

# User Guide for Club Cricket Analytics (CCA)

## COPYRIGHT 1995-2025 by Martin Fears

### NOTICE:

The information contained in this user guide is subject to change without notice. While every effort is made to ensure the accuracy of the information contained herein, the author shall not be liable for any errors or for any consequential damages in connection with the performance or use of this user guide and CCA.

### TABLE OF CONTENTS

1	INTRODUCTION.....	3
1.1	PURPOSE .....	3
1.2	OBJECTIVE .....	3
1.3	USER LICENSE .....	4
1.4	CUSTOMER SUPPORT.....	4
1.5	HARDWARE REQUIREMENTS .....	4
1.5.1	RAM (Memory) .....	4
1.5.2	Disk Space .....	4
1.5.3	Operating System.....	4
1.6	ACKNOWLEDGEMENTS .....	4
2	OPERATING INSTRUCTIONS .....	5
2.1	INSTALLATION.....	5
2.2	LIMITATIONS.....	5
2.3	GETTING STARTED.....	5
2.3.1	Keyboard Control .....	6
2.3.2	Where to Start.....	6
2.3.3	Printing .....	6
3	MATCHES.....	6
3.1	ADD NEW MATCH .....	7
3.1.1	Enter New Match Details .....	7
3.1.2	Enter Players' Names .....	8
3.1.3	Batting Analysis.....	9
3.1.4	Bowling Analysis.....	10
3.1.5	Fall of Wickets .....	10
3.1.6	Match Summary.....	11
3.2	EDIT MATCH .....	11
3.3	IMPORT MATCH .....	12
3.3.1	Import steps .....	12
3.4	VIEW MATCH .....	13
3.4.1	View Options.....	13
3.4.2	Print <F7> .....	13
4	ANALYSIS .....	13
4.1	INDIVIDUAL .....	14

4.1.1	Selection Criteria.....	14
4.1.2	Cumulative .....	14
4.1.3	Seasonal .....	14
4.1.4	Captaincy & Toss .....	14
4.1.5	Appearances.....	15
4.2	TEAM.....	15
4.2.1	Selection Criteria.....	15
4.2.2	Cumulative .....	15
4.2.3	Seasonal .....	16
4.2.4	All Records.....	16
4.3	PLAYER FORM.....	16
4.4	PLAYER SELECTION .....	17
4.5	PLAYER RETENTION.....	17
5	DATA FILES.....	17
5.1	PLAYERS.....	18
5.1.1	Add New Player Details.....	18
5.1.2	Edit Player Details .....	19
5.1.3	Exit.....	19
5.1.4	Display Player's Cumulative Data.....	19
5.1.5	Player Name Search .....	19
5.1.6	Change Display Format .....	20
5.1.7	Print Player Details.....	20
5.1.8	Delete Player .....	21
5.2	OPPONENTS .....	21
5.2.1	Add New Opponent Details .....	21
5.2.2	Edit Opponent.....	21
5.2.3	Exit.....	22
5.2.4	Opponent Name Search.....	22
5.2.5	Change Display Format .....	22
5.2.6	Print Opponent's Details.....	22
5.2.7	Delete Opponent.....	22
5.3	TEAM-TYPES .....	23
5.3.1	Add New Team-Type .....	23
5.3.2	Edit Team-Type.....	24
5.3.3	Exit.....	24
5.3.4	Print.....	24
5.3.5	Delete Team-Type .....	24
5.4	MAINTENANCE.....	24
5.4.1	Membership Check .....	24
5.4.2	Reset Memberships .....	24
5.4.3	Re-index Files .....	25
5.4.4	Pack Files .....	25
5.4.5	Cumulative Validation .....	25
6	OTHER .....	25
6.1	QUIT .....	25
6.2	SET JUNIOR AGE.....	25
6.3	DATE FORMAT .....	26
6.4	SCORE FORMAT .....	26

6.5	SEASON BREAK.....	26
6.6	REGISTER .....	26
6.7	CHECK FOR UPDATES.....	26
6.8	TEST PRINT .....	26
6.9	USER GUIDE.....	27
6.10	ABOUT CCA .....	27
7	ERRORS.....	27
7.1	RUN-TIME.....	27
7.2	INDEX CORRUPTION.....	27

## 1 INTRODUCTION

Thank you for using Club Cricket Analytics (CCA). You now have access to a very powerful, yet simple to use, Cricket Performance Analysis tool. CCA will help you produce averages and statistics for your Cricket Club in a fast, accurate, efficient and professional manner as well as providing additional features which you may also find beneficial.

### 1.1 PURPOSE

Cricket score books contain a vast amount of information, even if only the bare minimum of match entry is recorded. With the modern emergence of electronic scoring like Play-Cricket, even more match information is available to analyse. However, all this information is not easily digestible or presentable, particularly over a period of several matches, let alone several seasons! At the end of every season, players will often want to see how they have fared in the averages, better or worse than in previous years and against other players and team-mates.

Captains may also wish to see overall team results and statistics to evaluate how well the team has performed over current and previous seasons. Data is also available to support things like player form, team selection and player retention information.

The task of preparing all this detailed information can be quite arduous taking many hours of effort depending on the depth of information that is to be produced and the technique adopted. It is the recording of information and the ability to manipulate and retrieve it at a later date that makes the computer the ideal tool for this task. However, the computer cannot do all the work on its own, it still requires the information to be entered in a format that it can store and later retrieve and analyse to provide the information required.

### 1.2 OBJECTIVE

Club Cricket Analytics (CCA) application has been written with the following objectives:

- a) To be as easy to use as possible (no statistical or analytical knowledge required).
- b) To provide a real benefit to Cricket Clubs by providing fast, accurate and reliable averages and statistics.
- c) Data entry to be as simple and efficient as possible with the minimum of keystrokes and effort required.
- d) To permit all match data to be analysed and viewed in many different ways in a useful and informative manner to create “value” to data.
- e) To assist with club administration regarding players' and Opponents' details (address, phone, e-mail, etc.)

- f) Suitable for all cricket clubs; big clubs with many teams, small clubs with maybe just one team, or schools. Basically, to support all cricket in the recreational sphere.
- g) Suitable for all types of matches from limited overs to timed (day[s]) and for either 1 or 2 innings. Support for "The Hundred" format is also included.

## 1.3 USER LICENSE

The licence agreement for this SOFTWARE is unusual in that it is the Cricket Club who is the registered user(s) and therefore any member or representative of the club is authorised to use this SOFTWARE. The AUTHOR grants you, being the member or representative of the Cricket Club, a non-exclusive right to use this SOFTWARE. This licence to use the SOFTWARE is conditioned upon your compliance with the terms of the Licence Agreement. You are entitled to evaluate the software on a royalty free basis for a period of ninety (90) days. Use after this evaluation period is further conditioned upon payment of the licence fee. You agree you will only copy the SOFTWARE as necessary to use it in accordance with this licence.

## 1.4 CUSTOMER SUPPORT

Should you have any questions about CCA that are not resolved by reading the documentation or by using the on-line help please contact CCA support who will endeavour to resolve any difficulties promptly.

