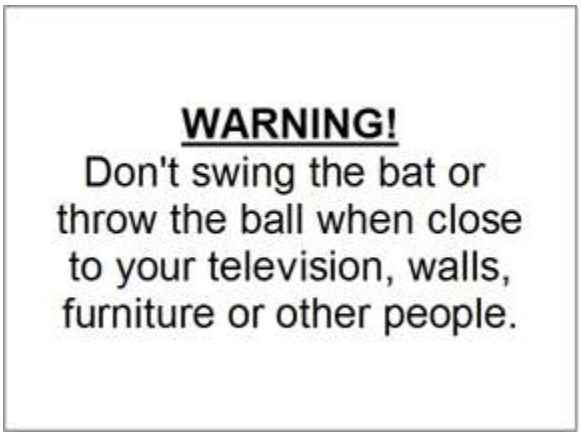
Description: On this screen the user can choose which language the in-game text will be.

Screen Title: None.

Functionality: The language options are depicted as flag icons. The user changes which icon is currently highlighted (in the centre of the screen) by 'rotating' the options left/right using either the [Left/Right] buttons on the main console, the [D-Pad] on the ball or the [Block/Run] buttons on the bat. The user then selects an option either by pressing [Enter] on the main console/ball or [Swinging] the bat. Depending on the icon currently highlighted, the context bar text changes accordingly (in other words, if the player highlights the India icon, the context bar text will appear in Hindi).

Note: *Apart from a couple of minor exceptions, all PlayTV Cricket's intro/menu screens use this 'rotate options left/right then select' system. However, instead of an icon and a context bar, text-based menu items have been used.*

Warning Screen

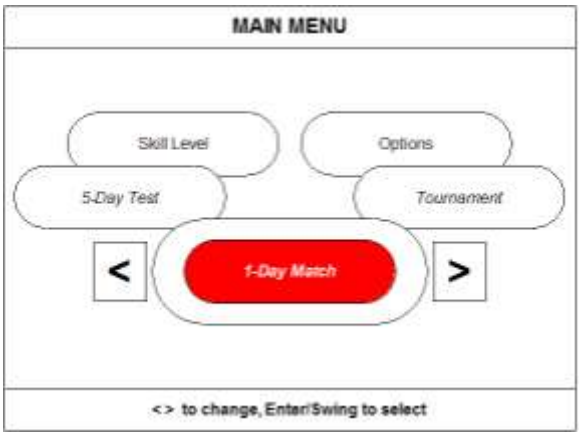


Similar disclaimer to those in previous PTV products; displayed for 5 seconds. Text is: "*WARNING! Don't swing the bat or throw the ball when close to your television, walls, furniture or other people.*"

Display Logos *(note that all logo and intro screens will be designed to be as memory efficient as possible):*

- **Radica Logo –** Logo displayed for 2 seconds. *(Note: in addition, this screen will feature Radica's website address: www.radicagames.com for NTSC and www.radicauk.com for PAL.)*
- **HiScore TV Logo –** Logo displayed for 2 seconds.
- **PlayTV Cricket Title Screen –** Consists of a large image which stays in view until the user either [Swings] the bat or presses [Enter] on the main console/ball (in the context bar it says 'Enter or Swing to start').

Main Menu



Description: On this screen the user can choose to play a 1-Day or 5-Day Test Match against a side of their choice, compete in a Tournament against a host of other sides or change Options/Skill Level.

Screen Title: Main Menu

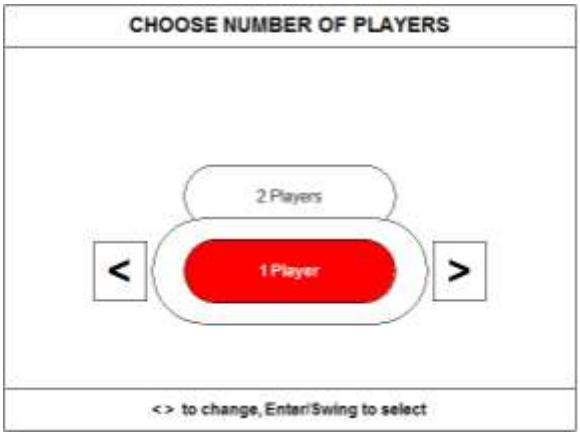
Options Descriptions:

- 1-Day Match *(default option)*
- 5-Day Test
- Tournament
- Skill Level
- Options

Functionality: Same as the Select Language screen (see above).

2.2 Play 1-Day Match

Select # of Players



Description: On this screen the user can choose whether to play alone (versus the computer) or against another player

Screen Title: Choose Number Of Players

Options Descriptions:

- 1 Players
- 2 Players

Functionality: Same as the Select Language screen in Section 2.1 (see above).

Select P1 Side

Description: This screen lets the user choose which team to play as from the 16 available.

Screen Title: Player 1: Choose Your Side

Options Descriptions: Displays each nation's flag as well as its name and side statistics (Batting, Bowling & Fielding) rated out of 5. The nations are listed alphabetically and the default is whatever nation was selected on the Language Select screen or, if the game has already been played once, whatever nation was selected previously (e.g. if the player just finished a game playing as Bangladesh, then this will be the default selection).

Functionality: Same as the Select Language screen in Section 2.1 (see above).

Select P1 Batting Stance

Description: On this screen the user chooses whether to play right- or left-handed.

Screen Title: Player 1: Choose Your Stance

Options Descriptions:

- Right-Handed
- Left-Handed

Functionality: Same as the Select Language screen in Section 2.1 (see above).

Select P2/CPU Side

Description: In a one-player game this screen lets the user choose which side to play against from the 16 available; in a two-player game this screen lets P2 choose which team they want to play as.

Screen Title: Player 1: Choose CPU Side / Player 2: Choose Your Side (as applicable)

Options Descriptions: Displays each nation's flag as well as its name and side statistics. The default is the 'classic enemy' of the nation selected on the Language Select screen (i.e. Australia in England's case) or, if the game has already been played once, the nation selected previously (e.g. if the player just finished a game playing The Netherlands, then this will be the default selection).

Functionality: Bar text changes this is identical to the Select P1 Side menu (see above).

Select P2 Batting Stance *(if applicable)*

Description: In a two-player game, this screen lets P2 choose whether to play right- or left-handed.

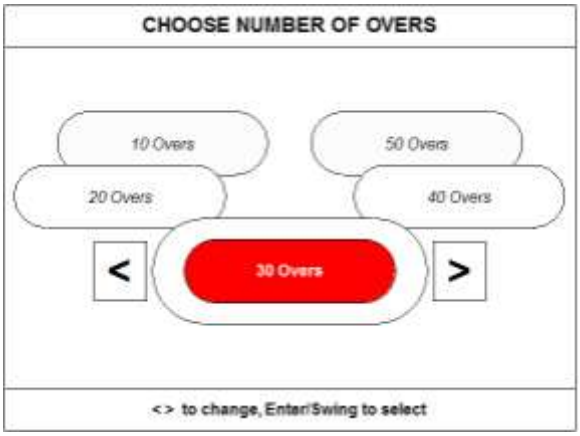
Screen Title: Player 2: Choose Your Batting Stance

Options Descriptions:

- Right-Handed
- Left-Handed

Functionality: Bar text changes this is identical to the Select P1 Batting Stance menu (see above).

Select # of Overs



Description: This screen lets the user choose how many Overs will be bowled and thus how long the match lasts.

Screen Title: Select Number Of Overs

Options Descriptions: *(Default is initially 10 Overs and subsequently whatever the previous game's figure was):*

- 10 Overs / 20 Overs / 30 Overs / 40 Overs / 50 Overs

Functionality: Same as the Select Language screen in Section 2.1 (see above).

