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Introduction

DV - Coach Pro for Windows is a statistics recording and digital video processing computer system.

It is of particular benefit to coaching staff, statisticians, scouts, recruiting officers to save enormous amount of time analyzing statistics and video footage.

In simplified terms, it will allow you to:

- Enter game/match details for both teams for any game your team is involved in
- Record events and statistics, live at game or back-office, using a special keyboard or by pen/mouse
- Create a timecode based transaction history file for auditing and video editing purposes
- Collate and total statistical details of the game/match by session, innings, totals by team/player averages, percentages, totals & optionally graph results
- Accept & merge game/match data from external system (e.g. portable/remote computer) by disk or modem
- Provides automated of control professional quality video recorders (i.e. Play/pause, record, ff, rew, slo mo etc)
- Create batch video edits from previously created transaction event list by various criteria (e.g. by team, player, statistic, special event, etc)
- Export selected game/match data or transactions into 3rd party system for further processing (eg. video editing systems, biomechanical analysis software, spreadsheets & historical database systems)

This version has been specifically programmed for your sport, however versions are available for other sports such as:

- ⇒ All Football codes
- ⇒ Rugby
- ⇒ Soccer
- ⇒ Netball
- ⇒ Hockey
- ⇒ Volleyball

A number of basic printed reports are available and data can also be easily exported into a 3rd party package such as MS-Excel, MS-Access, MS-Word Lotus, or HTML.

DV – Coach – System Administration

This section is a beginners guide to DV Coach. It contains the fundamentals of setting up competition, players, venues, etc.

Basic Steps & Procedures

The fundamental steps in using the system are as follows:

1. Pre-season: Enter the “primary data” (statistics, club information etc) through *Maintenance* and *Housekeeping* menus
2. Pre-match: Enter game/match records through *Match Preparation* module
3. Data-entry: Enter data through *Score sheet*, or **Import** it from an external source
4. Align data with a video source, if required
5. Print reports through the *DV - Coach Pro Reports* module
6. Video Editing: Make highlight videos through the *Transaction Processing* module

Each of the modules and functions related to these steps are explained.

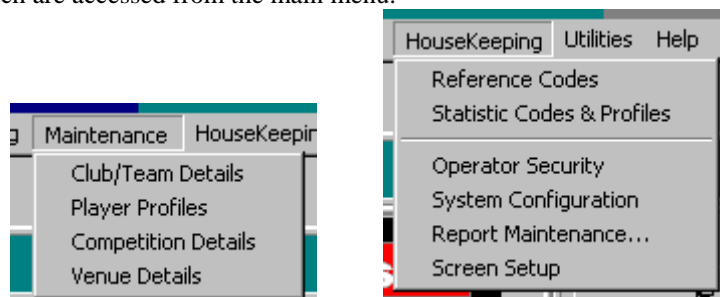
Using Buttons within DV – Coach Pro

The following buttons are used through out the program. It is necessary for users to be familiar with the look and actions of each of the following buttons:



Data Preparation & Set Up

Prior to using the DV – Coach Pro system, a number of key data tables must be set up correctly which will determine the functionality and standards of the system. This primary data is entered and modified through the Maintenance and Housekeeping modules, which are accessed from the main menu.



Essentially, the following areas need to be prepared before your season:

- ◆ **Set up Statistics Codes and Terms of Reference**

This is normally done at the start of each season and we advise against changing these settings during the course of the season. The codes should only be changed, or set up by, supervisors or experienced users, as it has a significant effect on the functionality of the system.

- ◆ **Configure Statistic buttons**

These are based on the statistic codes. Users will need to configure the buttons to those that will be commonly used during the marking of games.

- ◆ **Enter Clubs/Teams, Player Lists and Venue Details**

The teams, player lists and venues need to be set up with ID's, names, abbreviations, etc. The records in these tables can be changed and added to during the course of the season, but you would expect these modifications would be minimal.

- ◆ **Set up Competitions (Season master records)**

Enter the competition codes and a title for all the competitions you intend to record statistics and events.\

Statistic Coding

The statistics coding are probably the most important master files in the system because they determine the order and type of statistics and events you wish to record in DV – Coach Pro.

Code	No	Ty	Description	Abbrev	Cat	Disp	Rnk Ord	Score Type	Val	Calc	St	Pre Play	Post Play	Formula
2PA	1		2 Pts Attempt	2 Pts Att						<input type="checkbox"/>				
2PM	2		2 Pts Made	2 Pts Made				2	2	<input type="checkbox"/>				
2P%	3		Shot Percentage	Shot Pct						<input type="checkbox"/>				
3PA	4		3 Pts Attempt	3 Pts Att						<input type="checkbox"/>				
3PM	5		3 Pts Made	3 Pts Made				3	3	<input type="checkbox"/>				
3P%	6		3 Pt Percentage	3 Pts Pct						<input type="checkbox"/>				
PFL	7		Personal Foul	Foul						<input type="checkbox"/>				
ASS	8		Assist	Assist						<input type="checkbox"/>				
BLK	9		Block	Block						<input type="checkbox"/>				
STL	10		Steal	Steal						<input type="checkbox"/>				
T/O	11		Turnover	Turnover						<input type="checkbox"/>				
ORB	12		Off Rebound	Off Rbd						<input type="checkbox"/>				
DRB	13		Defensive Rebound	Def Rbd						<input type="checkbox"/>				
RBD	14		Total Rebounds	Rbds						<input type="checkbox"/>				

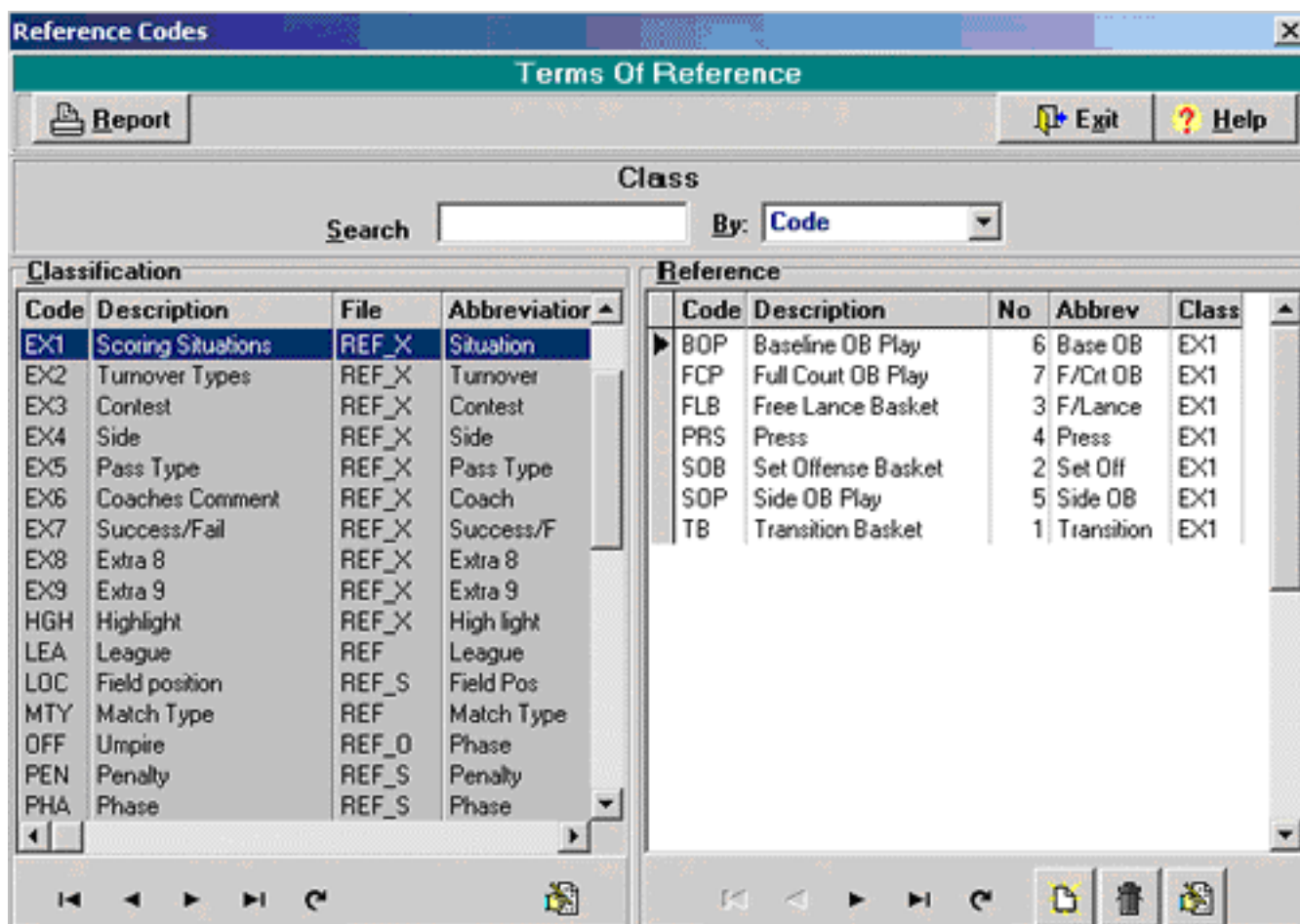
Real-time accumulation of the statistical totals occurs for the first 50 numbered statistics. This allows for instant reporting on a period by period and a game/match totals basis. Any other statistics (51→99) are used for video editing and general reporting purposes via the Transaction Processing module.

Terms Of Reference

The Terms of References are configurable codes and descriptions used throughout DV – Coach Pro that allow you to make up your own classifications of the statistics. These descriptors are also referred to as *Qualifiers*.

All Classes are pre-defined in the software so that only the user may change the codes and descriptions of the qualifiers. The changes here will affect menus and descriptions in the DV – Coach Pro modules.

The 3 character codes must be unique and once set it is recommended that changes be made only as an absolute necessity.



Some codes have been set up in advance and cannot be changed because of exclusive and specific use by DV – Coach Pro such as **Transactions Types**.

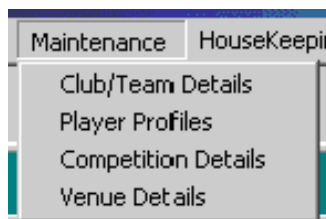
You may edit or add qualifiers to any chosen class, and you can delete records if needed.

Classes cannot be deleted.

Maintenance

The items contained in the maintenance menu are vital for successfully setting up and maintaining your system. These items ideally are all put in place in a back office environment so that when you are using the system these details are already set up. Almost all of these details can be set up before each season starts.

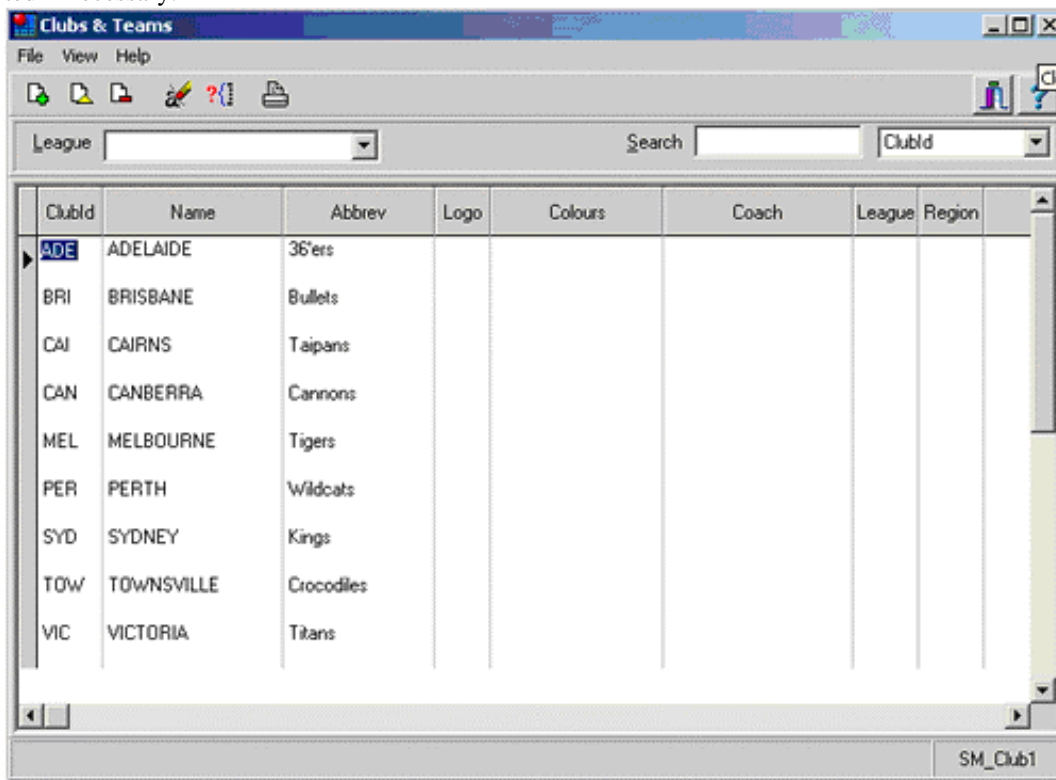
Access each of the items in this way.



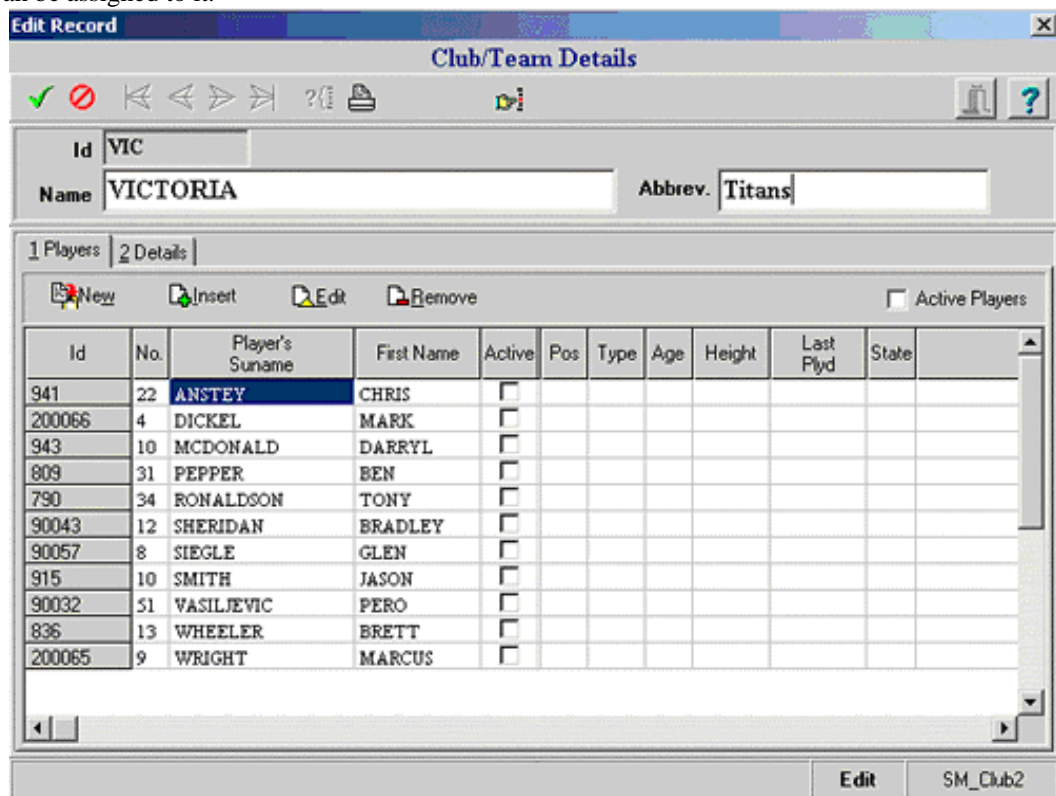
Club/Team details

As part of the preparation stage, you will need to enter all the club/team codes, names and, optionally, the leagues. Once this is done, you should then enter the current player roster for each club.

Each team needs to be entered into the system. Once the teams are in place they can be used in match preparation and can be changed / edited if necessary.



When a team is entered it must have a unique 3 letter club ID, name and abbreviation. Once a club is entered it can be edited and players can be assigned to it.



New teams or modifications to team names can be made mid-season, as long you understand how these will affect historical records.

Players

Another part of the preparation stage includes entering information on all of the current players for each team in your system. A unique ID number will be assigned to each player and you may enter profile information as required. A photo of the player can be loaded into his profile if you wish.

All players used in the system need to be contained in the Players list. They can be added here or they can be included when a Cybersports game is imported. In this instance players not on the DV - Coach Pro roster that are present in an imported Cybersports game can be added to the player profiles.

Extensive player details can be entered but an ID number and a surname are the only required fields.

Id	St	Surname	Other	Team Name	No.	Ty	Club	Age	Hgt Cms	Birth Date	1st Yr	Posn	Grn Pts
536		BECKER	KEVIN				10						
607		BEER	NEVILLE				15						
14		BEGG	STEWART				12						
350		BELL	MATTHEW				15						
827		BELLCHAMBERS	MARCUS				9						
424		BENNETT	RHYS				10						
329		BENUSSI	JOE				15						
396		BERGESON	DUANE				14						
923		BERGHAM	NIGEL				3						
311		BICKETT	DON				10						
363		BIDDINGS	REG				15						
711		BIEKER	NEAL				15						
485		BIRD	BARRY				32						
15		BLACK	ALAN				14						
90052		BLACK	STEPHEN		8		14						

Add New Player | **Player Profile Details**

9800029

First Names: Surname: Number:

1 Profile | 2 Contact | 3 Notes

Club/Team:

Birth Date: Age: Height (Cms): Weight (Kgs):

Playing Position:
 Type Of Player:
 Status:

Enter Player details.

Extra details can be also in the Contact and Notes tabs.