E-MAIL [scorers.analyst@gmail.com](mailto:scorers.analyst@gmail.com)  
POST CCA Software, 7, TF1 6YZ, ENGLAND

Additionally, CCA is always interested in user feedback, including problems you have encountered, suggestions for new features or improvements, and success stories from using CCA. Please feel free to share.

## 1.5 HARDWARE REQUIREMENTS

CCA will run on any Windows based computer

### 1.5.1 RAM (Memory)

CCA requires a minimum of 6 megabytes of available memory. So, will comfortably function well on devices with just 2GB RAM installed.

### 1.5.2 Disk Space

A Hard Disk Drive with at least 11 Mb free space is required at first install. As the volume of recorded matches increases so will the disk space requirement. As a guide, with 1,000 matches entered into CCA, approximately 20Mb (not Gb !!) of disk space is required (tiny footprint).

### 1.5.3 Operating System

CCA was initially a MS-DOS based (pre-Windows) application but has been enhanced and modified to run on all the latest Windows versions, including 64-bit platforms. . Windows versions 7, 8, 8.1, 10 and 11 are fully tested. If you wish to run CCA on an older version of Windows this will be possible but will require some setup configuration changes. Please contact Customer Support.

## 1.6 ACKNOWLEDGEMENTS

MS-DOS and Windows are registered trademarks of Microsoft Corporation.

Clipper is the copyright of Computer Associates.  
Harbour is GPL open-source developer software.  
PageScript32 is the copyright of AbeeLabs Systems Inc2.

## 2 OPERATING INSTRUCTIONS

### 2.1 INSTALLATION

CCA is installed via a Microsoft Installation package (MSI file) which will install and setup CCA ready to be used. A desktop shortcut is created.

### 2.2 LIMITATIONS

Apart from the limitation of available computer hard disk space the application has the following limitations:

DATA	MAX RECORDS
Players	9,999
Opponents	999
Team-Types	999
Matches	999,999

Should the available space on the computer hard disk fall below 4 megabytes CCA will display a warning message. If the space available falls below 1 megabyte, then CCA will close down. This is because during normal operation some hard disk space is required for the creation of temporary files which are always deleted afterwards.

### 2.3 GETTING STARTED

Once CCA MSI install package has finished, CCA can be started from the desktop icon installed. On first running, you will be asked to "Proceed with new installation?". This will create all the required system and index files and will be followed by a welcome screen after which an option screen is presented for the selection of your preferred date format (this can be changed later if required). Once the date format has been selected the main menu will be presented.

The main menu provides access to all options and functions within CCA. The very top line of the screen will display your club's name (after registration) along with the software version. The bottom line will display the current system date and time. The second from top line displays the menu groups - Matches, Analysis, Data Files and Other.

The arrow-head symbol at the end of a menu item signifies that there is a further sub-menu available below. Pressing <Esc> will navigate the cursor backwards through the menu levels until the "Quit" option is reached.

The current position in the menu is identified by a highlight bar. The menu may be navigated by an assortment of keys; the arrow keys will move the highlight bar up and down or left and right, the <PgUp> and <PgDn> keys will jump to the top or bottom of each block of options. To select an option, press the <Enter> key. CCA is not (yet) mouse compatible.

When familiarity is established a "hot-key" method of navigation may be preferred. By pressing the first letter of a listed option the cursor will jump to that option. Where two

options exist with the same first letter, pressing the letter again will jump the cursor to the next option found starting with that same letter.

### 2.3.1 Keyboard Control

The keyboard convention in use is always explained on the screen or by pressing <F1> for help.

### 2.3.2 Where to Start

You may start straight off by entering a new match. However, it may be a smoother introduction if some players, opponents, and team-type details are entered beforehand.

New for CCA version 4.1 is the ability to import match data from Play-Cricket using PCS Pro Export Match(es). Selecting the "Import Match" menu option will provide help on how to do this.

The Team-Type data should be given some very careful consideration at this point. The purpose of creating these separate team-types is to enable averages and statistics to be produced at Team-Type level as well as for the Club overall. This may be useful, for example, to provide averages and statistics by competition type or by 1st & 2nd XI, etc.

To make best use of this facility the different types of teams within your club should be categorised. For example; big clubs may have 4 Saturday teams, 2 Sunday teams and midweek men's teams, plus a women's team and junior boys and girls teams too. Alternatively, a small club may only have one Saturday and one Sunday team, but analysis may still be required separately at some point - so create team-types to suit your club as required. In every case, at least one team-type must be created. At the analysis stage it will be possible to select one, some, or all of the team-types for analysis inclusion.

Match results are stored by team-type so comparison between them is immediate. A simple example of this facility may identify that the first XI are always losing and the second XI are always winning - time for some players to switch maybe.

### 2.3.3 Printing

For registered versions of CCA a print facility is provided. This option will always provide the choice of sending output to any of the installed Windows printers on your device, including Print to PDF (if installed), or to a plain text file (no formatting). If the plain text file option is selected a file name will be required with the default extension of .TXT. Output to plain text file is useful if the information is to be pulled into a Word Processing document (e.g. MS Word) where greater formatting control and presentation options are available.

CCA can also print address labels which may be particularly useful if you wish to post the averages documents to the Players or forwarding membership details and fixture cards to Opponent's secretaries. Three formats of label output are catered for, 1, 2 or 3 column-wide stationery. All types of stationery used for labels must have 1" inches (38mm) vertical spacing between the labels.

## 3 MATCHES

This section deals with the adding, editing, importing and viewing of matches. The screens follow as closely as possible to the layout of the very popular "Bourne" style of score books.

Data entry is simplified with the provision of pick-lists wherever possible to minimise the amount of typing required. Always enter the information detail CCA requests for as much as the score book can provide. There are many error checks and validations built into CCA to prevent invalid, impossible, or unrealistic entries accidentally being made (typos). If any such entries are made a message will be displayed and the data entered will be rejected. Occasionally these errors may identify a mistake that has been made in the score book, itself helping to improve the accuracy and quality of recorded match data.

The Import Match option is used to import match data for matches that have been scored using Play-Cricket Scorer pro software. By "exporting" the match from Play Cricket, the data can be imported in to CCA in an instant, checked and verified and added to the system. This method is super-fast and removes the risk of human error during manual data input. With import, CCA will still need you to select the Team-Type and the Opponent. Also, the import process uses ball-by-ball data, so if there is a player in either team who did not Bat, Bowl or make a fielding dismissal, they will need to be added in manually during the import process.

Whilst every care has been taken during development to ensure that this application adheres to the Laws of Cricket; Cricket has very technical Laws and computer programming is very complex. Between the two it is just possible that some unusual circumstance scenario may arise where something in CCA is wrong. In addition, the laws are susceptible to change. Should any shortcomings be identified relating to Laws and the like, the author would be most grateful of notification so that future versions of CCA may benefit with correction.

The Add New Match, Import Match and Edit Match options gather all the necessary information into temporary data files and no information is appended to the system database until the final match result is accepted. Therefore, should an entry be aborted before fully completed, or a power failure or other such breakdown, database integrity will always be preserved.

