

THE SOFTWARE FOR THE SCOUTING AND ANALYSIS OF VOLLEYBALL MATCHES



**Data
Volley**

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1 Introduction

Data Volley is the statistic scouting and Volleyball and Beach Volleyball match analysis software, designed to give a concrete support to all coaches during matches and trainings.

1.1 Hardware configuration

Minimum requirements to work with Data Volley 4:

- Video Resolution: minimum 1280x768.
- Windows OS: Windows 10, Windows 8.1.
- Ram 4GB or more.
- Available "Type A" USB Port.
- Internet connection required for license activation.
- **IMPORTANT:** Not compatible with ARM processors.

Material provided with the software:

USB hardware key, necessary for the functioning of the software

The functioning of the software has been tested, together with the hardware protection key, on Mac OS X computers equipped with Intel through the use of Parallels® or BootCamp.

The software is not compatible with virtualized Operating Systems.

IMPORTANT: When Data Volley 4 is started, the dongle must be plugged into a USB port. The dongle does not disturb in any way the operation of other programs: will only be verified its presence during startup. If the dongle is found to be defective or is damaged, please contact Data Project for a replacement, costs and delivery times vary according to the destination.

To take full advantage of the video capabilities of Data Volley 4, which include MP4 capture, streaming, or video streaming replay of the last action at the same time of the scouting, you need at least an Intel i5 processor.

CPU comparative table

	Intel i5 or higher	Intel i3	Dual Core or Core 2 Duo
Scouting	Y	Y	Y
Web Client	Y	Y	Y
XviD (PAL/NTSC) capture Last action replay, available just for the scoutman	Y	Y	Y
Mp4 SD capture Last action replay	Y	Y	N
Mp4 HD capture Last action replay	Y	N	N
Streaming	Y	Y	Y
Mp4 SD capture & simultaneous streaming Last action replay	Y	N	N
Capture (mp4 HD or Xvid HD) and simultaneous streaming Last action replay	Y	N	N

Tests were done without audio capturing, opening a number of complex analysis and putting stress on the software with many operations.

For the court configuration of the entire system Data Volley ([scouting](#), [capture](#), [streaming](#)) see the [paragraph](#).

Video Resolutions:

SD = 852x480

HD = 1280x720

PAL = 720x576

NTSC = 720x480

1.2 Installation

Data Volley can be downloaded from www.dataproject.com after registration and log in with your username and password.

Install on your computer by following the guide step by step.

When you first start the program it runs the Trial version with the following restrictions:

- Scouting: max. 20 points (or 250 codes).
- Analysis: max. 2 matches, max. 20 points (or 250 codes)
- Video: it is possible to export videos up to 3 seconds.
- Player, Capture and Streaming run always with a Trial banner, with no limitation of time



To remove all the limitations you must purchase an annual license.

To activate your license you must follow the instructions in the email sent to the address indicated during the purchasing and insert the USB dongle into your computer.

The purchase of the license permits free download for all and any updates to the program for 12 months from the date of activation of the software.

2 Introduction to the first use

Every time you open the program it checks for the dongle and verifies the license. Without the dongle, Data Volley works in trial mode, with some [limitations](#). In addition, if connected to the internet, it checks for new updates and proposes their download and installation.

We recommend that you do not change the installation path for a more efficient integration with all Data Project programs.

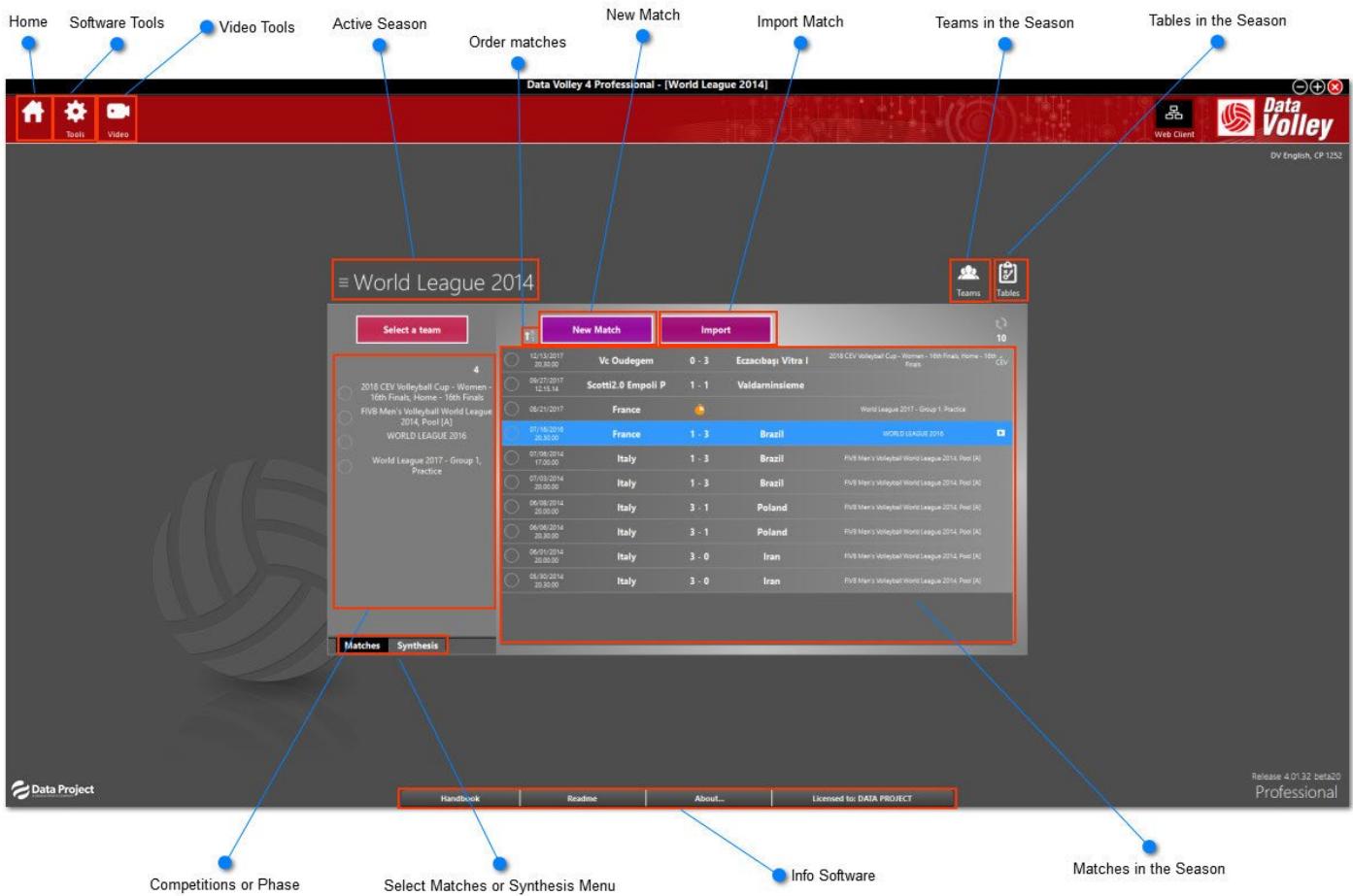
For users of Data Volley 2007

The code and the way of working in Data Volley 4 is exactly the same as you have come to know and use in Data Volley 2007.

Data Volley 4 is enriched with many features, while maintaining the same working structure of the previous version.

2.1 Homepage

This is the home screen of the program



2.2 Preliminary operations

Before proceeding with a statistical scout of any level, you must make few preliminary steps.

Here are the steps to do at first use:

1. [Create your own season](#) (eg: Season 2014-2015). At the first use you will find a default season named **My Season**, with the default parameters of the program.
2. [Enter the teams](#) into the database.
3. Define the [Table](#) for the season
4. Define the [general options](#)
5. Define the [scouting options](#)
6. [Define the keys](#) associated with the different functions that will be used during the scouting

2.3 Season

Seasons are a very important tool that allows you to better organize your work with Data Volley.

Seasons allow to subdivide in a clear and simple way your own scouting files, with appropriate tables and custom parameters specific to each season

The potential of the Seasons are multiple, but in particular can be used for operations such as:

- Storage and analysis of scouting files divided by sporting season (for example by creating season 2013-2014 and 2014-2015 to get historical analysis more easily);
- Separation of scouting files related to two or more teams trained by the same coach (for example by creating two seasons: Female Under 18 e Female C League) which probably also require different settings and custom scouting parameters.

At the first use of the program it will be set only one Season named My Season, with the default parameters defined by the program.

IMPORTANT: Different Seasons may have different parameters, because Scout, Teams and Tables are related to each Season. The active Season is always visible in the upper left of the central screen.

The active Season is always signaled by the symbol 

You can activate another Season selecting it from the drop-down menu on the main screen, or by double clicking on the Season within the window [Organise Season](#)

You can create a new Season by selecting [New Season](#) from the drop-down menu, or by clicking the button [New] in [Organise Season](#).

2.3.1 New Season

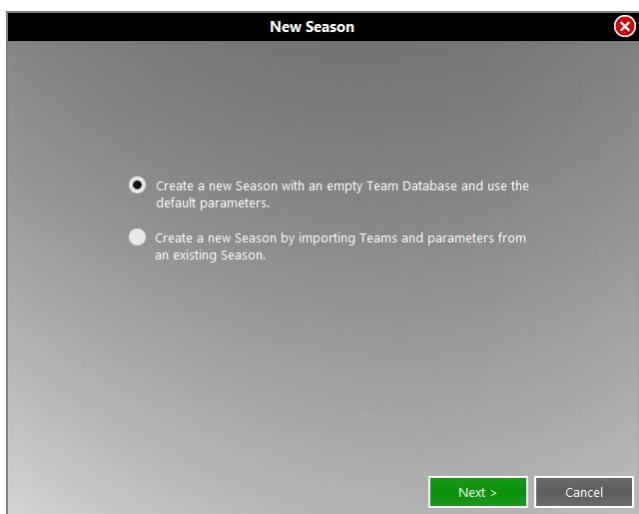
To create a new Season

1. Click the button **[My Season]**. It opens a drop-down menu where you see a list in which you must select **New Season**.

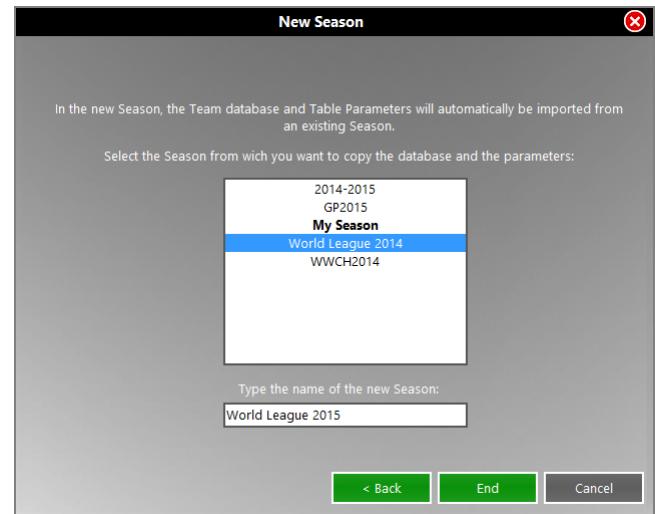
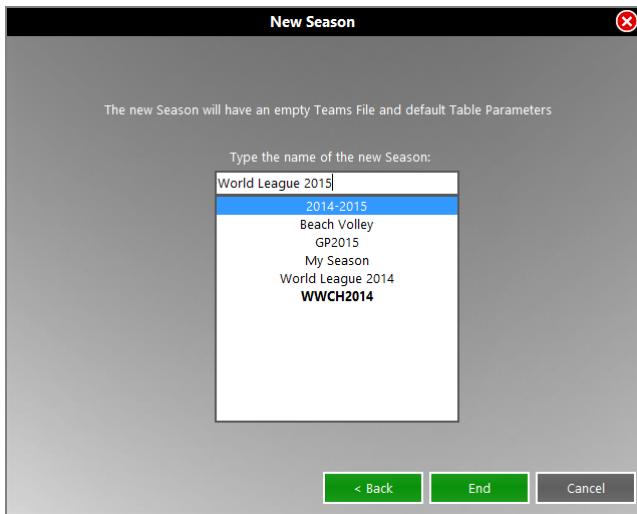


2. Choose whether to

- Create a new Season.
- Copy and rename an existing Season.



3. Type the name of the new Season.

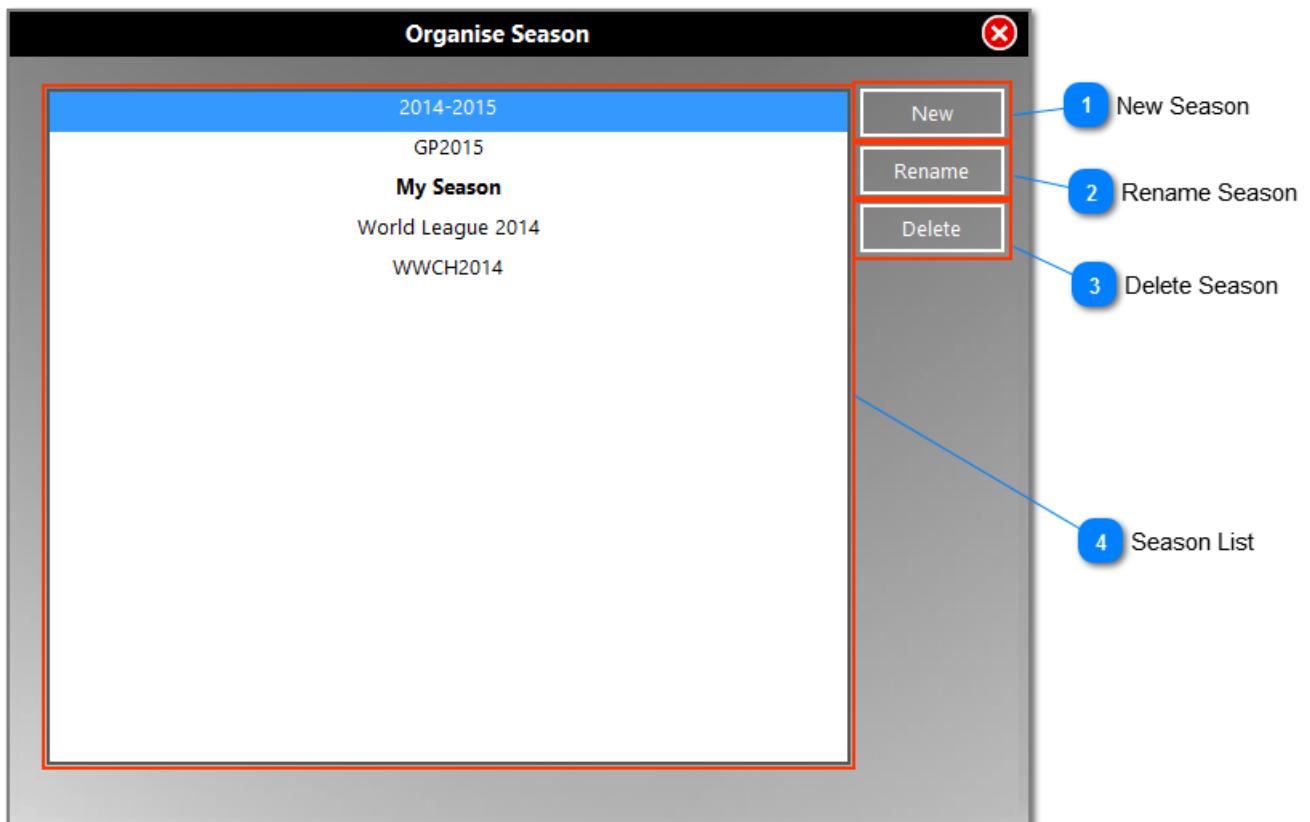


4. Choose whether to set it as the active season.

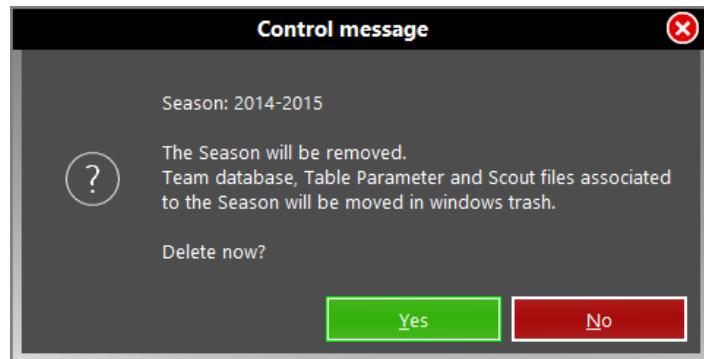


2.3.2 Organise Season

In the windows Organise Season you can create, edit, rename or activate a Season different than the current.