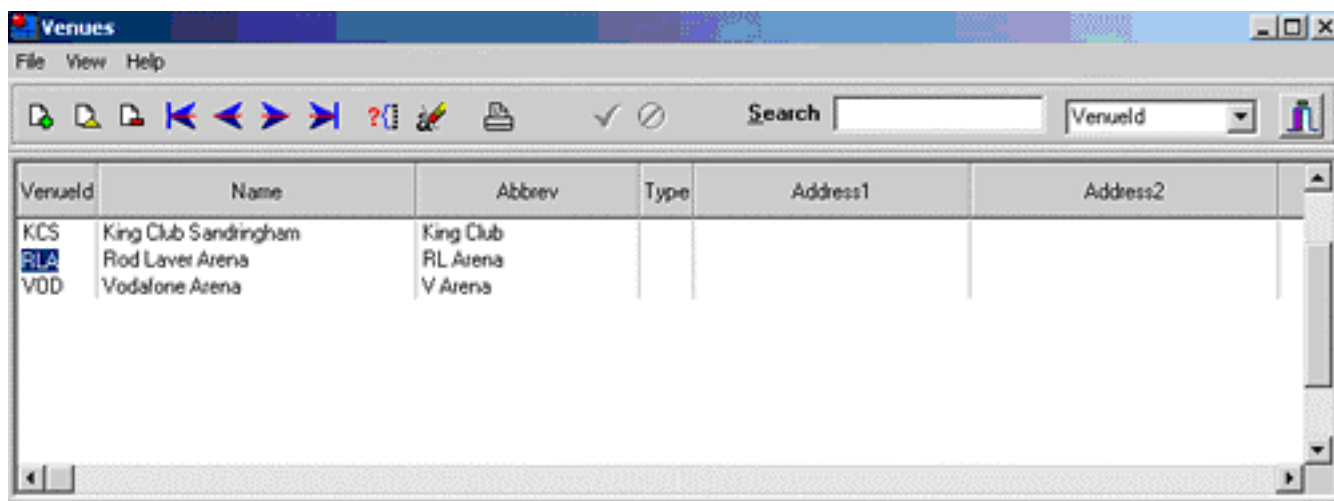
Player photos can be entered by double clicking in the photo area and browsing to its stored location.

If a player is no longer affiliated with a club, simply remove the club code from their record. That way their history is intact but they will not appear on the current available playing lists.

New players or modifications to names can be made mid-season, as long you understand how these changes will affect historical records.

Venues

The venues are used as a descriptive reference when match details are displayed, so you may enter codes and titles as you wish. Venues can be added, deleted or edited in the same way as players and teams.



Commencing A New Season (Competition)

In DV - Coach Pro terminology, matches are grouped into competitions that are usually divided into individual seasons (e.g. 2002 Regular season).

Every match must have a related competition. You must create a competition record before you start.

All matches will be saved (*archived*) into a protected file as they are created.

Competitions can be named at your discretion, with the code up to eight alphanumeric characters. Examples of competitions are listed below:

<u>Code</u>	<u>Description</u>
NBL01	NBL season 2001 - Home & Away
TEST	Testing / Training Matches
PRE01	Pre season matches 2001
PO2000	Play Off Games 2000

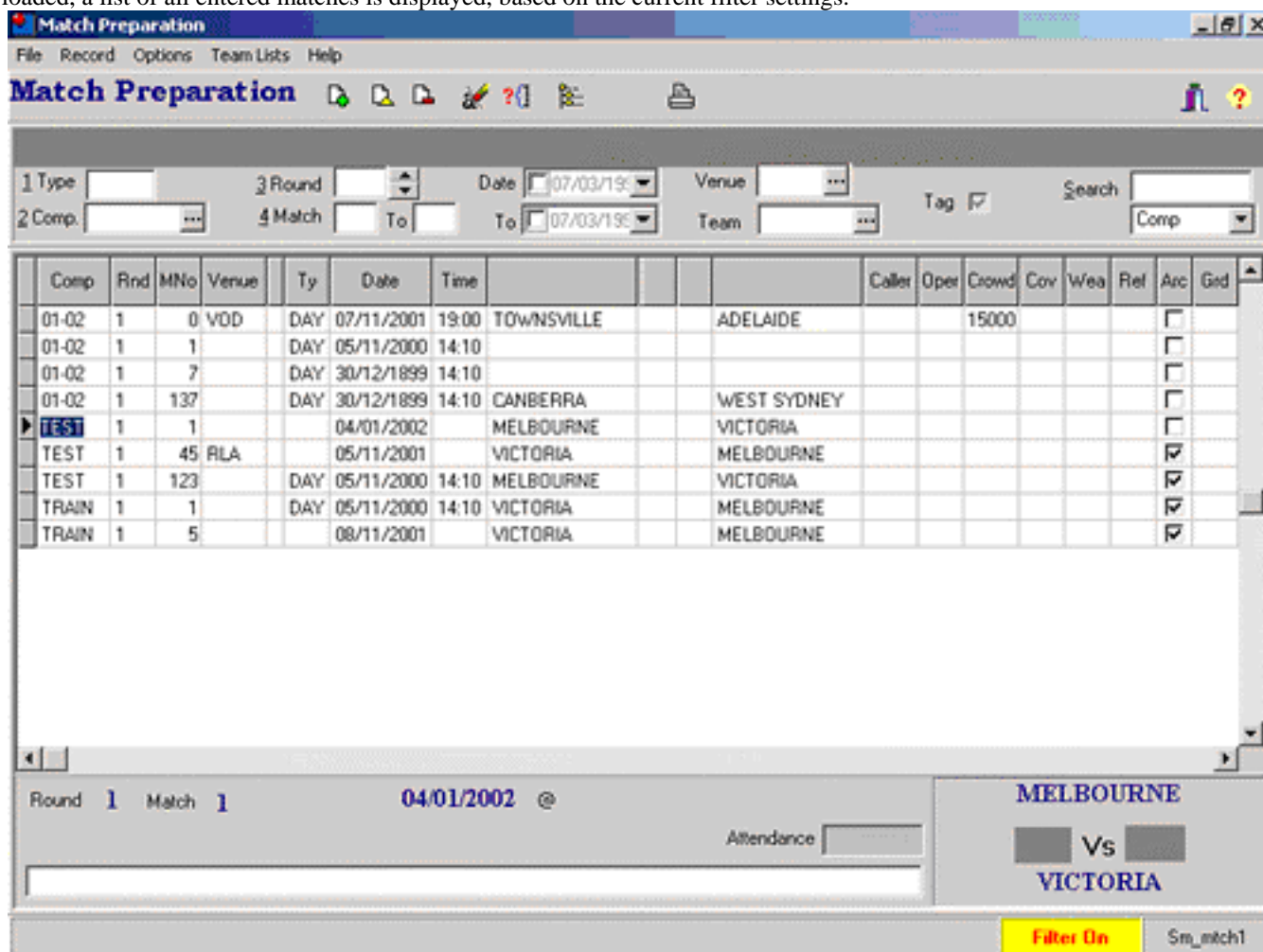
Details are entered in the same fashion as Player, Venue and team records.

Match Preparation

All games/matches for the season can be set up in advance with:

- Match, Round number and Date
- Participating Teams
- Venue

Select the button on the main menu and this will load the module that allows you to setup and maintain the match lists. When loaded, a list of all entered matches is displayed, based on the current filter settings.



You can set your own filter by entering a Match Type, Competition Code, Round or Match number which then refines the list of matches.

**** Tip ****

Please note that the round number is alphanumeric to allow for special rounds (e.g. F=Finals), so when adding new rounds, please enter leading zeros if you wish the rounds to appear in the correct order (eg. 01,02,03, etc)

You can clear all filters button and all matches on the database will be displayed.

Entering / Modifying Match Details

If the match/round record does not exist, it must be added before work can be done on this match. Matches added at an earlier time can be edited to include the team lists, match conditions etc.

To enter this screen, click on the **add or edit** option or their corresponding speed button.

As a minimum, you must enter a Competition, **Round & Match number** to identify a unique record. Although the rest of the fields are optional, some of the more important information includes:

- Home/Opposition teams
- Venue & Match Date
- Umpires
- Match type & conditions

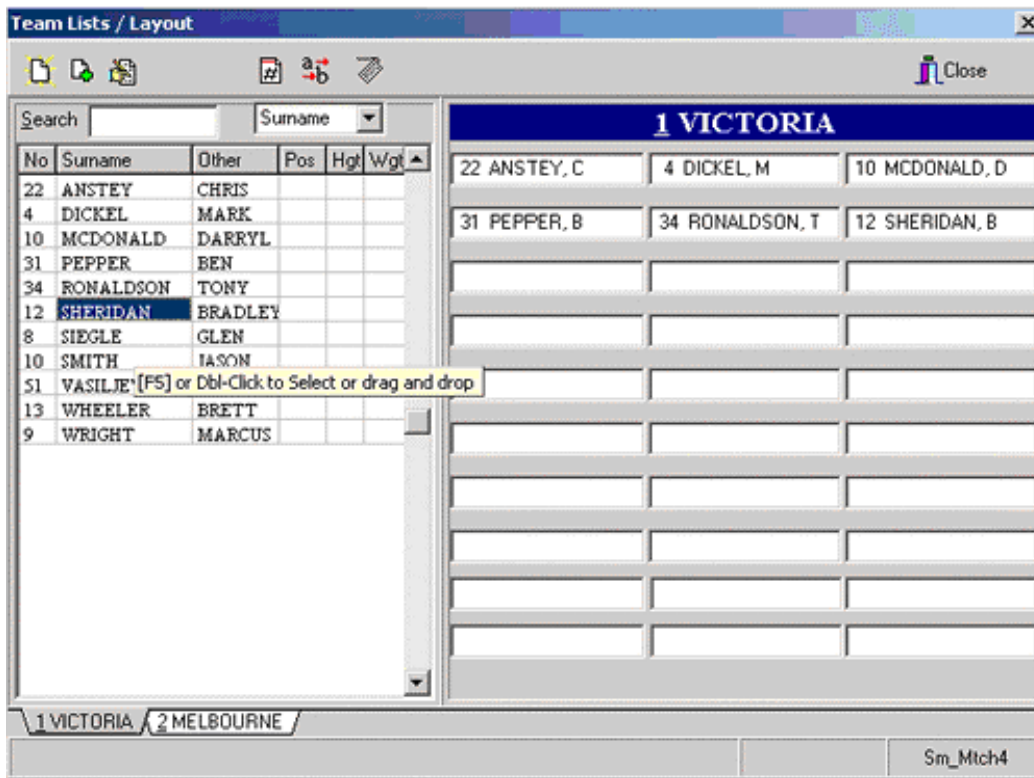
On many fields, the 3 dots signify a lookup option. This saves you remembering the exact codes, however it can be typed directly if preferred. If the master record exists, the description will be displayed adjacent to the field. If there is no description, this may signify that the master record is not valid and should be checked by using the lookup facility. Once all details are entered, click on the Post button to update the database, or click on the Cancel button to abort your changes. Once a game has been posted, a clean form appears, ready for the next match to be entered. To return to the just-entered match, press Cancel.

NB. A match must be posted before the participating players can be entered. This is demonstrated by the appearance of the team names in Tabs at the foot of the page.

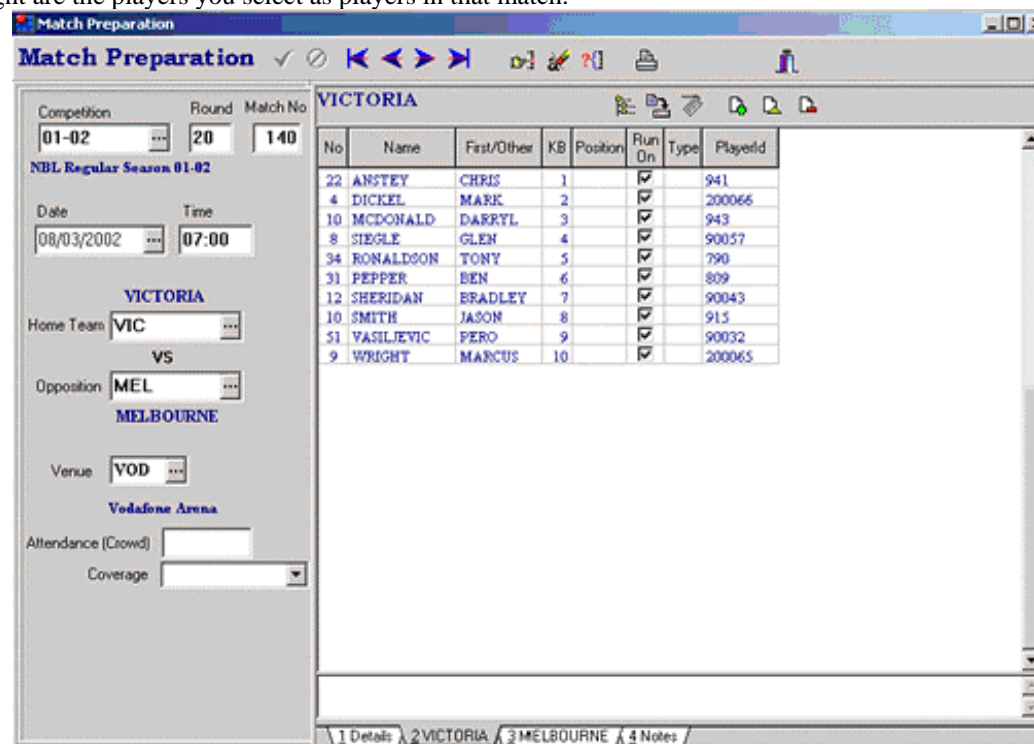
Selecting Player Lists

Having selected the desired team tab, you will be presented with the following screen. (Initially the player list will be empty)

Click on the PLAYERS button  to access the team list screen.



Double Click, press [F5] or drag and drop to select players. The left side is a list of the players aligned to that team and the grid on the right are the players you select as players in that match.




Selecting the PLAYERS button, it will allow you to access the Team List screen.



If applicable, you may select the IMPORT button to select the player list from a previous game

- A table will appear listing games that can be chosen
- Select a game and the players for that match will be automatically copied to this match
- This can be done and then only differences in the teams can be changed.

Modifying Match Details

If for any reason the need arises to modify the details of a prepared match, use the Edit feature of Match Preparation. After entering the Match Preparation module, select the correct Competition Code. Highlight the match you wish to modify and select Edit or double-click  on the match.

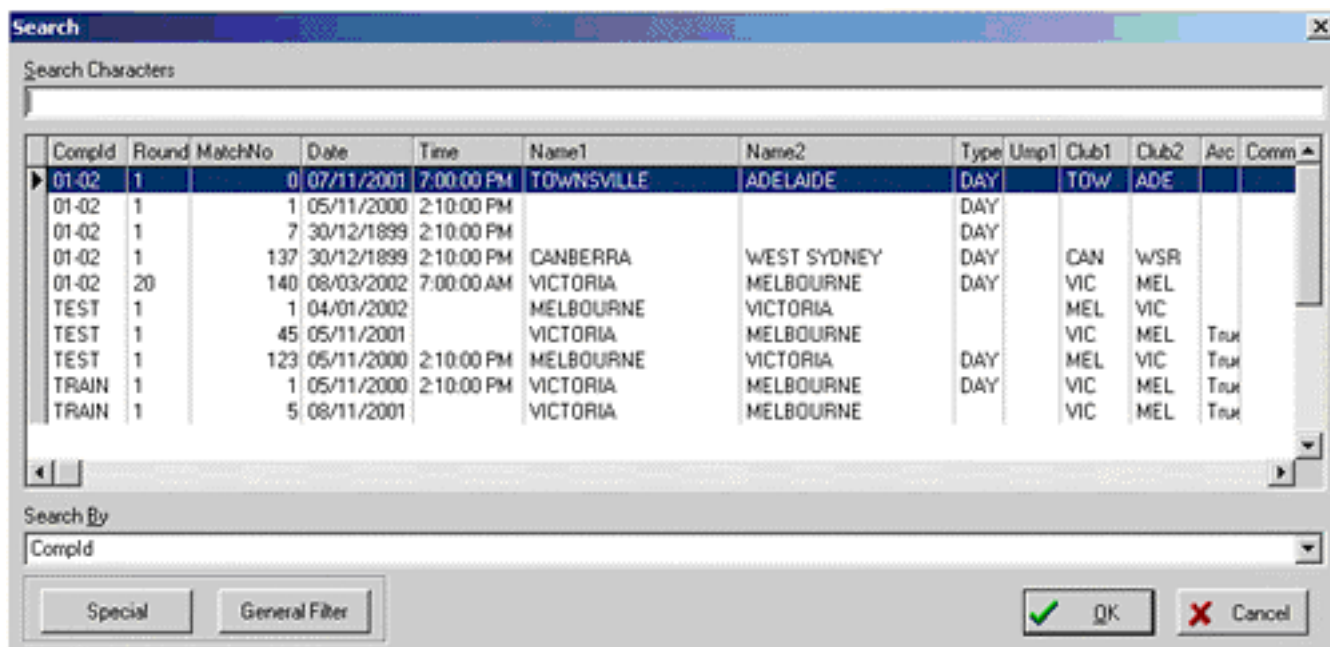
The Match Details screen will appear showing the original information.
 Re-enter any new information into the appropriate fields and post the changes.

Loading/Activating A Match

When using DV – Coach Pro, a match always has to be currently loaded. The details of the currently loaded match are displayed at the bottom of the main screen and in the title bar of the when you are working within a module. The match file is simply a transaction list of the stats you have entered or imported into the system. Therefore when you enter a match in the match preparation module and then load that match the only details that will be present will be those match details you have entered. After you have entered or imported your stats for this match the transactions will be then always be present in this match (unless deleted) and the match can be archived and then re-loaded for analysis at a later time. Loading a previously entered match is done from the main menu under the **F**ile menu



The load match option is also accessible from the DV - Coach Pro modules. When selected, the following screen is displayed:



Note :
 If the current active match has not been archived/saved, you will be prompted to archive. If you ignore and continue, all changes and transactions entered since the last archive will be overwritten and lost with the newly selected match.

Once selected, the current match details should be displayed at the base of the main menu screen.



DV Coach Scoresheet Module

DVC Scoresheet is the primary starting point for logging the timecoded information into the system. Each transaction is recorded by using a custom keyboard or simple mouse entry. When a statistic is logged using DV Coach a timecode is logged

with that stat that allows the footage to be aligned with the corresponding event on the video file. As a result that transaction can be viewed instantly by double clicking on it. This accesses the event through the timecode. DV Coach then has the ability to filter on events allowing the user to view 'batches' of your choice.

DVC Scoresheet also has the facility to capture digital video to the hard drive whilst marking your stats/events. This captured footage can then be output to television via your capture device from either a desktop or a notebook computer.

Preparation

- The match/game details need to be entered into the system prior to entering the Scoresheet module.
- The selected DV Coach match needs to be 'loaded.'
- The DV file of the game needs to be ready to use.