### 3.1 ADD NEW MATCH

#### 3.1.1 Enter New Match Details

Firstly, details will be required for match information from the score book as follows:

Innings per side:

Team-Type:

Match Type:

Match Duration:

Match Date:

Start Time:

Opponents:

Home or Away:

Toss Result:

Toss Decision:

Venue:

Weather conditions:

Pitch condition:

Umpires:

Scorers:

If only one Team-type has been created in CCA this is selected by default. If no Team-Type has yet been created then one must be created during this process, the same applies for Opponents. If the choice required has not yet been previously created, pressing <Ins> will enable the creation of a new entry (see Data Files section below). All the details are entered using decision boxes and pick-lists to make entry as easy as possible. The exceptions are; Match Date, Start Time, Venue, Weather and Pitch condition, Umpires and Scorers which will all require typing in. The last two will default to "<not recorded>" if <Enter> is pressed without typing any text in. However, Venue cannot be left blank. Several will have validation checks. For example, Match Date cannot be a future date. Start Time must be entered using the 24-hour format and be between 09.00 and 21.00. Duplicate match will also be flagged if the same Team-Type, Match Date and Stat Time already exist in CCA.

An acceptance confirmation will be required before proceeding to the next stage. The opportunity to change any of these entries is also provided before continuing.

### 3.1.2 Enter Players' Names

The Players' names must now be entered in batting order sequence. The Opponent's Batters must be typed in individually as free-format text but Club Players must be selected from a pick-list of current players. If the player to enter is not included in the current list use either <F4> to search by surname or <F5> to display all players. If the player to enter has not previously played, a new Player entry must be made by pressing <Ins> and entering details as necessary (see Data Files section below). The side who batted first must be entered first and duplicate names will not be accepted. If Father and Son have the same initials add "snr." and "jnr." to their surname to create uniqueness.

CCA will automatically move on to the next Player after pressing <Enter>. If a previously entered Player is incorrect then pressing <Esc> will switch from add to edit mode and enable the Up and Down arrow keys to move the highlight bar to the incorrectly entered Player, where pressing <Enter> will enable the change to be made.

Care should be taken at this point with the entry and spelling of Opponent's names as errors made here cannot be changed once this entry screen has been accepted and, if an error is made, the whole match entry must be aborted and re-started from scratch. Should names be found to be incorrect after a match entry has already been saved. The match will need to be deleted and then re-entered from scratch.

Press <F10> to accept Players when fully completed. Teams of more, or less, than eleven players are acceptable. To enter more than eleven Players use the <Ins> key after the eleventh Player has been entered. Once Players have been entered CCA will ask you to confirm the number of Players. If more than eleven Players have been entered CCA will ask to confirm whether only 11, or all, Players may bat. Please note that Batting partnerships will only be calculated for the first 15 wickets. A final confirmation is required that the Batting order and Players' names are correctly entered before proceeding.

Once confirmed as correct, the Captain and Wicketkeeper may be selected from a pick-list of the names previously entered. A "Not known" option is provided if this is appropriate.

The Bowlers must next be identified and this is again performed by selecting from a pick-list of Players previously entered as Batters. Bowlers should be selected in the same order as

they bowled during the innings. An acceptance confirmation will be required before this process is repeated for the other team. A Start again option is provided if the wrong Players have been selected or in the wrong order. At least two Bowlers must be selected otherwise; the selection will not be accepted.

NOTE: Two Innings Matches:

In the event of a two innings match. After the completion of Batting and Bowling analysis entry for both teams first innings, CCA will require the Players to be re-selected in 2nd innings Batting Order sequence. The pick-list to select from is generated from the original list of Players names entered for the 1st innings. This process will also request 2nd innings Bowlers to be identified in 2nd innings bowling order sequence.

### 3.1.3 Batting Analysis

A screen will now be provided to enter the batting analysis details in columns for:

HOW OUT  
BOWLER  
RUNS  
Bs (BALLS)  
0s (DOTS)  
4s (FOURS)  
6s (SIXES)

The last 4 columns are optional but are used in analysis, so if you have this information available, it is recommended to always enter it all in full.

CCA is very intelligent and when entering batting analysis information, will not accept invalid, impossible, or unrealistic entries. The current data cell will be highlighted and an arrow-head is also displayed to the left of the display against the currently selected Batter (or extra) to help ensure the entry is made correctly. A running total is provided at the bottom of the RUNS column for TOTAL runs and wickets. TOTALS are also displayed for BALLS, DOTS, FOURS & SIXES.

With the cursor in the HOW OUT column, pressing <Enter> will invoke a pick-list of all possible score book entry options; select as required. The application will detect whether the HOW OUT option selected requires a BOWLER to be credited with the wicket and prompt with a pick-list of previously identified Bowlers. Accordingly, a BOWLER entry cannot be made if the HOW OUT entry is not one accredited to a bowler. If the HOW OUT selected is either Caught, Stumped or Run Out, a Fielder can also be credited from a pick-list provided. This pick-list includes "Sub" and "Unknown" to satisfy all eventualities.

Batters individual scores can be entered by positioning the cursor in the RUNS column and either pressing <Enter> to switch to edit mode or by typing the score straight in. The Up and Down arrow keys will move between each row without the need to press <Enter> each time. The same technique applies to Bs (balls faced), 0s (dot-balls faced), 4s and 6s.

If a mistake is made in the HOW OUT column the entry may simply be overwritten at any time by highlighting the HOW OUT to change and pressing <Enter>. Additionally, for the last HOW OUT entry only, excluding Did Not Bat(s), a "Clear Entry" option is added to the HOW OUT pick-list. Using this option enables the entire batting analysis to be unpicked line-by-line and re-entered again, with corrections, if required. It should, therefore, never be necessary to abort the entire match entry and start again from scratch at this stage. The

exception being for an error in the Batting Order or a missed Bowler. Next, enter the individual categories for Extras (Sundries): Penalty Runs, Byes, Leg-Byes, Wides and No-Balls. The running TOTAL will show at the bottom in either WKTS for RUNS format (Eng) or RUNS for WKTS format (Aus), which can be set to your preference (see SCORE FORMAT below).

Once complete, pressing <F10> will check and either identify problems or accept the batting analysis entry. Tip: It may prove a quicker method of entry to go down and across rather than across and then down. For example, enter all of the HOW OUT column first and then return to Batter 1 at the top and then enter the score in the RUNS column, again moving from top-to-bottom for each column rather than across the screen row-by-row.

### 3.1.4 Bowling Analysis

This screen requires column entries for:

OVERS  
M (MAIDENS)  
RUNS  
nb (NO BALLS)  
wd (WIDES)  
Os (DOT-BALLS BOWLED)

For matches prior to 1985 no-balls and wides were not attributed to the bowler. Depending on the match date entered an appropriate message will be displayed to explain how these will be handled.

As with entering the Batting analysis, numeric data may be typed in without the need to press the <Enter> key first (faster). Likewise, the Up or Down arrow keys may be used to move on to the next data entry cell, above or below, without the need to press <Enter>. This will again enable faster data input if information is entered for each column in full instead of row-by-row (across and down). For example; enter all the OVERS values from top-to-bottom and then do the same for MAIDENS and then for RUNS. This technique will prove considerably quicker than entering all information for each Bowler by row and then moving down to the next Bowler.