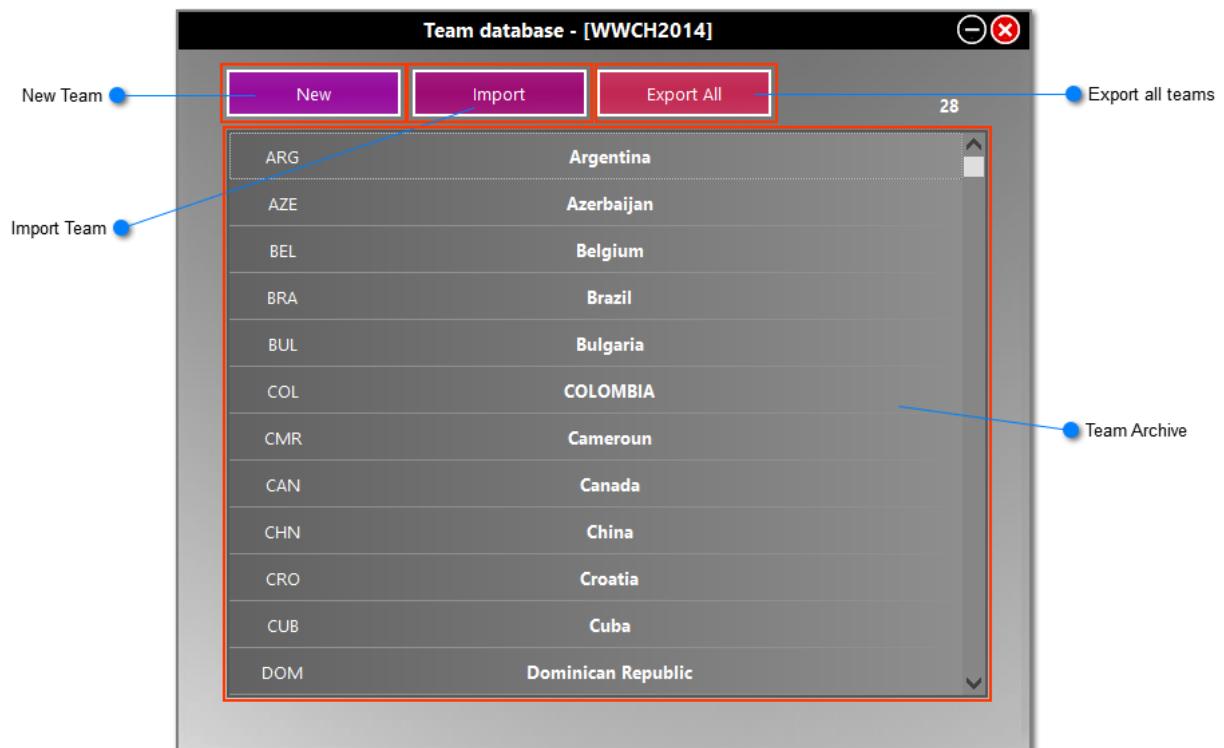


The deleted Seasons are moved to the Windows Recycle Bin. By clicking on the button [Delete] a window asks you to confirm the deletion from Data Volley. This means that if the Season has been accidentally deleted, you can always retrieve it by going to the Windows Recycle Bin, right-click and Repair.



2.3.3 Teams

By clicking on the button **[Teams]** a related window opens. The current Season is always visible in the window header. When you first start the program, the mask Team Database will obviously be empty.



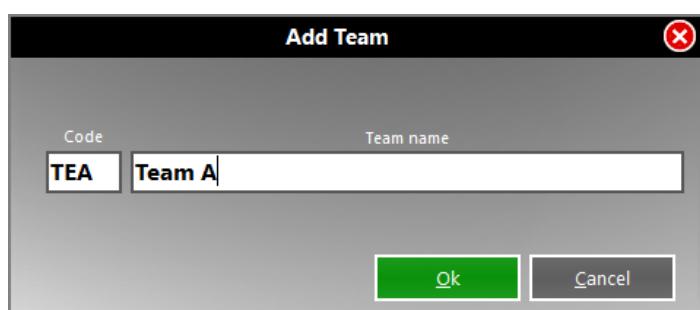
Enter at least two teams in the Team Database, even if you decide to scout one or both the teams. You can enter teams in two ways: by creating a [new team](#) or [importing](#) one or more teams.

The Team Database is related to a specific Season. Therefore different Seasons can have different teams in the archive.

2.3.3.1 New team

- Click the button **[New]**
- Enter the code (3 letters) and the name of the team in the mask, then click **[OK]**.

NB. It is not possible to enter two teams with the same code.



The windows with the list of athletes will appear.

Head Coach
Team Name
Team Code
Abbreviation code
Assistant
Add player
Delete player

Players list

N.	Id	Code	Last name	Name	Nickname	Date of birth	Hgt	Position	For.	T
1		LAM-DAV-80	Lampariello	Davidson	Lampariello David			Outside Hitter		
2		PAJ-ALE-86	Pajenk	Alen	Pajenk Alen			Middle Blocker		
5		ZAY-IVA-88	Zaytsev	Ivan	Zaytsev Ivan			Outside Hitter		
6		PAR-SIM-86	Parodi	Simone	Parodi Simone			Outside Hitter		
7		STA-DRA-85	Stankovic	Dragan	Stankovic Draga			Middle Blocker		
8		DIA-ENR-93	Diamantini	Enrico	Diamantini Enric			Middle Blocker		
11		MON-NAT-74	Monopoli	Natale	Monopoli Natal			Setter		
12	L	HEN-HUB-76	Henno	Hubert	Henno Hubert			Libero		
13		TRA-DRA-86	Travica	Dragan	Travica Dragan			Setter		
14		RAN-LUI-94	Randazzo	Luigi	Randazzo Luigi			Outside Hitter		
15		STA-SAS-88	Starovic	Sasa	Starovic Sasa			Outside Hitter		
16		KOO-DIC-87	Kooy	Dick	Kooy Dick			Outside Hitter		
18		POD-MAR-87	Podrascin	Marko	Podrascin Mar			Middle Blocker		

Add
Delete

We suggest you to use the first three letters of the family name and of the first name to create the code.
 Id: L=Libero, C=Captain
 "T" -select if the player has been transferred.
 "For" - select if the player is foreign.

Clone Print Export Save

Player list
Delete Team
Clone Team
Print Roster
Export Team
Save Team

- Click [Add] to enter one by one the team's players. Required fields are those relating to number, name and code. The code is written automatically by taking the first 3 letters of the last name and name. If there are players with the same code the program will automatically notify you and you have to edit it manually. For the libero, you must enter the letter L in the Id box, or assign the role in the proper field.

Shirt number
Id
Code Player
Player transferred
Foreigner

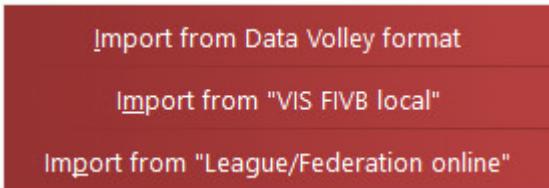
N.	Id	Code	Last name	Name	Nickname	Date of birth	Hgt	Position	For.	T
1		LAM-DAV-80	Lampariello	Davidson	Lampariello David		190	Outside Hitter		
2	L	HEN-HUB-76	Henno	Hubert	Henno Hubert		188	Libero		<input checked="" type="checkbox"/>
3		PAR-SIM-86	Parodi	Simone	Parodi Simone		195	Outside Hitter		
4	L	PAP-ALE-81	Paparoni	Alessandro	Paparoni Alessandro		191	Libero		

It is important to precisely enter the codes of the players because in case of processing and analysis of more matches, the player code will allow an exact update. The code is particularly important, also, because it will officially identify the player even in case the same player (with the same code) uses different numbers of shirts in different matches.

- Once entered all the players, click [Save] to save the team in the Database

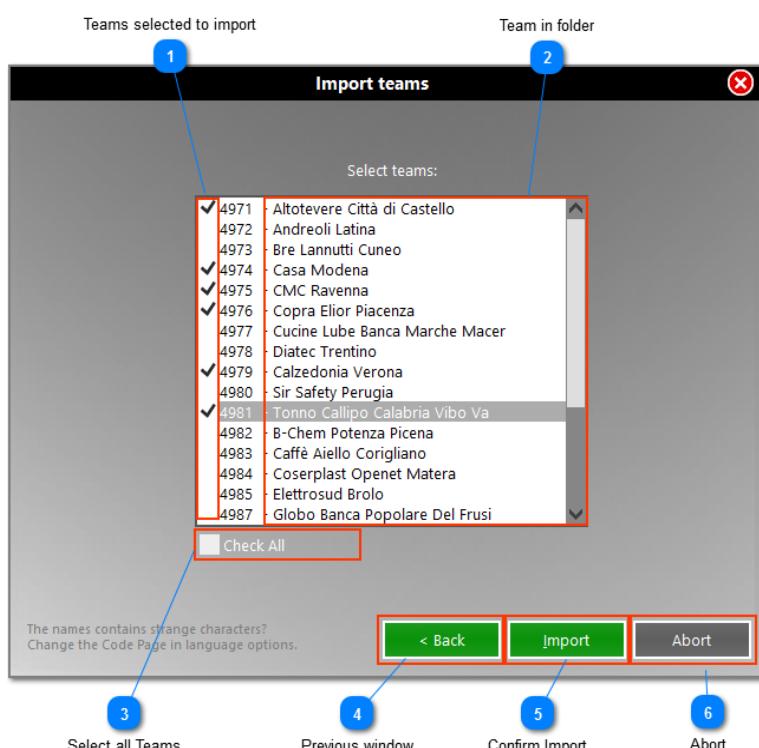
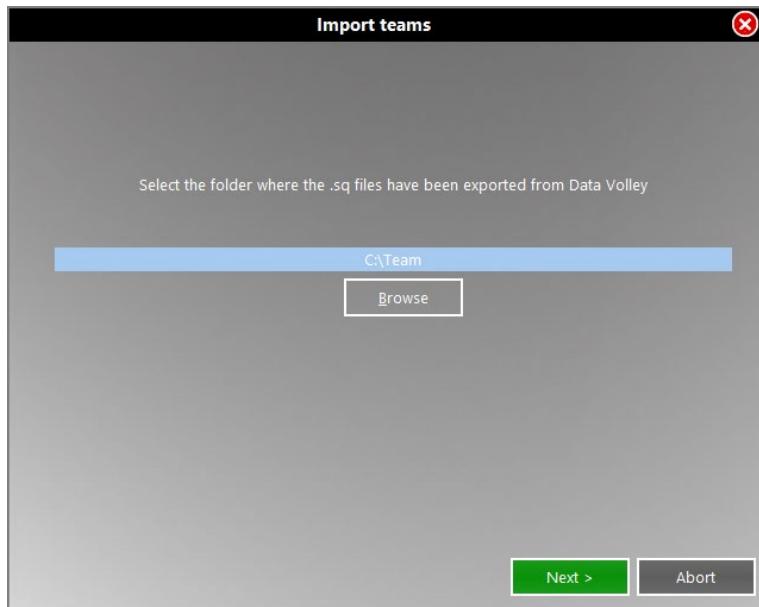
2.3.3.2 Import team

Clicking the button [**Import**] you have to choose between:

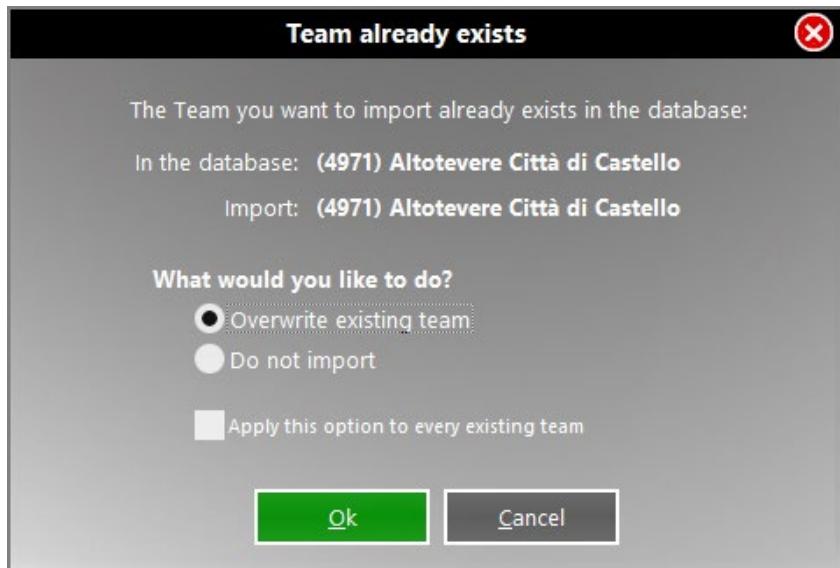


Choose VIS FIVB format only for FIVB events. In both cases, it opens a new window in which you have to:

- Select the folder in which the .sq (or .vis) files are
- Select the teams to import



If any of the selected teams are already in the database, you will get the following window asking you whether to overwrite or not to import.



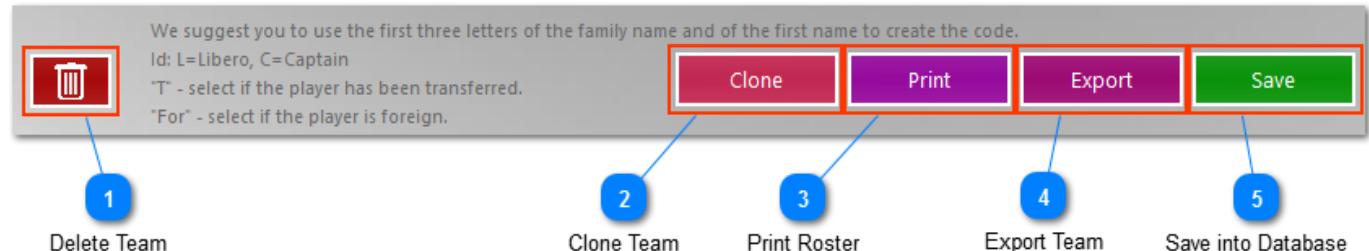
2.3.3.3 Export All

Click this button to export in a folder all teams from the selected season.

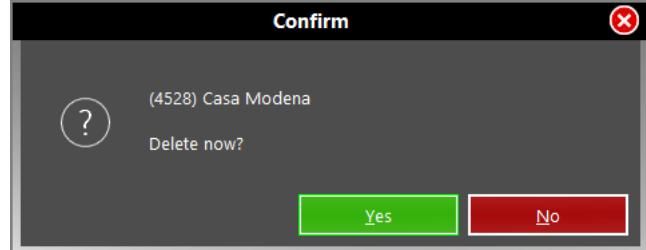
2.3.3.4 Teams database

This lists all the teams in the database. To open or edit a team, just click on the line related to the team and the player list will appear.

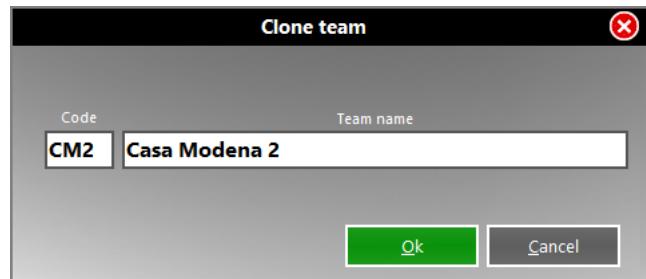
The other possible options are:



1. Delete: to remove the team from the database. A new window asking for confirmation to prevent accidental erasure will appear.



2. Clone: useful for duplicate teams participating in various competitions with the same athletes without having to retype any information. This opens a window in which you must enter a different team



3. Print: to print the roster, save it in pdf or jpeg format

4. Export: to export in Data Volley format

5. Save: to save the changes to the database

2.3.4 Tables

By clicking on the button [Tables] it opens the window related to the tables. The current Season is always visible in the window header.

The tables define certain fundamental parameters for the phases of scouting and analysis. The program is set at its first start with default settings editable at any time depending on the needs of the user.

The tables are linked to a specific Season. Therefore different Seasons can have different tables.

2.3.4.1 Effects of the points

In this window you can define what are the effects that determine the gain or the loss of the point in the different fundamentals.

It is recommended for who is using for the first time Data Volley to keep the default values.

These values will be used by the software:

- For the verification of the data, for example, to check the accuracy of the rotation (for example, after a serve #, winning effect, will have to come back to serve the same player, no change of rotation).
- To create groups of evaluation (win, lose, intermediate), for example, for the assignment of colors in the graphical analysis of the directions of attack.

Points or Side Out	
	losing symb. / winning symb
Serve	= #
Reception	=/
Attack	=#
Block	= #
Dig	=
Set	=
Free ball	=

2.3.4.2 Weights for custom evaluation (Index)

Within this window, you can assign a specific "weight" for each effect of each skill.

This weight consists of a value which can range from -5 to 10 (from the most negative to most positive).

These values are used to allow the program to calculate the index, a value which appears, for each key, in the tables of analysis.

It is an index that can even not be shown in the analysis, for technical choice or because not used: just check the box at the bottom left.

The use of this table allows the user to adapt the system for evaluating the performance, in each fundamental, to his technical point of view or with his own scale of representation (eg. In the US, the values range from 0 to 4).

Weights for evaluations (Ind)							Parameters
	=	/	-	!	+	#	factor
Serve	0	8	4	0	7	10	1
Reception	-3	-3	-1	0	7	10	1
Attack	0	0	5	0	5	10	1
Block	0	0	0	0	0	10	1
Dig	0	0	0	0	0	10	1
Set	0	0	0	0	7	10	1
Free ball	0	0	0	0	0	10	1

Display format:
 Integer
 0.#
 %

Hide Index in analysis

Formula
$$\text{Index} = \frac{(\text{Events=} * \text{Weight}=) + (\text{Events}/ * \text{Weight}/) + (\text{Events}- * \text{Weight}-) + (\text{Events}! * \text{Weight}!) + (\text{Events}+ * \text{Weight}+) + (\text{Events}\# * \text{Weight}\#)}{\text{Total events}} * \text{factor}$$

The vote is a value calculated using a weighted average, using the values entered in the window, in this way (c -> number of hit p -> weight)

$$(c= x p=) + (c- x weight-) + (c/ x p/) + (c! x p!) + (c+ x p+) + (c\# x p \#)$$

$$\text{Index} = \frac{\text{Total of hit performed}}{\text{Total of hit performed}} X \text{ factor}$$

In the Parameter column, **factor** defines a multiplication factor. . We suggest you insert values 1 (if you want to keep the real value) or 100 (if you want a value based on percentage).

It is possible to represent an index in absolute full value, with decimal or in a percentage format.

2.3.4.3 Compound code

The compound codification of Data Volley is developed to further speed up the work of users based on the strong correlation that exists between some couple of volleyball skills. Typical example of correlated skills are serve and receipt. Speaking about statistical analysis, the correlation is stronger, because the evaluation of the hit depends on how this affects the continuation of the game, and, in the case of correlated skills, from the evaluation of the next hit.

In this table, you can customize the correlations between the skills: Attack/Block; Attack/Dig; Serve/Reception

The compound codification is also called dot coding because we use a "dot"(.) to link two correlated skills, so you can not repeat too much information and speeding up the work of the operator by allowing him to avoid duplication of information..

In the [Appendix](#) you can see some examples of the functioning of the dot coding.