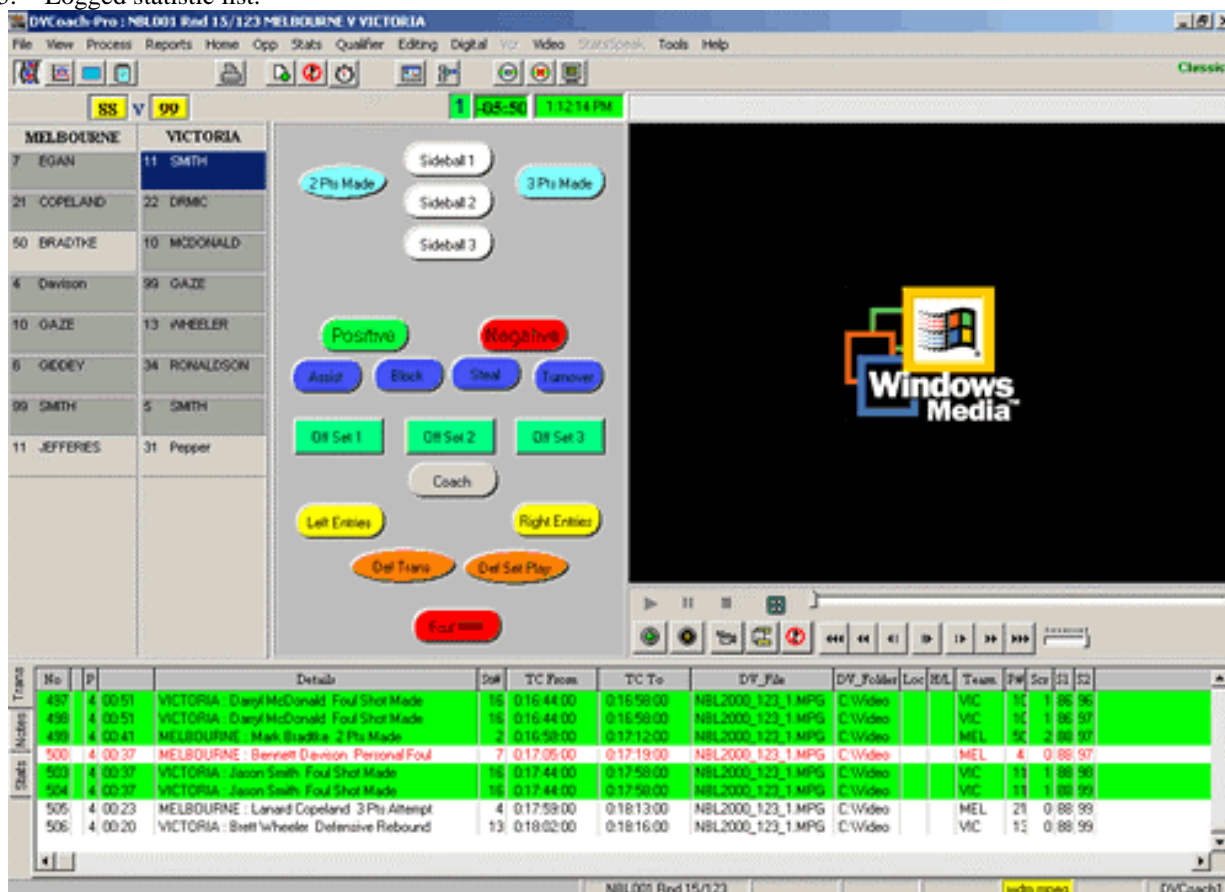
Screen Overview

There are many visualisation options to use in the **DVC Scoresheet** module. These will be fully explained in the proceeding sections.

The currently **loaded match** is listed in the title bar.

The screen is divided up into five main sections –

1. Menus and speed buttons.
2. Teams and players.
3. Statistic buttons.
4. Video viewer.
5. Logged statistic list.



There are many view settings that can be chosen. When you have developed a familiarity with the system you will be able to use the views and functions that match your patterns of usage.

Screen Views

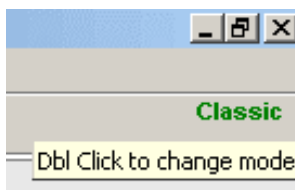
Several screen views are configurable in **DVC Scoresheet** module. There are:

- Two **entry modes** to choose from.
- Four **view options** to use in the video window area.
- Three **tab options** to use in the stats transaction display area.

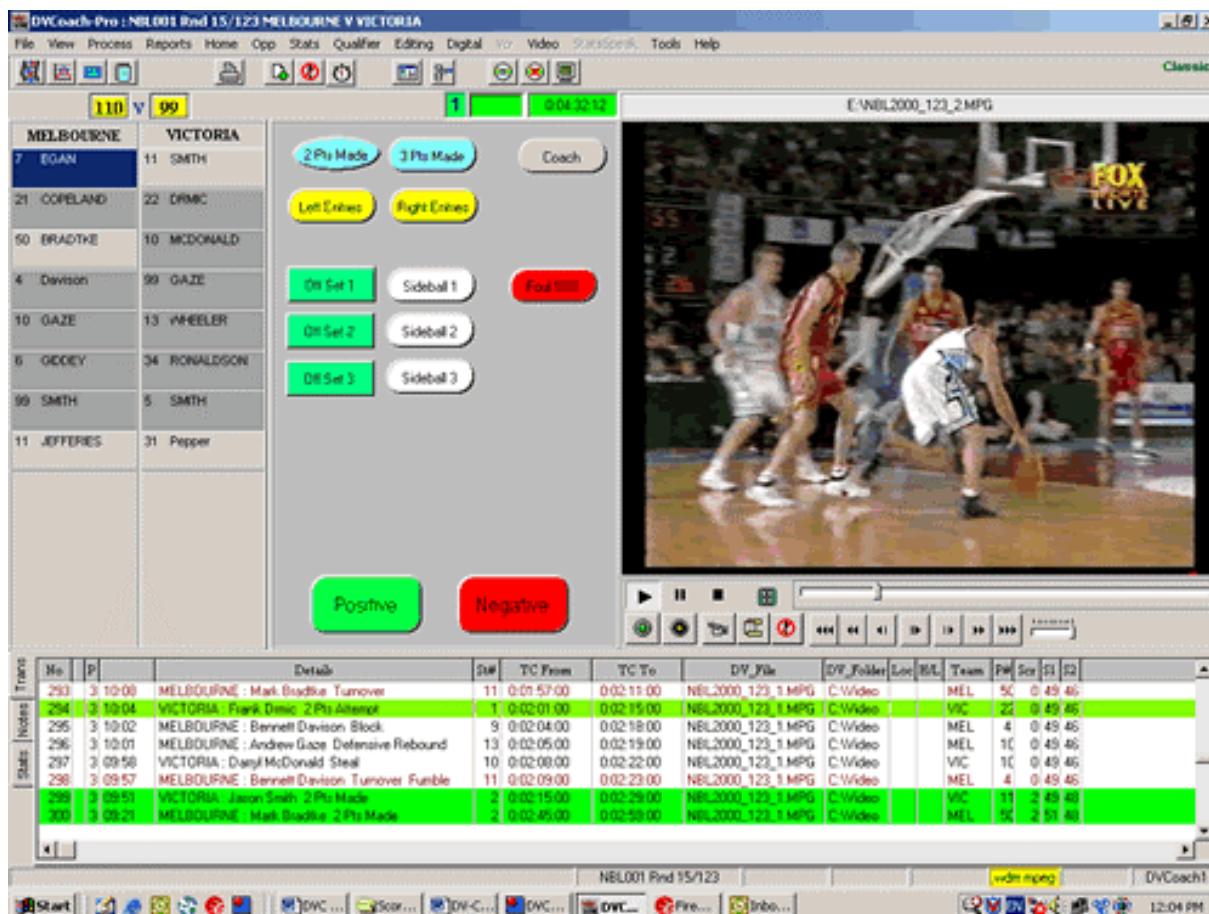
Some of these views will be used for different purposes within the module. As your patterns of usage develop you will become familiar with these view options and their place within the program.

Entry Modes - Classic/Simple

There are two methods of entry modes that can be used, depending on the preferences and circumstances and you can easily toggle between the modes.

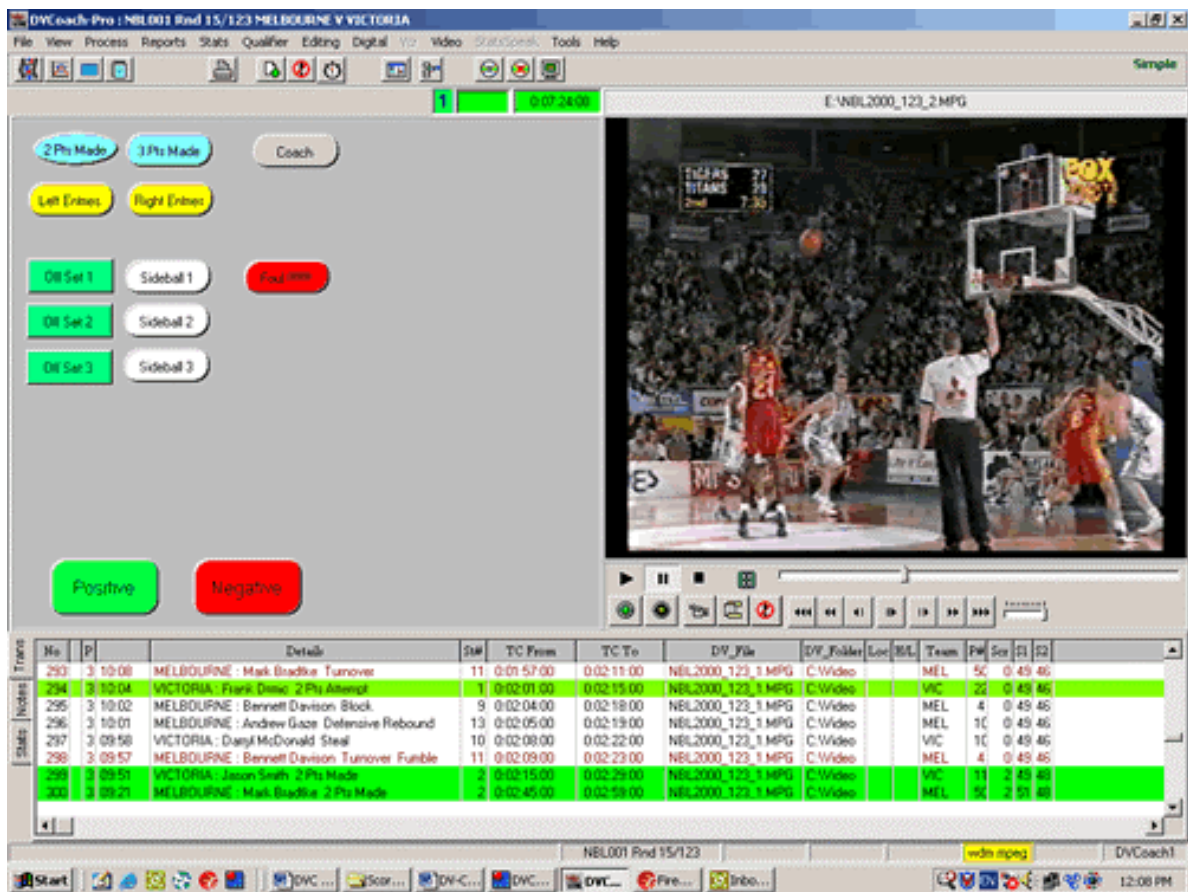


To toggle between modes simply double click on the word 'Classic' or 'Simple' **Classic Mode**
 This mode is the normal view that can be expected where match details, teams and players are configured for use.



Simple Mode

If you wish to do some very basic entry that does not require any formal or complex recording of statistics (eg. scouting opponents, training sessions) and may simply be logging of phases, generic events, etc. The buttons function in exactly the same way.



View Options

There are four view options to choose from in the **DVC Scoresheet** module. These are changed by using the speed bar buttons or by using the View menu options. The part of the screen that changes is the video playback area. When the view is changed, the video controllers remain visible and the DV file continues to play.

The speed bar buttons are:



Video window



Detail/Ball tracking



Scoresheet/Statistics



Notepad

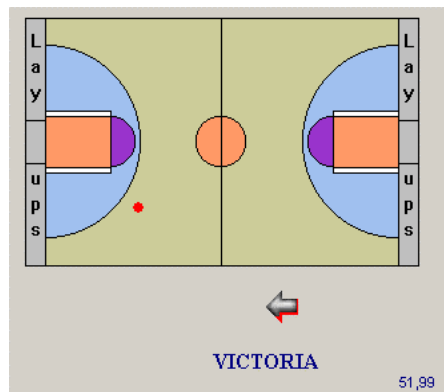
Video window

This is the default setting and unless the vision is toggled out to TV (Desktop only) will most likely be the setting you will use most.

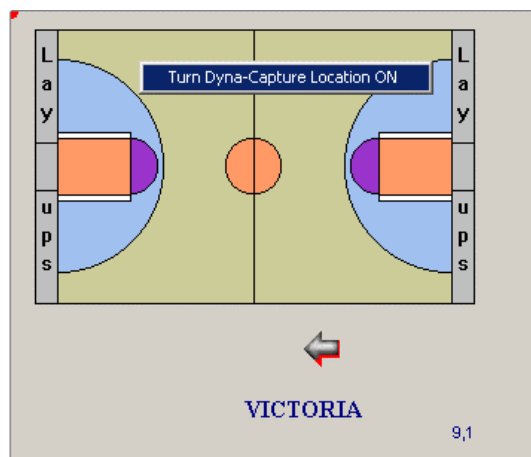


Detail/Ball tracking

This option allows you to track the position of the ball when a transaction is logged. An example of how this could be used would be to plot the court position of a players 3-point attempts.



To use this feature select the **Detail/Ball tracking** tab and right click on the court/field and the 'Turn Dyna-capture ON' message will be displayed. Click on this and drag the marker (a red dot) to the desired location. Once its location is set mark the stat and the ball position will now be saved with this transaction. This dynamic logging of ball position requires the use of a custom keyboard.



Static Ball tracking can also be used but the system needs to be configured for this.

Scoresheet/Statistics

Selecting this view allows the team and highlighted players statistics to be viewed as the stats are being entered into the system. This view is also a handy way to access the stats quickly without calling a report or using the stats matrix.

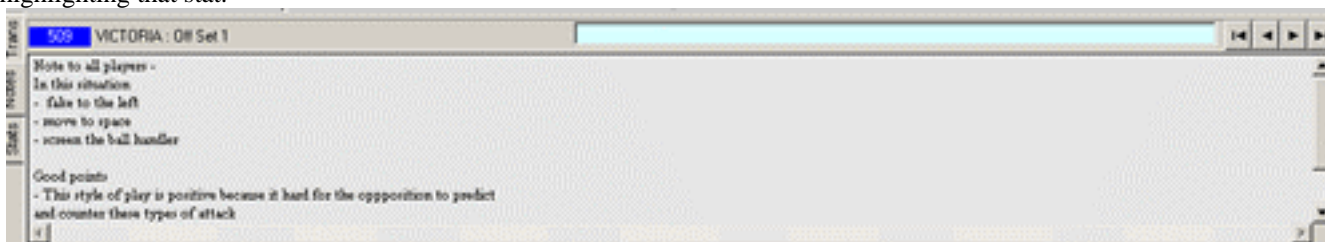
Trans

This is the default setting and will be the setting you will use most. This is because as stats are entered, their listing appears here in the details line.

Trans	No.	P	Detail	St#	TC From	TC To	DV_File	DV_Folder	Loc	BL	Team	P#	Scr	S1	S2
	500	4 00:37	MELBOURNE - Bennett Davison Personal Foul	7	0:17:05:00	0:17:19:00	NBL2000_123_1.MPG	C:Video			MEL	4	0 88 97		
Stats	503	4 00:37	VICTORIA - Jason Smith Foul Shot Made	16	0:17:44:00	0:17:58:00	NBL2000_123_1.MPG	C:Video			VIC	11	1 88 98		
Notes	504	4 00:37	VICTORIA - Jason Smith Foul Shot Made	16	0:17:44:00	0:17:58:00	NBL2000_123_1.MPG	C:Video			VIC	11	1 88 98		
	505	4 00:23	MELBOURNE - Leland Copeland 3 Pts Attempt	4	0:17:59:00	0:18:13:00	NBL2000_123_1.MPG	C:Video			MEL	21	0 88 99		
	506	4 00:20	VICTORIA - Brett Wheeler Defensive Rebound	13	0:18:02:00	0:18:16:00	NBL2000_123_1.MPG	C:Video			VIC	12	0 88 99		
	507	1 53:17	VICTORIA [11] J SMITH - Left Entries	27	0:53:12:00	0:53:22:00					VIC	11	0 88 99		
	508	1 01:10	VICTORIA [11] J SMITH - 2 Pts Made	2	0:01:05:00	0:01:15:00					VIC	11	2 88 01	Report - Show all	
	509	1 15:17	VICTORIA - Off Set 1	36	0:15:12:00	0:15:22:00					VIC	-	0 88 01		

Notepad

Selecting this tab allows you to enter comments about each transaction. This can be used to highlight important details for the coach or player to refer back to at a later time. This option is available **for every transaction** entered and can be accessed by highlighting that stat.



This notepad is the same as the one that can be accessed from the **View options** in the video window display area. Text entered in one will also appear in the other.

Stats

Selecting this tab provides a quick view of player statistics. The players are listed in a windows explorer type tree, where player stats are displayed when the small plus sign is clicked.

Capturing Video within DVC Scoresheet

DV Coach includes the facility to capture footage and mark your stats simultaneously. The footage captured is in AVI format. This format allows the vision to be output to television from a desktop or notebook PC.

To capture DV you need:

- AV in/out enabled DV Camera **or** an appropriate Analog to Digital converter device
- IEEE 1394 interface (known as Firewire) between DV camera and Computer.
- Sufficient hard-drive space for capture. AVI files are very large. One hour of footage will require approximately 13 Gigabytes of hard-drive space.

When events/stats are marked during capture the all the necessary fields for each transaction are put in place. Whilst capturing, the screen view is limited to the fixed window. However it is possible to output the vision to a television at the same time.

Source footage

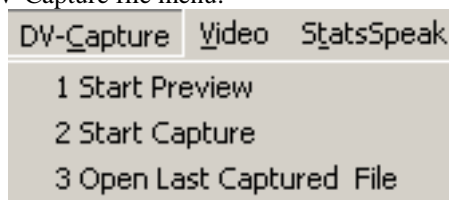
It is possible to use any footage available to you to capture. All of the following are possible options for source footage:

- VCR footage passed through the DV Camera **or** Analog to Digital converter device
- Footage on DV tape
- Footage live from Television
- Live vision direct from your camera
- Video feed from an external source. Eg. A feed from a Television network or from the traditional video set up at the venue.


With these options, it is now possible to capture a game and mark the stats simultaneously so that instant payback of your marked events is possible. This gives coaches the opportunity to give the players feed back through DV, immediately, post game and even half time.