A RUNS VARIANCE comment is displayed which must show "runs are balanced" before the innings Batting and Bowling analysis can be accepted. This figure checks the sum of the Batting analysis against the sum of the Bowling analysis dealing with no-balls and wides as mentioned above. Pressing <F10> when a variance still exists will result in a message advising of the variance figure and offering the choice to edit either the Batting analysis or Bowling analysis. If the variance is zero, fall of wickets information can now be entered.

### 3.1.5 Fall of Wickets

CCA will first ask if Fall of Wickets were recorded. Fall of Wickets details are critical for the calculation of batting partnerships. The minimum details required are:

Score at the fall of the Wicket  
Outgoing Batter  
Time of Wicket (optional)

It is accepted that some score books are not always fully completed and this information may not have been recorded. The optional recording of times is also provided but times are not yet used for any analysis purpose in CCA.

A problem arises in the instance of "Retired (not-out)" (e.g. Hurt) Batters as no wicket has fallen, yet out-of-sequence batters may follow which will need to be accepted as the next wicket to fall. Because the Fall of Wickets information is used to calculate partnerships and it is not possible to have a "partnership" between more than two batters, an innings that includes a "Retired (not-out)" batter cannot have the runs partnership accurately recorded. This is because the score at the time of the retirement is almost never recorded. "Retired Out" constitutes a wicket and is not a problem for partnership calculations.

In the event of a Retired Not-out batter, CCA will detect that the sequence of subsequent outgoing batters may be incorrect and will ask if this is due to a Retired Not-out batter having already left the field. If this is the case, clearly the "partnership" score will be distorted because it will have been made between more than two Batters. A prompt to identify the Retired Not-out batter will be made to restore the correct sequence of batter. Accordingly, such a "partnership" will always be recorded as minus one (-1) run when it has involved more than two Batters.

As with entering the Batting and Bowling analysis this information may be typed in without the need to press the <Enter> key first. Likewise, the Up or Down arrow keys may be used to move on to the next data entry cell without the need to press <Enter>. Also, in instances where the maximum data-width of a cell has been entered, the edit highlight cell will automatically move on to the next data entry cell.

When completing Fall-of-Wickets, CCA checks to see if anything obvious has been incorrectly entered. For example, CCA knows the score of the last wicket to fall and the total team score and also which two batters (by batting order number) are in, so entering anything that does not fit with logical expectation will present an alert message. When complete, pressing <F10> will accept the Fall of Wickets details and display the innings summary of runs, wickets and overs.

An acceptance confirmation will be required before the above steps are repeated for the next side to bat. In matches of two innings the analysis detail must be entered for each innings.

### 3.1.6 Match Summary

Before the New Match Entry is finally accepted a MATCH RESULT summary is displayed showing the details of all the innings and the result that has been deduced. If the Team-Type has been setup to record LEAGUE POINTS, these may be entered now. Lastly, an acceptance confirmation will be required before this match entry is saved and CCA returns back to the main menu. The options to Re-enter or Abort are also provided.

Immediately prior to saving the match, CCA will check for completeness of information entered and if missing (non-critical) data is absent, will enable you to save the match, but marked as incomplete. This is useful if the missing data is likely to be known in the future (e.g. maybe a catcher's name) and the match can then be edited at a later date to add in any missing (or incorrect) data.

## 3.2 EDIT MATCH

Upon selecting this option, a list of all previously entered matches is displayed for selection. Use the cursor keys to move the highlight bar up and down the list of matches. Match editing is invoked by pressing <Enter>. Pressing <F4> offers a search facility and the criteria

used will depend on the current display format: either match date or Opponent's name. By default, matches will appear in Match Date order. Alternatively, matches may be displayed alphabetically by Opponent's name by pressing <F5> which is used to toggle between Date or Opponent Name order.

The selected match entry may be completely deleted by pressing <F9>. This should only be necessary if a change to any of the Player's names is required. This is the only instance where the whole match would need to be deleted and re-entered again in full - be more careful next time.

All other aspects of a match may be edited with this option. Perhaps a catch had been credited to the wrong Player, a wicket to the wrong Bowler or the Captain or Wicketkeeper has subsequently been identified. The screens and processes provided here are identical to those for Add New Match except, of course the details have already been pre-entered needing only minor changes or adjustments to be made with speed and ease.

Upon pressing <Enter> the match summary information is presented with the option to Continue or Abort. After selecting Continue a brief wait message will be displayed while the all the match data to edit is retrieved from which the match details are presented for verification. After this, Batting, Bowling and Fall of Wickets for each innings is presented in the same order as new match entry, changes can be made as required.

CCA will monitor any changes and will again prevent any invalid, impossible, or unrealistic entries accidentally being made. The Match Edit may be aborted at any time by pressing <Esc> and no changes or updates will be made. Once all the innings have been presented and any changes made the Match Summary will be displayed (see above). Only when this confirmation is accepted will any changes be written back to the main data files.

### 3.3 IMPORT MATCH

The Import Match function adopts a blend of NEW MATCH and EDIT MATCH functionality.

#### 3.3.1 Import steps

Firstly, match data must be exported from Play-Cricket Scorer Pro and saved to the Windows "Downloads" folder and renamed as "import.csv".

After checking for the existence of the "import.csv" file the import process will then ask for:

- a) TEAM-TYPE selection
- b) OPPONENT selection
- c) The import process will now extract as much detail as possible from the PCS Pro exported file using ball-by-ball data
- d) Complete any missing optional match detail. E.g. Weather Conditions / Pitch Condition / Scorers / etc.
- e) If any Players are missing, CCA prompts to complete the teams
- f) CCA then pre-populates as if it were an EDIT MATCH
- g) Cycle through the screens checking for errors, pressing <F10> to proceed
- h) Complete the RESULT confirmation and ... WHOOSH! JOB DONE!!

## 3.4 VIEW MATCH

The selection screen provided with this option is the same as for Edit Match above but the <F9> delete option is removed and the Edit option is exchanged for a Select-to-View using the <Enter> key.

### 3.4.1 View Options

A brief wait message will be displayed while the information to display is retrieved. Once completed the match result is displayed along with options to display:

- Match Overview
- 1<sup>st</sup> Innings
- 2<sup>nd</sup> Innings
- \*\* 3<sup>rd</sup> & 4<sup>th</sup> Innings (where appropriate)
- Most Valued Player
- Play-Cricket MVP
- Print Match Card + MVP.

The screens that follow enable any recorded match to be displayed in score-card format. A display option of one or two pages is offered so that the whole innings card may be displayed all at once by switching from 30 lines display mode to either 43- or 50-lines display. This is hardware dependant and will not always work, it can also be quite difficult to read on screens smaller than 14 inches. A two-page option is provided in every case to flip between Batting and Bowling as two separate pages.

### 3.4.2 Print <F7>

This option will generate Match Overview Details along with the Batting and Bowling Analysis and Fall of Wickets details for each innings. A page of Most Valued Player points is also included.

## 4 ANALYSIS

This section provides the real power and benefits of the CCA application. From the options provided, queries can be made on a wide range of information. Due to the way match information is stored, retrieval can be provided in many different forms. The two distinct categories are Individual and Team. Both options provide a Selection Criteria screen that enables specific queries to be created. Selection Criteria options are provided with defaults and vary depending on the type of option selected.