Play Match – *The game proceeds as outlined in Section 3 below. Once the match has concluded the user is returned to the Main Menu screen.*

2.3 Play 5-Day Test

The menu flow for a 5-Day Test Match is identical to that of a 1-Day Match, apart from the omission of the Select # of Overs screen. For the purposes of this game, a 5-Day Test will be considered to consist of three 30 Over 'sessions' per 'game day' (i.e. on each 'game day' a total of 90 Overs will be bowled, and after five 'game days' a maximum of 450 Overs will be bowled).

2.4 Play Tournament

This is a single player mode that follows a similar format to the cricket World Cup. The 16 international sides are randomly split into four Groups. The sides in each Group play each other once, earning 4 points for a win or 2 for a draw, with the two highest scoring sides from each group moving up to the 'Super Eight' Group.

If any sides finish on the same points then the side(s) that won the most games progress. If this still results in a draw then the side with the higher net Run Rate (total runs divided by the number of Overs) goes on.

In the Final Group the sides play each other once, with the top four sides entering semi-final play-offs – the side that came first playing the side that came fourth and the side that came second plays the side that came third. The winners of those two matches then face each other in the final.

Select P1 Side – *As outlined in Section 2.2 above.*

Select P1 Batting Stance – *As outlined in Section 2.2 above.*

Tournament Status Overview

Description: This screen lets the user view how the tournament is progressing. There are three Tournament Status Screens: one displaying the initial Groups (in which the 16 sides are divided into four Groups); one displaying the 'Super Eight' Group (made up of the two top sides from each Group); and one displaying the Semi-Final and Final pairings.

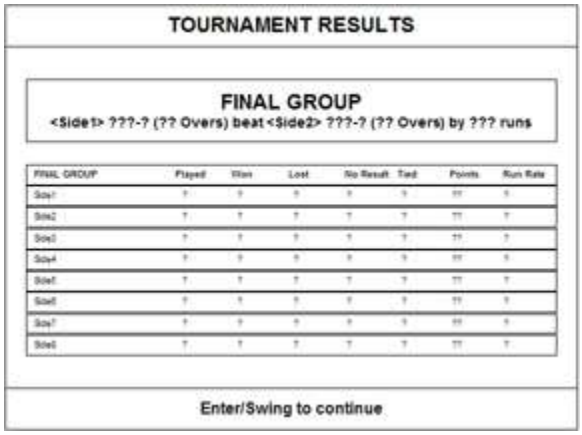
Screen Title: World Tournament Results

Options Descriptions: None.

Functionality

Initial Groups

- The user's side always appears in Group A, with the rival sides and those in Groups B, C and D randomly selected from the 16 available.
- The result from the pairing featuring the user's side is shown in the top panel, with the other results automatically calculated according to the sides' relative strengths. However, there is enough randomness in the calculation so that the occasional 'surprise' occurs.
- After all the results have been displayed, the game waits for the user to Enter/Swing before progressing to the next screen (the context bar says 'Enter/Swing to continue'):
    - If all the Group games have been played then the 'next screen' is the Final Group screen below.



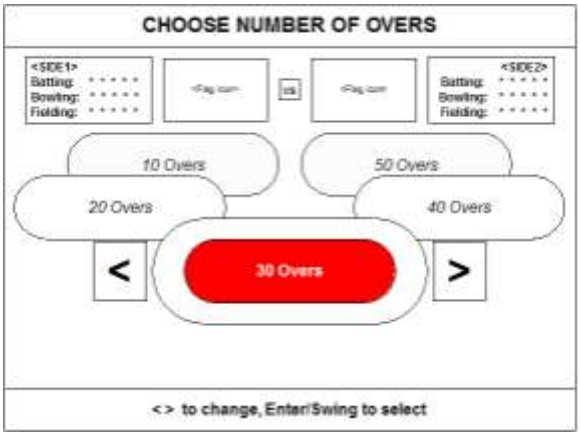
Final Group

- Functions identically to the Initial Group screen, the game waits for the user to Enter/Swing before progressing to the next screen:
    - If all the Final Group games have been played then the 'next screen' is the Final Stage screen below.

Final Stage

- Note that in the final game this has been incorporated into the Final Group screen.
- As before, one by one the game highlights a match pairing and displays the results.

Select # of Overs



In terms of functionality, this is identical to the Select # of Overs screen detailed in Section 2.2 (see above). The key differences are cosmetic: as well as the options icons, there's also information on the sides about to compete (flag icon, country name, statistics).

Play Match – *The game proceeds as outlined in Section 3 below.*

Congratulations/Commiserations Screen

Description: If the user wins the Final then they've won the tournament – the results are posted and the user is treated to a congratulatory message and an animated shot of the trophy. If they lose a match then they're kicked out of the tournament and a commiserations screen is displayed instead.

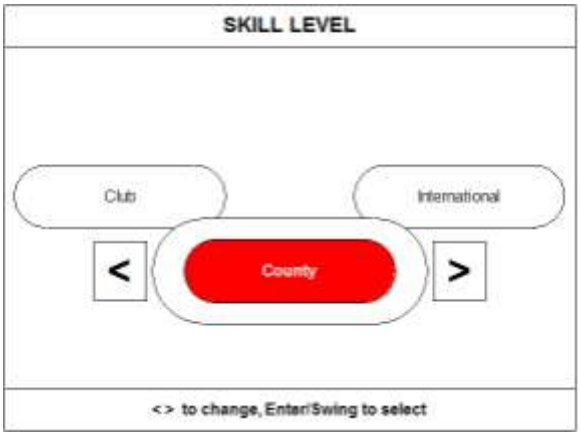
Screen Title: <SIDE> WINS! / <SIDE> LOSES *(depending on results)*

Options Descriptions: None.

Functionality: Enter/Swing returns the user to the Main Menu.

2.5 Skill Level

Difficulty Select Menu



Description: User selects the difficulty level of the game.

Screen Title: Skill Level

Options Descriptions:

- Club *(Easy level)*
- County *(Medium level; default)*
- International *(Hard level)*

Functionality: Same as the Select Language screen in Section 2.1 (see above).

2.6 Options

Description: Allows user to set various options.

Screen Title: Options

Options Descriptions:

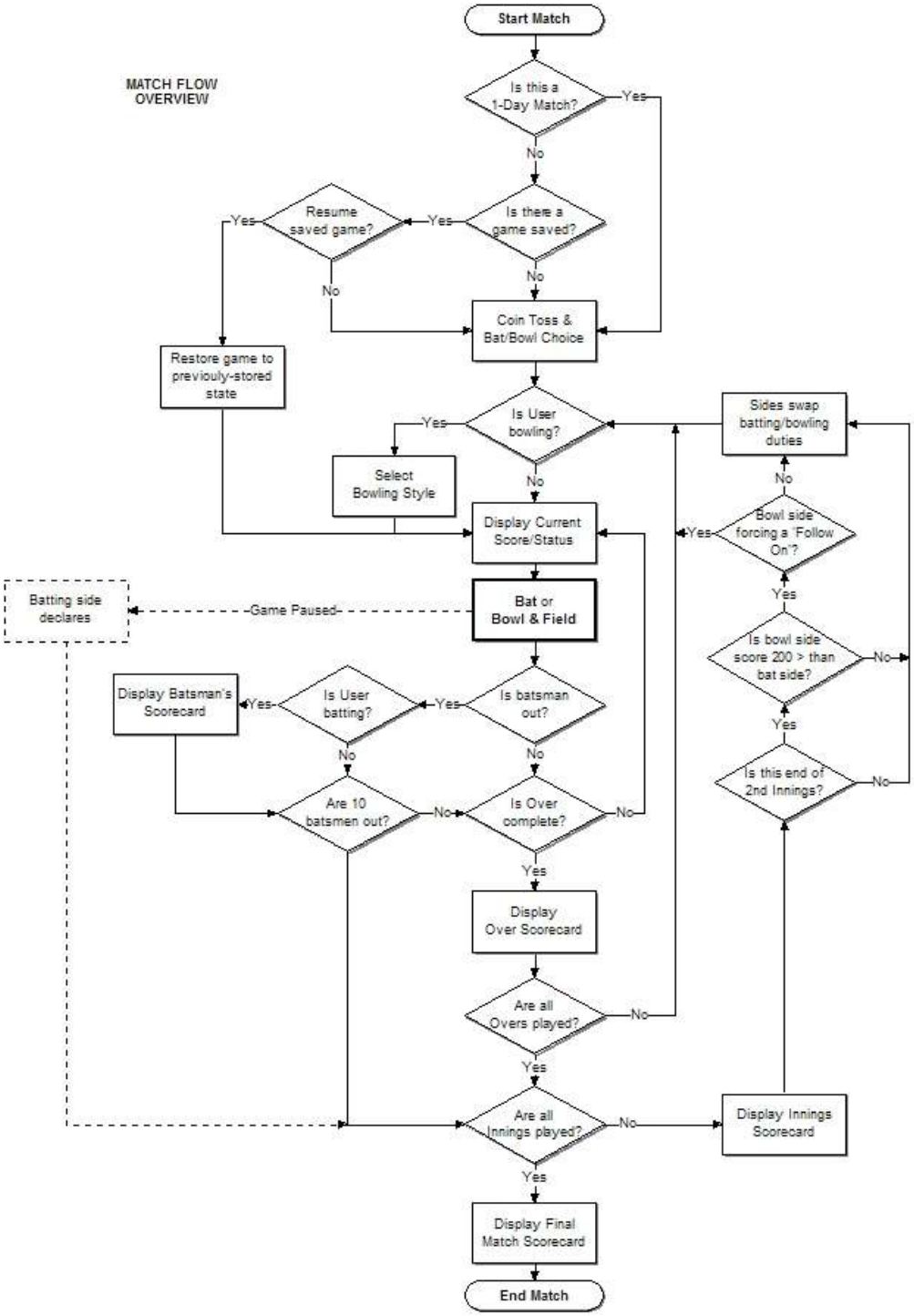
- Hide/Show Status *(toggles between-ball score updates on/off)*
- Delete Save *(clears any saved data stored in the EEPROM)*

Functionality: Same as the Select Language screen in Section 2.1 (see above).

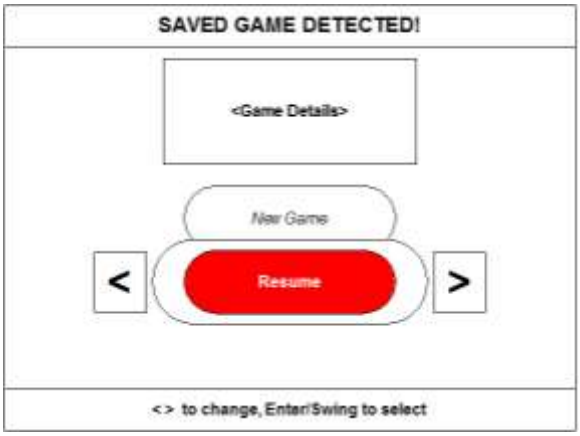
3. Match Gameplay

3.1 Match Flow

(Note: in a 1-Day Match the total number of innings played is 2, whereas in a 5-Day Test there are 4. Also, the 'Batting Side Declares' option is not available from the Pause Menu in a 1-Day Match.)



Saved Game Detected



Description: If the user is about play a 5-Day Test or Tournament and a saved game is detected then they're given the options below.

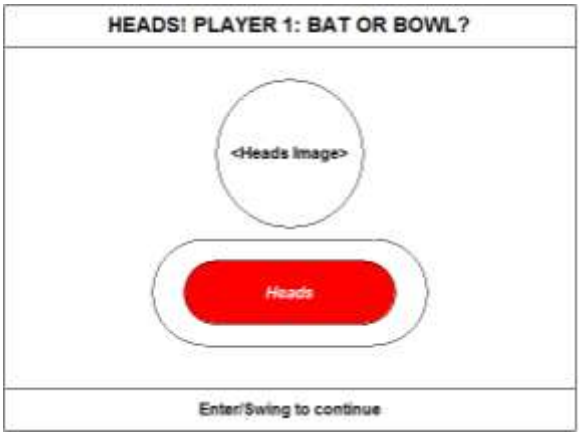
Screen Title: Saved Game Detected!

Options Descriptions:

- Resume *(default)* – The saved game is loaded and the user rejoins it where they left off.
- New Game – Starts a new game but without erasing the saved data.

Functionality: Same as the Select Language screen in Section 2.1 (see above).

Coin Toss & Bat/Bowl Choice



Description: Before the match one of the players is randomly asked to guess the outcome of a coin toss; the side that wins the toss is then asked whether they want to bat or bowl first.

Screen Title:

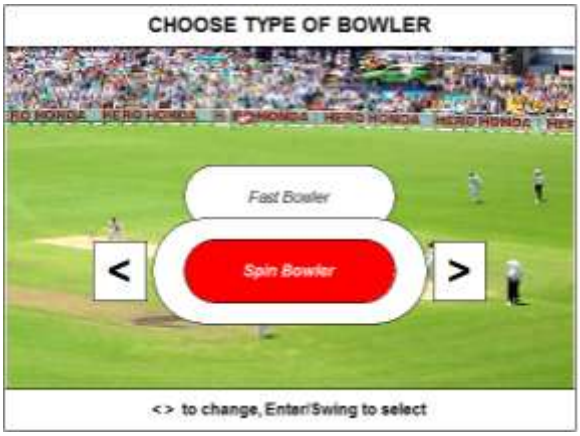
- First screen: Player 1/2: Choose Heads or Tails; Second screen: Heads/Tails! Player 1/2: bat or bowl?

Options Descriptions:

- First screen: Heads (default) / Tails; Second screen: Bat (default) / Bowl

Functionality: Same as the Select Language screen in Section 2.1 (see above).

Select Bowler *(only appears if user controls bowling side)*



Description: Before each Over the user first chooses the type of bowler, Fast or Spin, they'll employ.

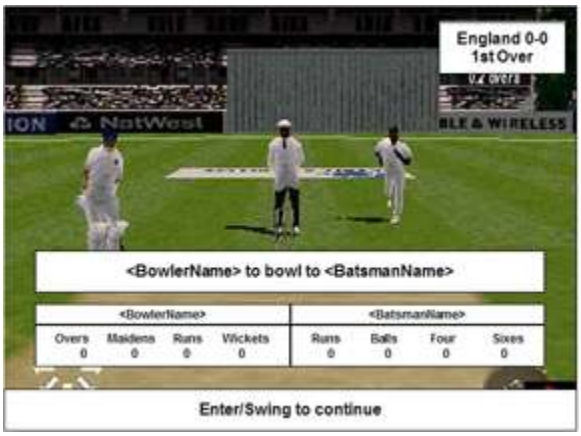
Screen Title: Choose Type of Bowler

Options Descriptions:

- Spin Bowler *(default option)*
- Fast Bowler

Functionality: Same as the Select Language screen in Section 2.1 (see above).

Current Score/Status



Description: Before each ball is bowled, the user gets a screen displaying the state of play, e.g. who's bowling to who, the performance of the bowler and the batsman and so on. The user can choose to 'hide' this screen if they wish from the Pause and Options menus.

Screen Title: N/A.