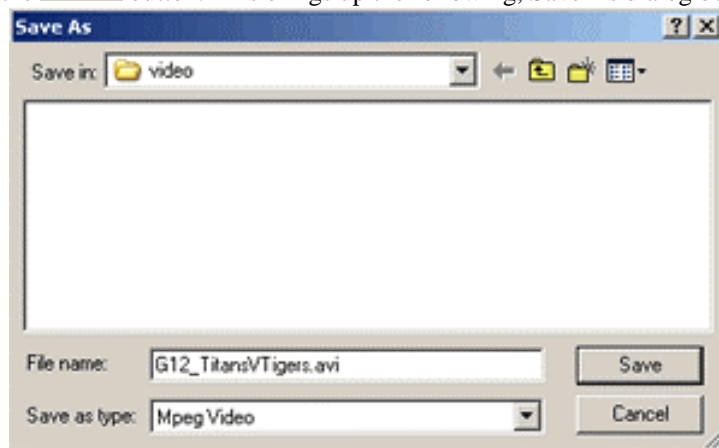
Video Capture

The process of Video capture is very straightforward. When the DV Camera **or** Analog to Digital converter device is set up, and you enter the **DVC Scoresheet** module, the vision being input will be automatically streamed to the playback window. If the module is already running and the capture hardware is then set up, it will be necessary to initialise the capture settings. To do this, select 'Start preview' from the DV-Capture file menu.



The vision will now be streamed to the playback window. If there are problems with this check all the hardware connections and the settings on your DV Camera.

To commence capture press the  button. This brings up the following, Save As dialog box:



Select the file name and location of the captured file. If a name of a file that already exists is selected you will be prompted to change the name or overwrite the existing file.

Note: Exercise caution when overwriting files. When a file is overwritten, it is lost, replaced by the latest capture of that name.

As soon as save is clicked the capture commences.

Whilst capturing, the screen view is limited to the fixed window. However it is possible to output the vision to a television at the same time.

The only video controls that are active during capture are the stop and pause buttons.

The stop button stops the capture and the pause button halts the capture until it is un-paused. The capture can be paused during breaks in play. I.e. time-outs, period breaks etc. This will save on hard-drive space and can be used to cue the vision if it is being captured from analog video.

Remember to start the capture (or un-pause it) with enough time before the first event to cater for your pre-event DV-timestamp.

Phases of Play

There are two types of events that can be configured:

- Statistics codes
- Phase codes

In the statistic profiles, there is a Type field. If 'PHA' is entered into this field then this stat is considered a phase code. The difference between Statistics codes and Phase codes is that a phase code has a discrete time span.

Temp late	Code	No	Ty	Description	Abbrev
	TRS	21		Transition	Transition
	VIO	22		Violation	Violation
	DS1	31	PHA	Defensive Set Plays	Def Set Play
	DS3	33	PHA	Defensive Set #3	Def Set 3
	DS4	34	PHA	Defensive Set #4	Def Set 4
	DS5	35	PHA	Defensive Set #5	Def Set 5
	F01	44	PHA	F0R 1	F0R 1

Phase buttons are included as part of the stats button. An example of a phase could be an Offensive Set Play. This phase starts, so the button is clicked (Button stays depressed – Start Timecode is marked.) Other stats are continuing to occur so these are also marked. When the Offensive Set play finishes, that button is clicked again, marking the finish of that set play - End Timecode is marked.

Phase stats are created by accessing the 'stats codes and profiles' from the main page. Edit (or create) the stat, from this window set the **type** of stat to 'Phase'. This assigns the on/off properties to this stat.

The menu option 'Process/All Phases OFF', which may be a useful if multiple phases are running and you wish to end them concurrently.

Configuring Stats buttons

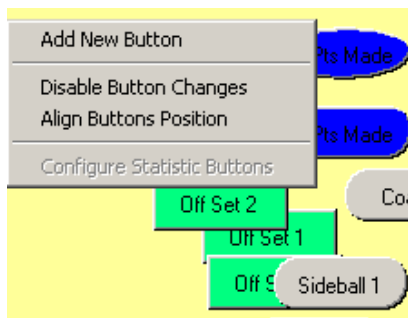
Within this module it is possible to configure the stats entry buttons in a way that suits your usage. Options that you can configure include button size, shape, color, number of buttons (stats to be marked) displayed and button position.

Double clicking (or Right click – enable button changes) within the button area puts it into edit mode. This allows you to configure your buttons. The background color is displayed as yellow to indicate this.

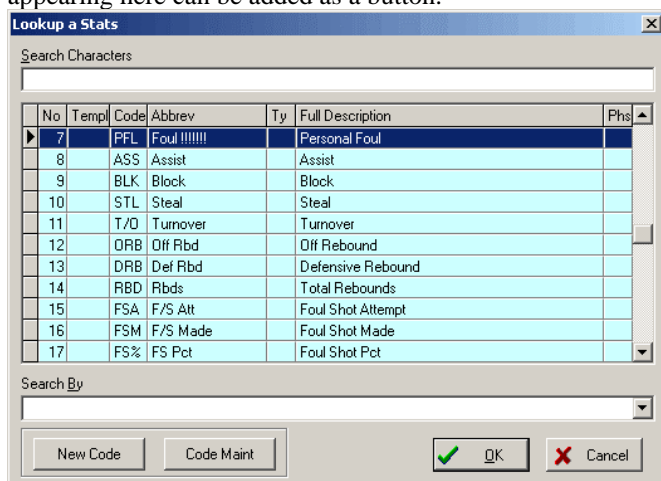
In edit mode:

- Buttons can be dragged to any position.

- New buttons can be added. To do this right click and select the ‘add new button’ option.

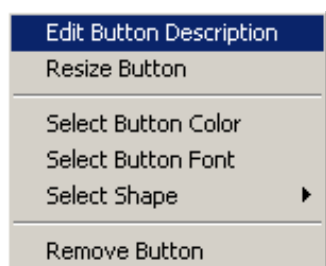


This window appears when ‘add new button’ is selected. This accesses the stats profile in your system. Any stat appearing here can be added as a button.



Double clicking on a selected stat adds the button to the displayed list.

- Buttons can be aligned. To do this right click and select the ‘align button positions.’ This places the buttons in columns sorted by the stat number.
- Individual buttons size, shape and color can also be configured. To access this, right click on the button. This brings up the following menu:



Selecting the option you wish to change will bring up the appropriate window.

- To configure all the stats buttons at once, right click and select ‘Configure Statistics buttons.’ This function can also be accessed from the file menu – Statistic buttons. This window is opened and allows for the user to configure all the stats buttons. This is the easiest method to configure all the buttons at once.

No	Code	Desc	Abbrev	Lay out	Height	Width	Top	Left	Color	Font Name	FontBold	Font Italic	Font Size	Font Color	Graphic	Temp late
4	2PA	2 Pts Attempt	2 Pts Made	2	30	75	17	30	00714000	MS Sans Serif	<input type="checkbox"/>		8	0		
5	3PM	3 Pts Made	3 Pts Made	1	30	75	52	30	00714000	Ms Sans Serif	<input type="checkbox"/>		8	0		
7	PFL	Personal Foul	Foul (FFFF)	1	30	75	52	110	255	Ms Sans Serif	<input type="checkbox"/>		8	0		
27	LFT	Left Entries	Left Entries	1	30	75	87	30	65535	Ms Sans Serif	<input type="checkbox"/>		8	0		
28	REN	Right Entries	Right Entries	1	30	75	122	30	65535	Ms Sans Serif	<input type="checkbox"/>		8	0		
36	OS1	Offensive Set #1	Off Set 1	0	30	75	157	30	8453888	Ms Sans Serif	<input type="checkbox"/>		8	0		
37	OS2	Offensive Set #2	Off Set 2	0	30	75	192	30	8453888	Ms Sans Serif	<input type="checkbox"/>		8	0		
38	OS3	Offensive Set #3	Off Set 3	0	30	75	227	30	8453888	MS Sans Serif	<input type="checkbox"/>		8	0		
41	SB1	Sideball Plays #1	Sideball 1	1	30	75	262	30	2147483633	Ms Sans Serif	<input type="checkbox"/>		8	0		
42	SB2	Sideball Plays #2	Sideball 2	1	50	100	297	30	2147483633	Ms Sans Serif	<input type="checkbox"/>		8	0		
43	SB3	Sideball Plays #3	Sideball 3	1	30	75	332	30	2147483633	Ms Sans Serif	<input type="checkbox"/>		8	0		
45	PDS	Positive Involvement	Positive	1	30	75	367	30	4253584	MS Sans Serif	<input type="checkbox"/>		12	3640		

Using this table is easy. Select each stat and then fill in the details as required for each field.

Double clicking (or Right click – disable button changes) within the button area puts it out of edit mode.

Logging Events

When a statistical event is logged, a series of relevant data is put into a detail line for that event. Data included in the detail line include transaction number, period, team, player, stat code, DV timecode of event, DV storage location etc. of that event. These details are a part of every logged event.

To register (log) statistical events, the protocol (by keyboard or menu list) is simply:

- Select Player/Team
- Select Statistic/Event Key (e.g. Rebound)
- Select Extra Qualifier (if relevant – e.g. Ineffective)
- Select further qualifiers (if relevant – e.g. Location)

There are special control events as well as:

- Highlights, Lowlights
- Timeouts, Substitutions

Mouse Entry

Once your stats buttons are configured this is the standard way to Log transactions. To log stat simply click on the button. The timecode from the DV file will then be included in the detail line for this event. The timecode is taken from the **exact** time that the button is clicked, so it is vital that stats are entered as close to the time of the event as possible.

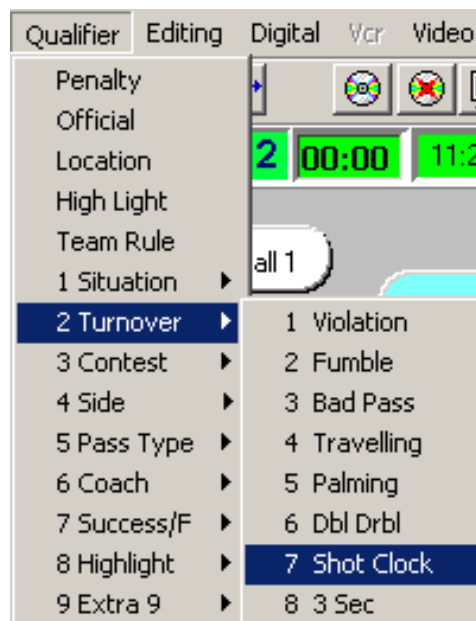
Popup Menus

Any statistic that is a part of your current stats profile can be logged. This is useful if you wish to mark an event that is not included as a button for mouse or custom keyboard entry.

When the mouse cursor is focused on the player list area, right mouse click and a display your current stats profile will be displayed. Clicking on the desired stat will then log that event.

1 2 Pt Att	27 Left Entries
2 2 Pts Made	28 Right Entries
3 Give & Go	31 Def Set Play
4 3 Pts Att	32 Def Trans
5 3 Pts Made	33 Def Set 3
6 3 Pts Pct	34 Def Set 4
7 Foul !!!!!!!	35 Def Set 5
8 Assist	36 Off Set 1
9 Block	37 Off Set 2
10 Steal	38 Off Set 3
11 Turnover	39 Off Set 4
12 Off Rbd	40 Off Set 5
13 Def Rbd	41 Sideball 1
14 Rbds	42 Sideball 2
15 F/S Att	43 Sideball 3
16 F/S Made	44 EOB 1
17 FS Pct	45 Positive
18 Points	46 Negative
19 Defence Ass	47 Coach
20 Tech Fouls	49 Special
21 Transition	50 ??? Query ???
22 Violation	
23 Off. Foul	
24 Charge Taken	
25 Jump Ball Win	
26 Jump Balls Lost	

Select the player, the statistic and the qualifier (if necessary). Qualifiers can be manually logged from the qualifier menu option.



Custom Keyboard Entry

The custom keyboard is specially programmed for your statistics and events. Custom Keyboards are primarily used because it is the most efficient and simplest entry method for complex transactions.

There are a number of different keyboards that can be used, and the best one for your purposes is determined by the usage (i.e. at-game or back office).

Each keyboard has three main areas:

Player keys – Each player in the team list is allocated a key. This can be set up for one team or both teams, depending on your requirements.

Control & Function keys – Special keys that are common on all systems to perform fundamental tasks such as cancel last transaction, new period, Open DV file, etc....

Some control functions are optional such as having DV controller buttons on the custom keyboard. Functions such as this would only be relevant to a back office environment.

Statistics & event keys – As configured in the statistics and events reference list, these are such keys as 2-point attempt, assist, set plays, block, foul etc. In addition, a number of general control keys such as coach, highlight, substitution, etc....



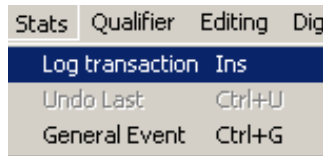
It is also possible to print a player keyboard list, which is cut to size and overlain on the pad. The number of players allowed is dependant on what has been programmed. It is also possible to print separate overlays that include players names /numbers instead of a default like the above example.

Note: This is an example of one type of layout. This can be totally different depending on the type of Keyboard and Stats used.

Standard Keyboard Entry

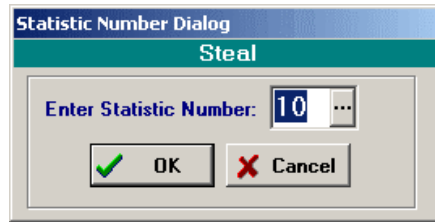
You can enter any statistic or event by a sequence of one or more keystrokes. There are some shortcut keys (e.g. “1”=stat 1, “2”=stat 2, etc). The lower case alphabet keys are home team players, uppercase letters represent the opposition team players. The custom keyboard is programmed using these keystrokes.

Another entry option is to select log transaction from the Stats menu option.



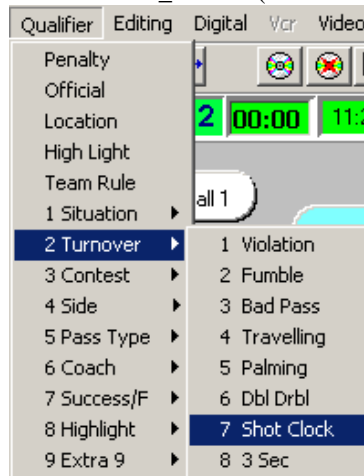
Or the speed bar button D:\HDK\bitmaps -add.bmp

The following dialog box is brought up. Enter the statistic number or browse the from the statistics codes and profiles list.



Statistical Qualifiers & Extras

The following descriptive categories are defined in the REF_X table (which is maintained in Terms Of Reference):



The extras are easily configured for your specific purposes and there are nine extra classifications available. Within each extra, you can define up to nine descriptions.

Once selected, the most recent transaction record is updated with the details. When qualifiers are assigned to an event it allows filters to be placed in the **DVC Transaction Viewer** module.

Anything a coach may specify can be added as a qualifier.

Some popular qualifiers are:

In-Effective

A special statistic qualifier available at any stage allows a transaction to be marked as “ineffective”. This has no effect on the totals unless the system has been configured to do so. It is primarily a subjective indicator on the effectiveness of the action by the player. Many reports are designed around this indicator such as “Effectiveness Analysis”, etc.

Field Location (Extra)

The defined location is based on how you wish to dissect the court/field, and a typical example is: You can also define the locations in much more detail (e.g. Mid Court, Back Court, Low Post, etc....). <Ctrl-L> will display this menu also.

Team Rules

This option allows you to define the coaching team rules and it can be classified as followed or not followed.

Officials & Referees

You can also select the referee that has made the decision.

Other Events & Statistics

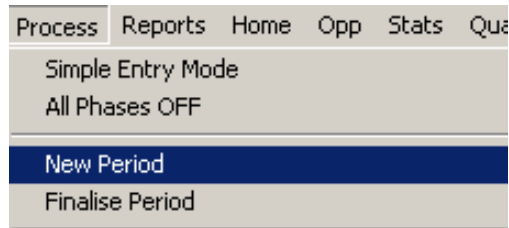
Other transactions that can be recorded:

Miscellaneous & Highlight Events

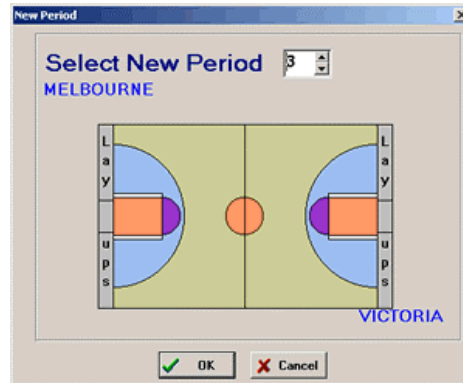
This menu can be displayed via the Qualifier menu and should contain special or significant events that may occur, such as great dunks, home runs, sponsor highlights etc.

Finalise & New Period

To change quarters, you can select the appropriate menu options:



The dialog box displayed will allow you to select a new period. At this stage, you can print reports prior to starting the next period.

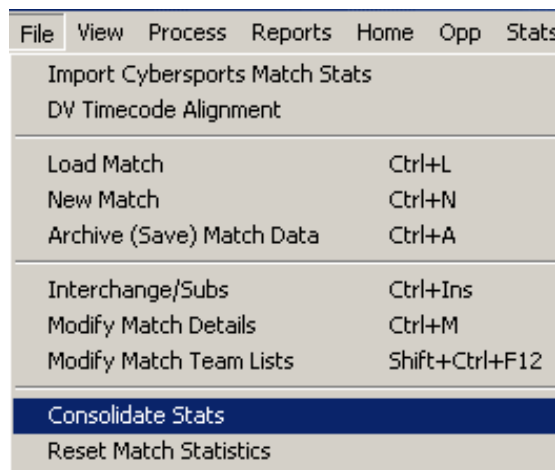


An “End Period” transaction is written to signify the selection of the new period.
 A “Start Period” transaction is written when the first event of the next period is logged.
 This will also start the elapsed time into the quarter.
 It is important to finalize and start periods properly so that there is a logical reference point for video alignment.

Statistical Consolidation

This feature is necessary as it allows the data you have entered to be consolidated into relevant statistical totals for use in certain areas of the program.

To use the **DVC Reports** and the **Stats Analysis Matrix** (see following section) the consolidation function must be run. This function is accessed from the file menu.



The process takes 10 – 20 seconds to complete. The greater the number of events to process, the longer the process will take. When the process is complete the data available to the reports and the matrix will be current until more statistical data is logged.

Stats Analysis Matrix

DV-Coach Pro now has a Stats matrix included as a tool to easily view and sort statistics by whatever stats code you desire. This is designed to be easily exported to spread sheet or for a coach to quickly check player stats rankings.



To access the Stats Analysis Matrix click on the shortcut button:

This brings up the Stats analysis matrix....