Once selection criteria are entered, CCA displays "Analysing Match Data" progress indicator. The time taken to perform the scan is determined by the number of matches that need to be included for the analysis (and the performance power of the computer being used). If this process appears to take a long time, please be aware that the date criteria will have the greatest bearing on the speed performance of this analysis scan process and when many hundreds of matches have been recorded the date parameters should receive special consideration in this respect, the wider the date span the more matches that will need to be analysed.

## 4.1 INDIVIDUAL

This option is used for analysing match data on an individual Player basis. The Selection Criteria screen is the same for either of the Cumulative, Seasonal or Captaincy & Toss options. The APPEARANCES option first requires a player's name to be selected.

### 4.1.1 Selection Criteria

Dates should be used to focus the scope of the query. This is useful for looking at each separate season or for looking at monthly breakdown during a season. Perhaps a particular Batter's or Bowler's form shows a trend during each season? When many seasons of match data has been entered a trend over several years may be present?

The table below identifies the selection criteria input options for this part of the Analysis section:

CRITERIA	OPTIONS	DEFAULT
Period from:	Not after Period to date entered	Same as last query
Period to:	Not before Period from date entered	Same as last query
Opponents:	All Opponents or select one opponent	All Opponents
Team-Type:	All Team-types or select one/many	All Team-types
Home or Away:	Both, Home, Away.	Both

It should be remembered that all of the information contained in the retrieval from these scans is controlled by the selection criteria entered and that, for example, the debut information displayed may not actually, contain the same details of the player's very first match for the club! Use <F2> to re-display the Selection Criteria used for the query as a reminder of the query focus applied.

Pressing <Esc> during a scan will offer the opportunity to abort and re-enter another search criteria. This can be particularly useful in long/slow searches.

### 4.1.2 Cumulative

Use this option to calculate Players' cumulative performances within selected criteria. After the file scan is complete a list of all Players who have played (matching the criteria) will be listed. Use the cursor to select as required.

Pressing <Enter> will display a General Information screen and pressing the <Space> bar will toggle to the Individual Statistics screen.

### 4.1.3 Seasonal

This is much the same as Cumulative above but will not add all performance data together. Instead, they are grouped into seasons to enable analysis of seasonal performance. i.e. observe year-on-year trends, showing good seasons and poor.

### 4.1.4 Captaincy & Toss

Once the selection criteria are entered and the file scan completed as per above, if no matching records are found for the selection criteria set a message advising of this will be displayed otherwise an option box is presented offering the results to be displayed in Detail or Summary. Detail lists every match and Summary displays all Captains and their record of

matches won, lost, drawn etc. including percentages. Toss winning and whether electing to bat or field are also analysed.

#### 4.1.5 Appearances

Once the selection criteria have been entered and the file scan completed as per above, if no matching records are found for the selection criteria set a message advising of this will be displayed otherwise a display of all matches in which the selected individual played will be shown. Scrolling Right (or Left) will bring new columns of data in to view to show Batting, Bowling and Fielding. The usual <F4> to SEEK, <F5> to SORT, <F6> to FILTER and <F7> to PRINT are available. Pressing <Enter> will enable access to view the match in the same way as for View Matches. Please refer to the View Matches section above for further information and options available.

### 4.2 TEAM

This option is used for analysing match data on a team basis but also provides tables containing individual performances such as Batting, Bowling, Fielding, Appearances etc. Cumulative and Seasonal sub-menu options provide the same Selection Criteria options. All Records will include all matches, all opponents, all team-types and both Home and Away venues automatically by default. The Played, Batting, Bowling, Kept-Wicket inclusion qualification is therefore, the only criteria that can be modified when using the All Records option.

#### 4.2.1 Selection Criteria

As with the Individual options, dates should be used to focus the scope of the query. This is useful for producing annual averages and performance data which can, of course, query for previous seasons as well as the current season using the from: - to: date criteria.

The inclusion qualification criteria will default to the last query made. These can be adjusted from the Statistics menu which will be presented once the file scan has completed.

#### 4.2.2 Cumulative

Once the file scan has completed the batting and bowling criteria can be applied to the data found and then a Statistics menu will be provided with the following options:

1. Qualification Criteria
2. Most Valued Player
3. Batting
4. Bowling
5. Team Performance
6. Overview
7. Dismissals Analysis
8. Runs Analysis
9. Match Results
10. Team Turnout
11. Record Partnerships
12. Appearances
13. Individual Dismissals
14. Wicket Keeping
15. Records
16. Seasonal Comparisons (only for 4.2.3 see next)
17. Print All

## 18. Quit

All of the above should be self-explanatory and a good browse through the detailed display screens for all of the options is recommended to become familiar with the information available. Qualification Criteria (option 1) will display the current settings for the search and the qualification. The "Qual:" usefully shows the number of records in total and the number of records remaining after the filter is applied.

To adjust the qualification inclusion criteria, press <Enter> to switch to Edit mode. The Batting qualification is selectable by either Completed Innings or Runs Scored, the Bowling qualification by Overs Bowled or Wickets Taken and for Wicket-Keepers, the number of innings recorded as the Wicket-Keeper.

Pressing <F8> will invoke CCA recommended values which can be adopted and amended further as required to obtain the desired focus outcomes.

MVP will offer the choice of: Total Points, Batting Points, Bowling Points or Fielding Points and whether you want these ordered by Aggregate or Average.

MVP is also provided using the Play-Cricket method (less sophisticated).

Further performance rankings for Batting Impact and Bowling Impact are calculated using the "geometric mean" statistical method.

Both the Batting and Bowling options carry further multiple options once selected.

If the view returns too many players, <F6> can be used to TOGGLE the qualification inclusion criteria on/off.

The Print All option will produce a Complete Averages Report, typically 25-35 pages long, which will include all of the individual analysis reports provided from the Aves & Stats menu.

### 4.2.3 Seasonal

This sub-menu provides the same options as Cumulative above but an extra selection window is provided for SEASON. Use the <tab> key to switch between the two option display boxes. The Print All option is replaced with a "Seasonal Comparisons" option showing a variety of averages, statistics and trends.

### 4.2.4 All Records

This is the same as for Cumulative above but will not present Criteria Selection, instead will default to all matches.

## 4.3 PLAYER FORM

This option provides quick access to recent Player match performances over a 28-day period. Quick access to this information can be very helpful with things like Player/Team selections where decisions need to consider recent performances.

An "Effective Date" must first be entered (default is today's date). From this, CCA will search for all Players who played in matches in the 28 days (4 weeks) prior to this date and display

them in a list. The "between dates" applied in the search are shown at the top of the screen.

The first page will show BATTING FORM. Pressing Right-Arrow will switch to BOWLING FORM. Pressing Left-Arrow will switch back to BATTING FORM. Press <Enter> to reveal the exact details of the individual performances. <F7> provides a PRINT option and <Esc> returns back to the CCA main menu.

#### 4.4 PLAYER SELECTION

Selection Criteria is required and the first prompt is for a SEASON to be entered. Then, select Team-Types, choose one or several (maximum of six). Press "Quit" when Team-Types have been entered.

A list of Players is then presented showing how many Appearances and for which Team-Type. <F2> will pop up a message box showing a key to identify which column represents which Team-Type.