Indicate the effect symbol to assign to the compound code for every skill effect symbol					
Attack	Block	Attack	Dig	Serve	Reception
=	#	/	-	=	/
/	#	-	#	-	#
-	+	-	!	+	+
!	!	!	-	-!	+
+	-	+	-	+	-!
#	=	#	=	#	=

Default value

2.3.4.4 Efficiency

The "classic" efficiency is an index that uses the ratio between the winning hits minus the missed ones, divided by the total number of hits.

$$\frac{(\text{winning hits}) - (\text{missed hits})}{\text{Total number of hits}}$$

In Data Volley we have chosen to use the default values of the evaluation system used by the Italian National team, which varies for every skill:

- For serve, reception, dig and Free Ball you have to consider the sum of the percentage of the positive hits. (Positivity)
- For attack, block and set you consider the percentage ratio between the positive and the negative hits (Efficiency)

Efficiency (*E%)		
	winning symb.	losing symb.
Serve	#+! /	
Reception	#+	
Attack	#	/ =
Block	#+	/ =
Dig	#+ /	
Set	#+	/ =
Free ball	#+	/ =

Hide Efficiency in analysis

Default value

Formula

$$*E\% = \frac{(\text{winning symb.}) - (\text{losing symb.})}{\text{Total events}}$$

Refer to the scouting paragraph for defining positive and negative hits

This table allows you to customize the formula according to your requirements. For the reception, for example, instead of calculating the positive value you could calculate the efficiency value according to # and = by modifying the values that correspond to the reception in the table.

The efficiency may also be not highlighted in the analysis, for technical choice or because not used: just check the box **[Hide Efficiency in analysis]**.

2.3.4.5 Attack Combinations

Attack combinations are specific codes used in the Data Volley 2007 codification to describe certain types of attacks and in order to differentiate types of attacks that are similar for time and performance (i.e. the first row in front of the setter and attack C, shifted slightly according to the position of the setter).

Click the combination to edit or delete it.

Click **[Add]** to enter a new one.

Click **[Print]** to print a list of all the combinations.

Code	Zone	Ball	Attac.	Description	37	
XP	8	▲	M	Pipe	Pipe	
XR	8	▲	M	Pipe	Pipe set to 6-5	
X5	4	↗	T	Front	Shoot in 4	
X0	7	▲	T	Front	Shoot in 5	
X6	2	↖	T	Back	Shoot in 2	
X8	9	▲	T	Back	Shoot in 1	
CB	2	↖	N	Center	Slide next to setter	
CF	2	↖	N	Center	Slide close to setter	
CD	2	↖	N	Center	Slide away from setter	
C5	4	↗	U	Front	Shoot set in 4	

Select how you want to manage the attack directions:
 Attack by Zone Attack by Cones

Add Print Default

When adding, editing or deleting an attack combination, the following window will appear:

Attack Combinations

Specify the code, the type and the starting point on the court.

<p>Code 1: <input type="text"/></p> <p>Description 2: <input type="text"/></p> <p>Ball type 3: <input type="text" value="High"/></p> <p>Target Attacker 4: <input type="text"/></p> <p>Notes 5: <input type="text"/></p>	<p>Choose the colour and the type of arrow before selecting the starting point.</p> <div style="border: 2px solid red; padding: 5px; margin-bottom: 10px;"> ▲ ↑ █ █ █ █ █ █ </div> <div style="border: 1px solid black; padding: 10px; position: relative;"> <div style="position: absolute; left: -10px; top: 0; color: blue;">Front row</div> <div style="position: absolute; left: 10px; top: 0; color: blue;">Up</div> <div style="position: absolute; left: 10px; top: 10px; color: blue;">Left</div> <div style="position: absolute; left: 10px; top: 20px; color: blue;">Up-Left</div> <div style="position: absolute; left: 10px; top: 30px; color: blue;">Up-Right</div> <div style="position: absolute; left: 10px; top: 40px; color: blue;">Right</div> <div style="position: absolute; left: 10px; top: 50px; color: blue;">Down-Right</div> <div style="position: absolute; left: 10px; top: 60px; color: blue;">Down</div> <div style="position: absolute; left: 10px; top: 70px; color: blue;">Down-Left</div> <div style="position: absolute; left: 10px; top: 80px; color: blue;">Up-Down</div> <div style="position: absolute; left: 10px; top: 90px; color: blue;">Up-Down-Left</div> <div style="position: absolute; left: 10px; top: 100px; color: blue;">Up-Down-Right</div> </div> <p style="text-align: center;">Zone</p> <p style="text-align: center;">▼ Press to show all arrows</p>
Ok Cancel	

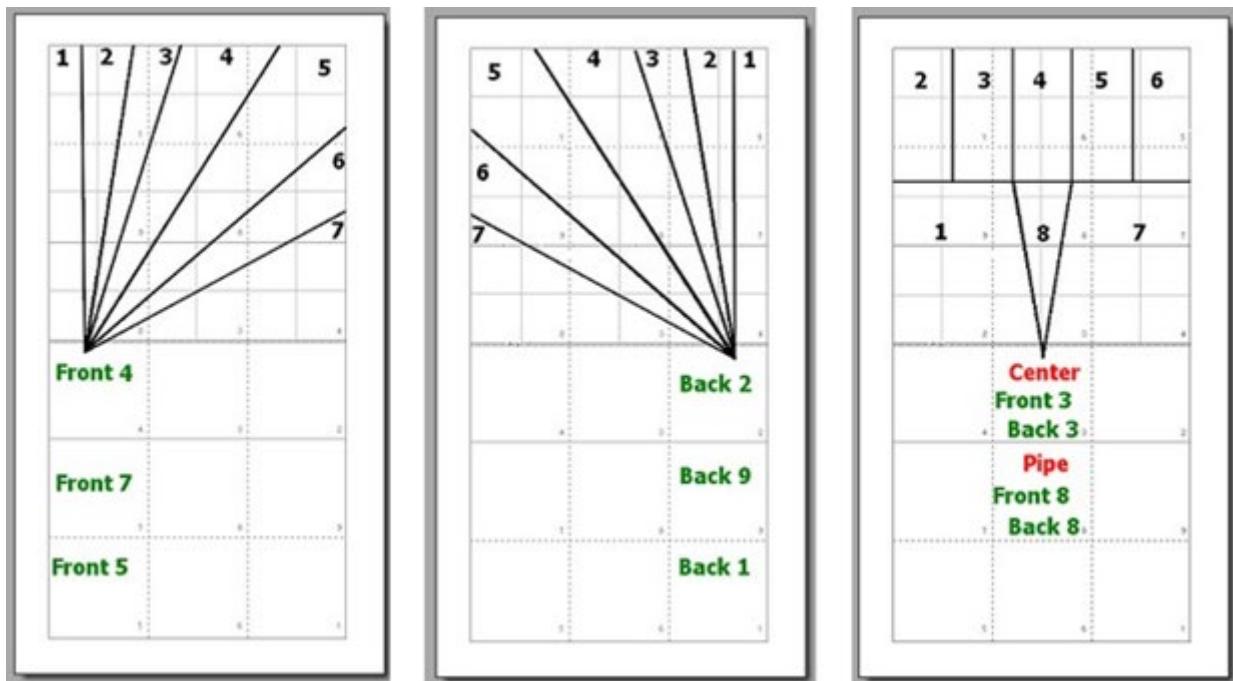
You can describe the attack combination in this window using as many parameters as possible:

1. **CODE:** the code to use for the attack combination during a scout (e.g. Q1)
2. **DESCRIPTION:** a brief description of the combination. (e.g. Pipe)
3. **TYPE OF BALL:** type of ball that corresponds to that combination (e.g. quick). This value will be entered automatically in the correct position of the normalized code during the insertion of the attack combination.
4. **TARGET ATTACKER:** the position of the target attacker on the court (i.e. front, back, center, etc). For further details refer to the appendix [Combinations](#).
5. **NOTES:** additional details of the hit can be added if necessary.
6. **STARTING ZONE:** must be indicated in the court by choosing the colour, the arrow orientation among the three available and by clicking on the exact position where the hit is performed (that represent the run up line of the attacker).

The attack combination is used to supply new information that could not be scouted with a normal codification(difference between first row front and attack C), and is also used to speed up the insertion process (there will be no need to enter the ball type or the starting zone of the hit as the program will automatically scout the type of combination used).

This window also allows you to indicate the codification system of the starting zone of the hit:

- the zones that divide the court (in Data Volley 2007 there are 9 zones), with the relative sub zones (A,B,C,D)
 - the cone is identified by the trajectory/direction depending on the starting zone and on the type of hit.
- In this second case you will follow the pattern shown in these figures, the explanation of which will be detailed later.



The above images outline the cone zones according to the served attacker, specified in the attack combinations.
 The image on the left shows the cones for the Front balls from zone 4, 7 and 5.
 The image in the center shows the cones with the Back balls from zone 2, 9, 1
 The image on the right shows the cones for the Middle blocker, Pipe, Front balls from zone 3 and 8, Back from zone 3 e 8.

You can only scout by cones if you use attack combinations

2.3.4.6 Setter Calls

A setter call, during the reception phase, is when the setter decides the movement of the middle blocker on the court.

This type of parameter will be associated to the set code (E) during normalization and will be used in the new Distribution analysis.

Thanks to this new scout, it will be possible to study where the setter sets the ball following a certain call to the middle blocker according to the type of reception (effect and the court position it comes from). This type of analysis will simplify the scouting phase for the "typical behaviour" of each setter in the different game situations to be able to predict the strategy of the away team.

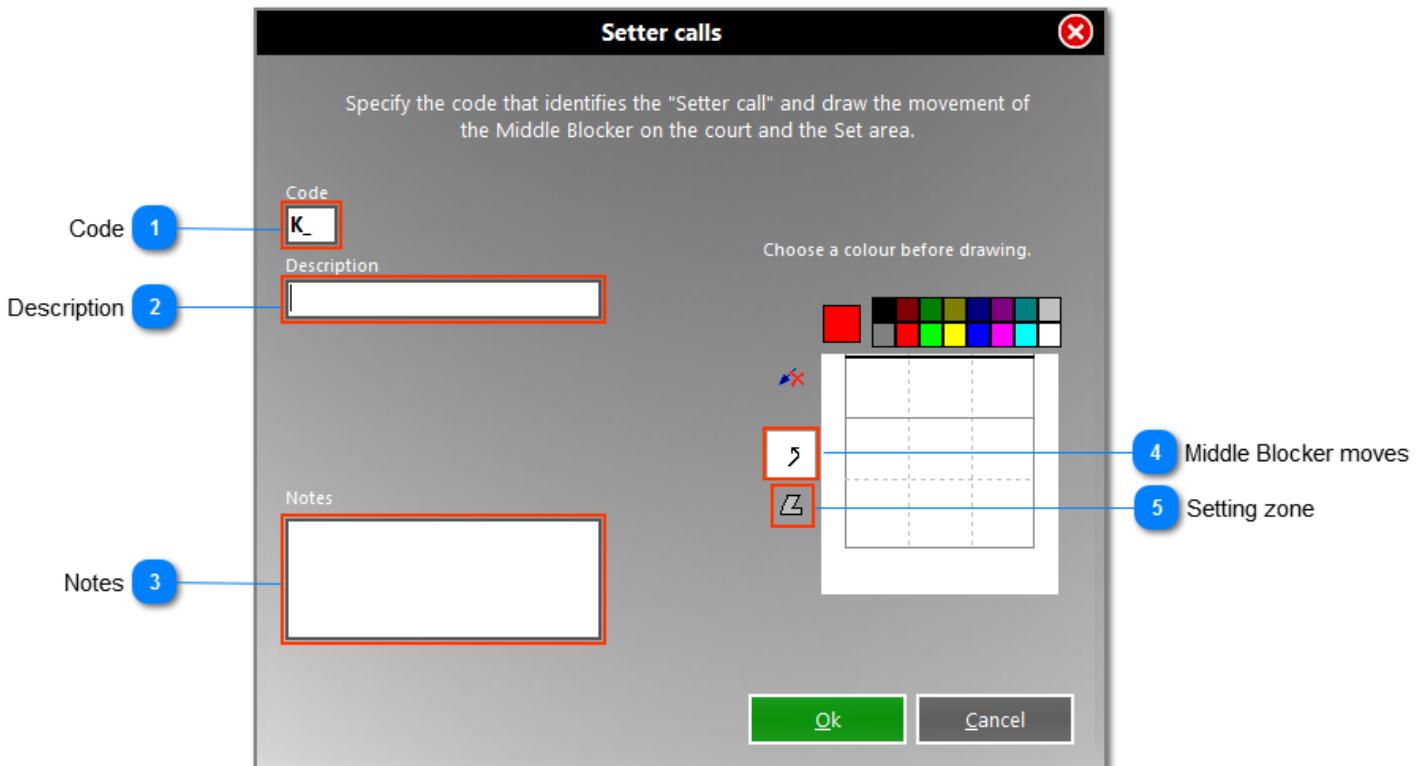
Click a call to edit or delete it.

Click [Add] to enter a new one.

Click [Print] to print a list of all the calls.

Code	Colour	Description	7
K1	■	Front Quick	
K2	■	Back Quick	
K7	■	Seven	
KC	■	Quick in 3	
KM	■	shifted to 2	
KP	■	Shifted to 4	
KE	■	No First Tempo	

As for an attack combination, you will have to enter as many parameter values as possible for every call:

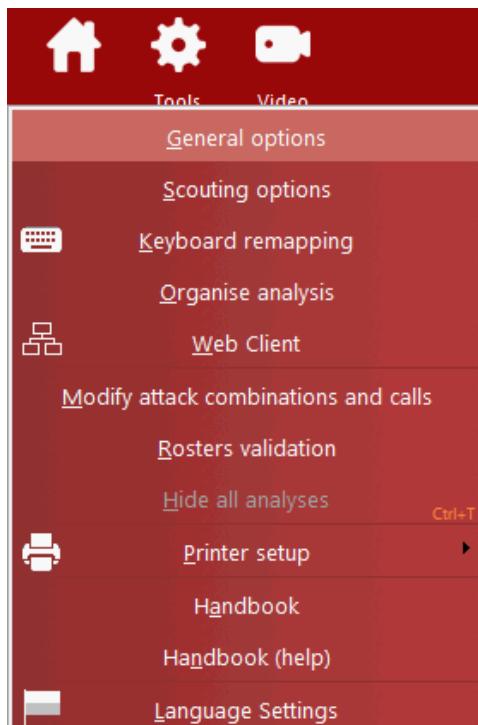


1. **CODE:** the code we want to use for the scouting of that call. The first letter must always be "K" (e.g. K1).
la codifica che vogliamo utilizzare nella rilevazione per quella chiamata. Il primo carattere deve essere sempre "K" (es. K1)
2. **DESCRIPTION:** a brief description of the movement of the middle blocker.
3. **NOTES:** additional notes can be added if necessary.
4. **MIDDLE BLOCKER MOVEMENT:** after choosing a colour, trace the movement of the middle blocker on the court for that particular call.
5. **SETTING ZONE:** indicate the area that defines the setting zone (where the setter is at the moment in which he sets).

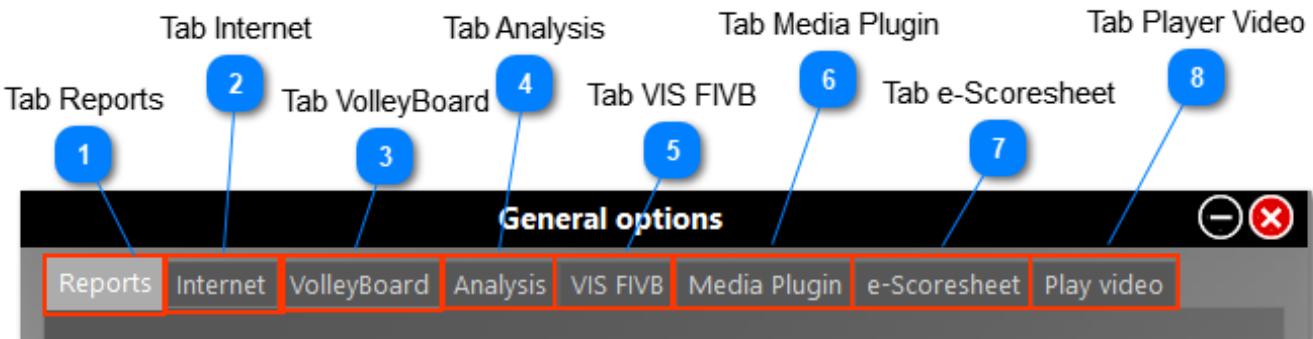
For further details refer to the appendix [Examples of combinations and calls.](#)

2.4 General Options

Select General options from Tools to define the general behavior of the program.