Team	No	Player	Score	2PA	2PM	2P%	3PA	3PM	3P%	PFL	ASS	BLK	STL	T/O	ORB	DRB	RBD	FSA	FSM	FS%	PTS	DAS	TFL	TRS	VIO	OFF
VICTORIA	7	EGAN	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
VICTORIA	22	DRMIC	15	5	5	0	3	1	0	2	2	0	2	2	2	4	0	0	2	0	0	0	0	0	0	0
VICTORIA	10	GAZE	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0
VICTORIA	99	GAZE	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0
VICTORIA	34	RONALDSON	24	6	4	0	6	5	0	3	2	0	0	2	5	6	0	3	1	0	0	0	0	0	0	0
VICTORIA	13	WHEELER	7	4	3	0	0	0	0	3	1	1	1	1	2	5	0	1	1	0	0	0	0	0	0	0
VICTORIA	21	COPELAND	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0
VICTORIA	5	SMITH	12	2	2	0	1	2	0	1	0	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0
VICTORIA	99	SMITH	12	2	2	0	1	2	0	1	0	0	0	0	1	0	0	0	2	0	0	0	1	0	0	0
VICTORIA	11	SMITH	22	3	3	1	2	4	0	2	2	0	1	2	1	1	0	2	4	0	0	0	1	0	0	0
VICTORIA	10	MCDONALD	8	7	2	0	1	0	0	2	10	0	3	4	1	1	0	0	4	0	0	0	0	0	0	0
VICTORIA	4	Davson	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
VICTORIA	31	Pepper	13	3	6	0	0	0	0	3	0	0	0	0	4	4	0	1	1	0	0	0	0	0	0	0
MELBOURNE	11	JEFFERIES	0	0	0	0	0	0	0	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
MELBOURNE	6	GIDDEY	2	0	1	0	0	0	0	3	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
MELBOURNE	50	BRADTKE	23	5	10	0	0	0	0	2	4	0	0	5	6	11	0	2	3	0	0	0	0	0	0	0
MELBOURNE	7	EGAN	10	0	5	0	0	0	0	4	0	1	0	0	2	1	0	0	0	0	0	0	0	0	0	0
MELBOURNE	10	GAZE	22	2	5	0	5	1	0	3	6	0	0	5	0	5	0	1	9	0	0	0	0	0	0	0
MELBOURNE	99	GAZE	22	2	5	0	5	1	0	3	6	0	0	5	0	5	0	1	9	0	0	0	0	0	0	0
MELBOURNE	13	WHEELER	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
MELBOURNE	21	COPELAND	24	7	8	0	7	2	0	2	4	0	0	1	1	3	0	0	2	1	0	0	0	0	0	0
MELBOURNE	5	SMITH	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
MELBOURNE	99	SMITH	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

The matrix is used to sort and view statistical data in different ways. You do this by sorting on a certain stat by clicking on its title. Re-clicking on the stat sorts the data in the opposite way: Ascending/Descending order to Descending/Ascending.

Match Totals		By Period	Scoreline											
Team	No	Player	Score	2PA	2PM	2P%	3PA	3PM	3P%	PFL	ASS	BLK	STL	T/O

This can be done from the match totals tab or from the period tab. The score line tab provides a visual view of scoring patterns in periods and the match as a whole.

Other options are also available here:

- Limited filters can be set
- Data can be exported to an Excel spreadsheet *Note: Microsoft office must be installed to access this function.*
- Data can be exported as a text file.

DVC Transaction Viewer Module

This module is where you can use the stats you entered in the scoresheet module or the stats that were imported into the system to set filters, so video clips based on your transactions can be viewed. You can then create batch video edits from this transaction event list by filtering on various criteria (eg. by team, player, statistic, special event, etc)

Preparation

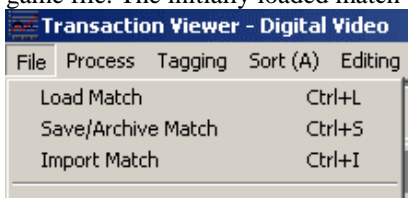
- The game/match details need to be entered into the system prior to entering the Transaction Processing module.

- The stats relating to this match will have been imported or entered into the system (in the Scoresheet module) ready to use.
- The selected DV Coach match file needs to 'loaded.'
- The Digital Video(DV) file of the game needs to be ready to use.

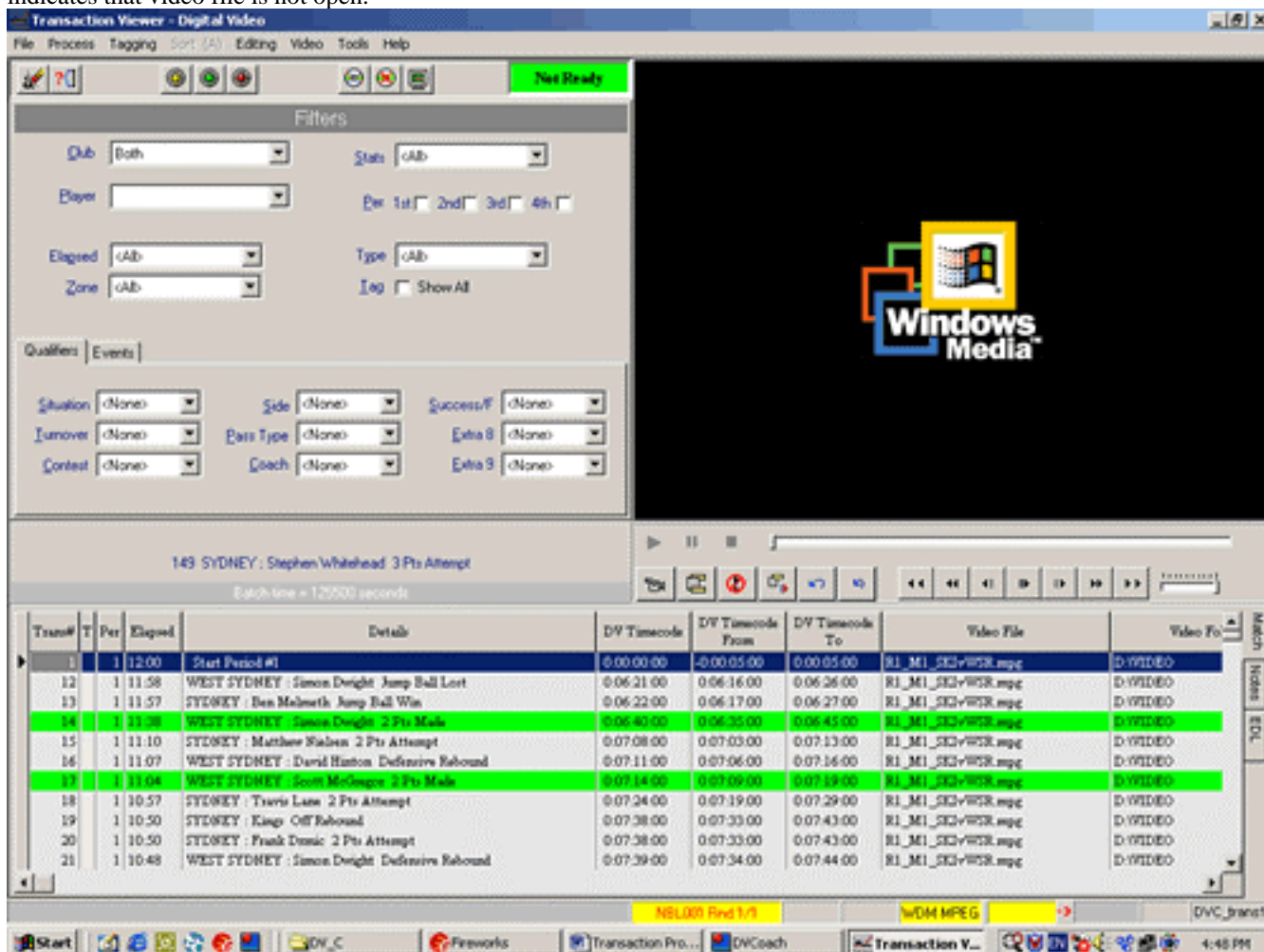
Loading a Match

The first step is to make sure that the match you wish to work with is the loaded match. This file is the file that contains the match data that has been entered, or imported into DV - Coach.

Select Load Match and choose the required game file. The initially loaded match will appear like this.



The green box displays the video time. When "Not Ready" is displayed and the Windows media icon is displayed, this indicates that video file is not open.



DV time codes have been aligned in this loaded match file. Each transaction has a DV timecode associated with it along with a DV timecode **From** and a DV timecode **To** which indicates the actual play length of each segment. Each transaction also contains details of the name and location of the video file.

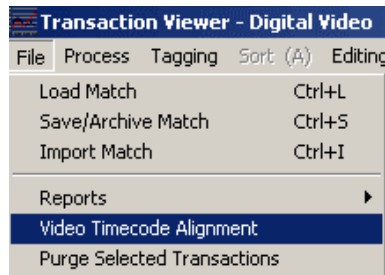
Aligning/Adjusting the Video file

To begin using the **DVC – Transaction Viewer** module the timecode fields must be populated. This means that each marked stat contains the details of the video file and the time of this stat.

If the stats were marked in the **DVC – Scoresheet** module using Digital Video or Computer controlled VCR then the timecodes will already be present and the file will not need to be aligned. (They may however need to Adjusted, if for example the statistic was marked a few seconds late then the corresponding timecode will also be late.)

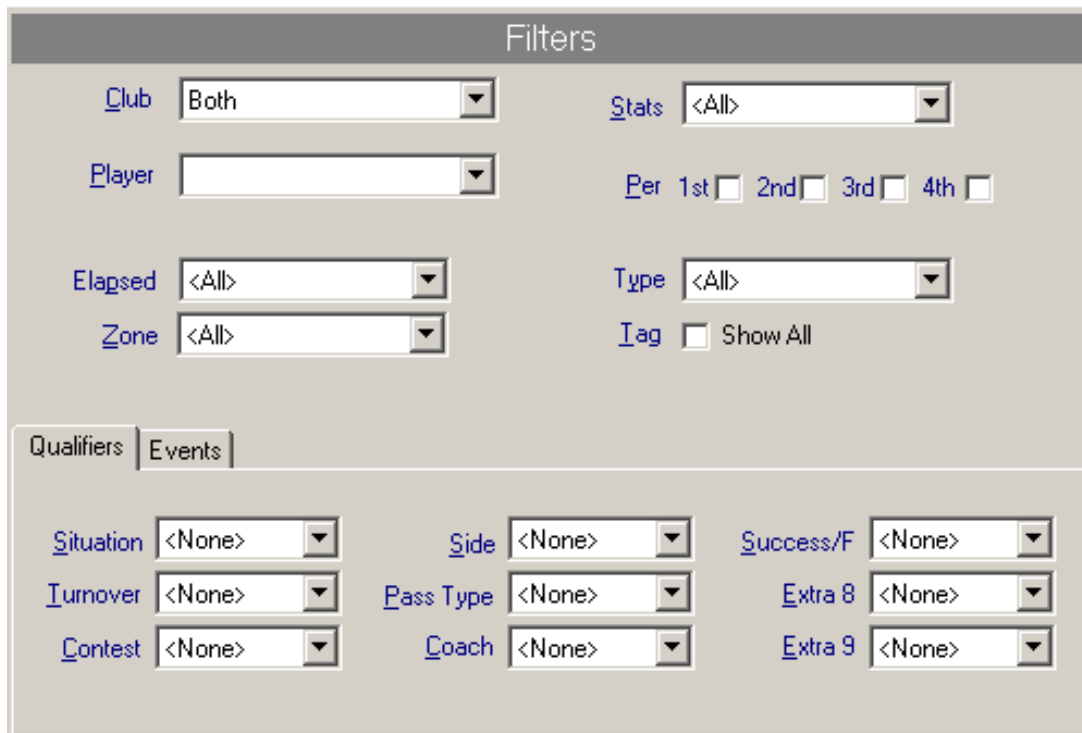
If the stats were imported from an outside source (e.g. Imported from a ProWess System at Match stats system or from a Cybersports game) then the statistical game file has to be aligned to DV game file. This is done in the **DVC-Align** module. To enter the Alignment module, select File, Video timecode alignment. Refer to the help files within the **DVC – Align** module.

To enter the Alignment module from within **DVC – Transaction Viewer** select File, Video timecode alignment.

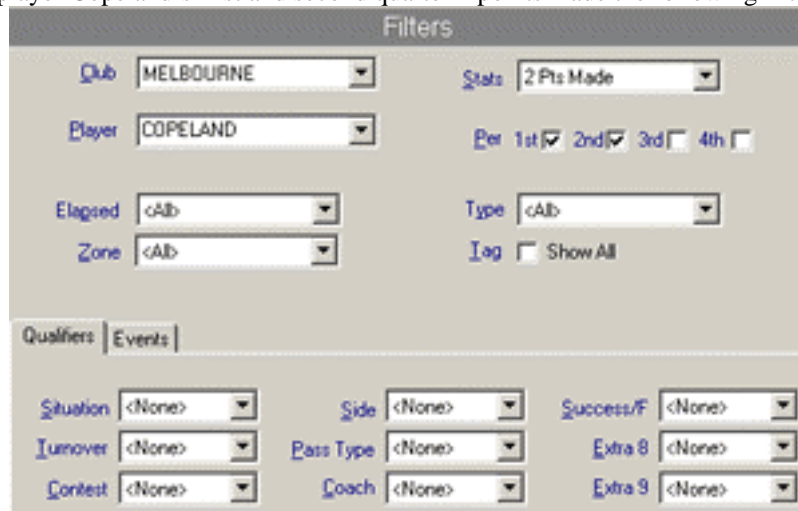


Filtering on Transactions and making batches

This section of the window is used to filter transactions. Put simply, once a filter is in place, only the transactions meeting that criterion are displayed. For example if 1st period is checked here, then only transactions from the first period are displayed in the transaction list.





Areas that can be used as filters are the type of transaction, any marked statistic, any match period or combination of periods, elapsed time and club or individual players. The qualifiers and events tab allow you to place even more detailed filters. For example to filter on player Copeland's first and second quarter 2 points made the following filters need to be set.



This filter returns the transactions that meet this criterion. If there were no matches the field would remain blank.

Trans#	T	Per	Elapsed	Details	DV Timecode	DV Timecode From	DV Timecode To	Video File	Video Fo
51	1	07:59	MELBOURNE - Lussat Copeland 2 Pts Made	0:07:01.00	0:06:54.00	0:07:08.00	NBL2000_123_1.MPG	E:\	
61	1	06:49	MELBOURNE - Lussat Copeland 2 Pts Made	0:06:47.00	0:06:40.00	0:06:54.00	NBL2000_123_1.MPG	E:\	
126	1	00:14	MELBOURNE - Lussat Copeland 2 Pts Made	0:19:24.00	0:19:17.00	0:19:31.00	NBL2000_123_1.MPG	E:\	
239	2	02:21	MELBOURNE - Lussat Copeland 2 Pts Made	0:16:51.00	0:16:44.00	0:16:58.00	NBL2000_123_2.MPG	E:\	

In this example four transactions meet the criteria. Each individual transaction is called a segment and a group of segments is called a batch. Double clicking on the segment will play it or Right click – preview batch will play the batch. Alternatively,

the play segment  or play batch  buttons could also be used. The segment that is currently playing is listed in the window here. The segment that is currently playing is also displayed during a batch.

More in depth filters can be set using the *qualifiers* or *events* tabs.

- Qualifiers refer to details attached to a stat e.g. Kick *long, to advantage* – is an example of a stat with two qualifiers.
- Events refer to marked stats in the game file such as jump balls.

Remember that you can only place filters on what statistics are present. So if you do not use qualifiers when you mark your game you will not be able to filter on them here!

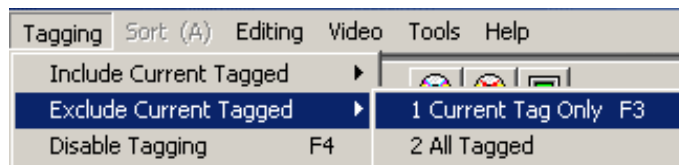
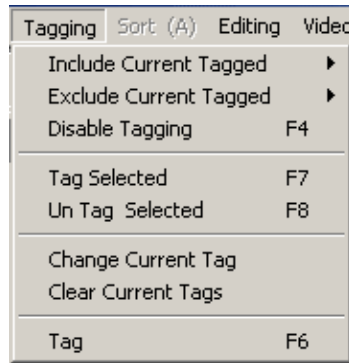
Tagging Concepts

Tagging is a method that allows the selection and processing of otherwise unrelated transactions or groups of transactions in the database that are of particular interest. Once the records are tagged, they can be sorted or processed in a variety of ways, most typically:

- Include tagged records only
- Exclude tagged records
- Sort tags in order

A tag can be stored against a transaction until it is changed or cleared and is remembered the next time you load the same match.

In this current version, there can only be one tag per record. The menu and sub-menu options for tagging are:



All tagging functions are accessed through this drop down menu or through the keyboard shortcuts that are listed here.

Setting (&Toggle) Tags

A tag on the current transaction is set using the Tagging / Tag menu option, right clicking on or alternatively by using the <F6> function key.

The function is a toggle, meaning it is ON or OFF and will be reversed accordingly. The tag indicator is visible between the Trans and Per columns and the transactions listing will appear in blue when tagged.

Trans#	T	Per	Elapsed	Details
14		1	11:56	MELBOURNE : Daniel Egan Personal Foul
15		1	11:50	VICTORIA : Jason Smith Turnover Violation
16		1	11:31	MELBOURNE : Lanard Copeland 2 Pts Attempt
17		1	11:29	MELBOURNE : Mark Bradtke Off Rebound
18		1	11:25	MELBOURNE : Bennett Davison 2 Pts Attempt
19	T	1	11:23	VICTORIA : Frank Drmic Defensive Rebound
20		1	11:17	VICTORIA : Danyl McDonald 2 Pts Made
21		1	10:50	MELBOURNE : Lanard Copeland 2 Pts Attempt
22	T	1	10:47	MELBOURNE : Daniel Egan Off Rebound
23		1	10:44	MELBOURNE : Andrew Gaze 3 Pts Attempt
24	T	1	10:42	VICTORIA : Titans Defensive Rebound

Tag Character

The default tag character is "T", but you can change the Tag character by selecting "Change Current Tag"



You can choose any alphanumeric character such as "A"→"Z" or "0"→"9", or even special characters such as "!@#", etc. This allows you to classify your tags and group them accordingly (e.g. type 1, 2,3 etc). These can then be filtered or sorted as necessary.

Setting & Clearing Tags

If there is a group of records you wish to tag, you can certainly manually use the tag toggle function on each individual record or you can use the batch tag function. This function is particularly useful in grouping records quickly. For example, if you want to group all defensive statistics.

You can set the tag on a group of records (a batch) by selecting the menu option - Tag selected (or by pressing F7). This will then tag all the listed transactions.

To untag (clear) the listed transactions, select the menu option - Untag selected (or by pressing F8).

If you wish to clear the listed tags unconditionally, then select the clear all filters button.