<F5> will re-order the listing by: Total Played, or Player Name, or Senior/Junior Split.

<F7> will PRINT the listing.

Press <Esc> to Exit back to the CCA main menu.

#### 4.5 PLAYER RETENTION

This option can provide really helpful data to identify players that come and go each season (leavers & joiners) and how many juniors are breaking into senior teams.

Selection Criteria is required and the first prompt is for a start SEASON to be entered. Then, select Team-Types, choose one, several, or all. Press "Quit" when Team-Types have been entered.

A list of ten Player Categories is then presented showing how many players sit within each of the categories for each season. Move the highlighted cursor around the screen and press <Enter> to bring up the list of names within the selected Category / Season. The names also include the number of respective appearances in brackets.

Press <F7> to PRINT the listing.

Press <Esc> to return to the CCA main menu.

### 5 DATA FILES

This section includes Players, Opponents, Team-Types and Maintenance which has a sub-menu of Membership Check, Reset Memberships, Re-Index Files, Pack Files and Cumulative Validation.

This section deals with the entry and maintenance of all the data files that are used to hold information used by CCA. Data files are the "heart" of any database application which relies on data and is where all information is stored for later retrieval.

NEVER be tempted to try and edit any of these files from outside of CCA.

Normalisation techniques have been used in the design of the CCA relational database and many of the files are related to each other using "keyed" fields. Looking at individual files in isolation will most likely appear confusing and incomplete and if any data is changed in this way database integrity may potentially be violated and data corruptions created.

## 5.1 PLAYERS

This data file contains the details of all of the players who have ever played for the club with a maximum of 9,999 entries. This data file is updated after every Enter New Match or Edit Match process to maintain cumulative information. All possible key-press actions are displayed on the screen, either on the 2nd from top row or bottom row. The names (and initials) entered here are the ones that will display when viewing match entries. Therefore if "SMITH" has already been entered for a match and subsequently it transpires it should be spelt "SMYTH" then changing the Players Details File will automatically correct the name in the match details view (for all the matches SMYTH has played).

### 5.1.1 Add New Player Details

<Ins> = ADD

The <Ins> key invokes the Add New Player screen. Players MUST be identified uniquely and CCA will make validation checks before accepting new Players. E.g. A blank surname will not be accepted! If a player already exists with the same Surname/Forename this is not permitted. If this is the case, for example with a father and son, use "snr." and "jnr." in the surname to create uniqueness.

Date of Birth must be a valid date and Age Now should be checked to ensure correct year has been used.

Address, Post Code and Phone Numbers are all optional but the last three; Membership Paid, Post List and Phone List must be entered as either "Y" or "N".

#### ADD NEW PLAYER DETAILS

SURNAME	Player's surname.
FORENAME	This is the name that the Player is referred to or known as. Nicknames should be avoided – names used here need to match those of Play-Cricket to avoid player duplication arising during Import Match.
INITIALS Please use all initials known. e.g. "M.K.J."	If this entry is initially blank CCA will enter a default using the first character of the forename entered. This may then be over-typed: e.g. "Tony" will default to "T" which can then be over-typed with "A".
ADDRESS	Five lines are provided for Player's address details. It does not matter if some are left blank.
E-MAIL ADDRESS	Enter the Player's preferred email.
TELEPHONE NUMBER (HOME, WORK & MOBILE)	Contact numbers for Players can be printed out on phone listing. Alpha characters are acceptable. e.g. London 212121 Ext 21 or 0181 121 2121

MEMBERSHIP PAID	A useful way of checking whether players who have played this season, have paid their annual membership subscription. Set it to "Y" when paid. At the start of a new season, use the "Reset Memberships" function to revert every player back to "N".
POST LIST	This Y/N entry can be set as required to include or exclude Players from the displayed or printed address list (including address labels for mailing).
PHONE LIST	This Y/N entry can be set as required to include or exclude Players from the displayed or printed telephone list.

### 5.1.2 Edit Player Details

<Enter> = EDIT

The Edit Player Details window is invoked by pressing <Enter> against a highlighted Player. This will bring up the same window as per the Add New Player above but the Page Down and Page Up keys will skip to the next/previous Player record. Be mindful of which display index is currently in use. Pressing <Esc> will exit without saving any changes. Pressing <Enter> will exit and save changes. The Page Up/Down movement will look for any changes and save if any changes are found before moving to the next/previous Player.

### 5.1.3 Exit

<Esc> = EXIT

Pressing <Esc> will close the Players list and return to the CCA main menu.

### 5.1.4 Display Player's Cumulative Data

<F2> = STATS

The <F2> key will display all the cumulative recorded playing details of the currently highlighted player. There are two windows which are the same as those found in Individual - Performance (described above) and <any key> will toggle between the two display windows. A further press of <F2> whilst in this window will bring up an option box to display the match card for the Player's key match events: debut, last match played, best batting or best bowling.

### 5.1.5 Player Name Search

<F4> = SEEK

The <F4> key is the search key. When pressed, a dialogue box is provided to type the Player surname to search for. Press <Enter> when ready to start the search. The search is not case sensitive.

It is not necessary to type the full and exact name required to search for as the application can perform partial searches. e.g. If the search is for a player called "SMYTH" just type "SM" and the cursor will stop on the first name it finds starting with "SM" (which might be "SMITH"). If no names exist starting with "SM" the cursor will stop at the first name after this (in alphabetical order). If there are no matches found it will stop at the last name in the list.

The Search option is a very useful facility and it is worth spending some time "playing" with it. When the data files get bigger you will be able to maximise its usefulness.

### 5.1.6 Change Display Format

<F5> = INDEX

The display format may be changed by pressing the <F5> key. All formats will show Player's names in alphabetical order after the primary order criteria selected. The options are:

DISPLAY FORMAT OPTION	DESCRIPTION
All Players	Every player in the data file.
Recent Players	Only Players who have played recently.
All (by matches played)	All Players, most matches played first.
All (by debut date)	All Players, latest debut date first
All (last played date)	All Players, latest played date first
Post List	Only Players with "Post List" set to "Y" Also displays Player's address details
Telephone List	Only Players with "Phone List" set to "Y" Also displays Player's telephone details
Longest Duck-Free Run	All players, longest duck-free run first Also displays number of duck-free innings/period
Current Duck-Free Run	All players, longest current duck-free run Also displays current duck-free innings/period
Date of Birth	All Players, in oldest first order
Age on Debut	All Players, in youngest first order
Age when Last Played	All Players, in oldest first order.

\*\* If no DoB data exists these last 3 options will be preceded with "##" to indicate their unavailability.

Depending on the option chosen the window will not only display the Player's name but will include other details relevant to the display format selected. For example; when viewing under "post list" option the Players' addresses are displayed in a separate window at the bottom of the screen.

### 5.1.7 Print Player Details

<F7> = PRINT

This option can provide output in many formats. The options presented will depend on the currently selected display format.