Options Descriptions: N/A

Functionality: Enter/Swing skips past this screen.

Note: *When batting, the user has no control over the batting order (i.e. the sequence in which the players come out to bat) – this is pre-determined according to the side chosen. Apart from generating atmosphere, however, the batting order is not that important in game terms as each player's*

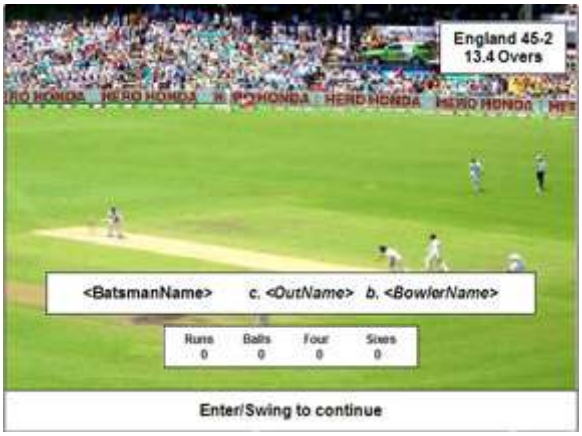
performance is governed by the team's overall stats (i.e. there are no 'star batsmen' as none of the players have individual stats).

If the user is bowling and chooses to start a new Over with a fast bowler, the game will attempt to pick someone from their side with an apt bowling reputation (e.g. in England's case, Flintoff or Harmison), provided the usual cricketing rules have been met (i.e. they didn't bowl the previous Over or, in a 1-Day Match, they haven't bowled their maximum number of Overs – bear in mind that each bowler can only bowl up to [Total Number of Overs] divided by 5).

Batting – *As outlined in Section 3.2 below.*

Bowling & Fielding – *As outlined in Section 3.3 below.*

Batsman's Scorecard



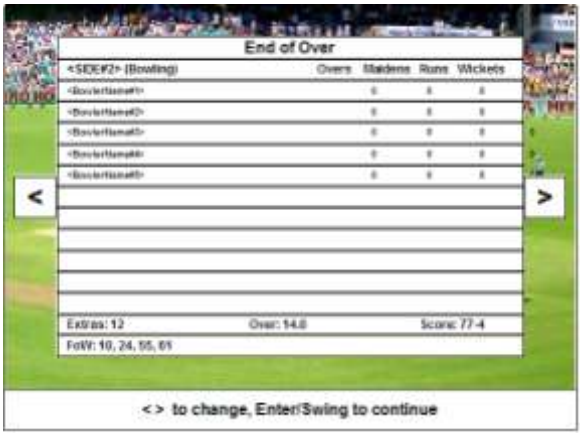
Description: When a batsman is dismissed their final scorecard is displayed plus information on how they got out as indicated by the abbreviations; in PlayTV Cricket, these are: *c.* (caught); *c. & b.* (caught & bowled); *b.* (bowled); *lbw.* (Leg Before Wicket) and *r.o.* (run out).

Screen Title: N/A.

Options Descriptions: N/A

Functionality: Enter/Swing skips past this screen.

Over Scorecard



Description: After each Over the user is shown a scorecard summarizing the Innings so far. On the batting side, the summary lists all the batsmen who are either in play or have been dismissed (plus information on how they were dismissed) along with their batting stats (Runs, Balls, Fours and Sixes). On the bowling side, the summary lists all the active bowlers and their bowling stats (Overs, Maidens, Runs, Wickets).

Screen Title: End of Over

Options Descriptions: N/A.

Functionality: Ideally, all this info would be on one screen. However, as this is not possible then the user can view other stat pages using either the [Left/Right] buttons on the main console, the [D-Pad] on the ball or the [Block/Run] buttons on the bat. In both cases, Enter/Swing skips past this screen.

Innings Scorecard

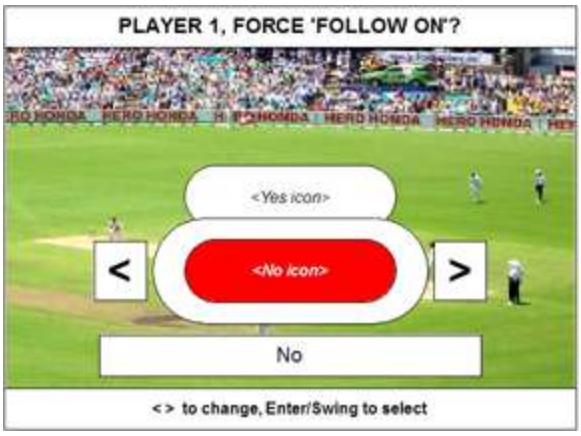
Description: Displays a summary of all the Innings played so far. There's a status line to indicate who's winning and by how many runs, followed by a summary of each side's performance in the Innings played so far.

Screen Title: End of Innings

Options Descriptions: N/A.

Functionality: Same as Over Scorecard (see above).

‘Follow On’ Option



Description: If, at the end of the 2nd Innings, the team that was just batting is still over 200 runs behind the bowling team, then the bowling team gets the option to make the other team ‘follow on’ and bat again.

Screen Title: Force Batting Side to Follow On?

Options Descriptions:

- No *(default option)*
- Yes

Functionality: Same as the Select Language screen in Section 2.1 (see above).

Final Match Scorecard

Description: In terms of information, this is identical to the Innings Scorecard (see above). The only significant difference is the status line now declares who has won.

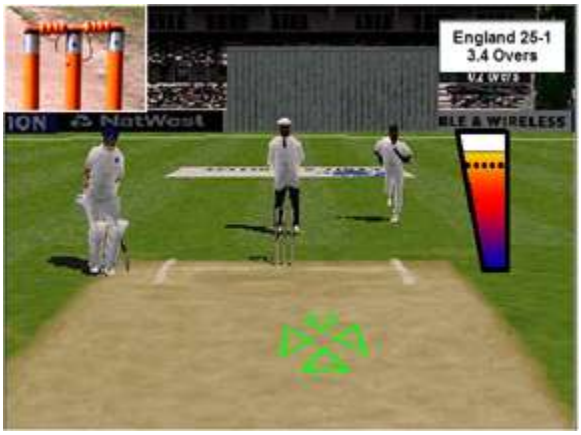
Screen Title: End of Match

Options Descriptions: N/A.

Functionality: Same as Over Scorecard (see above).

3.2 Batting

Batting the Ball



When batting the user's initial view is the same as that of a 'real' batsman, looking up the pitch towards the rival side's bowler, with the wickets displayed on an inset view in the top-left of the screen and the current score displayed in the top-right. (Note that two different background views will be required, as bowlers change ends between Overs.)

Whether the bowling side is controlled by CPU or human, the bowling proceeds as outlined in Section 3.3 below, giving the user the chance to assess the ball being bowled and so judge when to react.

The basic mechanics of batting are identical to PlayTV Baseball 3's. Once the ball is bowled the game looks for a [Swing] signal from the bat. Hitting the ball is a matter of timing; assuming the ball is not bowled wide or declared no ball, there's a Window of Opportunity (WoO) in which the user can hit the ball if they swing the bat. The length of the WoO is based partly upon bowling speed and partly upon the side's Batting stat – the higher the stat the larger the WoO so, for example, a user playing as Australia (Batting 5) will find it far easier to hit balls than a user playing as Ireland (Batting 1).