A light grey window will appear, related to the selected tab

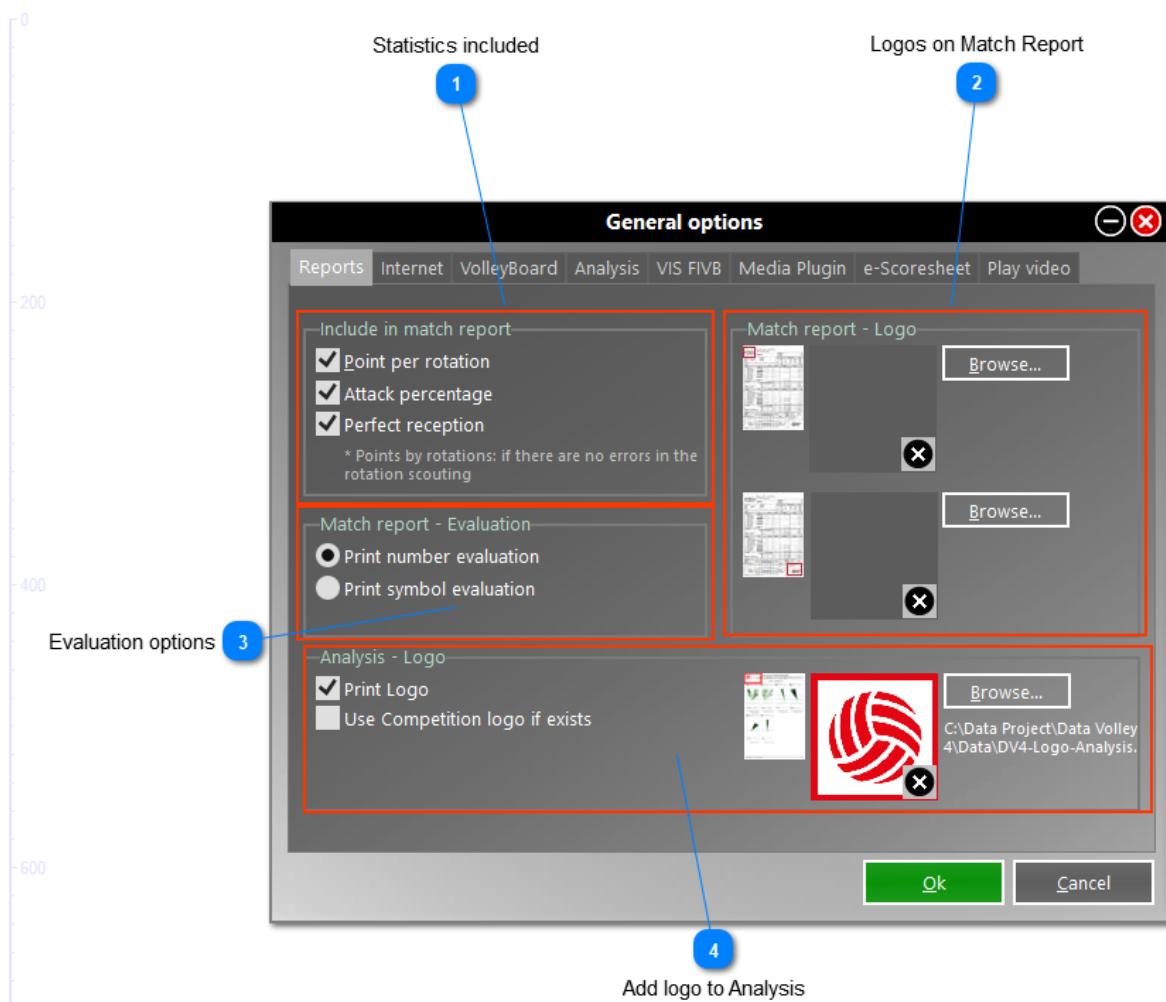


At the bottom of the windows, choose whether to save the options or cancel the changes made.



2.4.1 Reports

Here you define the printing settings of the Match Report as shown.



FIVB Women's World Championship 2014
14° Day Pool J

Match report

Match		Spectators		Receipts		Referees		China		USA		Score													
Date	10/12/2014	Hall	Mediolanum Forum	12600		PASQUALI Fabrizio (ITA) - RODRIGUEZ Susana (ESP)		Set	Duration	Partial score															
Time	20.30.00							1		14-16	19-21	25-27													
City	Milano							2		8-7	10-11	20-25													
								3	0.29	8-7	16-10	18-21	25-16												
								4	0.33	6-8	13-16	21-19	24-26												
										1.55		94-94													
China		①	②	③	④	⑤	Vote	Set	Points	Tot	BP	W-L	Tot	Serve	Pts	Err	Tot	Reception	(Exc%)	Tot	Attck	Blo	Pts	BK	Pts
1	Yuan Xinyue	[5]	[5]	[2]	[2]	6.5	11	3	+9	12	1	-	-	-	-	-	-	16	-	1	7	44%	4		
2	Zhu Ting	[4]	[1]	-	-	5.6	15	4	+5	16	1	2	13	3	46%	(23%)	35	3	3	12	34%	1			
3	Yang Fangxu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
5	Shen Jingsi	-	-	[2]	[6]	6.8	1	1	+1	10	-	1	-	-	-	-	-	-	-	-	-	-	-		
6	Yang Junjing	[2]	[2]	[5]	[3]	6.3	7	3	+5	13	1	1	-	-	-	-	-	12	1	6	50%	-	-		
7	Wei Qiyue	[3]	[3]	-	-	6.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
8	Zeng Chunlei	[6]	[3]	[3]	[2]	6.2	20	10	+16	12	1	23	-	-	-	-	61% (39%)	31	-	4	16	52%	3		
9	Liu Xiaotong	[5]	[7]	[2]	[3]	5.7	7	2	+3	11	-	4	-	-	-	-	50% (50%)	16	2	2	7	44%	-		
10	Shan Danna	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
12	Hui Ruqi	[1]	[1]	[4]	[4]	5.9	15	5	+7	12	1	17	-	-	-	-	76% (35%)	33	3	4	14	42%	1		
15	Chen Zhan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
16	Wang Huimin	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100% (100%)	-	-	-	-	-			
Team totals		76	28	+43				95	4	5	88	6	60%	(39%)	143	9	14	62	43%	9					
USA		①	②	③	④	⑤	Vote	Set	Points	Tot	BP	W-L	Tot	Serve	Pts	Err	Tot	Reception	(Exc%)	Tot	Attck	Blo	Pts	BK	Pts
1	Glass Alisha	[4]	[3]	[3]	[6]	6.2	1	-	+1	11	-	-	-	-	-	-	28	1	61% (39%)	-	-	-	-	-	
2	L. Bonarath Koriala	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
3	Thomason Courtney	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				
10	Larson - Burback J.	[5]	[2]	[2]	[1]	5.5	6	4	+4	16	1	2	21	52%	(33%)	29	3	4	4	14%	-	-			
12	Murphy Kelly	[3]	[6]	[2]	[3]	6	13	5	+4	7	-	-	-	-	-	-	39	3	5	11	23%	2			
13	C Dietzen Christa H.	[6]	[5]	[3]	[2]	6.5	15	6	+11	8	-	-	-	-	-	-	17	1	-	8	47%	7			
14	Fawcett Nicole	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	6	46%	2			
15	Hill Kimberly	[2]	[8]	[3]	[3]	6.3	20	11	+17	12	1	40	-	-	-	62% (35%)	31	1	-	19	61%	-			
16	Akinradewo Foluke	[3]	[2]	[3]	[3]	6.8	14	6	+13	15	-	2	1	-	-	100%	-	15	1	-	9	60%	3		
Team totals		78	35	+50				93	5	6	91	5	59%	(35%)	145	9	9	58	40%	14					
China		①	②	③	④	⑤	Vote	Set	Points	Tot	BP	W-L	Tot	Serve	Pts	Err	Tot	Reception	(Exc%)	Tot	Attck	Blo	Pts	BK	Pts
1	Receptions 88 5 in Diff Points SO 48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
6	+13 Each 1.83 Recept. 1 Point	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
5	-5 1 Point	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
4	-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
3	+3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
2	-4 Serve Points BP 95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
1	-3 Each 3.39 Serve 1 BreakPoint	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
USA		①	②	③	④	⑤	Vote	Set	Points	Tot	BP	W-L	Tot	Serve	Pts	Err	Tot	Reception	(Exc%)	Tot	Attck	Blo	Pts	BK	Pts
1	Receptions 91 5 in Diff Points SO 43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
6	+3 Each 2.12 Recept. 1 Point	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
5	+7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
4	-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
3	-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
2	-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
1	-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
ATTACK ON DIG		①	②	③	④	⑤	Points BP	Set	Points	Tot	BP	W-L	Tot	Serve	Pts	Err	Tot	Reception	(Exc%)	Tot	Attck	Blo	Pts	BK	Pts
1	Each 2.66 Serve 1 BreakPoint	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-							
8	8 36% 69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
7	67 36% 5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
9	Match report Link in the LiveScore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								

2.4.2 Internet

In this windows it is possible to configure the parameters that allow to post the Matches Reports on an Internet site, for example the team's website, where the results are updated in real time.

In this window you will therefore have to set the FTP parameters related to the website in which the data will be entered.

General options			
Match report		Internet	
VolleyBoard		Analysis	
VIS FIVB		e-Scoresheet	
Live Score - Ftp parameters			
Host Name/Address:		User ID	
MyFtpHostAddress		MyUserID	
Remote path:		Password	
C:\Team			
Path/Source html score File Name: (*)			
c:\data\project\data volley 4\data\source_score.html			
Remote html score File Name:			
LiveScore.htm		MatchReport.htm	
Web URL for the Live Score			
http://www.myteamswebsite.org/LiveScoreFolder/LiveScore.htm			
<input checked="" type="checkbox"/> In LiveScore enable the link to Match-Report			
(*) The html source file must include the key word to be substituted with the score. Refer to the handbook for further information.			
FTP Server		User ID and Password of FTP website	
Path where to copy the html score file		Path where to get informations for the website	
Remote html file Name		Remote html Match Report file name	
URL for the LiveScore		Passive Mode	
Match report Link in the LiveScore			

Point 4:

In particular this source file must contain the keywords recognized by Data Volley, that will replace them with the different data (team name, set, score and so on). The presence of these keywords is necessary so that the data are correctly displayed on the website.

Data Volley has a default source file, at **C:\Data Project\Data Volley 4\data\source_score.html** which might be replaced (or modified) by the user with one of his own, for example if you want to make it in line with the graphics of your website.

To allow you to view the results correctly, the source file must contain the following keywords:

PCOMP	Display the name of the competition
PSITE - PTIME	Display the place, date and time of the competition
PCODA	Display the code of the internal team
PCODB	Display the code of the away team
PSQH	Display the name of the internal team
PSQV	Display the name of the away team
PFINA	Display the final score of the internal team
PFINB	Display the final score of the away team
DURTOT	Display the total duration of the match
PSET1A(2A, etc.)	Display the score of the internal team during the 1° set (2° set, etc.)
PSET1B (2B, etc.)	Display the score of the away team during the 1° set (2° set, etc.)
PTOTA	Display the total points of the internal team
PTOTB	Display the total points of the away team
DURSET1 (2, etc.)	Display the duration of the first (second, etc.) set
PLLINK	Display the phrase "Processed with Data Volley"
PTIME	Display the updating time of the results

The preset source file includes the following default grid, which includes all the keywords:

PCOMP
PSITE - PTIME

Set 1	Set 2	Set 3	Set 4	Set 5			
(PCODA) PSQH	PFINA	PSET1A	PSET2A	PSET3A	PSET4A	PSET5A	PTOTA
(PCODB) PSQV	PFINB	PSET1B	PSET2B	PSET3B	PSET4B	PSET5B	PTOTB
DURSET1 DURSET2 DURSET3 DURSET4 DURSET5 DURTOT							

[PLLINK](#)

By using this source file, displaying the results on the website will look like this:

FIVB Men's Volleyball World League 2014

Bari 06/06/2014- 20.30

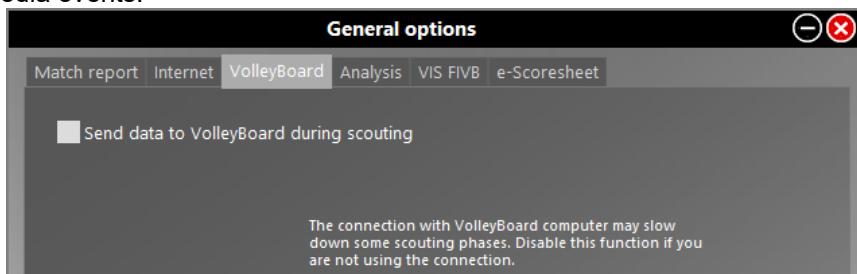
		Set 1	Set 2	Set 3	Set 4	Set 5	
(ITA) ITALY	3	25	20	25	25	-	95
(POL) POLAND	1	22	25	23	20	-	90
		30'	30'	24	30'	-	114

[Elaborato con Data Volley](#)

You can create a custom grid in the source file and place the keywords as you prefer.

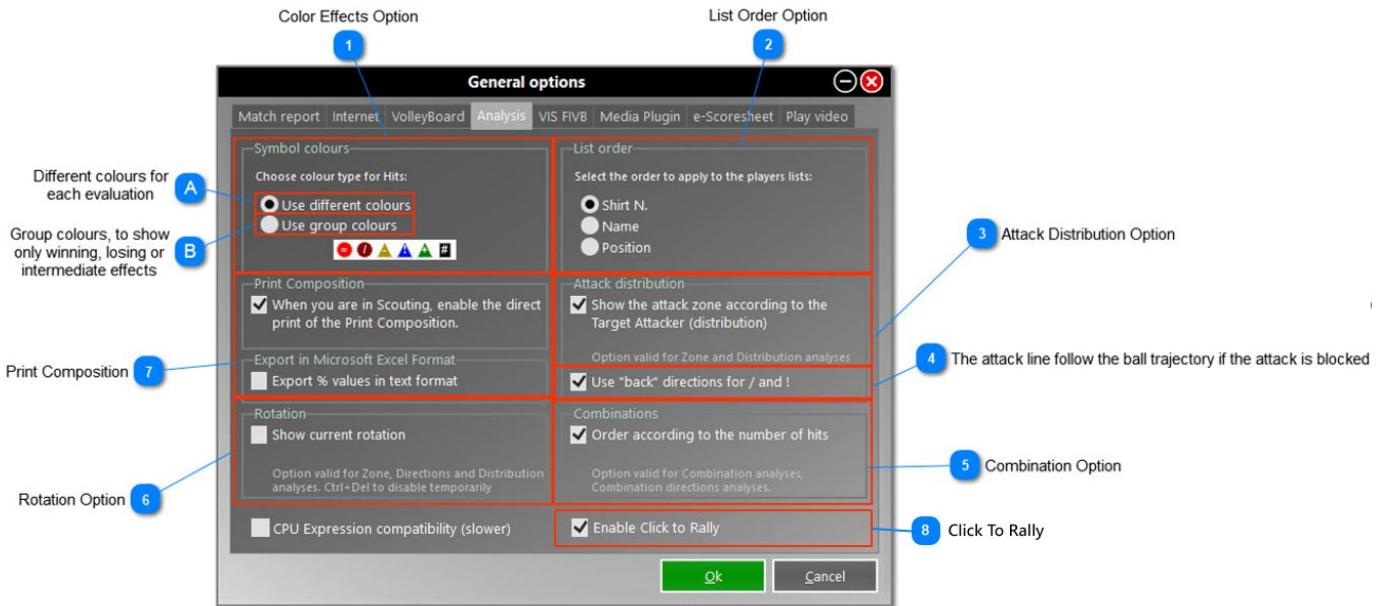
2.4.3 VolleyBoard

Enable this option if you want to send the statistics and the score data to VolleyBoard, the software for the management of the score and multimedia events.



2.4.4 Analysis

The Analysis Options determine the way you view the analysis



1. Symbol Colours

To recognize more easily the different type of hits in the graph analysis.

2. List Order

The type of organization is important in the analysis tables as they allow you to view the data in the chosen way (e.g. if you perform a detailed analysis by player it can be useful to organize the players by position to compare the relative performances).

3. Attack Distribution

If this option is not selected, the zone analysis, the consecutive distribution analysis and the setter call analysis will all represent the hits performed from that court zone regardless of the player that hit the ball. For example: if the player from zone 2 performs an attack combination that requires a cross in the center therefore he attacks from zone 3, this type of hit will be counted, in a global analysis with the relative percentages, with all the hits performed by the middle blockers in zone 3.

If this option is selected, relating to the previous example, the hit will be counted with the hits from zone 2, due to the hit being performed from zone 2 (back) and regardless to the starting zone pointed out in the attack combination.

4. Use "back" direction for / and !

If this option is disabled, the attack line will not influenced by the block but it will continue its trajectory in the opponent court.

5. Combinations

This option orders the combinations according to the number of hits. This feature is only valid for Combination Analysis, Direction chart Analysis - Attack Combinations. The list will be displayed according to the Combination list if this feature was disabled.

6. Rotation

Show current rotation: this feature is valid only for Zone, Direction and Distribution Analysis. If several analyses analyze a single rotation and the rotation feature was enabled, the program will analyze the current rotation one after another. The rotation can be modified temporarily with the PagUp and PagDn keys.

Automatic update of the rotation can be temporarily suspended using the Ctrl+Del shortcut. This key combination allows the user to manually manage a certain game phase in order to view the required rotation. Press Ctrl+Del again to revert back to the automatic rotation update.

This manual change will not affect the previously set option in the General Option window.

7. Print Composition

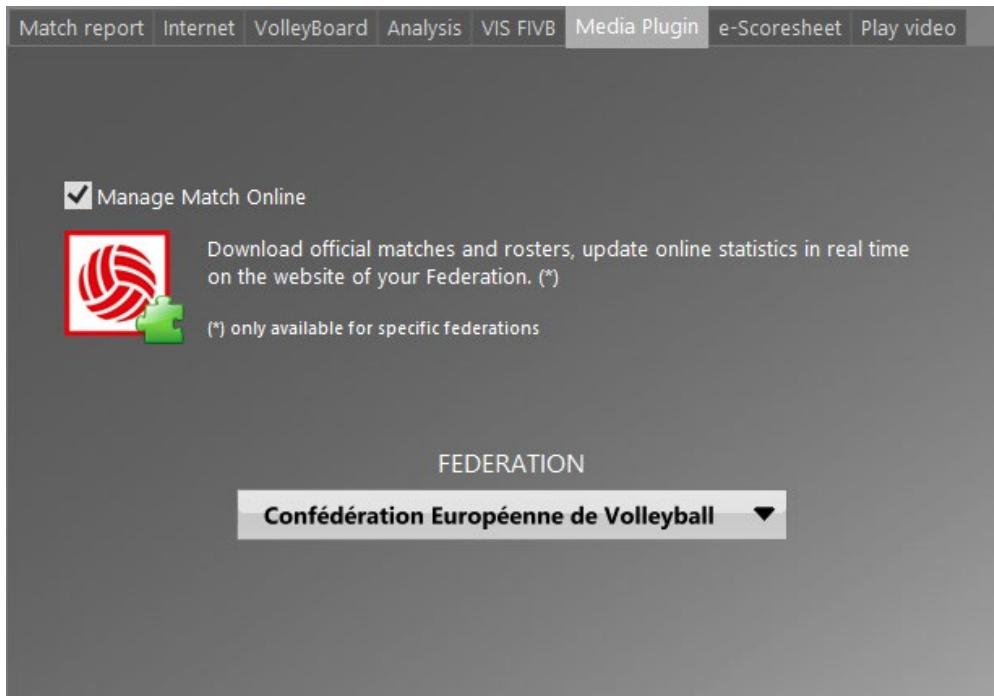
During scouting, the direct printing of Print Composition is enabled and turns into "Print Analysis 1", "Print analysis 2", etc

8. Click to Rally

Allows you to enable/disable clicking on the analysis to filter the related actions.