DISPLAY FORMAT	PRINT OPTIONS
All Players	Performance / Contact Details
Recent Players	Performance / Contact Details
Sort by Matches Played	Performance / Appearance
Sort by Debut	Performance / Appearance
Sort by Last Played	Performance / Appearance
Post List	Labels / Listing
Telephone List	Listing
Duck-Free Run	First page only / All pages
DoB Data	Listing

The performance option presents a further option of Batting / Bowling / Fielding for the currently selected data group sorted by one of many user-selectable performance criteria.

Cumulative totals are provided at the end of the listings. Please refer to the Printing section in Operating Instructions for details on label printing.

### 5.1.8 Delete Player

<F9> = DEL

The <F9> key is used to delete Players from the data file. CCA will not allow any Player recorded as being a player in a match to be removed as this will break system integrity. A message will display stating the selected Player's name and the date they first played.

## 5.2 OPPONENTS

This data file holds all the Opposition details with a maximum of 9,999 different entries. It is updated after every Enter New Match or Edit Match process to maintain cumulative information. All possible key-press actions are displayed at the top and bottom of the screen. When this option is selected two windows are displayed. The window on the left displays a list of Opponents by name, in alphabetical name order. The window on the right displays the details of the currently highlighted opponent in the left window. At a glance it is possible to see cumulative results against each Opponent.

It is recommended that Opponents are created at Team-Type level as this can benefit analysis criteria setting in the future. E.g. If your club plays both "MARYLEBONE CC 1st XI" and "MARYLEBONE CC 2nd XI" create both as separate Opponents.

### 5.2.1 Add New Opponent Details

<Ins>

The <Ins> key will invoke the Add New Opponent Details window to enable New Opponent details to be added.

A validation is made on the Team Name entered to ensure that no Opponent already exists with the same name and that the entry is not blank. Pressing <Esc> while in this edit mode will exit without saving, pressing <Enter> will save and exit.

OPPONENTS DETAILS	INFO
TEAM NAME	This should be the full title of the opponent and should also include "C.C." on the end where appropriate. E.g. <ul style="list-style-type: none"><li>• London School Under 16 2nd XI</li><li>• Australia "A"</li><li>• The Crown and Anchor C.C.</li></ul>
SECRETARY/FIXTURES CONTACT	This is optional and can be useful for Club Administration tasks to identify the individual who should be contacted with regard to match fixtures etc. Optionally a contact address and telephone number may also be recorded.
PRINT LABEL	The Secretary/Fixture contact name and address may be useful to maintain for the Club fixtures secretary but is entirely optional. Printing address labels is the primary purpose of this facility. To include in the label print run, set the "Print Label" to "Y".

### 5.2.2 Edit Opponent

<Enter>

<Enter> works exactly the same as for <Ins> above but pre-populates the data fields with the existing data which enables changes to be easily made as required. The name is only editable to enable corrections to spelling or minor changes. This application holds all its information by reference not text so by changing an Opponent's name from, say, Australia to India, will now show all previous match detail for Australia as India retrospectively! Likewise, do not be tempted to change an Opponent's name from ABC 1sts to ABC 2nds - they are NOT the same team - create a new Opponent.

#### LAST UPDATED

Additionally, on the edit screen only, this (system generated) date identifies the date when manual changes were last made to this Opponent record to provide an indication as to how up-to-date the information may be.

#### 5.2.3 Exit

<Esc>

The <Esc> key will return CCA to the main menu screen.

#### 5.2.4 Opponent Name Search

<F4> = SEEK

When pressed, a dialogue box is provided to type the Opponent name to search for. Press <Enter> when ready to start search. The search is not case sensitive.

For text searches on names, it is not necessary to type the full and exact name required as CCA can perform partial searches. E.g. If the search is for an Opponent team named "MARYLEBONE C.C." just type "MA" and the cursor will stop on the first name it finds starting with "MA" (which might be "MANCHESTER C.C."). If no names exist starting with "MA" the cursor will stop at the first name after this (in alphabetical order). If there is no match it will stop at the last name.

#### 5.2.5 Change Display Format

<F5> = CHG INDEX

The display format may be changed by pressing the <F5> key. The only two options are "All Opponents" or "Only Opponents who have been Played in the last 2 years" (from the date of the most recently recorded match).

Pressing <F5> will toggle between the two display formats.

#### 5.2.6 Print Opponent's Details

<F7> = PRINT

This option will provide the choice of printing Results, Address List or Address Labels for the currently selected display format. The results option will list the Opponents in Alphabetical order and display the appropriate match summary information. Cumulative totals are provided at the end of the listing. Please refer to the Printing section in Operating Instructions for details on label printing.

#### 5.2.7 Delete Opponent

<F9> = DEL

The <F9> key is used to delete Opponents from the data file. CCA will not allow an Opponent who has had a match recorded against them to be removed as this will break system integrity. A message will display stating the selected Opponent's name and the date they were first played.

## 5.3 TEAM-TYPES

The limit to the number of Team-Types that may be created is 999 but it is most unlikely that anything like this many will be required. It is important to consider how this might best be used in the Analysis section to look at performances in specific match types and it will be possible to provide separate averages for each individual, groups of, and all Team-Types if required.

A check will be made to ensure that no duplicate Team-Type name already exists and that the Team-Type name entry is not blank. Pressing <Esc> at any time while in the Add or Edit mode will exit without saving. Once all the data has been entered a confirmation acceptance is required before the changes are saved. The option to Abort is also provided.

### 5.3.1 Add New Team-Type

<Ins> = ADD

The <Ins> key will pop up a small window with blank data fields. The information to be entered is as follows:

TEAM-TYPE DETAILS	INFO
NAME	<p>This should identify the specific Team Name within the club, perhaps also including a Competition Name. E.g.</p> <ul style="list-style-type: none"><li>• Saturday League 3rd XI</li><li>• Sunday Friendly</li><li>• Midweek 20 Over</li><li>• HUNDRED 1st XI</li><li>• Ladies XI</li><li>• Boys Under 13</li><li>• Girls Under 15</li></ul> <p>The purpose of creating these separate Team-Types is to enable analysis and averages to be produced at Team-Type level as well as for groups of, and all Team-Types together. This may be useful to provide averages and analysis by competition type.</p>
MATCH FORMAT	<p>This provides the option of:</p> <ul style="list-style-type: none"><li>• Limited by Overs</li><li>• Limited by Days (Time)</li><li>• Hundred Balls</li></ul> <p>Choose the format that this Team-Type will play.</p>
MATCH DURATION	<p>This entry is linked to the Match Format entered above</p> <ul style="list-style-type: none"><li>• Overs (between 10 and 99 - less than 10 needs confirmation)</li><li>• Days (between 1 and 5)</li><li>• Balls (Hundred defaults to 100 Balls)</li></ul> <p>A setting of zero will not be accepted for either Days or Overs. The Days information is used for dealing with two innings matches where a "follow-on" situation may occur.</p>
BALLS PER OVER	<p>This must be set to either 6 or 8 and is used to calculate balls bowled and percentages for wides and no balls.</p>

OPEN AGE CRICKET	Because the MVP formula uses different Batters Runs Par Score percentages for Junior cricket to account for the higher proportion of Extras that occur in junior cricket.
DRAWN RESULT	Before saving a match entry, either new, edited or imported, CCA will deduce the result from the data entered. However, there are some types of matches where a "draw" is not a permissible result. These must be identified so that CCA can formulate an alternative result or request the result be entered manually.
LEAGUE POINTS AWARDED	These can be optionally captured for information purposes only. E.g. for Friendlies, this would be "No" but for League matches "Yes"

### 5.3.2 Edit Team-Type

<Enter> = EDIT

<Enter> works exactly the same as for <Ins> above but pre-populates data fields from the existing Team-Type record details.