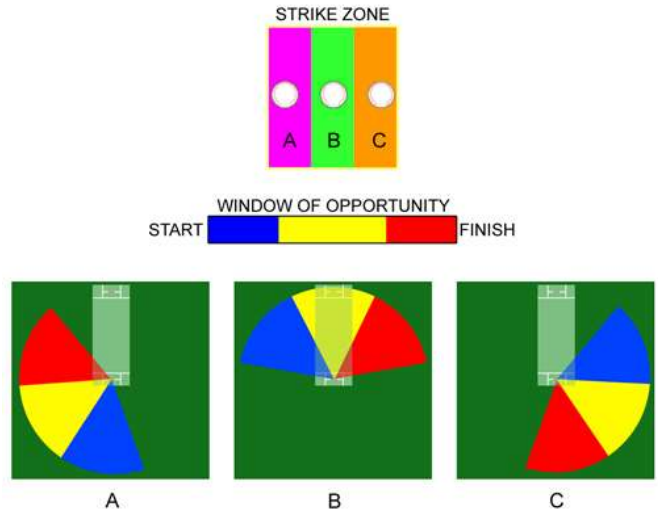
The direction that the ball is hit depends on two factors:

(1) When in that WoO the batsman swings (timing).

(2) Where the ball is located when it crosses the batting crease (location).
(Note: this info is for a right-hand batsman; for a left-hand it would be reversed.)

Timing – When the user hits the ball determines the direction it travels. If the player hits the ball…

- …at the beginning of the WoO, the ball travels more to the left.
- …at the middle of the WoO, the ball travels more to the center.
- …at the end of the WoO, the ball travels more to the right.



Guideline Diagrams for Determining Angle of Ball Hit

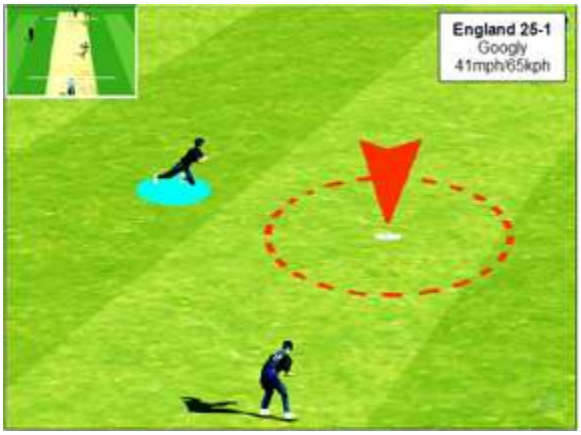
Location – Where the ball crosses the batting crease also affects the direction of the ball if struck:

- If the ball is pitched to the right side of the crease, the ball will tend towards the right.
- If the ball is pitched to the middle of the crease, the ball will tend towards the middle.
- If the ball is pitched to the left side of the crease, the ball will tend towards the left.

Blocking the Ball

If the user wishes, they can block the ball at any time after it has left the bowler's hand by pressing the [Block] button on the bat.

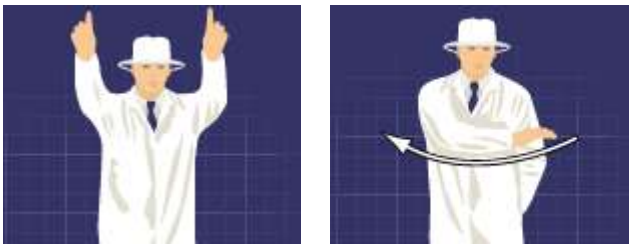
Scoring Runs



Once the ball is hit the user's view cuts to a tilted top-down view of the field, with the camera scrolling to track the ball's trajectory. The fielders now race to retrieve the ball and, when one of them does, they automatically throw it back to the bowler or the wicket keeper (depending upon who is closest).

In the top-left of the screen is displayed an inset view of the pitch. If the user wishes they may attempt to score runs simply by pressing [Run] on the bat – the user will then see the two batsmen run up and down the pitch on the inset view.

At any point (typically when the fielders have retrieved or about to retrieve the ball) the user can press [Run] again and the batsmen will run either onto or back to the nearest wicket and stop. Any runs scored are then added to the user side's score.

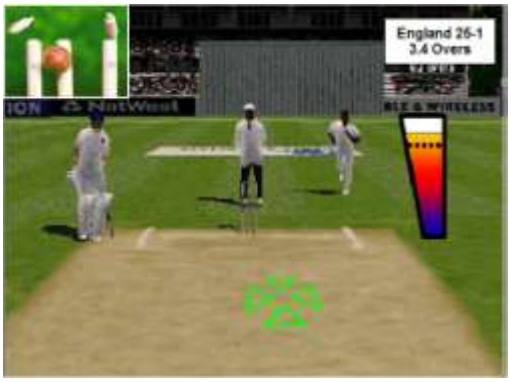


Note: the user scores an automatic 6 runs if the ball is hit beyond the boundary and an automatic 4 runs if the ball lands but then travels beyond the boundary. If this occurs, the inset view of the pitch is replaced with an animation of the umpire indicating a 6 (above left) or a 4 (above right).

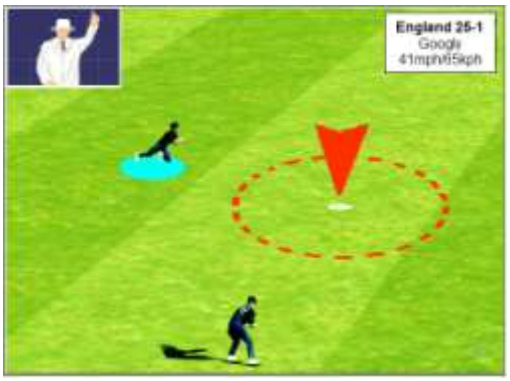
If a batsman scores 50 or 100 runs then they receive a round of applause from the crowd (obviously, much greater for a Century than a Half-Century) and a brief animation of the batsman celebrating appears in the inset view.

Being Dismissed

There are numerous ways for a batsman to be dismissed, namely:

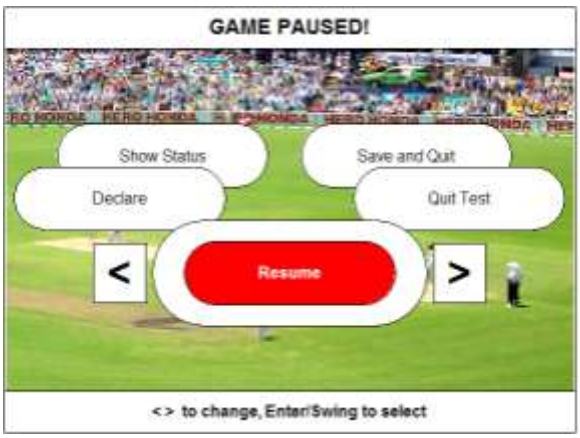


- **Bowled** – The bowler strikes the stumps with his throw. If this occurs then a short animation of the stumps being hit will play on the inset view followed by an animation of the umpire raising his index finger (see below).



- **Caught** – After the batsman hits the ball it's caught by a fielder before it hits the ground. The umpire animation is the same as Bowled.
- **Run Out** – The ball hits the wicket before the batsman reaches it when running. The umpire animation is the same as Bowled.
- **LBW** – The ball hits the batsman's leg before it hits the wicket. In game terms, this occurs if the ball's trajectory takes it near the batsman's leg and it is neither blocked nor hit.

Pause Menu & Declaring



Description: At any time the user can 'pause' the game by pressing [Enter] on the main console. From here the user can either resume the match, quit to the Main Menu or Declare – this last option only appears in 5-Day Tests when the user is batting, and passes the bat to the opposition. If the user is competing in a 5-Day Test or Tournament they also have the option to save their progress.