2.4.5 Media Plugin

Here you can manage online Matches.



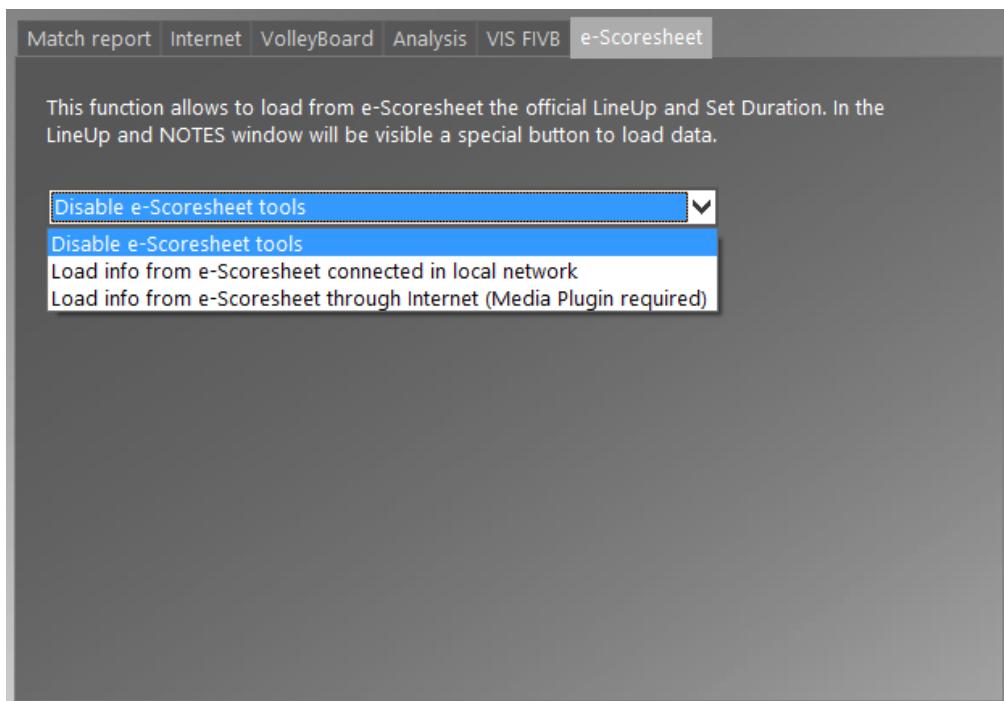
Allows you to download matches and official rosters and update statistics online in real time on the website of your Federation. These services are provided by Data Project for the national championships in different countries in the world.

N.B. Only if you have an username and password provided by the federations or leagues subscribed you can have access to all the services.

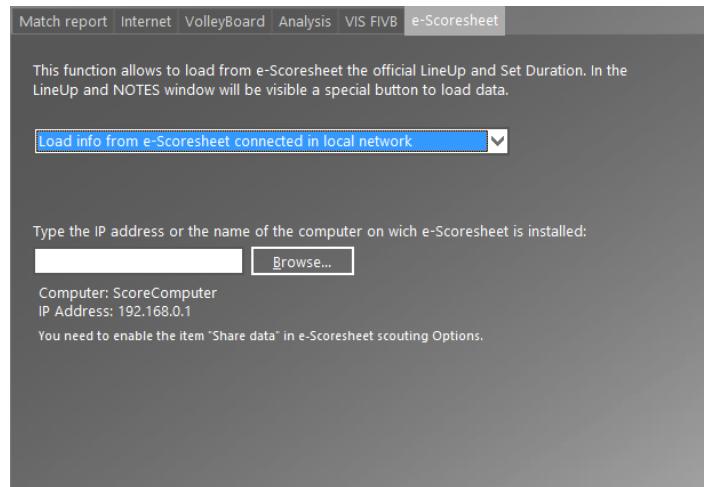
Ask your Federation for your username and password.

For a complete HowTo, please go to this [paragraph](#).

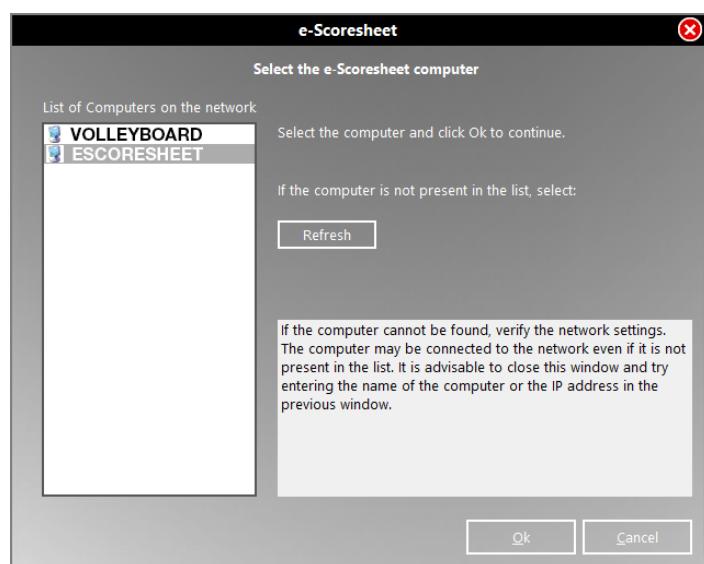
2.4.6 e-Scoresheet



If you upload data from a local net, click [Browse]:



Select the computer connected to the local net where e-Scoresheet is installed:



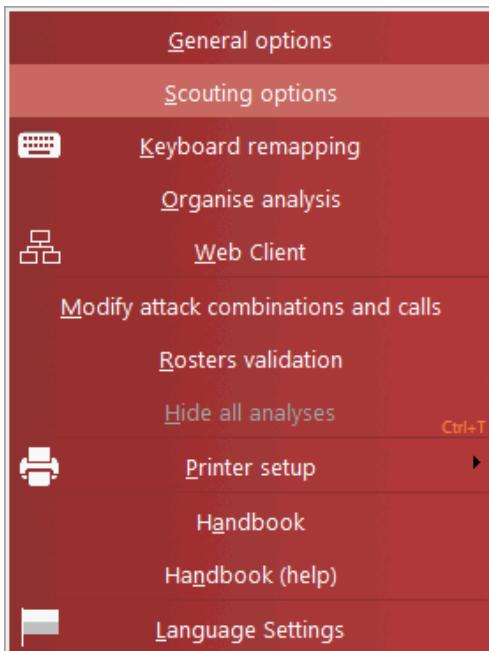
2.4.7 Player Video

Here you can chose the player video options.

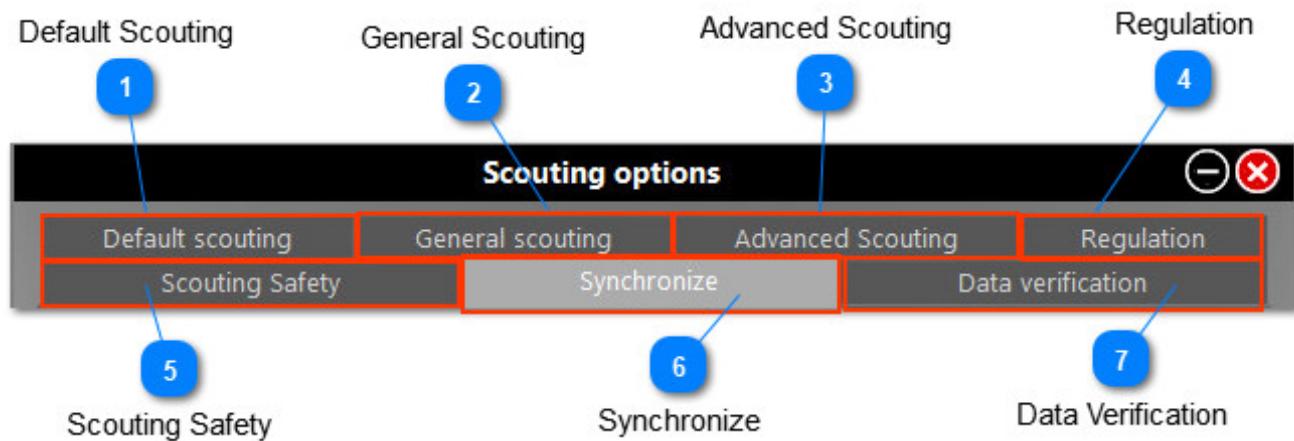
This screenshot shows the "General options" dialog box. At the top, there is a toolbar with links: Match report, Internet, VolleyBoard, Analysis, VIS FIVB, Media Plugin, e-Scoresheet, and Play video. The "e-Scoresheet" link is highlighted. Below the toolbar, there are two main sections: "Video Driver" and "Fast Forward". The "Video Driver" section contains three radio buttons: "Default" (selected), "DirectDraw (Suggested)", and "GDI". The "Fast Forward" section contains three radio buttons: "2x (DV2007)" (selected), "3x", and "4x". Blue numbers 1 and 2 are overlaid on the screenshots, pointing to the respective sections. Labels below the screenshots identify them: "Choice of video driver" for section 1 and "Default choice for fast forward" for section 2.

2.5 Scouting Options

Select Scouting Options from Tools to define the behavior of the program during the scouting.



A light grey window will appear, related to the selected tab



At the bottom of the windows, choose whether to save the options or cancel the changes made



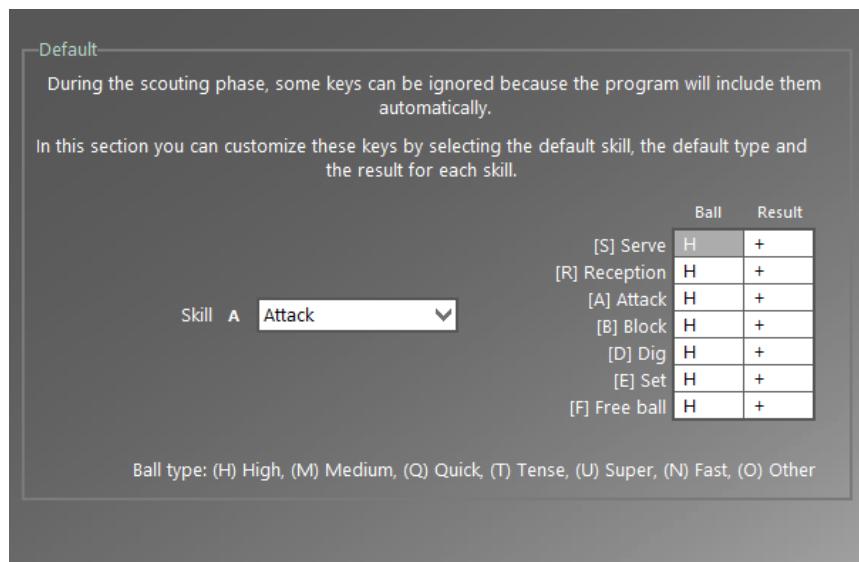
2.5.1 Default Scouting

It is possible to change the scouting values that Data Volley sets as default or automatic in this window. The program allows you to define:

- **The default skill:** the program set a skill that, in the absence of other indications, it is automatically inserted in the Code List at the time of normalization. Generally, the default skill is the skill that is used more often (the program, for example, sets as the default skill the High Attack AH- the user can change this option at any moment). This setting is useful both for speeding up the normal scouting and for making a very specific scouting in a easy and fast way: eg. if you want to make a technical / tactical scouting of only hits of the setter, you can enter "set" as the default skill and then enter, into the scouting, only the player number and the evaluation of the hit.
- **The default type of hit, for each skill:** the program sets, for each skill, a default type of hit. As for the previous case, generally you set the default hit as the hit that is performed more often. That obviously depends on the

category played: in the Italian Male Serie A, for example, where almost everybody performs jumping serves, for reception and serve the ball type Q (jumping) is generally set as default type. Depending on the specific needs, the user can change these settings at any time.

- **The default effect, for each skill:** the same considerations made before apply to the effect which occurs more frequently for each skill. The program sets by default all effects +.



Thanks to these settings you will be able to speed up the scouting phase (hen the default skill is performed with the relative default effect i.e. for a high attack with + effect, you will have to enter the number of the player in the scouting window to continue the scout as the program will automatically normalize the codes with these parameters). These settings also allow you to outline the scouting phase according to your needs.

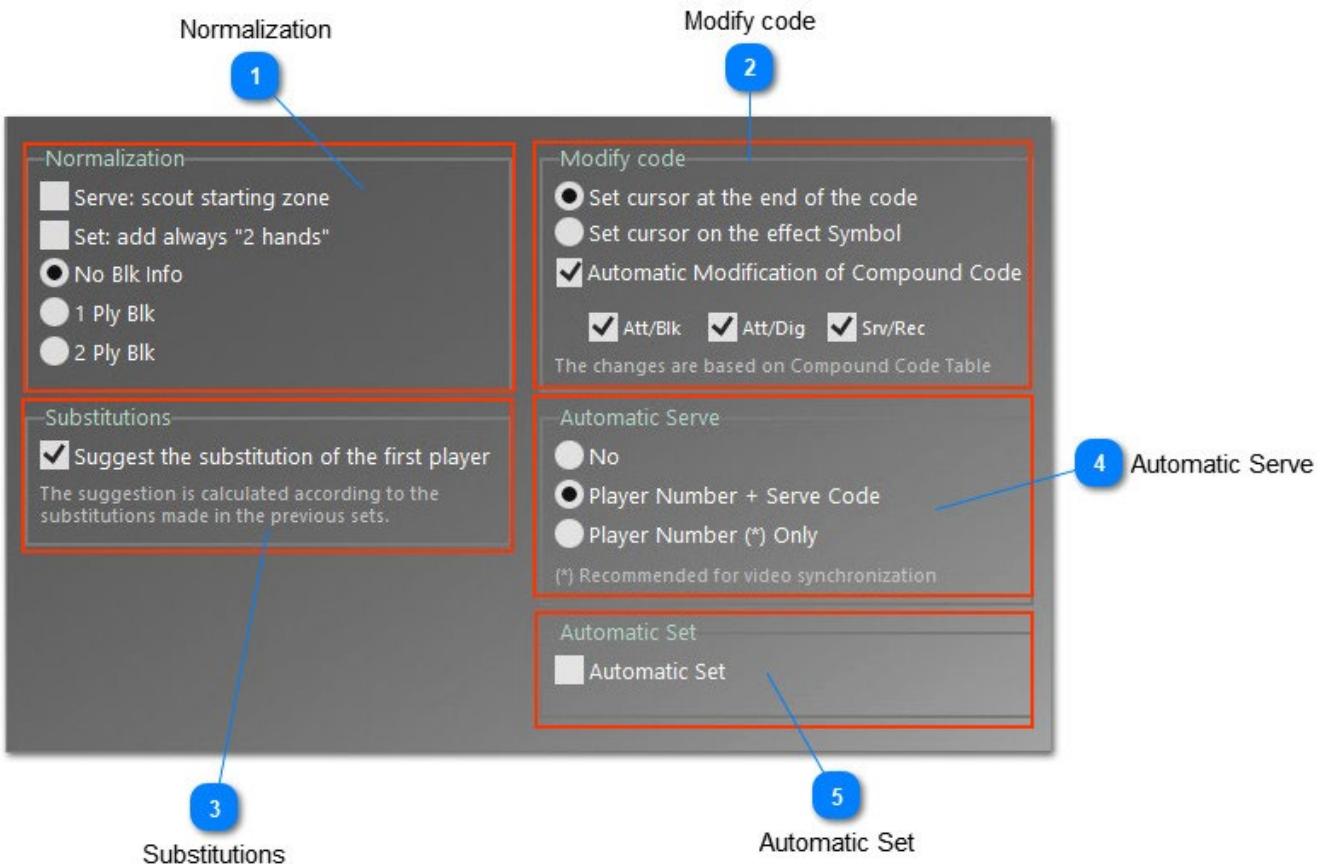
Example

Let us assume you have set the following parameters and see some examples of scouting:

Skill: attack (A); type: high (H); effect: +

- if the attacker No. 7 performs a high attack with effect + you can just type 7 and the code will be automatically normalized 07AH+.
- if the attacker No. 7 performs a high attack with effect # you can just type 7# and the code will be automatically normalized 07AH#.
- if the attacker No. 7 performs a quick attack with effect + you can just type 7Q and the code will be automatically normalized 07AQ+.

2.5.2 General Scouting



1. NORMALIZATION

Serve: scout starting zone, set: add always two hands, Default Block information related to the set code In order to have a precise code normalization phase, you need to indicate if you want the starting zone of the serve to be scouted, if it's always a "2 hands" set and you can select the default block information related to the set to be scouted.

2. MODIFY CODE

- **Set the cursor at the end of the code**, allows quick integration of data into the code
- **Set the cursor on the effect Symbol**, facilitates changes of the evaluation of the hit in a second time.
- **Automatic Modification of Compound Code** is a function that determines the automatic changes between two codes related to each other, according to the [Compound Code](#) Table: Serve-opposite Reception, Attack-opposite Block, Attack-opposite Defense, Attack-previous Set. After changing a code in the list, the related compound code will be automatically changed according to the following aspects:
 - **Type of ball**: the related code has the same type of code just modified. For example, modifying a SH in SQ, the reception becomes RQ.
 - **Effect**: the related code takes effect according to compound code. For example, changing S- in S +, the reception becomes R-.
 - **Attack Combination**: the type of ball and the side of the set served previously take on the characteristics of the current combination. For example, changing from X5 to X6, set changes from ET+K7F to EQ+K7B.
 - **Directions**: the area of the related code is set according to the code just modified. For example, changing a trajectory of Serve from 11 to 15, the reception becomes 15.

Of course the scoutman will continue to have the possibility to change any field of the scouting code.

3. SUBSTITUTIONS

Suggest the substitution of the first player. The program shows the same substitution made in the previous sets, leaving of course the possibility for the operator to change any information with maximum autonomy.