Processing Tags

Once your tags are established you can include or exclude the tagged records by selecting the include/exclude current tag options from the Tagging Menu.

It should be noted that the other filter parameters you set will still apply and are not overwritten by using the tagging process.

Recording a batch to Video tape

This applies to users with a back office (desktop) configuration set up for out put to videotape. If your system is set up with the necessary hardware (including VCRs with RS 232 ports for communication between PC and VCR) it is possible to control the VCR from the following menu.

When the desired batch has been created either through filtering or tagging, Right clicking brings up the following menu, which has several other useful options.



Selecting Record Batch will record the batch to videotape.

It is also possible to record to a VCR without the PC controlling the VCR. If you have the capabilities to output your vision to a television then it can be taped to a videocassette. To do this run the video signal to the VCRs 'video in' and play the footage. It is just a matter of pressing record on the VCR when the desired footage is playing.

To record footage to a videocassette from a notebook computer requires the use of a PC to TV converter device. These devices are not ideal and the results of footage transferred to videocassette from this medium can only be described as average.

Changing Timecodes of a Transaction

It is possible to change the timecodes allocated to a single transaction. This may be necessary if upon previewing the selected segment, you notice that part of the clip is truncated.

To do this the editing options need to be set as From/To timecode.

These buttons are used to manipulate the DV timecodes of the highlighted transaction.



Mark time code



Mark time code 'From'



Mark time code 'To'

Simply, clicking one of these buttons places the current video time (displayed in the green box) into the relevant field. The video can be paused or still playing when the button is clicked.

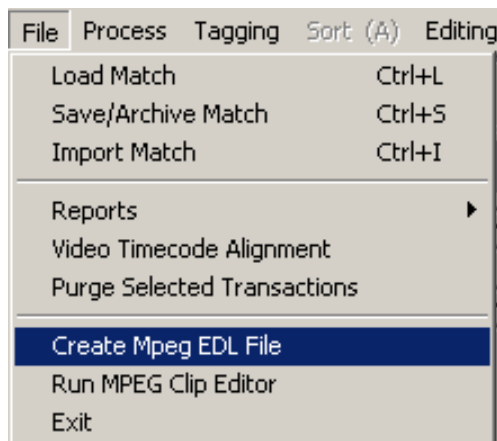
The segment can be previewed and the timecodes can be changed as many times as desired. They can also be of any length but they must follow a logical setting in that the 'From' TC field must always be BEFORE the 'To' TC, otherwise the segment will not be playable as it will be marked and interpreted as finished before it began.

Saving a batch as an EDL file

EDL is an acronym that stands for 'Edit Decision List.' An EDL is a small text file, that video editing software uses to identify the relevant clips of footage to be edited out of a larger DV file. This is a useful feature if you wish to keep some selected highlights from your large game file (that you may need to delete to conserve hard disk space.)

To use this feature you must have the appropriate video editing software. Currently, SportingPulse is loading 'My Flix XE' from Mediaware Solutions as the video editor for your system. If you have questions about 'My Flix XE' you may call/e-mail the help desk at SportingPulse, or go to the Mediaware Solutions website at www.mediaware.com.au

Batches can be saved as an EDL file (Edit Decision List), which is used by the Digital editing software to 'cut' the required footage out of the video file and save it as another file.

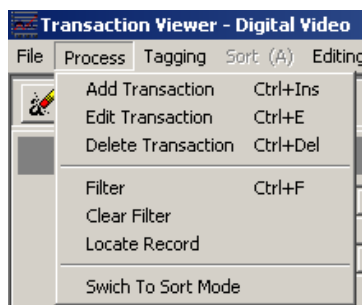


To create the EDL file simply set your filters to display the batch that wish to make a separate video file from and the go to the file menu and select Create Mpeg EDL file. This will prompt you to select a name and a storage location for this file. When you wish to create the new video file, open you DV editing software and then open the EDL to create the your edited clip.

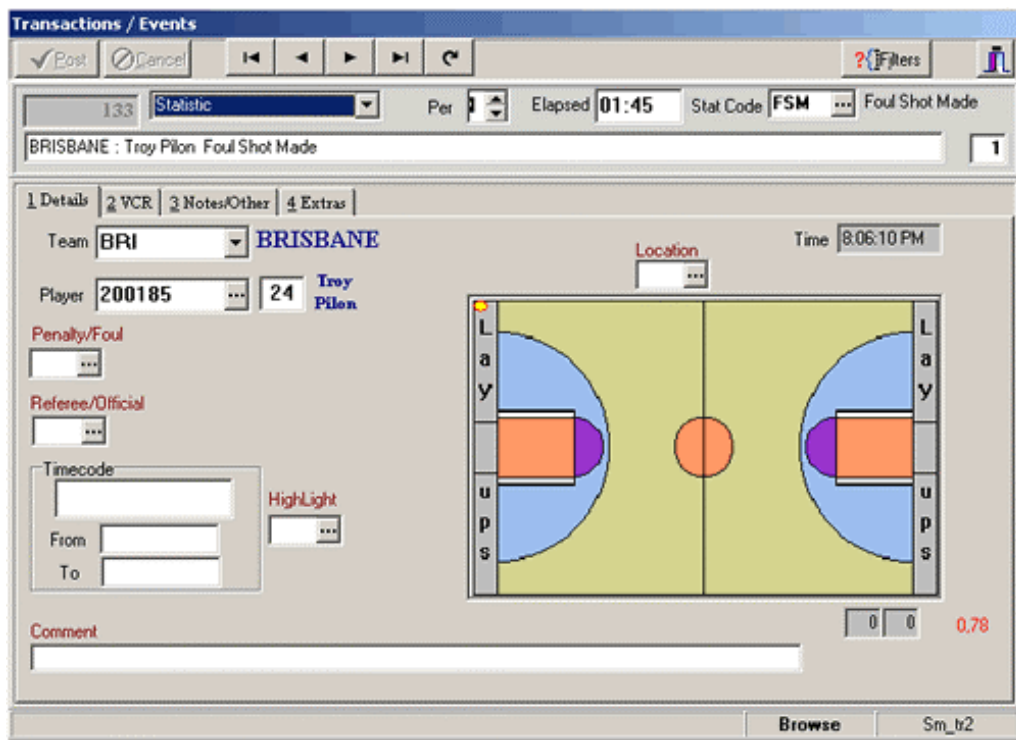
An EDL file only contains details relating to the timecodes of each segment within a batch. The DV editing software uses this to create a new video file only containing the footage within these timecodes. EDL files do not contain the footage and are only useful while the video file remains in the same location with the same name, as these are also referenced from the EDL file.

Editing Transactions

Within the Transaction Processing module of DV – Coach it is possible to add, edit or delete transactions. This may be useful in that errors can be corrected, interpretations can be changed and extra details can be added. These functions are accessed from the Process menu option.



Clicking Add or Edit brings up the following window.

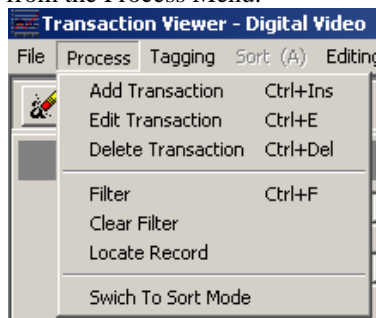


All the details on this stat can be entered or checked. Once the changes have been made they need to be posted. When adding a new stat the transaction number will follow on from that of the very last transaction. To match up the time you will need to physically enter the elapsed time.

When deleting a stat you will receive a confirmation message to make sure this is the desired action.

Locating Records

Another useful feature that is built into DV – Coach Pro is the ability to set filters to find records or to set search parameters to find records. These functions are accessed from the Process Menu.



Database Filters

Selecting Filter from this menu brings up the following window. This allows you to set any filter or combination of filters on the database. When the filter is set only transactions meeting this criteria are displayed. In this example the filter includes the ones set from the filter menu and an extra filter 'if Transno < 100.'

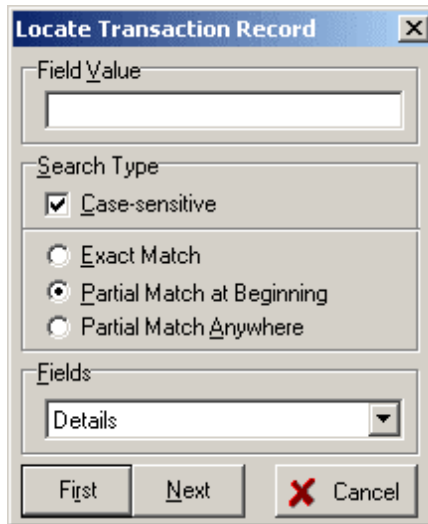
Compld	Round	MatchNo	TransNo	Extra	Type	Per	Elapse
NBL001	1	3	24	3		1	10:58
NBL001	1	3	40	3		1	09:30
NBL001	1	3	69	3		1	06:44
NBL001	1	3	77	3		1	06:06
NBL001	1	3	79	3		1	05:45

Now in the transaction list only stats meeting this criterion are displayed.

The filter can be cleared on the button on this screen, from the menu option or from the clear all filters button.

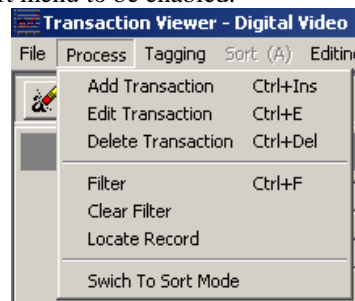
Locating records

This is a similar function that allows the user to locate the first or next occurrence of a record. Simply fill in the field value you wish to search through and select the search type and fields to search.

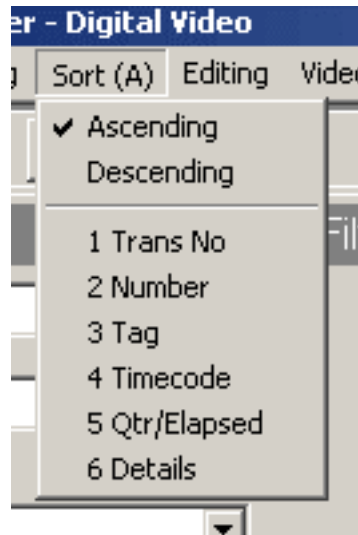


Sort Mode

This mode is used to sort transaction by the various field. To change to this mode go to the Process menu option and select Switch to sort mode. This then enables the sort menu to be enabled.



When this menu is enabled it is simply a matter of selecting the field you wish to sort on and whether you wish to have your list ascending (A) or descending (D) order.



Video Alignment

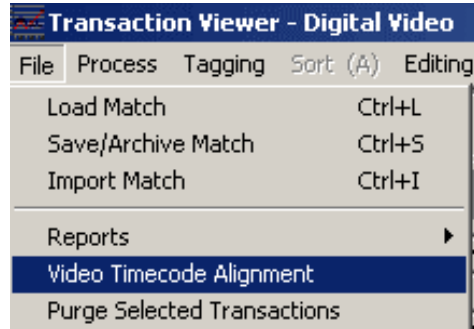
To begin using the **DVC – Transaction Viewer** module the timecode fields must be populated. This means that each marked stat contains the details of the video file and the time of this stat.

If the stats were marked in the **DVC – Scoresheet** module using Digital Video or Computer controlled VCR then the timecodes will already be present and the file will not need to be aligned. (They may however need to be adjusted; if for example the statistic was marked a few seconds late then the corresponding timecode will also be late.)

If the stats were imported from an outside source (e.g. Imported from a ProWess System at Match stats system or from a Cybersports game) then the statistical game file has to be aligned to DV game file. This is done in the DVC-Align module. To enter the Alignment module from the system manager screen, select the shortcut button.



To enter the Alignment module from within **DVC – Transaction Viewer** select File, Video timecode alignment.



Preparation

You will need to have the video files of the match ready to be aligned with the footage. This places DV timecodes next to each transaction and allows the program to access the footage via these timecodes. If the alignment is incorrect, when you attempt to view a segment (i.e. one transaction) or a batch it will play segments of the footage, but not of the desired incidents.

If you logged your stats in the DV – Scoresheet module directly from the digital video then the time codes are automatically placed along with the pre and post times, as well each transaction will be pointing to the correct DV file.

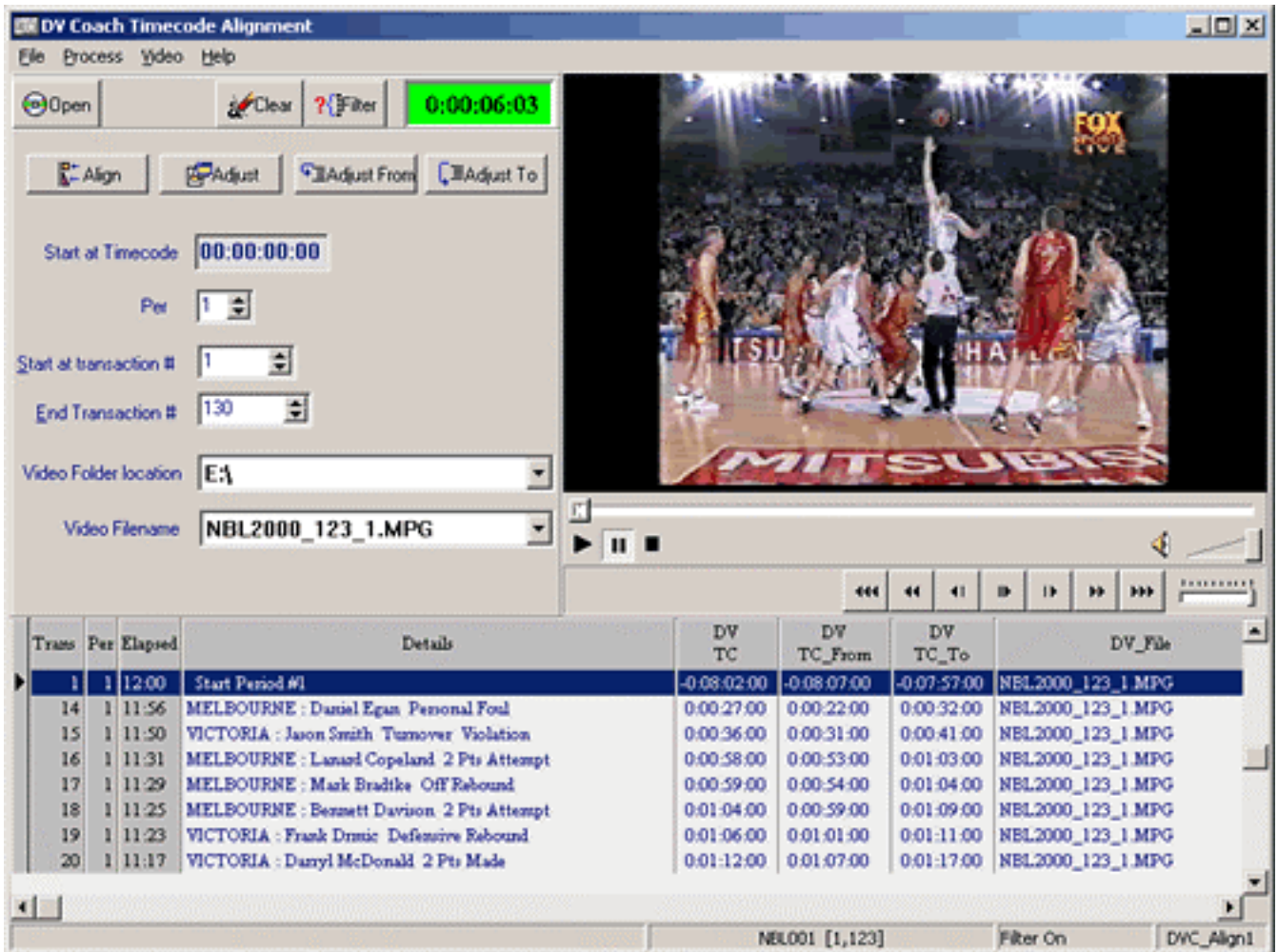
It is vital to master the alignment process, as this module is dependent upon each statistic lining up with the video of that event.

When importing games into the system there will need to be a process performed to align the video footage to the transactions. There are two main actions to look at when aligning video.

1. **Alignment** - If the transactions have come from a ProWess live 'At Match Stats Capture' system there will be no timecodes in the system at all, only a system time when the events happened. In this case both Alignment and Adjustment need to be performed. The alignment component uses the system time to put timecodes with each transaction.
2. **Adjustment** – Simply adds or subtracts from the timecodes for each segment to refine the timing of video footage. If the transactions have been entered from a previously captured video file or from a VHS tape with a linkup to the computer then timecodes will be entered in with each transaction at time of stats entry. In this scenario there will be no need for the alignment process however adjustment may need to be performed in certain circumstances.

Alignment

Once you have entered the alignment module, load your DV file and view your alignment incident. The alignment incident is the first event that is identifiable in both the game file and the DV file – i.e. the first stat, such as Jumpball.



The lengths of the DV TC 'from' and 'to' are controlled within the Transaction Processing or Scoresheet modules under the Video, Editing options drop down menu. These Pre and Post timecodes can also be set in the Video – Play options menu of the align module. These can be set to your preferences and control the length of each segment. Refer to the section on Editing Options in the **DVC – Transaction Viewer** help file.

Steps to follow:

1. View the alignment incident. Note down the exact time. Enter this time in the Start at timecode field. If you do not enter this now you will have to use the adjustment procedure at the end to get your footage fully synchronized.
2. Enter the period you wish to align from. This is necessary if your footage is captured to separate period or half DV files. The following transaction numbers are subsequently altered then only displaying the transaction numbers of that period.
3. Alternatively you can specify which transaction to start and end at. When you enter the number and double click in the field the display jumps to this transaction number in the transaction list. Transactions from this point onwards are effected by the changes that you enter.
4. Set the video folder location.
5. Set the video file name.
6. Press the Align button.