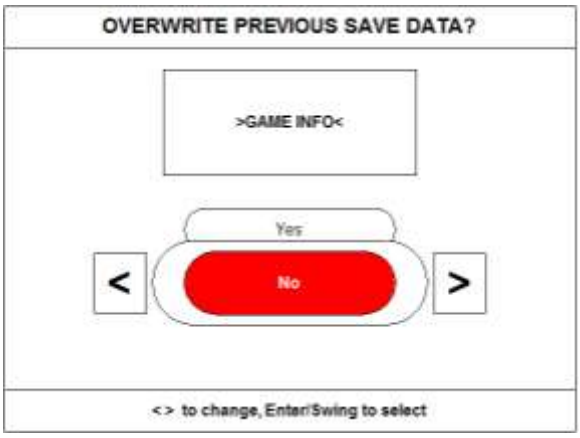
Screen Title: Match Paused!

Options Descriptions (1-Day Match):

- Resume *(default)*
- Quit Match
- Show/Hide Status *(as applicable)*

Options Descriptions (5-Day Test/Tournament):

- Resume *(default)*
- Declare
- Show/Hide Status *(as applicable)*
- Save & Quit



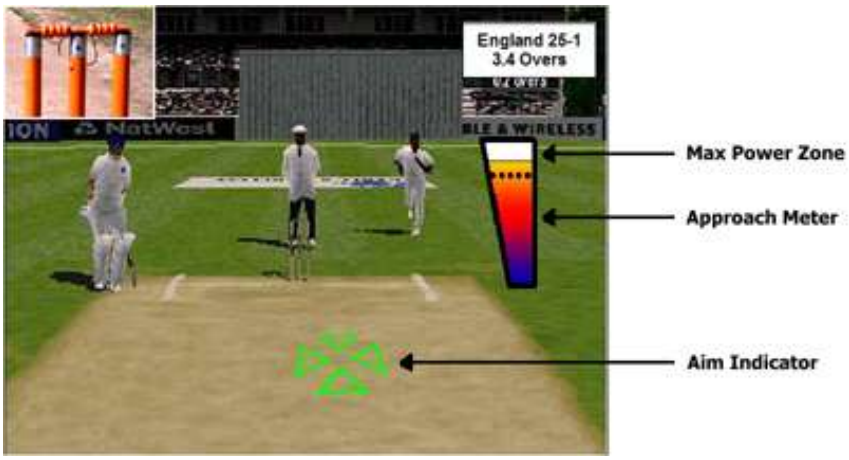
  - If data is already saved in the slot then the user sees a screen like the above, which displays a summary of the data currently in the saved slot and an 'Overwrite Previous Save Data? Yes/No' option (note that the data displayed differs slightly depending upon whether the game is a 5-Day Test or a Tournament, and needs to indicate whether a team is controlled by Human or CPU):
    - No *(default)* – User is returned to the Pause Menu (so they can try again if a mistake was made).
    - Yes – Save goes ahead and user is taken to the Main Menu.
- Quit Test/Tournament *(as applicable)*

Functionality: Same as the Select Language screen in Section 2.1 (see above).

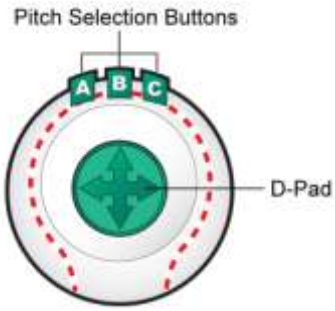
Note on saving: *When the game is saved, any data from the current batting/bowling cycle is ignored. Also, the game cannot be saved while the ball is on the fielding view – if the game is paused then, a message appears saying "Warning! You cannot 'Save' a game when the ball is in the field'*

3.3 Bowling & Fielding

Bowling



To save on assets, bowling employs the same viewpoints as batting. Thus the user's initial view is that of the batsman, looking up the pitch towards the bowler. The basic mechanics of bowling are similar to those in PlayTV Baseball 3 (though there are several key differences) and consist of three phases: aiming, approach and delivery.



Interface Design
(as used in PTV Baseball 3)

Aiming – With the [D-pad] the user moves the on-screen Aim Indicator, which pinpoints where the ball will bounce when bowled. The Indicator can't be moved outside the pitch area. When the user is happy with the Indicator's placement, pressing [Enter] on the ball begins the bowler's approach.

Approach – Once the user has aimed with the [D-pad], they will see the bowler begin to run towards the crease. As he does so an on-screen meter will gradually fill (at a rate depending on whether the user selected fast or spin bowler, with the former filling faster), the user's aim being to bowl the ball at the point when the meter is inside the Maximum Power Zone (MPZ).

If the user bowls too early then the power of their shot will be decreased; if they bowl too late then the umpire declares a ‘no ball’ – this means the batting team is awarded one bonus run and the ball is bowled again (i.e. it doesn’t count as part of the Over).

Delivery – To bowl the ball, the user has to make a throwing movement, which activates the Throw Sensor within the ball that registers three degrees of speed. As the user bowls the ball, they must also press a combination of buttons [A], [B] and [C] to apply spin (note that this selection is not ‘locked in’ until the throwing motion is detected).

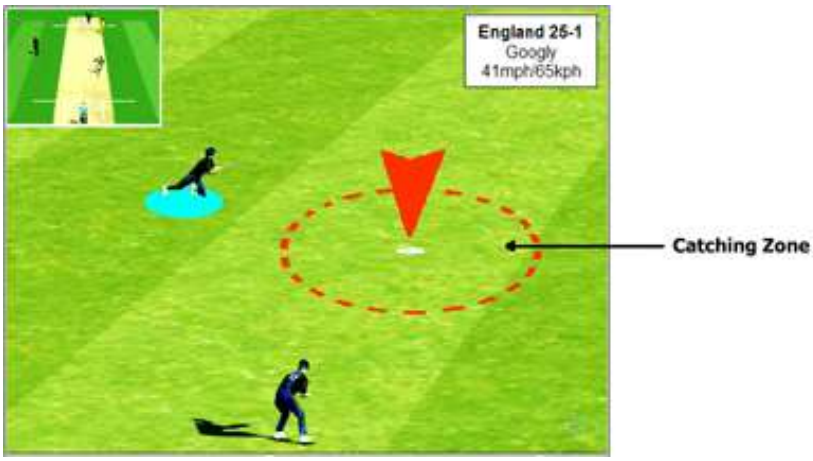
A – Applies left spin (as seen from the batter’s perspective).
C – Applies right spin (as seen from the batter’s perspective).
B – Applies top spin.
A + B – Applies left and top spin.
C + B – Applies right and top spin.
A + C – Applies bottom spin.

If the user has selected a spin bowler, the effect of this applied spin will be more pronounced and vary in degree according to the side’s bowling stat – the higher the stat, the more spin is applied.

The typical speed of a ball bowled by a spin bowler is ~45-55mph, while the typical speed of a ball bowled by a fast bowler is ~87-95mph.

If the ball is bowled too wide (i.e. out of range of the batsman), an animation of the umpire declaring no ball is shown in the insert view, the batting side are awarded one bonus run and the ball is bowled again (i.e. it doesn’t count as part of the Over).

Fielding



The game AI handles the main fielding duties. When the ball is hit the game cuts to a tilted plan view of the pitch, with the camera scrolling to track the ball. The game AI calculates which fielder is nearest the ball and moves them onto it. The ball is then automatically returned to either the bowler or the wicket keeper, depending on who's closest.

Pause Menu

Apart from the fact there's no 'Declare' option, this is identical to the Batting Pause Menu.

4. Sides

There is only one set of player animations, with palette swapping employed to give a wide range of uniform colours and skin tones. Note that during a 5-Day Test Match traditional ‘whites’ are worn, as opposed to the multi-coloured uniforms seen elsewhere.

Since Radica does not have any official side or league licenses, sides are referred to by country only. The names of the players are similar to those of their ‘real life’ counterparts, but changed sufficiently to avoid legal complications.