4. AUTOMATIC SERVE

By clicking in one of the three available options you can decide if you want to automatically enter the code relating to the next player serving in the scouting window, after pressing the End Rally key.

- **No**. After pressing the End Rally key, there will be no code displayed in the scouting window.
- **Player Number + Serve Code**. The program will enter automatically both the number of the player serving next, and the serve code (**S**)
- **Player Number Only**. The program will enter automatically only the number of the player serving next.

We suggest you to use this option if you **synchronize the images in the video with scouting**. The program

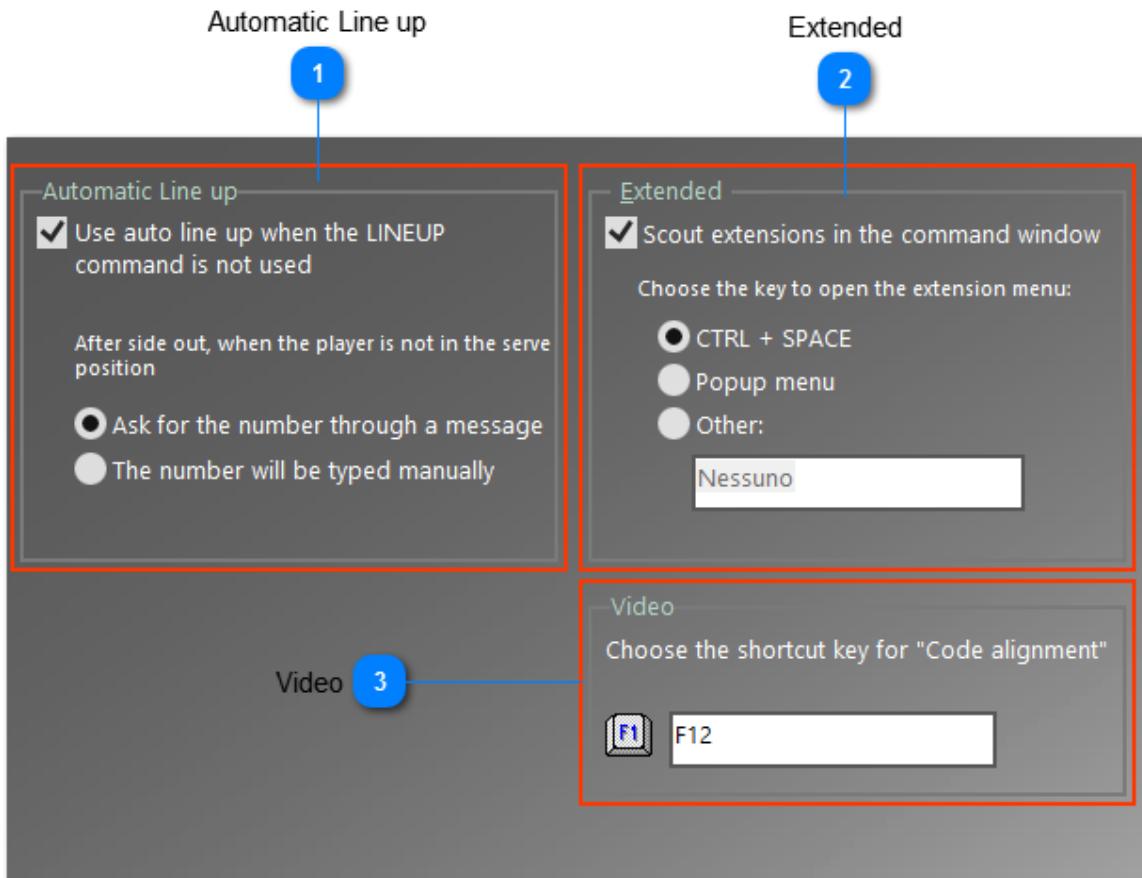
synchronize the video and the codes when the related keys are pressed (i.e. the serve is synchronized when the S key is pressed), so we suggest you use this option to allow the program to enter the number of the player but not the serve code to avoid confusion during the synchronization.

5. AUTOMATIC SET

Enable this option if you want automatically enter the code related to a set when you scout an attack.

- **If you add an attack combination** the software will check if it's possible to add automatically the set code.
- **If you add "X" to the attack code** the set will be automatically evaluated "#"
- **The set code will not inserted** when the setter attacks.

2.5.3 Advanced Scouting



1. AUTOMATIC LINE UP

Use auto line up when the LINEUP command is not used, to reconstruct the initial line up of each set if it was not entered at the beginning of the scouting by FORM or by the input mask. The program, after each side out, will memorize the number of the player performing the serve in the scouting window, and will reconstruct the lineup after six rotations. If you decide to use this function, useful for example when you do not have the lineups before the beginning of the match and you have no time to enter them because you have to start scouting, you can choose between two further options:

- The program will ask for the number of the player serving, after a side out, through a message
- You can manually type the number of the player serving after each side out.

2. EXTENDED

Scout extensions in the command window. Here you can indicate if you can enter one or more extensions specific for each code, during a scout, directly in the command line. You can activate an auto composition menu that will show the possible extensions according to the entered skill. Choose how to activate the menu:

- By clicking CTRL+SPACE
- By Windows PopUp menu
- By associating a personalized shortcut key in the related field.

3. VIDEO

You can customize the shortcut key that allows you to align a code with the relative video position while watching the video.

2.5.4 Regulation

Set the parameters for the different types of tournaments.

Indoor	Beach Volley
Number of Players in line up: <input type="text" value="6_"/>	Number of Players in line up: <input type="text" value="2_"/>
Number of Players in roster: <input type="text" value="14"/>	Number of Players in roster: <input type="text" value="2_"/>
Number of substitutions for each Set: <input type="text" value="6_"/>	
Number of playable Sets: <input type="text" value="5_"/>	Number of playable Sets: <input type="text" value="3_"/>
The first 4 sets end at points: <input type="text" value="25"/>	The first 2 sets end at points: <input type="text" value="21"/>
The set 5 end at points: <input type="text" value="15"/>	The set 3 end at points: <input type="text" value="15"/>
Invert court automatically at point 8 of Set 5. <input type="checkbox"/>	

2.5.5 Scouting Safety

For scouting safety, Data Volley allows to save automatically each End Rally a copy of scouting file on a removable drive (like an USB Flash-Disk).

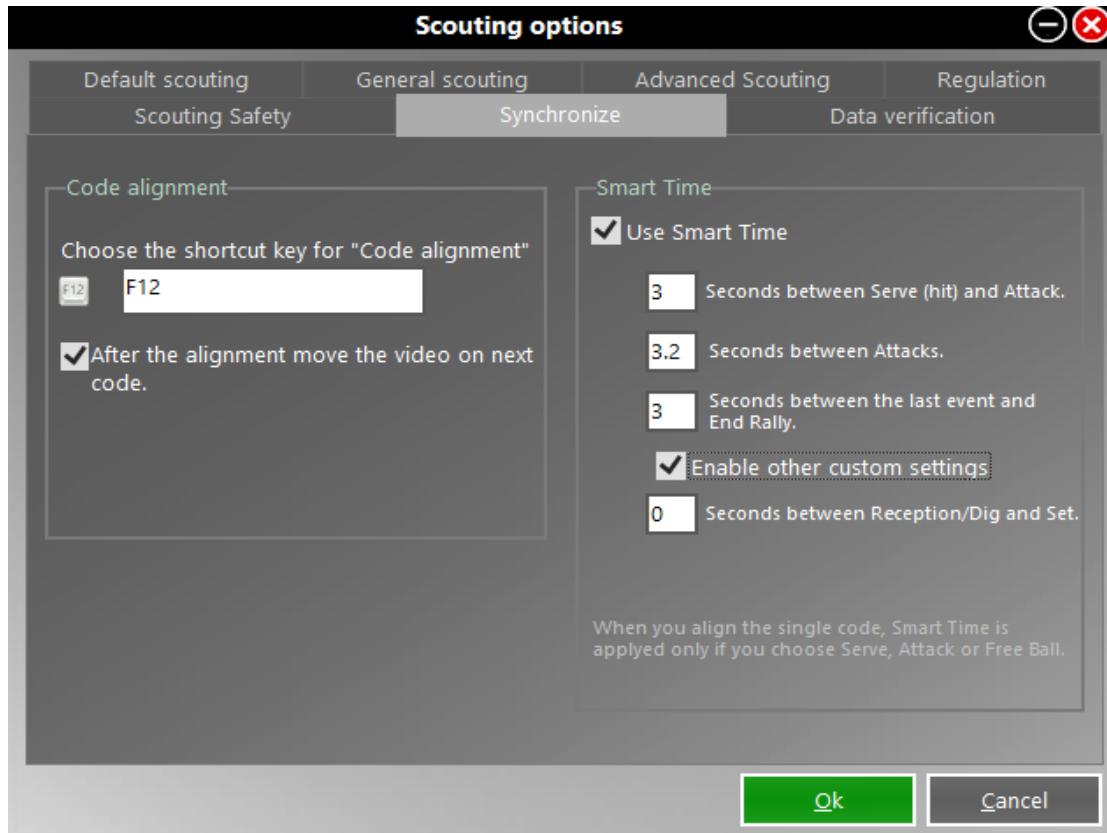
The name will be: &#Backup##_*dw

Select the removable drive:

The selected item is not a removable drive.
The backup cannot be activated.

2.5.6 Synchronize

In this Option tab it is possible to set some values that turn to be useful during the Synchronization of the stats file to the video.



1. CODE ALIGNMENT

In this phase it is possible to set the shortcut key for the synchronization of the code to its relative time frame of the video. By hitting this specific key during the play of the video, Data Volley will align the code highlighted in the Codes List to its corresponding frame of the video associated to the match.

By enabling the box the software, after hitting the shortcut key, will highlight the successive code in the codes list for a possible new alignment.

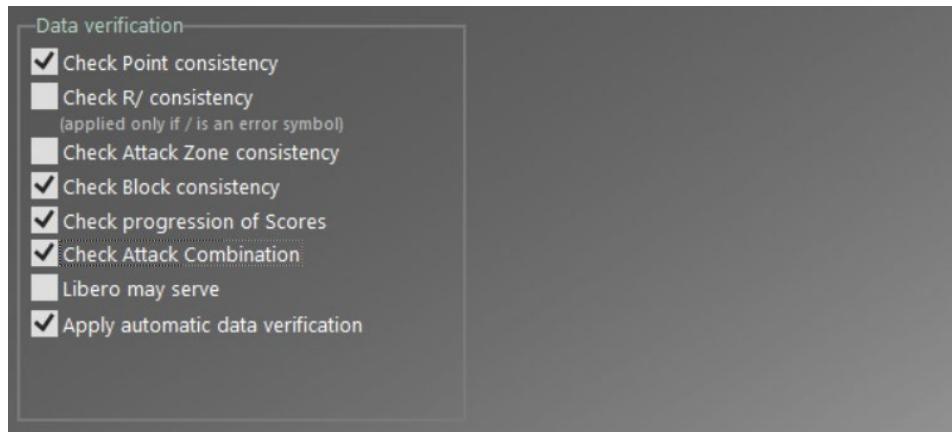
2. SMART TIME

By enabling this option, Data Volley will automatically synchronize all the codes in Smart Time mode, that means to apply 3 seconds gap between the Serve and the following opponent Attack and a 3.2 seconds between the successive attacks as well as 3 seconds between the final rally code (Attack or, Block) and the successive End Rally time-code. A further gap can be applied between Reception / Dig and the following "Set".

For more details about the Alignment Smart Time mode, see paragraph 6.1.4.4

2.5.7 Data Verification

In this option tab it is possible to enable or disable some tool related to the automatic data verification.



- **Check point consistency**, the software automatically verifies if the point is correctly assigned
- **Check R/ consistency**, by selecting this box, the program checks the consistency of the code for R/ (if / is set as a negative effect for reception, after R/ an opponent kill skill must follow).
- **Check Attack Zone consistency**, the software will automatically verify the congruity between the scouted attack combination and the player position on court.
- **Check Block consistency**, the software will automatically verify the congruity between the scouted block and the player position on court.
- **Check progression of Scores**, the software will automatically verify the congruity between the point entered and the correct Score progression. (Common Error e.g. *p01:00 -> *p03:00)
- **Check Attack Combination**, shows a warning when an Attack Combination is not assigned to an Attack.
- **Libero may serve**, essential for the NCAA American regulation, useful for scouting during friendly matches
- **Apply automatic data verification**, verify the congruity of the code at the end of each action.

2.6 Keyboard remapping

Data Volley allows you to customise the keyboard creating shortcut keys to insert certain information and command, to help and speed up the scouting process. For example, by using a **shortcut key** inside the scouting window, the program will automatically insert the associated code.

From Tools, select Keyboard remapping to open the related window.

Code	Key	Description
=	I	
-	'	
/	è	
+	+	
#	ù	
!	!	
a	à	Prefix code for visiting team
*	ô	Prefix code for home team
End rally Lft	<	Assign end rally to the team on the left side
End rally Rgt	,	Assign end rally to the team on the right side
Points Lft +	F2	1 extra point for the team on the left side
Points Lft -	F3	1 less point for the team on the left side
Points Rgt +	F6	1 extra point for the team on the right side
Points Rgt -	F7	1 less point for the team on the right side
Rotation Lft +	F4	Forward rotation for the team on the left side
Rotation Lft -	F5	Back rotation for the team on the left side
Rotation Rgt +	F8	Forward rotation for the team on the right side

The functions are preset by the program, and must necessarily be preset before starting to scout. In particular, we need to define the corresponding commands to:

- evaluations
- end rallies
- changes in score and rotation

In particular it is possible to define:

- Keys associated to the different values to insert in the scouting window whilst inserting the codes in order to use one key for every symbol (i.e. no need to use the key combination Ctrl+Alt+à to enter #. These default shortcuts are set by the program:

CODE	KEY
=	í
-	'
/	è
+	+
#	ù

- Prefix for home and away teams

CODE	KEY
a (away)	\
* (home)	ò

- Assigning an End Rally

CODE	KEY
End R. rgt	,
End R. lft	<

- Point increase and reduction

CODE	KEY
Points + lft	F2
Points - lft	F3
Points + rgt	F6
Points - rgt	F7



The score can also be modified using the buttons inside the [Scouting Window](#)

- Rotation changes

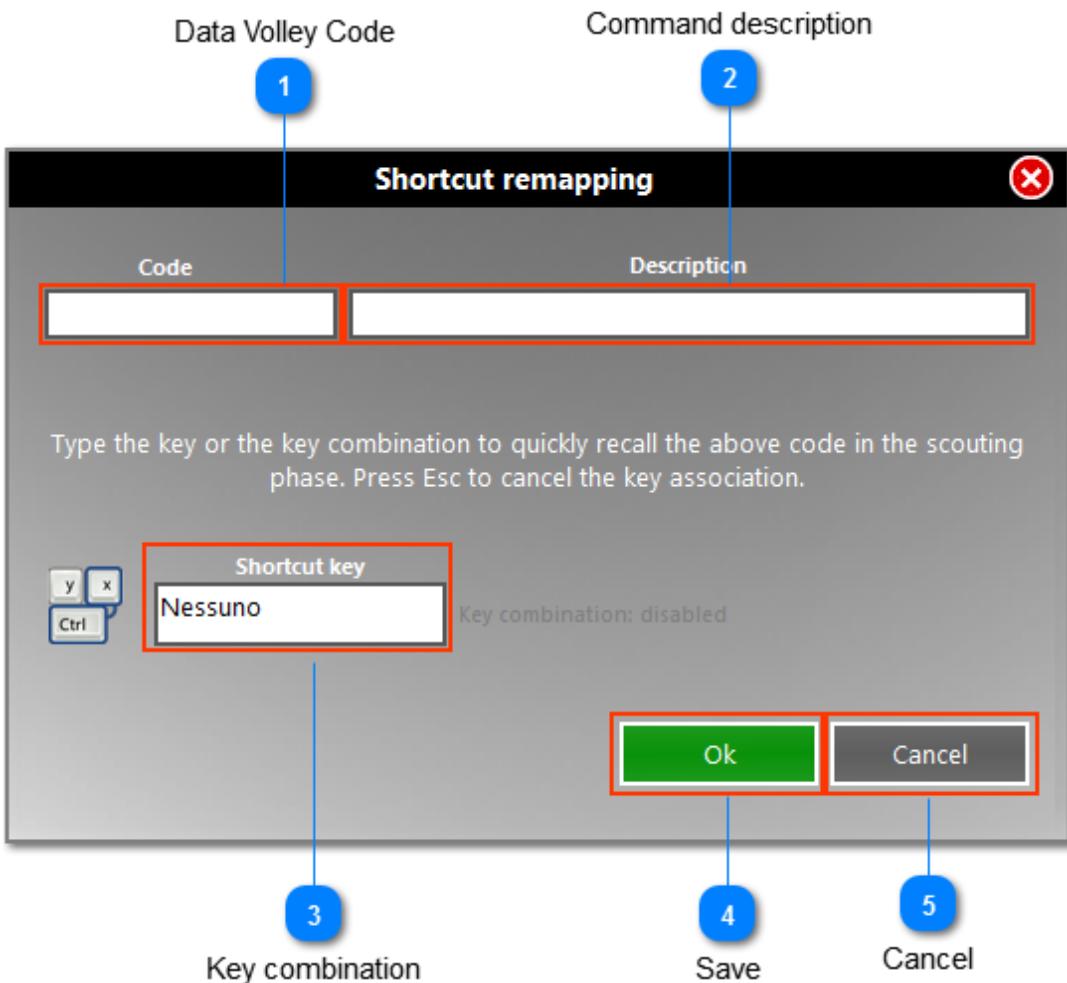
CODE	KEY
Rotat. + lft	F4
Rotat. - lft	F5
Rotat. + rgt	F8
Rotat. - rgt	F9



Rotations can also be modified using the buttons in the [Scouting Window](#)

You can add new shortcut keys by clicking **[Add]** in the keyboard remapping window.

The following window will appear. You have to fill the appropriate field with the new shortcut for the selected command.