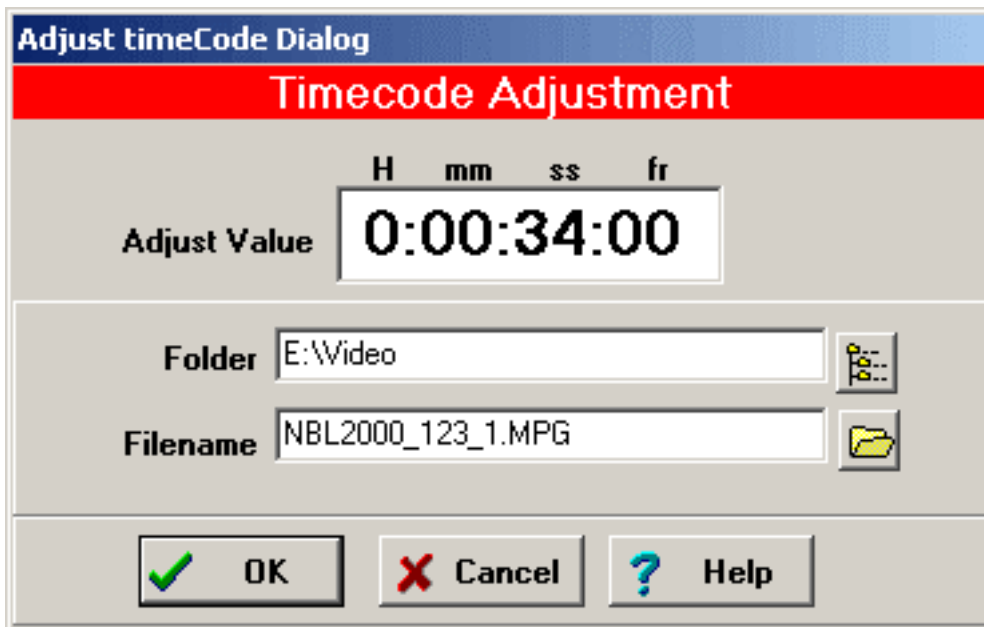
When the Align button is pressed the DV_TC, TC_From and the TC_To fields are populated. The system time on the computer that logged the stats is used for this action.

Adjustment

The adjustment process is different from the alignment process in that timecodes are altered by a specified margin rather than actually placed into the list.

It may be necessary to use the adjustment feature if once the alignment is performed and some of the transactions are not occurring within the segment time.

Click the Adjust button to open up the timecode Adjustment window.



Steps to follow:

1. Enter a value to add or subtract from the **DV_TC** of the segment you are altering. The 'from' and 'to' fields, and all following transactions will be affected by this adjustment. Insert a negative sign (the hyphen/dash symbol) at the start of the Adjust value to subtract time.
2. Set the video folder location.
3. Set the video file name.
4. Click OK.
5. Check the alignment. Viewing segments towards the end of a period is the best way to check your alignment.
6. Repeat the process as required to be as accurate as possible.

Note: Steps 2 and 3 do need not be repeated if already pointing to a video file.

It is also possible to adjust the 'from' and 'to' timecode fields individually. The process is identical to these adjustment steps explained here. Remember that all succeeding entries will be altered.

If the stats were marked accurately (logged time) and the first incident is correct then the video file will be aligned to the stats. When this module is exited these changes will be saved. This match is now ready to use in **DVC – Transaction Viewer**.

Note: Ensure this match is archived before another match is loaded. This will save these changes with this game file.

Video Controls within DV Coach

This chapter is dedicated to explaining the use of Digital Video throughout DV Coach. A good understanding of the usage of DV and the settings in the system to control it is necessary for efficient use of the software.

Video Menu option within Scoresheet and Transaction viewer Modules

The options from this menu refer to the managing of video footage. DV-Coach uses Windows media player to play the DV files. The DV player is built in to the screens of the appropriate modules within DV-Coach.

Currently DV-Coach supports the playback of MPEG1, MPEG2 and AVI footage. Each format of digital video has advantages and disadvantages. You will be using the DV format that your DV-Coach consultant would have recommended following discussions with you.

DV-Coach also has the facility to capture DV footage (in AVI format only) from within the DVC Scoresheet module.



Load Video - Opens a window to browse to your DV, which loads in video window.

Load Last Video - Re-opens last video viewed.

Close Video - Closes DV file.

Video Source – Has 3 options that define where the DV file is stored and played back from. This option under normal circumstances should be set on ‘From Database’

Specified Folder – If the stored location of the DV file has changed. You can set this and then do not need to adjust the transaction list.

From Database – The file location specified in each transaction. This is specified during the alignment/adjustment phase.

Current Active – When this option is selected the DV-TC fields will be applied to whatever video is currently playing.

Set DV Folder – The location for “Specified Folder” mentioned above is set here.

Editing Options – These options are vital for settings pertaining to each logged statistic. Once a stat is logged the settings in place here will effect what details are marked. E.g. Segment length

Basically they allow you to specify some options when playing back segments. Following is a description of some of the options available. The next section provides a full description of these options.

DV Play options - Has 3 options that define where the output of footage is to be directed. The last two options only apply to AVI footage that can be output to television using a DV Camera or Analog to Digital converter device.

Screen Only – This option is the default and applies to all types of footage. This option allows for the playback to occur in the built in video window or at full screen.

DV Camera and Screen – This option allows AVI footage to be output simultaneously to the computer screen and to television via your DV Camera or Analog to Digital converter device.

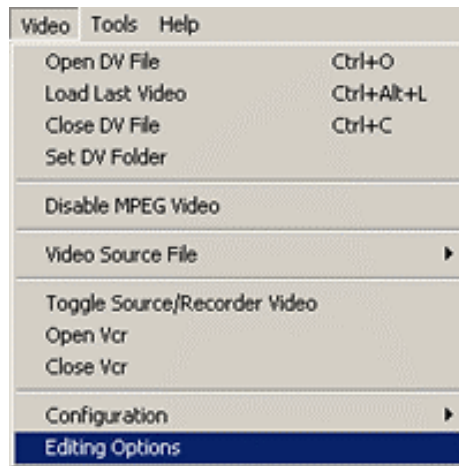
DV Camera only - This option allows AVI footage to be output to television via your DV Camera or Analog to Digital converter device.

When these options are changed it is necessary to reload the video file. I.e. Close and re-open the DV file for the configuration settings to be changed and to take effect. Then the vision will be displayed at the locations specified.

Note: Using AVI footage and your DV Camera or Analog to Digital converter device allows you to output your footage to VCR as well. This allows for the creation of player highlight or analysis tapes. This provides for more flexibility in the way your footage can be used outside of the system.

Editing Options

The Editing options allow you to specify some of your settings for playing back segments and batches. These settings have wide ranging effects in that they can control segment length, the in and out DV timecodes and the general video settings. To open the Editing Options window click the Video menu and then Editing Options. A new window will appear called Video Option Configuration.

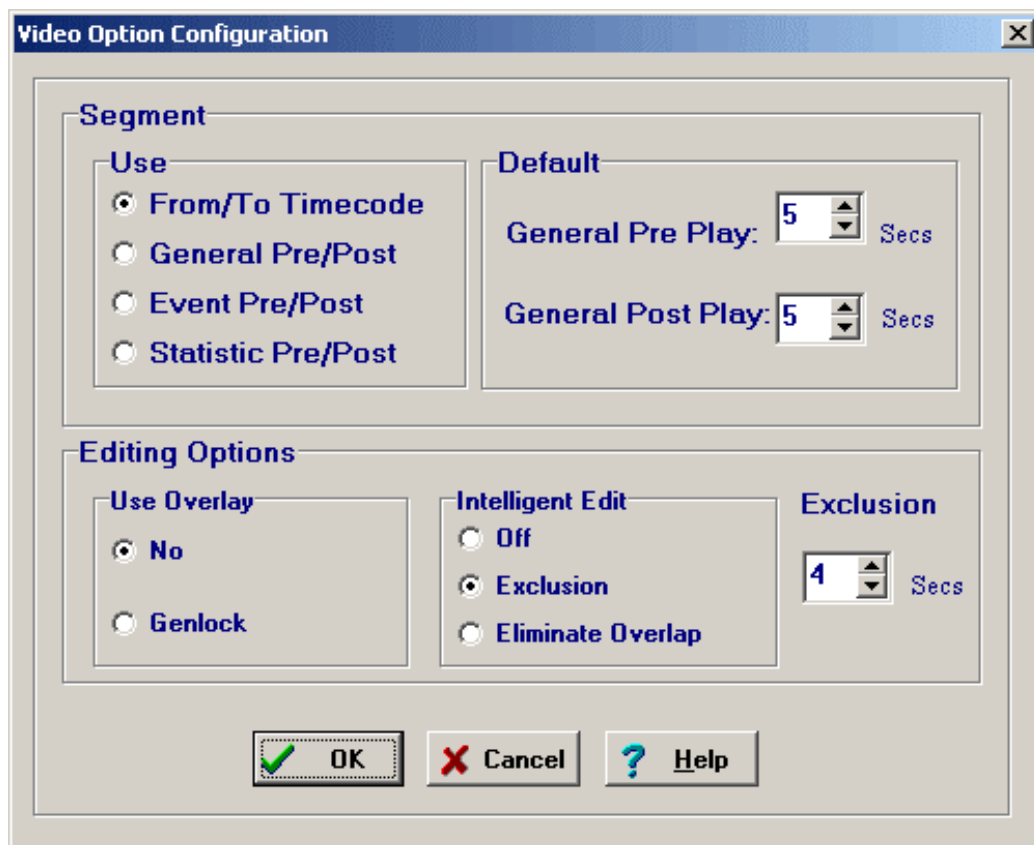


A logged stat will contain this detail line for each stat.

Trans#	T	Per	Elapsed	Details	DV Timecode	DV Timecode From	DV Timecode To	
16		1	11:31	MELBOURNE : Larnard Copeland 2 Pts Attempt	0:00:58:00	0:00:53:00	0:01:03:00	N
17		1	11:32	MELBOURNE : Mark Beath 0 Pts Attempt	0:00:59:00	0:00:54:00	0:01:04:00	N

The 'DV Timecode From' and the 'DV Timecode To' settings control the length of the playback. The from and to timecodes can be manually set to change segment lengths or can be controlled by the pre and post settings – in this example 5 seconds before and after the event was logged.

The editing options are for advanced functions and can be experimented with when familiarity has been developed with the system.



Segment

- **From/To timecode** -This option will use the 'TC From' and 'TC To' values to play each segment.
- **General Pre/Post** - When in General Pre/Post mode this will play the segment using the Timecode field specified in the default General Pre/Post default timecodes.
- **Event Pre/Post** – On this setting each event can be coded to register a certain from/to time. For example a coach may wish to view the proceeding 30 seconds after each Jump ball.

- **Statistic Pre/Post** – On this setting each stat has to be coded to register a certain from/to time. For example a coach may wish to view the proceeding 30 seconds after each side ball play.


Editing Options

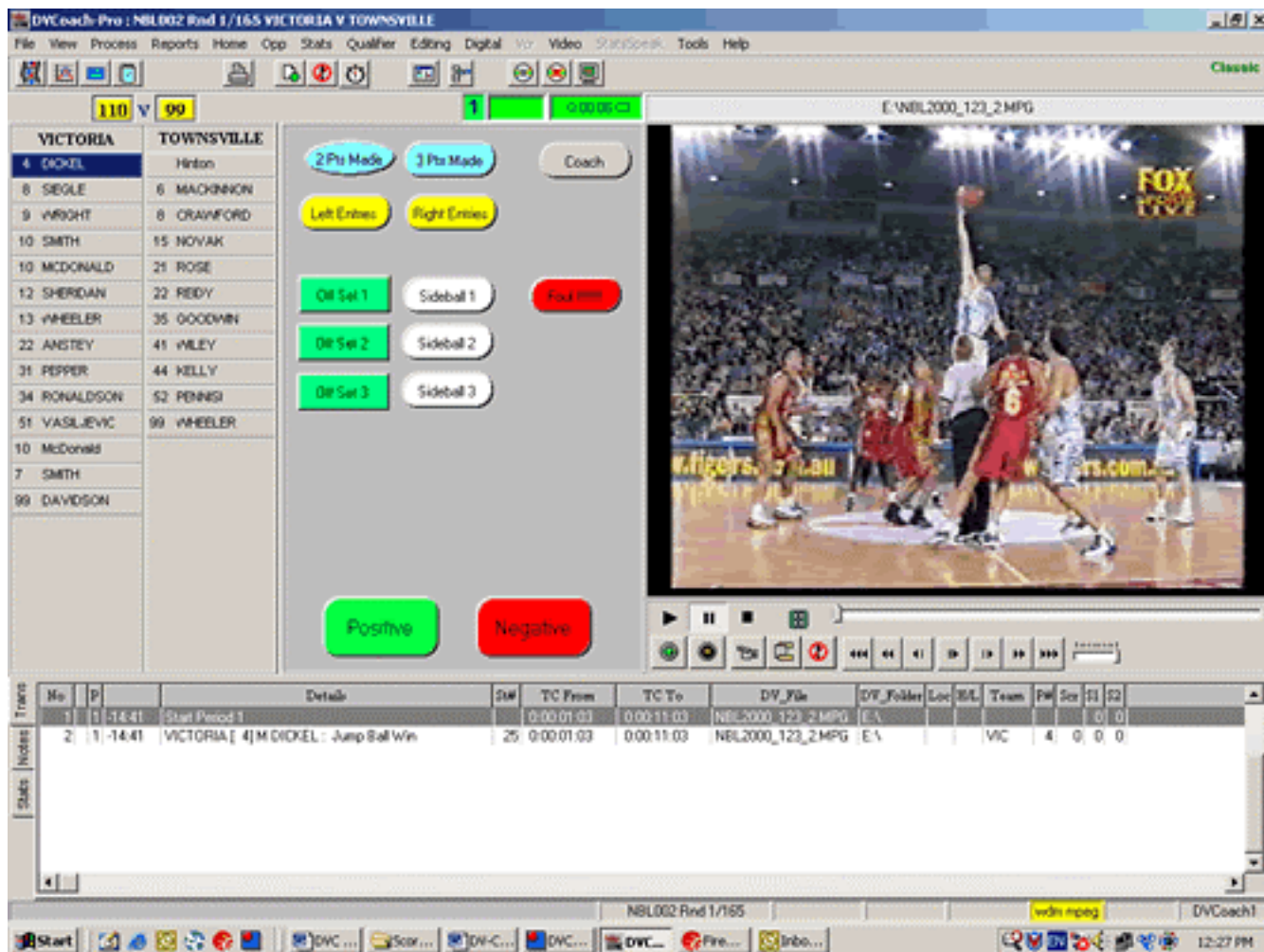
Use Overlay – Leave this setting on **no** unless instructed to by your sales consultant.

Intelligent edit – This option allows you to control the playing of batches The Exclusion option allows you join segments together if the end and start of the two are very close. The exclusion amount is the time between the end of the first and the start of the second. This can be set in the exclusion box (in seconds). The eliminate overlap option does not allow segments to be repeated if they contain the same footage.

Loading and playing back the Video file



The corresponding DV file needs to be opened. To do this click on the  button and browse to the location of the DV file. Double click on the file name and the footage will load up and begin playing.



When the DV file is loaded, you are ready to log (mark) your transactions. When this is done you can access the footage directly from the logged transaction. In its simplest form you can double click on a transaction and view it instantly. A single transaction when viewed is called a segment.

Using the Video controllers

These video controller buttons control your Digital Video. Developing a familiarity with their functions will streamline your use of DV.




1. Play
2. Pause
3. Stop
4. Video time line bar – you can drag to any point in the video.
5. Play selected segment
6. Play selected batch
7. Cancel current batch or segment.
9. Replay previous segment
10. Replay current segment
11. Back 20 seconds
12. Back 5 seconds
13. Back half a second
14. Forward one frame
15. Forward half a second
16. Forward 5 seconds
17. Forward 20 seconds
18. Video speed controller – slow motion control.

Screen options for viewing

It is up to the user to explore these options and become familiar with the screen views that suit them best.

1. The playback, by default appears in a built in window. This window has video the controllers at the bottom.
2. Full screen. For this view right click and select Full screen. To return to the built in window right click and de-select full screen. The keyboard shortcut is ALT | ENTER or ESC to toggle between full screen.
3. Output to television. If you are using a back-office set-up you will use a television to view your DV.



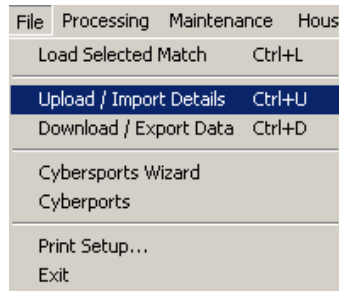
Click on the  button to toggle out to television. This changes the screen allowing more transaction to be displayed. When toggled out to television you will then also be able to send your DV to VCR to make player tapes.

For notebook use in conjunction with a video projector the use of the ALT | ENTER keyboard shortcut for full screen is vital. In practical terms, this means a filter will be set, a batch will then be previewed and toggled to full screen mode immediately by using the ALT | ENTER keyboard shortcut.

DVC Deploy

The **DVC Deploy** module provides the facility for DV Coach users to share their transactions files. In a nutshell this means that a match marked in one system can be exported out to create an archive file, and then this archive file can be imported into another system for further analysis by another user, on a different computer.

A practical example of this would be if a game was logged live at match on to a notebook computer, this transaction file could be imported into a back office PC for further analysis, alignment to the DV file and possibly video editing applications. To access these functions select Upload/Import or Download/Export from the file menu:

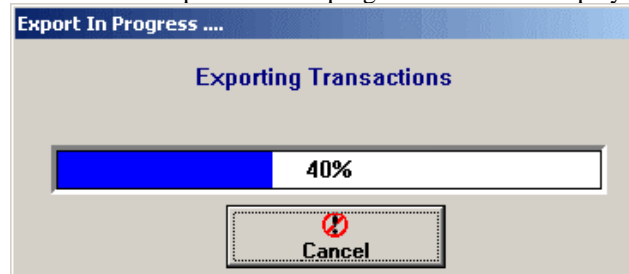


Export

To create an archive file to load onto another computer running **DV Coach** select Download/Export from the file menu. The following window will be displayed.



To export the currently loaded match click on 'export now.' A progress bar will be displayed:



To export another match from here click 'load match', choose the match and export.

Ensure that you are aware of the file name and stored location of this export file. It is possible to browse to any desired storage location and to name the file to whatever is appropriate. If this is going to be a well used feature we would recommend that a naming convention be adopted to avoid confusion or the loss of any game files.

For example, a combination of competition, year and match number should suffice – “NBA02_M23.arc.”