Each side has a ranking (out of 5) as listed below – the higher the ranking, the tougher the side is to defeat. In addition, each side is rated out of 5 in the areas of Bowling, Batting and Fielding – these values are used by the game AI to define how the side ‘behaves’ on the pitch.

	Side	Ranking	Bowling	Batting	Fielding
1	England	**4**	**0000**	**0000**	**0000**
2	Scotland	**2**	**00**	**00**	**00**
3	Australia	**5**	**00000**	**00000**	**00000**
4	New Zealand	**3**	**000**	**000**	**0000**
5	India	**4**	**0000**	**000**	**00000**
6	Pakistan	**4**	**000**	**0000**	**0000**
7	Bangladesh	**3**	**000**	**000**	**000**
8	West Indies	**4**	**0000**	**0000**	**0000**
9	Kenya	**2**	**00**	**00**	**00**
10	Sri Lanka	**4**	**0000**	**0000**	**0000**
11	Zimbabwe	**3**	**000**	**000**	**0000**
12	Namibia	**2**	**00**	**00**	**00**
13	Canada	**2**	**00**	**00**	**00**
14	Ireland	**1**	**0**	**0**	**00**
15	The Netherlands	**2**	**00**	**00**	**00**
16	South Africa	**4**	**0000**	**00000**	**000**

Each side's player roster is listed below. Names are based on those of the sides' real players but altered sufficiently to avoid any copyright issues. Players are listed in batting order, with fast bowlers, spin bowlers and wicket keepers indicated (there's at least two of each type of bowler in each side).

Note that in a 1-Day Match the bowlers have a limit on the number of Overs they can bowl – this is defined as the Total Number Of Overs divided by 5, e.g. if 50 Overs are played in an Innings then a given bowler can only bowl 10 Overs at most.

The order in which bowlers appear is indicated by the number after their Spin or Fast designation (1 first, 5 last). The game will bring out each sides' 'top-listed' bowlers continuously until the Over limit is reached, whereupon the next bowler in the list will be brought into play, e.g. initially the game will continually use Bowlers 1 and 2 until one of them hits the Over limit; at this point Bowler 3 will enter play.

Note also that in 5-Day Tests there are no such bowling limits, so the game will randomly select who bowls next from the 3 top-listed bowlers (fast or spin as applicable).

Finally, black or asian players are indicated by (B) or (A) after their name; palette shifting will be used to change skin tones.

Australia

M.Chalk	Spin 5
M.Howden	Fast 5
R.Pointer	Spin 4
D.Leaman	Fast 4
J.Liner	Spin 3
A.Gilhurst	Wicket
J.Gallan	Fast 3
W.Shaun	Spin 1
B.Hodge	Spin 2
M.Kasparov	Fast 2
G.McCartney	Fast 1

Bangladesh

A.Basim	(A) Spin 5
R.Saleh	(A) Fast 5
J.Omran	(A) Spin 4
T.Omar	(A) Fast 4
K.Mohammed	(A) Spin 3

K.Mahbub	(A) Wicket
M.Moemen	(A) Fast 3
S.Husam	(A) Spin 2
T.Baishar	(A) Fast 2
M.Insaf	(A) Fast 1
M.Rafi	(A) Spin 1

Canada

P.Dinesh	Wicket
Z.Sampola	Spin 5
Q.Adair	Fast 5
M.Fisher	Spin 4
A.Bhundi	(A) Fast 4
S.Deepak	(A) Spin 3
N.Illington	Fast 3
D.Horton	Spin 2
U.Boater	Fast 2
K.Schindler	Fast 1
D.Upchurch	Spin 1

England

M.Tremayn	Spin 5
A.Starvis	Fast 5
E.Bull	Fast 4
M.Verne	Spin 4
K.Potterson	Spin 3
F.Fletcher	Fast 3
G.James	Wicket
A.Gill	Spin 1
S.Urdal	Spin 2
S.Harrison	Fast 1
M.Hopper	Fast 2

India

S.Gangular	(A) Fast 5
V.Sowak	(A) Spin 5
S.Tudolka	(A) Fast 4
G.Gambon	(A) Spin 4

R.David	(A) Wicket
V.Raul	(A) Spin 3
Y.Sanger	(A) Spin 2
I.Palthar	(A) Fast 3
M.Cartik	(A) Spin 1
S.Sharitan	(A) Fast 2
Z.Koahl	(A) Fast 1

Ireland

T.Stone	Fast 5
J.Branner	Spin 4
E.Mashal	Spin 5
E.Jonson	Fast 4
P.Gallagher	Spin 3
D.Jackson	Fast 3
N.O'Bailey	Wicket
E.Wood	Spin 2
A.McGuire	Fast 2
P.Maskin	Spin 1
S.Cooke	Fast 1

Kenya

K.Oberon	(B) Wicket
S.Tregodo	(B) Spin 5
T.Odoyo	(B) Spin 4
C.Odabyo	(B) Fast 5
H.Mondo	(B) Spin 3
R.Ada	(B) Fast 4
N.Garnell	(B) Fast 3
M.Sunshine	(B) Fast 2
T.Sunny	(B) Fast 1
K.Patelinan	(A) Spin 2
P.Obrigardo	(B) Spin 1

Namibia

D.Kortz	Spin 5
J.B.Borger	Spin 2
D.Keller	Fast 5

N.Karlz	Wicket
G.Spacknum	Spin 4
N.Schuster	Spin 3
N.Lee	Fast 4
H.Ludvik	Spin 1
B.Koster	Fast 3
K.Bauer	Fast 2
S.Borger	Fast 1

Netherlands

F.Murhen	Spin 5
B.Koeman	Fast 5
A.Wilnis	Fast 4
S.Howick	Spin 4
J.Ritman	Spin 3
R.Reuser	Fast 3
M.Gullit	Wicket
J.Boeke	Fast 2
L.Boeke	Fast 1
B.Esterbrook	Spin 2
H.Johan	Spin 1

New Zealand

S.Freeman	Spin 5
N.Aspall	Fast 5
L.Villiers	Spin 4
H.Maskill	Fast 4
P.Fogarty	Spin 3
A.Andrews	Fast 3
B.Macauley	Wicket
D.Vincenzi	Spin 2
C.Miles	Fast 2
S.Back	Fast 1
J.Peters	Spin 1

Pakistan

S.Buth	(A) Spin 5
M.Khan	(A) Fast 5

M.Yusouf	(A) Spin 4
H.Rezar	(A) Fast 4
K.Ichqbal	(A) Wicket
I.Ulqar	(A) Fast 3
S.Matlok	(A) Spin 3
M.Sarni	(A) Fast 2
S.Ankar	(A) Spin 2
S.Ali	(A) Fast 1
D.Krenia	(A) Spin 1

Scotland

P.Houseman	Fast 5
D.Wallis	Spin 5
R.Goodchild	Fast 4
C.Englebert	Spin 4
C.Smythe	Wicket
A.Rosbottom	Fast 3
M.Frain	Spin 2
D.Luciano	Fast 2
G.Marsden	Spin 1
C.Wesley	Fast 1
G.McGowan	Spin 3

South Africa

G.Smythe	Spin 5
A.Vintner	Spin 4
J.Koulter	Spin 3
A.Pringle	(B) Fast 5
M.Butcher	Wicket
N.Bolton	Spin 2
S.Purdock	Fast 4
A.Hill	Fast 3
J.Rednose	Spin 1
A.Nelas	Fast 2
M.Ntyemi	(B) Fast 1

Sri Lanka

S.Junyiu	(A) Fast 5

A.DiMatteo	(A) Fast 4
R.Albert	(A) Spin 5
H.Fredericko	(A) Fast 3
K.Sugeewa	(A) Wicket
P.Gishan	(A) Spin 4
M.Jayantha	(A) Spin 3
C.Viraj	(A) Fast 2
D.Florentino	(A) Fast 1
U.Chandra	(A) Spin 1
M.Maruli	(A) Spin 2

West Indies

C.Gray	(B) Fast 5
R.Sampson	(B) Spin 5
B.Laser	(B) Spin 4
D.Smitt	(B) Spin 3
M.Sampson	(B) Spin 2
S.Chessfield	(B) Fast 4
D.Rainer	(B) Wicket
H.Morris	(B) Spin 1
T.Britain	(B) Fast 3
C.Teddy	(B) Fast 2
K.Coltrane	(B) Fast 1

Zimbabwe

B.Tylor	Spin 5
V.Segomba	(B) Fast 5
D.Abrahams	Spin 4
T.Taribu	(B) Wicket
H.Mazidaska	(B) Spin 3
H.Stripe	Fast 4
C.Cavendish	Spin 2
G.Unwin	Spin 1
A.Bignall	Fast 3
M.Nbeke	(B) Fast 2
D.Honda	(B) Fast 1

5. Milestones

Milestone 0

Description: Game Design Document.