Example of additional commands:

- Ⓐ set a key corresponding to a shirt number higher than 9
- Ⓐ define specific attack combinations
- Ⓐ define combinations like **Ctrl+key** or **Alt+key** to match a very frequent and complete scouting code (e.g. number of shirt/skill/evaluation).

N.B. Combinations of more keys can be used only for End Rally, Score and Rotation variations. For the other scouting codes you must choose only one key.

Few suggestions:

add labels to the keys indicating the associated symbol/function.

- Ⓐ The keys corresponding to (=, -, /, !, +, #) effects and to the home and away team prefixes (*, a), should be set on the right side of the keyboard (or on the left side if you are left-handed).
- Ⓐ Add labels to the keys indicating the associated symbol/function.
- Ⓐ Do not use the same key for more than one command.
- Ⓐ Maintain the key function (i.e. do not change the position of the plus sign +).
- Ⓐ Remap keyboard positioning the corresponding symbols next to their original function (i.e. associate = to the "i" key).
- Ⓐ Choose keys close to each other for the evaluation symbols (i.e. negative values on the same row).
- Ⓐ Keys for End Rally functions should be at right and at left of the Space bar.
- Ⓐ You can update score and rotation by using Ctrl+Key, Alt+Key, or the function keys (e.g. F1 - rotation + left, F12 - rotation + right etc...).
- Ⓐ It is advisable to first use the program with the default settings and then return to the keyboard remapping after taking some familiarity with the program to adapt it to best suit your needs.
- Ⓐ It is advisable to use shortcuts like Ctrl+key, Alt+key, Shift+key, Ctrl+Alt+key, Shift+Ctrl+key for the analysis.

Certain shortcuts, defined by the program, can not be modified but can be used at any time during a scout

2.6.1 Preset shortcut keys

Ctrl+A → UNDO END RALLY, can only be used when no other code has been inserted in the scouting window after the End Rally code.

Ctrl+T → closes all current analysis.

Ctrl+P → prints the current analysis or the analysis that is currently open. This shortcut will only print the analyses that are displayed on the screen unlike the TAB key.

Ctrl+U → update the statistical tables with the new information that has been inserted. It is the equivalent to the UPDATE command.

Ctrl+V → checks the information in the Codes list window and is the equivalent to the VER command .

Ctrl+R → allows you to look for a certain type of code in the Codes list window; you can also use the button "search" in the bottom part of the code list window.

ENTER → modifies the selected code in the Codes list window.

INS → add a code in the Codes list window before the selected code.

DEL → delete the selected code from the Codes list window. A pop-up will ask to confirm the deletion.

Ctrl+Space → opens the Extensions menu in the Codes list windows.

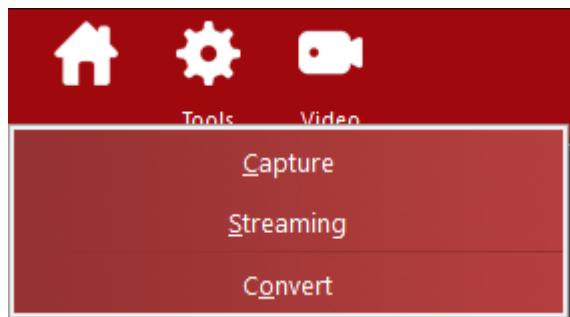
TAB → this key allows you to print the previously saved analysis. The program allows you to save the analysis settings used frequently through shortcut keys (i.e. players analysis, all skills, details of all the home team players with **Alt+G**).

TAB+shortcut→ allows you to print the analysis even if it is not displayed on the screen. You will need to keep the TAB key and the other key combination associated to a specific analysis pressed at the same time, this will send the analysis straight to the printer even if there is no preview and the analysis is not displayed on the screen.

Once finished your preliminary operations, you are now ready to begin the scout.

3 Video

By clicking the Video button, the related menu shows capturing, streaming, converting options.



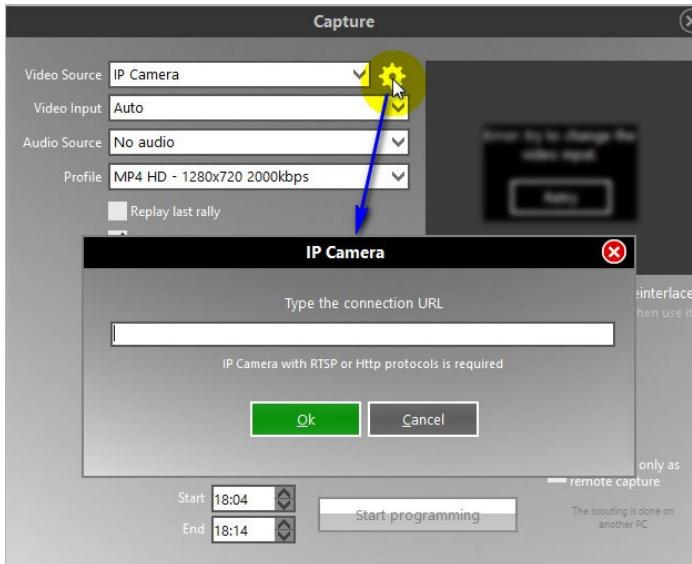
3.1 Capture

By clicking Capture the following window will open.

The screenshot shows the "Capture" window with several features highlighted:

- Video input resolution**: A dropdown menu showing "Auto" selected, with other options like "1280x720 @25 (bgr24)" listed.
- Recording format**: A dropdown menu showing "MP4 SD - 852x480 1100bps" selected, with other options like "MP4 HD - 1280x720 2000bps" and "XviD - 720x576 1100bps (PAL)".
- Video source**: A dropdown menu showing "Decklink Video Capture" selected, with other options like "Blackmagic WDM Capture", "Dazzle DVC100 Video", "Decklink Video Capture", "vMix Video", and "vMix Video External 2".
- Audio**: A section with a dropdown menu showing "No audio" selected.
- Deinterlace**: A preview window showing a basketball player in action with the text "The image looks like this?" and "Enable the Deinterlace" with a checkbox.
- Path capture file**: A section with a folder icon and the path "C:\Data Project\Data Volley 4\Seasons\World League 2014\12_poo03 italy-poland.mp4".
- Start recording**: A green button labeled "Start recording".
- Use this PC only as remote capture**: A checkbox with the note "Check this box if scout is made on another pc." and "The scouting is done on another pc."
- Transmit Streaming**: A dropdown menu showing "Normal (Suggested)" selected, with other options like "Low" and "High".
- Replay last rally**: A section with a green button labeled "Start programming".
- Streaming**: A separate window showing "Come guardare lo streaming da postazioni in rete" and "Collegare in rete con questo computer i PC o Tablet su cui avviare Web Client o un altro Data Volley 4". It includes URLs like "http://169.254.122.42:50105" and "http://169.254.122.42:50106".
- Capture programmed**: A section with a green button labeled "Start programming".

The Software allows you to capture also by using an IP Camera.



To allow the software to connect to the IP Camera, you need of protocols RTSP or http.

You can find the Camera URL on the manufacturing factory website or in the user manual.

Set the desired parameters and the destination folder of the video file. For HD video recording we [suggest AverMedia Live Gamer Mini](#). Then choose between:

1. [Start recording](#)
2. [Start programming](#)

3.1.1 Start Recording

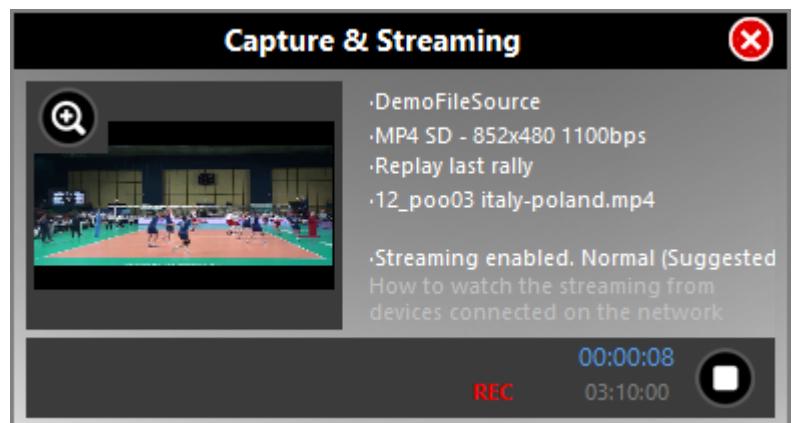
Set the recording time and click **[Start Recording]** to start capturing. The following icons will appear on the right →



By clicking the Capture icon the following window will open. There you can find the capture configuration infos, the time elapsed (blue) and the total length of the video (grey).

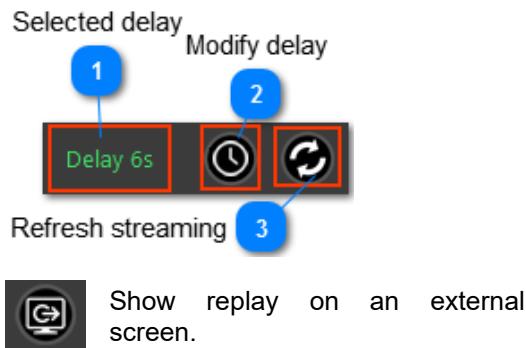


Press **Stop** to stop capturing. A control message will ask to confirm.



By clicking the Replay icon you can watch the Streaming delayed by 6 seconds.

By using the icons in the window you can modify the delay and the streaming update:



Every time the scoutman assigns a point, the application creates a video clip. Data Volley memorizes the last 4 clips.

Go to Last rallies to watch the last 4 rallies.

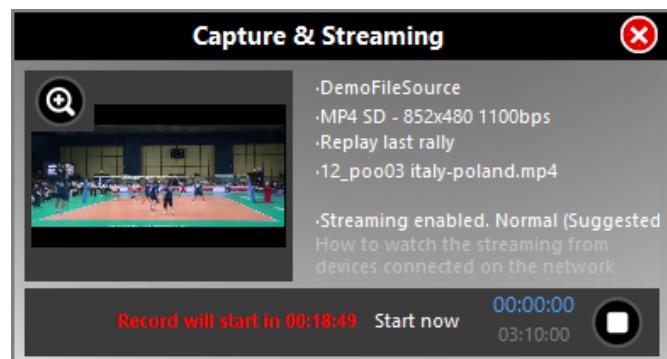
3.1.2 Start Programming

Set the starting and ending time and click [Start Programming]. The following icons will appear on the right →



By clicking the Capture icon the following window will open. There you can find the capture configuration infos, the time elapsed (blue) and the total length of the video (grey). Click [Start now] to reset the red countdown and start capturing immediately.

Press to stop capturing. A control message will ask to confirm.



Even if you are not recording, you can watch the streaming of the video source by clicking the Replay icon.

3.1.3 Capture card: AverMedia LGP or LGP Lite (models C875, GL310)

The Stream Engine driver is a particular driver developed by AverMedia, which allows the LGP to be compatible with all softwares using DirectShow, like Data Volley.

By using the [LGP](#) and [LGP Lite](#) drivers, these video capturing cards interface perfectly with Data Volley and allow capturing HD videos compatible with Video Sharing 4.

After connecting the card on your computer through an usb cable, install the card driver, the software and the stream engine. Then you should:

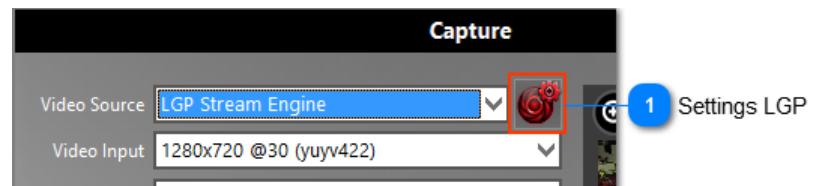
- for LGP: Connecting your camera through a HDMI cable or RGB component cable.
- for LGP Lite: Connecting your camera through a HDMI cable



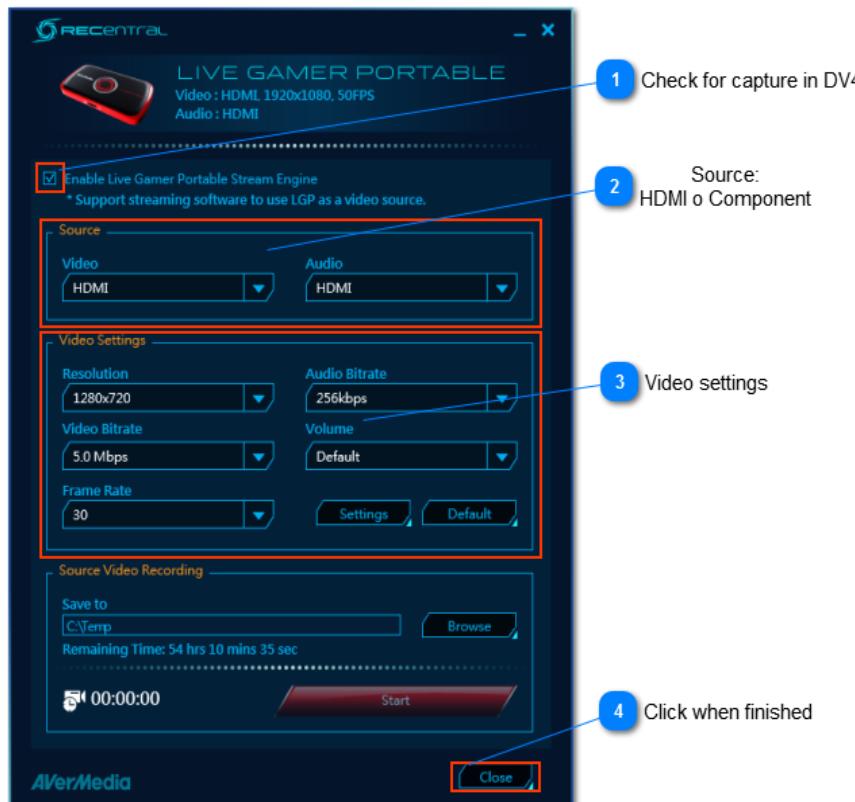
- only for LGP: Set the PC mode.



- Run Data Volley and click Capture from the Video menu. The settings window will open. Click on the red icon to open LGP settings. Select the parameters related to the Capture Card.



The following window will open:



In order to ensure the best quality, set AVerMedia LGP with these minimum parameters:

- HD Capture: Resolution 1280x720, Video Bitrate 5Mbps, Frame Rate 30
- SD Capture: Resolution 848x480, Video Bitrate 5Mbps, Frame Rate 30
- FHD Capture: Resolution 1920x1080, Video Bitrate 5Mbps, Frame Rate 30

3.1.4 Capture Card: AVerMedia LGP2



You can download the Software from the AVerMedia Website:

https://www.avermedia.com/gaming/download/live_gamer_portable_2#ans_part

Or from the direct link:

http://storage.avermedia.com/web_release/www/GC510/RECentral_3_v3.0.0.78_17061501.exe

Connect The Capture Card to the PC through an USB cable and Camera to the Capture Card through a HDMI cable.

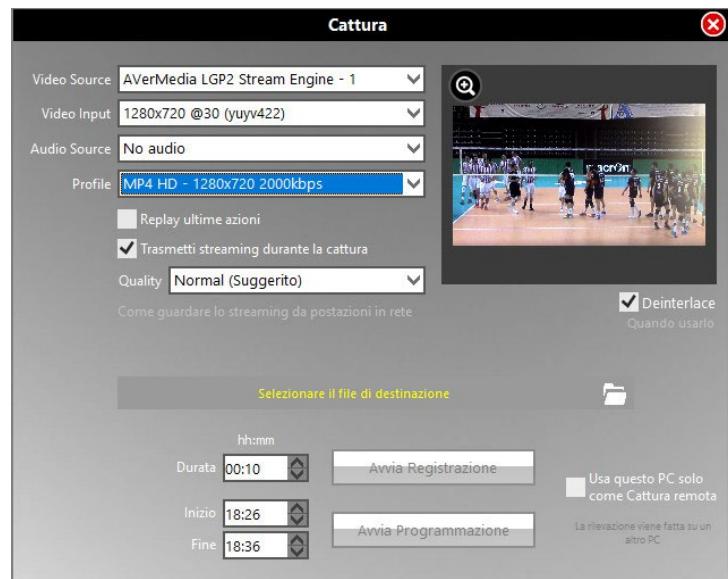


Switch the button on PC mode to connect the device to your PC.

Launch DataVolley 4.

In the window Capture and Streaming, select "AVerMedia LGP2 Stream Engine -1".

The last step is to select from the "Video Input" drop-down Menu, the option 1280x720 @30 (yuyv422).



3.1.5 Capture Card: AverMedia LGX

The AverMedia LGX (Live Gamer Extreme) allows you to capture and stream not compressed Videos with ultra low latency. It's the ideal solution to stream a Video in real time.



PLEASE NOTE The AverMedia LGX is compatible only with Windows OS, it needs of USB port 3.0 and selected chipsets.

Please have a test before to purchase the capture card by clicking on the link below:

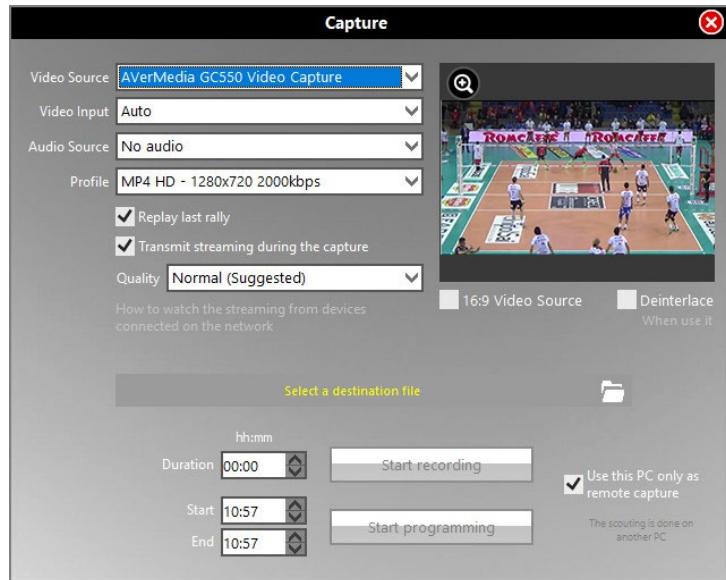
http://www.avermedia.com/it/gaming/product/game_capture/live_gamer_extreme

Scroll the page in order to find the yellow warning and click on "compatibility test tool" to download the Zip folder. Extract the file related to your OS and launch the Test.