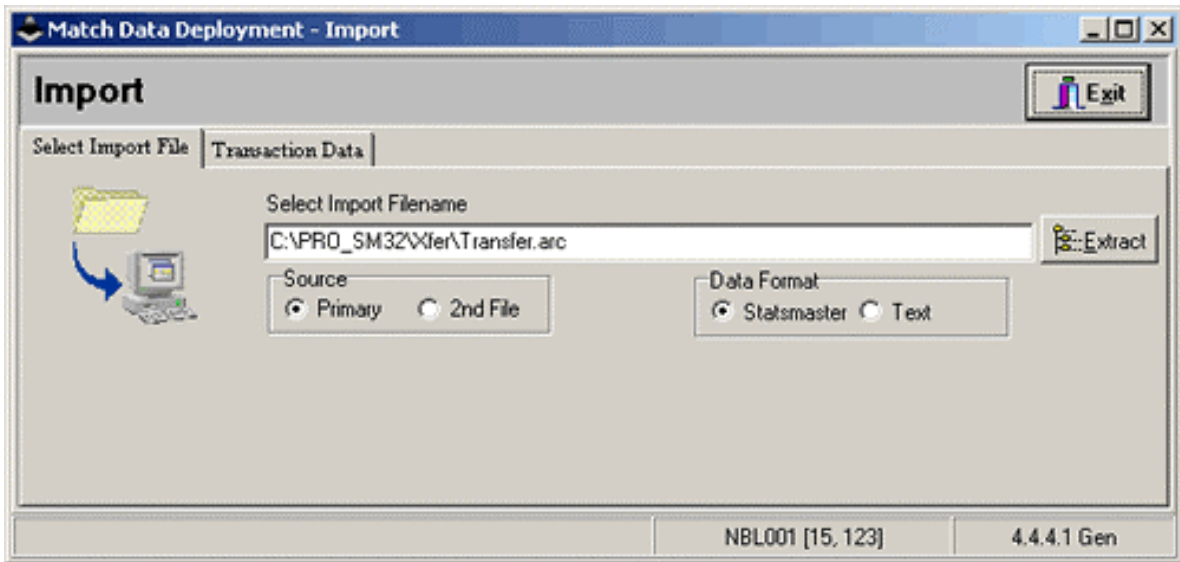
Files can be exported to floppy disks, locally or across networks.

The transactions contained within the match file can be viewed from the transactions tab.

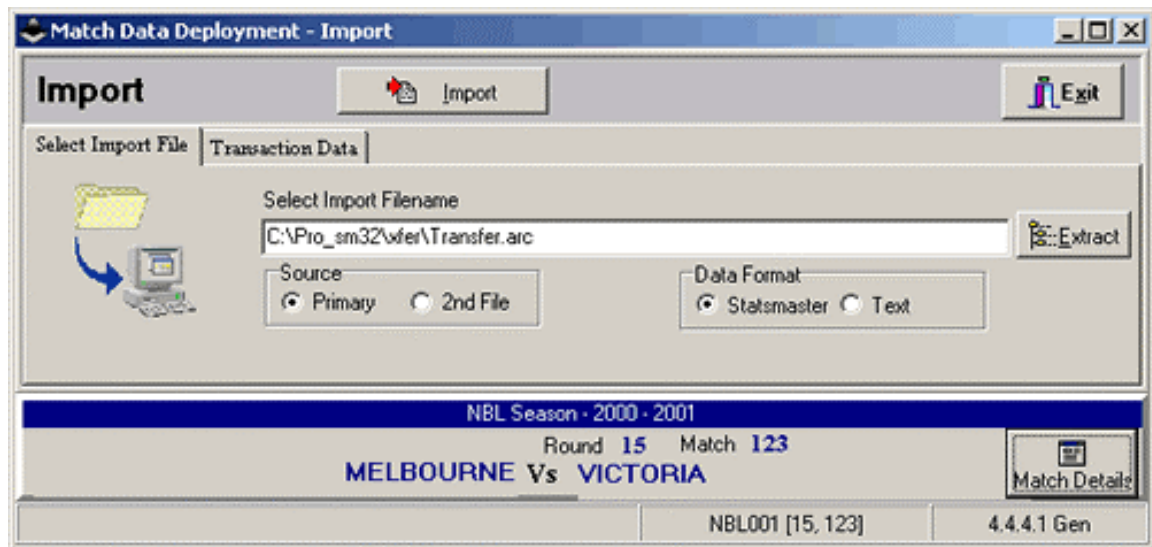
Note: This archive file can only be used by DV Coach and can only be placed back into a DV Coach system using the import facility.

Import

To import an archive file to load onto another computer running **DV Coach** select Upload/Import from the file menu. The following window will be displayed:



Click 'Extract'. A selection window will be displayed. Choose the .arc file to import. The match details and an 'import' button will now be displayed:



The transaction data can be viewed by clicking on that tab.

Click on 'import'.

A progress bar will be displayed and the file will be automatically archived into this system.

This game will now be the loaded match and be ready for further analysis.

Note: The video file will need to be adjusted to point to the DV file relative to this computer. If you are copying the video file to this computer make sure the location and path is the same. E.g. C:\Video with the same file name.

Cybersports Import

DV Coach for Basketball has the ability to import a Cybersports game file. This way you can use the statistics generated in the Cybersports environment with the **DV Coach** software. After the game is imported you will then be able to filter out on

your desired transactions, make batches, view them and save them as EDLs, within the **Transaction Viewer** module of **DV Coach**.

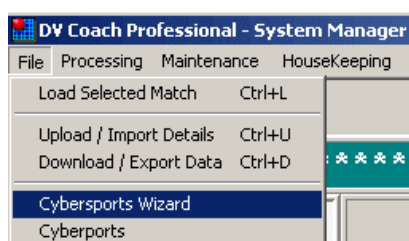
Step 1 – Copy game file to import location

- Cybersports games are formatted with a .BBG file extension.
- The Cybersports game file needs to be placed in the correct file location for the import wizard to locate it and convert it for use in **DV Coach**.
- Copy Cybersports game file (.BBG) to the import location.
- This location can be set in the System configuration section of **DV Coach** so that this import wizard always looks for the Cybersports game file in this location. If the .BBG game file is not present in this location you will need to browse to it manually. The system will automatically detect the .BBG file, but a format must be used where the file prefix (NBL in this example) and the file number of the file match up with the match number of the games loaded match.

In the following example **C:/Program files/Cybersports/Cybersports for Basketball/Games 2001** is set as the location for the import file and the game to be imported is **NBL003.BBG** is stored in this location.

Step 2 – Start Import Wizard

Start the Cybersports import wizard by using the menu option,



or the shortcut button (if configured).



The following screen is displayed. The details of the currently loaded match are displayed.



Step 3 – Load DV Coach match

The first step is to select the match in the DV Coach match roster to import. This can be created prior to the import, or now as you commence the import procedure.

- If the match is already in the DV Coach roster click 'Select Match'.
- If the match needs to be created 'New Match'.

- If the match details need to be modified select 'Edit Details'.
- The 'Maintenance' option allows access to the Match Preparation module

These options open the appropriate section of the Match Preparation module within DV Coach for these modifications to be made to the match roster.

Once the match has been selected its details will be listed and the match becomes the currently loaded match.

This screen also displays the path/location of the Cybersports game file (.BBG).

- Clicking 'Load' allows you to view the game from within the Cybersports program.
- Clicking 'Browse' allows the user to navigate to the .BBG file if it is stored in a different location.

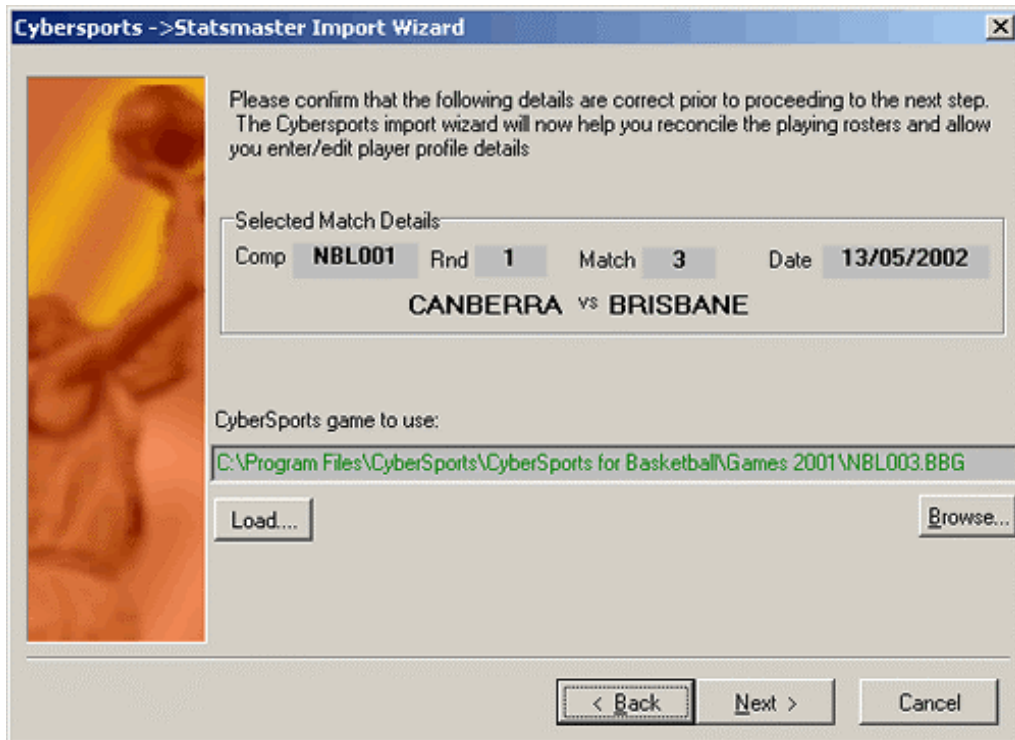
The program uses the match number of the DV Coach game to align to the .BBG game. I.e. DV Coach match No. 3 is looking for the NBL003.BBG game file.

Ensure that the 'Use Smart Export Link' remains checked.

Click 'Next' to continue.

Step 4 - Verify Details / Import From CyberSports

Now check that the match details are correct.

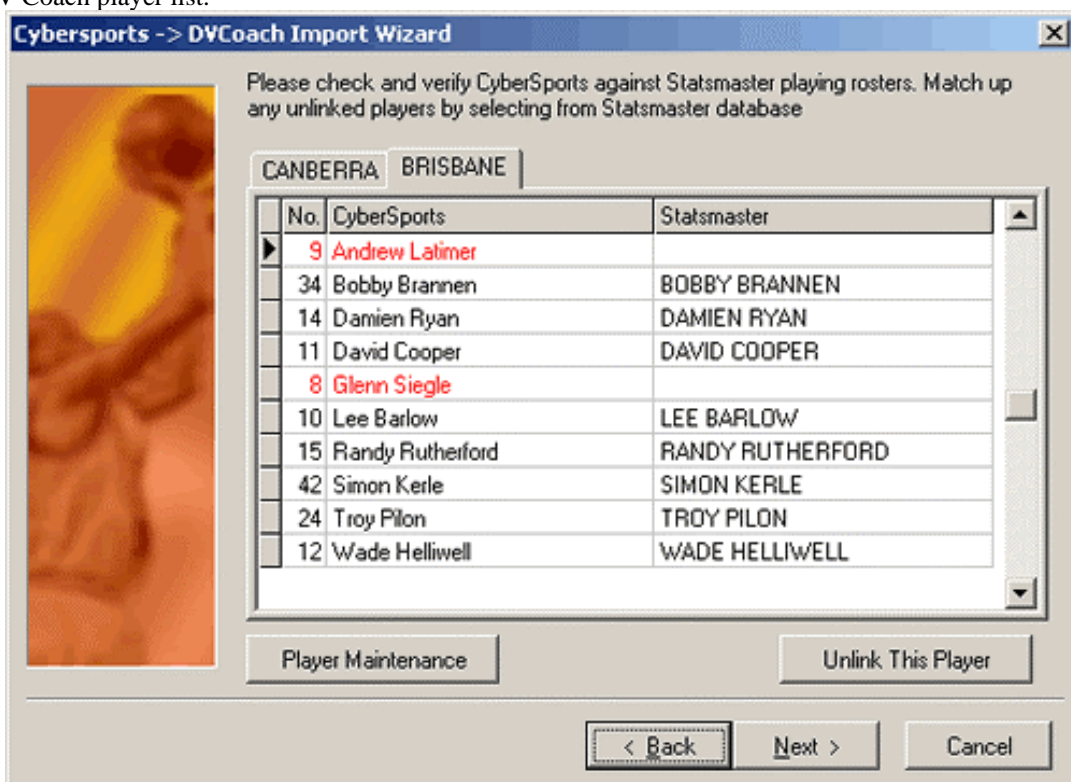


Click 'Next'

It is at this stage that the Cybersports game file is converted to be imported into DV Coach. This process happens in the background.

Step 5 - Reconcile Match Rosters

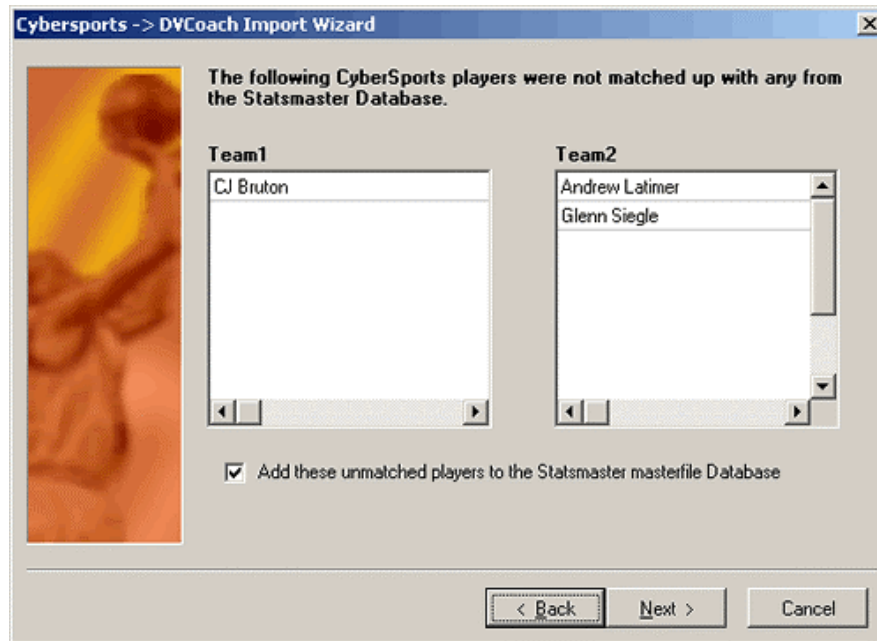
The team details are displayed from both Cybersports and DV Coach. These team lists are reconciled here. If a player does not exist in the DV Coach roster they will be added to the Player profiles. In the following example two of these players are not in the DV Coach player list.



The DV Coach player roster can be accessed from the 'Player Maintenance' button. Player can also be unlinked from the DV Coach roster. Clicking 'Unlink this player' will remove the selected player from the DV Coach player list.

Click next.

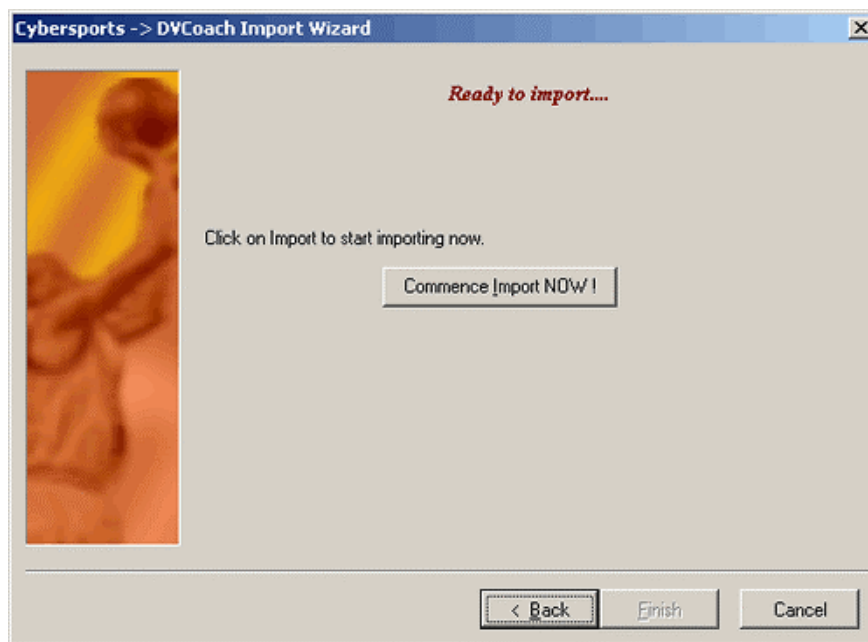
The following screen lists the players not matched up with the DV Coach roster. They will be added to the DV Coach roster.



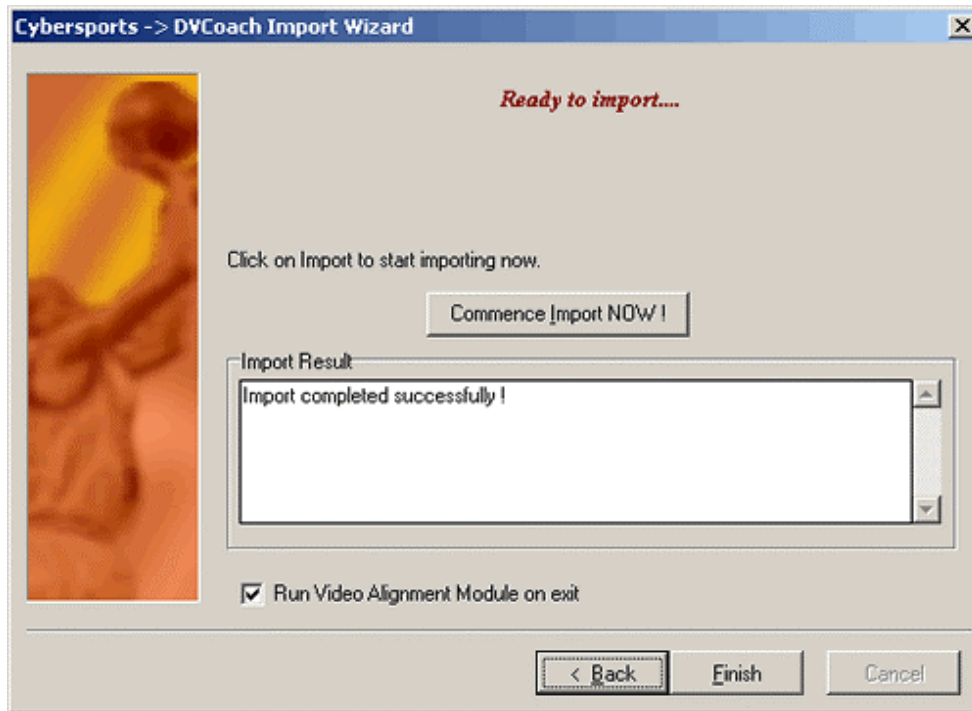
Ensure the 'Add these unmatched players to the DV Coach masterfile database' option is checked. Click next.

Step 6 – Commence Import

Click 'Commence Import Now'. This will import the match data.



The match is now imported and archived as a part of the process. The following screen is displayed.



Click 'Finish' to complete the process. The DV Align module can be set to run upon exit from the module. Uncheck this option if you do not complete alignment at this time.
The process is completed now. You will now be able to load this match and access the stats in the Scoresheet or Transaction viewer modules of DV Coach