### 5.3.3 Exit

<Esc> = EXIT

From the list of Team-Types, pressing <Esc> key will return to the CCA main menu. Pressing <Esc> will exit the edit without saving.

### 5.3.4 Print

<F7> = PRINT

This option will list the Team-Types and display match summary information. Cumulative totals are provided at the end of the listing.

### 5.3.5 Delete Team-Type

<F9> = DEL

The <F9> key is used to delete Team-Types from the data file. CCA will not allow a Team-Type that has had a match recorded against it to be removed as this will break system integrity. A message will display stating the selected Team-Type name and the date of the first match where this Team-Type was used.

## 5.4 MAINTENANCE

This option provides system and data file utilities that may be required from time-to-time to manage and maintain the many data files that exist within CCA.

### 5.4.1 Membership Check

This option will present a list of all players who have made an appearance in the current season (so is dependent on correct season-split setting). This is used to identify those players who have and have not paid their annual membership. A print option is provided so that the treasurer can chase up non-payers.

### 5.4.2 Reset Memberships

This option will reset every player "Membership Paid" flag to "N". This needs to be run at the beginning of every season to enable unpaid memberships to be identified.

### 5.4.3 Re-index Files

This option should not normally be required so long as CCA is terminated correctly using the Quit menu option but has been included in case of data file index corruption. Many of the data files have index files which are updated whenever data is added or changed. However, on rare occasions, these files can become corrupted when CCA is not terminated correctly. Corruption may occur under unavoidable circumstances. E.g. Power failure or Windows freezing in another application forcing a re-boot, etc.

Should CCA not be closed using the correct method as described above it is recommended to select this option first the next time CCA is used. Corruptions are not always immediately apparent and CCA may crash with a System Error before anything wrong or unusual is noticed (see Error section below). Common signs of corrupt index files are wrong details shown for a particular record.

### 5.4.4 Pack Files

Whenever a Delete record (Player, Opponent, Team-Type) or Edit / Delete Match is performed CCA does not physically delete records at this stage but merely marks them for deletion and hides them from view. This is called a "logical delete". It is the Pack Files routine that then physically removes the records marked for deletion. From time-to-time CCA will track that several deletes have been made and will auto-perform this routine after the Quit option is selected. This is just a system "housekeeping" task and should complete within a few seconds.

### 5.4.5 Cumulative Validation

This process will go through all the data files checking to see if it "all adds up". Depending on the number of matches recorded this can take a few minutes. A progress bar is provided to monitor progress. This option should never be required but it may be wise to perform after each 100, or so, matches have been entered. Once validation has completed, if any corrections have been identified, an option to "view" the required corrections is provided.

## 6 OTHER

All other CCA menu options fall into this section.

### 6.1 QUIT

This option will correctly shut down CCA. It is important to use this option and not close the CCA window (top-right "X") or just switch off the computer while CCA is still running. Files are saved to disk and some system information is checked and updated on "Quit".

### 6.2 SET JUNIOR AGE

For clubs that operate a junior section as well as adults where juniors may play in open-age (adult) matches this is where the definition (by age) of a junior player is set. This information is used in the ANALYSIS section for Player Selection and Player Retention.

CCA presents a dialogue box to enter the age as appropriate. This must be between 5 and 18 years old. Set it to 5 if you do not wish to differentiate juniors in adult matches. Pressing <Esc> will exit this screen with no changes made. Note: If a player's DoB is not entered they will always be deemed to be an adult player by CCA.

## 6.3 DATE FORMAT

This application was written for intended international use and, as every Country has its own preferred date format, this option has been provided. The following formats are available:

- dd/mm/yyyy
- dd.mm.yyyy
- dd-mm-yyyy
- mm/dd/yyyy
- mm-dd-yyyy
- yyyy/mm/dd
- yyyy.mm.dd

Choose the format option preferred for displaying dates. The full century must be used in all cases. The current format in use is highlighted on opening the screen. If the date format is changed CCA will convert all date entries to the new chosen format in all the data files.

All future dates will be recorded and displayed in the new format. Use Up and Down arrow keys to move highlight bar and press <Enter> to select. Select "Quit" to exit without changing.

To avoid date format confusion, CCA often displays dates in "dd-Mmm-yyyy" format to avoid muddling days and months.

## 6.4 SCORE FORMAT

This enables CCA to toggle the display order of runs/wickets information. When the screen opens, the current format selection is highlighted. The different formats can be explained as: Eng = "165 for 5" Aus = "5 for 165". Additionally, the "Eng" format uses "EXTRAS" and the "Aus" format uses "SUNDRIES". This setting can be changed at any time and only affects the display presentation of data.

## 6.5 SEASON BREAK

In many Cricket playing nations, usually in the Southern Hemisphere, a cricket season is spread over two calendar years e.g. 2021/2022 (but not in England). Where this is the case CCA will need to know the end-of-season break point for calculating the split between "seasonal" data.

## 6.6 REGISTER

Note: only shows for non-registered installations. This will explain how to get CCA registered.

## 6.7 CHECK FOR UPDATES

Note: only shows in the registered version of CCA. This will check to see if there is an update to the version of CCA you are currently using.

## 6.8 TEST PRINT

Note: only available in the registered version of CCA.

This enables a check of CCA print functions being correctly set up and will output a single test page using the various fonts, formats and settings used within CCA.

## 6.9 USER GUIDE

This option will display the file you are now reading and <F7> will print it out in full.

## 6.10 ABOUT CCA

This displays information about CCA: what version is in use, a brief history and purpose, when CCA was last used; how many matches have been recorded and the dates of the oldest and most recently recorded matches.

# 7 ERRORS

## 7.1 RUN-TIME

This application has a built-in error handler that will record useful technical information in the unlikely event of an error occurring during use. This information will be written to a file called "ERROR.LOG" which should never be deleted. If a system error occurs a double beep will sound and a large red message box will be displayed saying:

**WARNING:**  
**A SYSTEM ERROR HAS OCCURRED**  
**IN THE CLUB CRICKET ANALYTICS APPLICATION**  
**PLEASE CONTACT CUSTOMER SUPPORT (see manual for details)**  
**BEFORE YOU CONTINUE**  
**[ Quit ]**

Pressing the Quit option will terminate CCA. The contents of the ERROR.LOG file would be most useful to assist in solving any such run time errors. CCA support will need to see this log file which should be e-mailed to CCA Support along with a description of what you were doing in CCA when the error occurred.

## 7.2 INDEX CORRUPTION

Should CCA not run properly from launch or peculiar or odd information is displayed then a "Re-Index Files" may resolve. If this cannot be run from within the CCA application then open a command line (DOS) session and find the location of the CCA system, type in "CCA x" at the DOS prompt and this should automatically re-index all the CCA system files. If CCA still fails to operate, backup all the data files and contact CCA support as per above.

// End of file User Guide.rft