Completion Date: November 21st, 2005

Test For Completion:

- All game types and features are described.
- Game flow is described.
- Menu systems are described.
- Screen layouts are illustrated.

Risks:

- All parties to agree on all features.

Radica Dependencies: None

Milestone 1

Description: Bat and ball interface implemented and fully functioning.

Completion Date: Dec 15th, 2005

Test For Completion:

- Player is able to swing bat or throw ball and see correct data output.

Risks:

- Getting the development kit functioning properly.
- Being able to understand and implement interface code.

Radica Dependencies: Fully commented interface code supplied in good time for implementation; providing support on the dev kits, specifically as regards input from the bat and ball controls.

Milestone 2 – Alpha

Description: This milestone shows that the technology has been completed for the basic gameplay; 50% of all graphic and sound assets will have been implemented.

Completion Date: Jan 13th, 2006

Test For Completion:

- Match basics (batting and bowling) are playable.
- Diagnostics mode implemented, showing key checks and interface tests.

Risks:

- Getting the development kit functioning properly.
- Delivery of graphics and sound files.

Radica Dependencies: Providing support on the dev kits, specifically as regards input from the bat and ball controls; timely feedback/approval on interim deliverables.

Milestone 3 – Beta

Description: Game is feature and content complete; 100% of the assets are in the game.

Completion Date: February 17th, 2006

Test For Completion:

- All match modes (1- and 5-Day Test & World Tournament) are implemented and playable.
- All Training Camp mini-games are implemented and playable.
- All international team stats are implemented so that they 'behave' as expected.
- Diagnostics mode includes checksum functions.
- Hardware checked to ensure I/0 configurations are correct.

Risks:

- Fine-tuning AI to ensure game is fun to play yet challenging.

Radica Dependencies: Providing support on the dev kits, specifically as regards input from the bat and ball controls; timely feedback/approval on interim deliverables.

Final Code Release

Description: Game is ready for final approval.

Completion Date: March 1st, 2006

Test For Completion:

- No major bugs remain.

Risks:

- Fixing non-ship bugs discovered during testing and gameplay tweaking.

Radica Dependencies: Quality assurance testing.

6. Estimated ROM Budget

This is the currently estimated ROM budget, and will be revised in future GDDs as more concrete information becomes available during development.

Content	Length
Code	100k
Sprites (Players)	2269k
Sprites (Pitch)	516k
Sprites (Menu)	326k
Midi Tracks	100k
WAV Samples	350k
Legal / Splash Screens	64k
Menu Screens	326k
Diagnostic Mode	45k
Total:	**4096k**

7. Music & Sound Effects

7.1 MIDI Music

Name	Description	Length	Loop?
((Title))	Plays over the title screen – should be lively and 'sporty' (maybe in the vein of the Beeb's old cricket theme?).	~45sec	Yes
((Menu Screen))	A slightly softer, gentler version of the ((Title)) music, that plays whenever the player is navigating any main menu/settings screens.	~45sec	Yes
((Win Match))	Short melody that plays over the results screen to celebrate the user's victory in a match; needs to segue into ((Post Match)) – see below. Also used in the mini-games.	~5-10sec	No
((Lose Match))	Short melody that plays over the results screen to lament the user's loss in a match; needs to segue into ((Post Match)) – see below. Also used in the mini-games.	~5-10sec	No
((Win Tournament))	In the vein of ((Win Test Match)) but even more triumphant, to celebrate winning a Tournament; needs to segue into ((Post Match)) – see below.	~5-10sec	No
((Lose Tournament))	In the vein of ((Lose Test Match)) but more emphatic, to signal a lost Tournament; needs to segue into ((Post Match)) – see below.	~5-10sec	No
((Post Match))	Short looping melody to play over the post- game screens, such as when the scoreboards are displated, in the same style as the ((Menu Screen)).	~30sec	Yes

7.2 Sound Effects

General & Menu SFX

Name	Description	Length	Loop?
((Menu – Change Left))	Plays when user rotates menu items left.	?	No
((Menu – Change Right))	Plays when user rotates menu items right.	?	No
((Menu – Select))	Plays when a menu item is selected.	?	No
((Menu – Cancel))	Plays when user goes back an option or screen	?	No

Match SFX

Name	Description	Length	Loop?
((Soft Swoosh))	Plays as the bat is swung.	?	No
((Medium Swoosh))	Plays as the bat is swung.	?	No

((Hard Swoosh))	Plays as the bat is swung.	?	No
((Medium Run-in))	Plays as spin bowler runs to crease	?	No
((Fast Run-in))	Plays as fast bowler runs to crease	?	No
((Slow Bowl))	When the player throws the ball.	?	No
((Medium Bowl))	When the player throws the ball.	?	No
((Fast Bowl))	When the player throws the ball.	?	No
((Soft Bounce))	When the ball bounces on the pitch.	?	No
((Medium Bounce))	When the ball bounces on the pitch.	?	No
((Hard Bounce))	When the ball bounces on the pitch.	?	No
((Soft Hit))	The thwack sound of the cricket ball hitting the bat.	?	No
((Medium Hit))	The thwack sound of the cricket ball hitting the bat.	?	No
((Hard Hit))	The thwack sound of the cricket ball hitting the bat.	?	No
((Out-1))	“Out” when the player is bowled and run out.	?	No
((Out-2))	“Out” when the player is bowled and run out.	?	No
((Out-3))	“Out” when the player is bowled and run out.	?	No
((NoBall-1))	“No ball” call from umpire	?	No
((NoBall-2))	“No ball” call from umpire	?	No
((Howzat-1))	“Howzat” plays when a fielder has caught the batter out.	?	No
((Howzat-2))	“Howzat” plays when a fielder has caught the batter out.	?	No
((Howzat-3))	“Howzat” plays when a fielder has caught the batter out.	?	No

Crowd SFX

All the crowd SFX will segue into each other so that they can be slotted together randomly in any order we desire – the goal is to give a varied crowd sound at a relatively low memory usage. In addition, the Crowd SFX will be kept voice sample free and generic.

Name	Description	Length	Loop?
((Century-applause))	Loud, fervent round of cheering and applause following 100 runs	?	No
((Half-Century-applause))	As above but not as loud.	?	No
((Soft Applause-1))	Gentle, sporadic applause from the crowd.	?	No
((Medium Applause-1))	Like Soft, but more enthusiastic and with slight cheering.	?	No
((Loud Applause-1))	Like Medium, but very enthusiastic and lots of cheering.	?	No
((Crowd Noise 1))	General crowd murmur, segues with Crowd Noises 2 and 3.	?	Yes