You can download the LGX software form the following direct link:

http://storage.avermedia.com/web_release/www/GC573/RECentral_4_v4.3.1.83x64.exe

Connect The Capture Card to the PC through an USB cable and Camera to the Capture Card through a HDMI cable



3.1.6 Capture Card: AVerMedia LGP2 PLUS

The AVerMedia LGP2 Plus builds on its predecessor the LGP2 allows you to capture a Video at Full HD 60 fps.



You can download the LGP2 software form the following direct link:

http://storage.avermedia.com/web_release/www/GC573/RECentral_4_v4.3.1.83x64.exe

Connect The Capture Card to the PC through an USB cable and Camera to the Capture Card through a HDMI cable

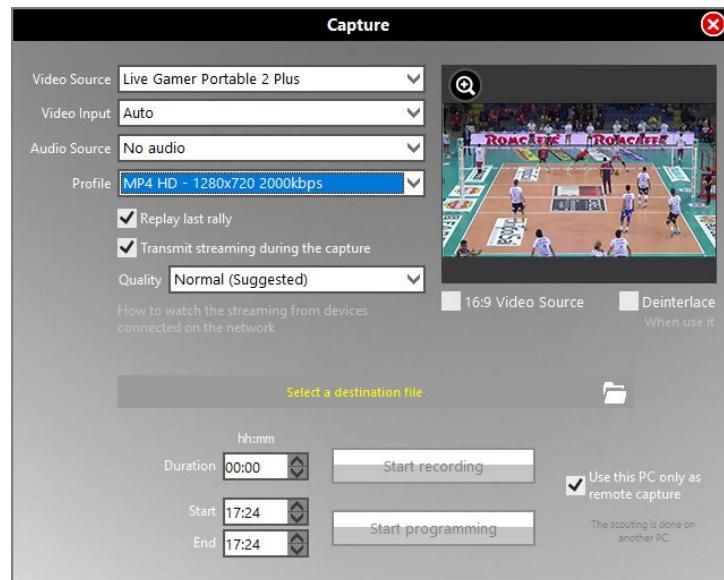


Switch the button on PC mode to connect the device to your PC.

Launch DataVolley 4.

In the window Capture and Streaming, select "Live Gamer Portable 2 Plus".

The last step is to select from the "Video Input" drop-down Menu, the option Auto if needed.



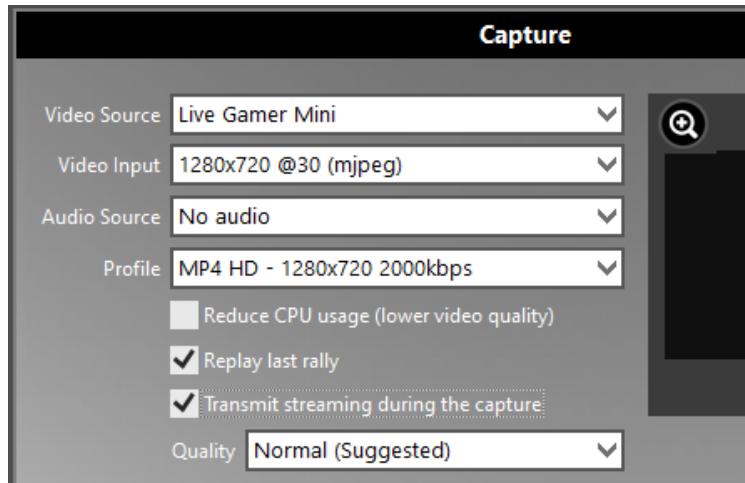
3.1.7 Capture Card: AverMedia Live Gamer MINI (RECOMMENDED)

It is a Plug&Play device that doesn't need the installation of RECENTRAL, STREAM ENGINE or any other driver. This is the simplest capture card to use for capturing video from cameras or HDMI sources.



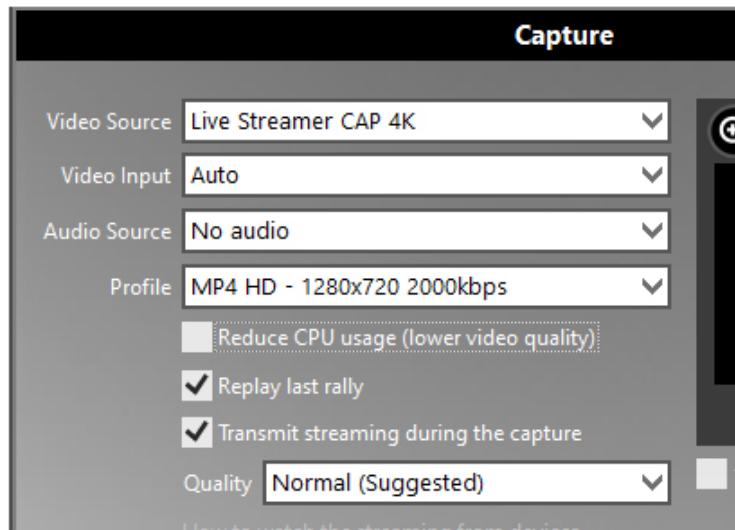
CPU Usage Optimization, best choices:

- For MP4FHD, Video Input AUTO is recommended.
- For MP4HD, Video Input 1280x720 @30 (mjpeg) is recommended.



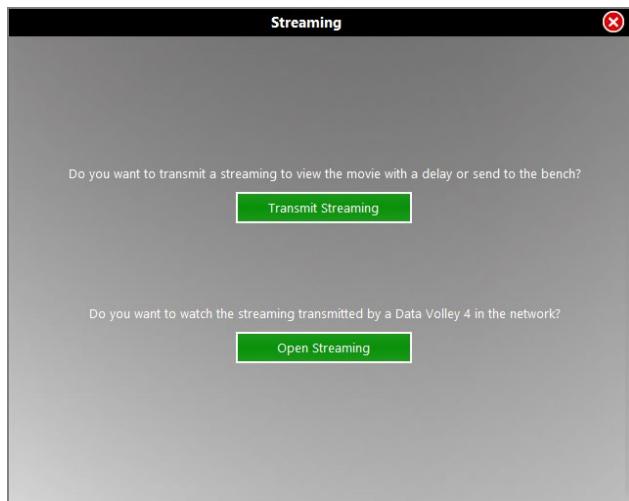
3.1.8 Capture Card: AverMedia Live Streamer 4K

It is a Plug&Play device that doesn't need the installation of RECENTRAL, STREAM ENGINE or any other driver. This is the simplest capture card to use for capturing video from cameras or HDMI sources.



3.2 Streaming

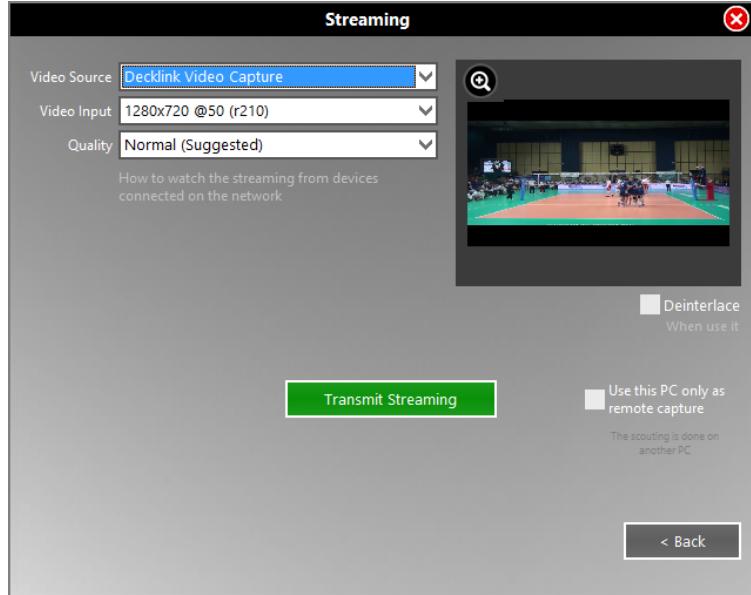
This window will open when you click on Streaming in the Video's Menu.



Choose between:

1. [Transmit Streaming](#)
2. [Open Streaming](#)

3.2.1 Transmit Streaming



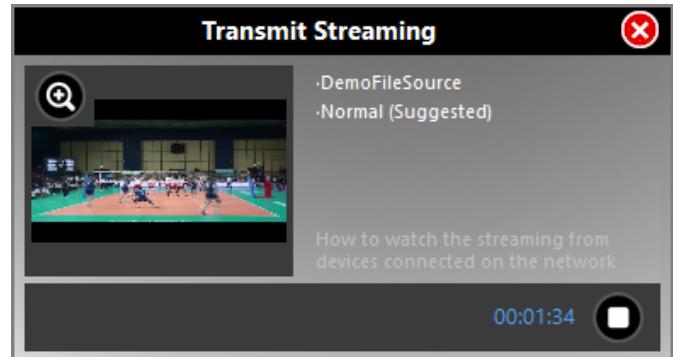
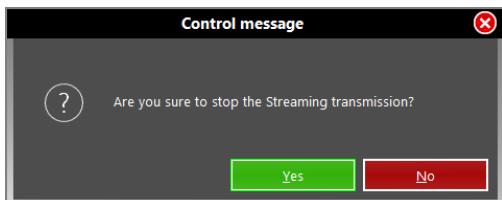
Set the Video source, the resolution of the input and the streaming quality. Check Enable short delay for 5-6 second video delay.

Click [Transmit Streaming] to start sending the video. The following icons will appear on the right
→



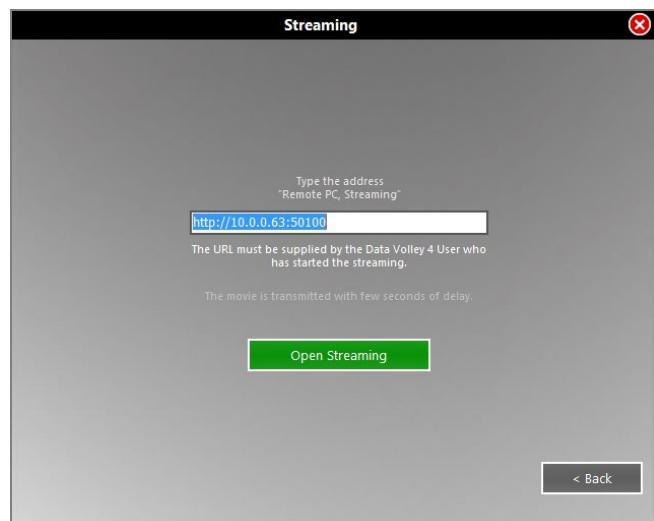
By clicking the icon 'Transmit', the following window will open. There you can find the transmitting infos and the time elapsed (blue).

Press to stop streaming. A control message will ask for a confirm.



You can watch the streaming of the video source by clicking the Replay icon.

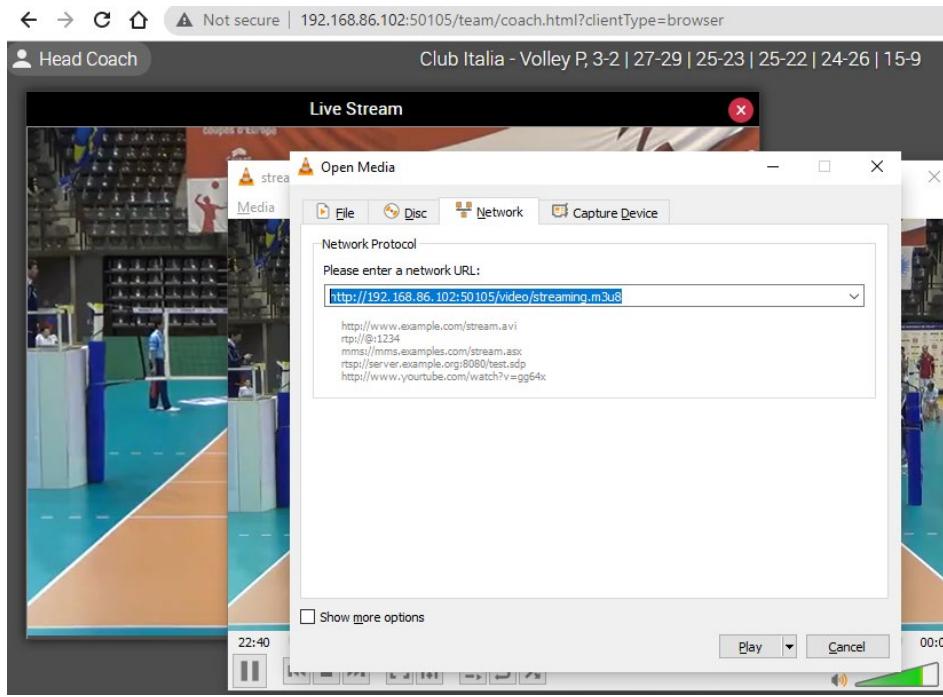
3.2.2 Open Streaming



Type the network address of the computer that transmits streaming and click [Open Streaming] to start getting images.

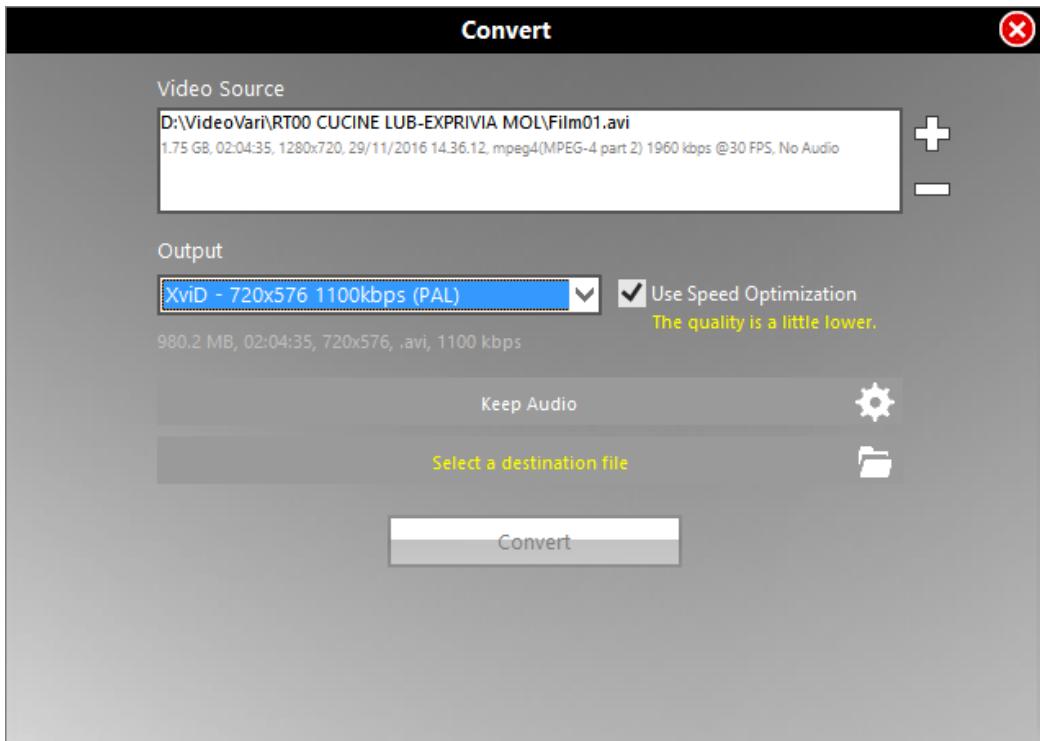
It's possible to play the streaming using third party software. In this case, the streaming delay is handled by the third party player. In the following example, you can see how to manage it in VLC Media Player.

- In VLC select **Open Media** -> **Network**
- Type the following URL: "http://192.168.86.102:50105" (Web Client URL)
- And add to the URL: "/video/streaming.m3u8"
- This is the final outcome: "**http://192.168.86.102:50105/video/streaming.m3u8**"
- Select **Play**



3.3 Convert

By selecting "Convert" mode, it is possible to convert a file video or create one video file from different video sources.



- Add a video file by clicking on [+] icon
- Select output

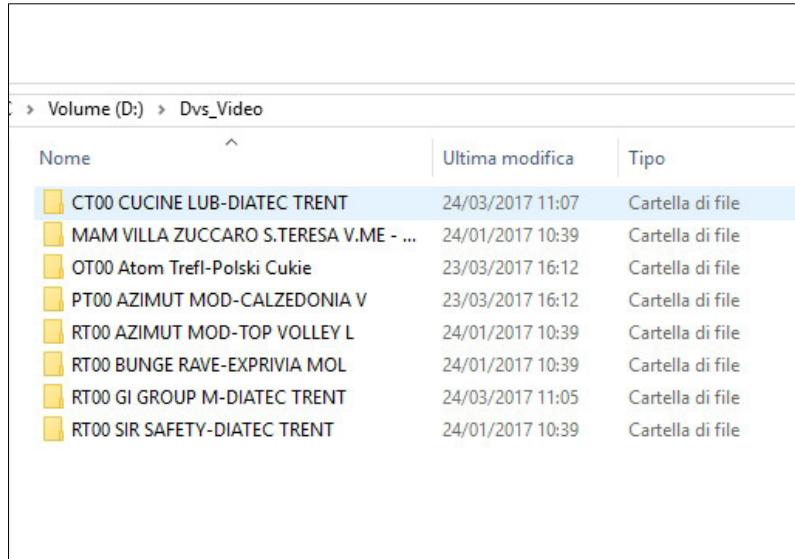
- Select a destination file
- Click on [Convert].

The Software allows you to add other videos in queue while it is converting another video.

3.4 Destination folder (Dvs_video)

In Capture and Convert mode when you select the destination folder the software will drive you to the default DVS-Video folder, you can choose to save the file in this folder or to select a new one.

By Using the default folder, The Software will generate an Archive contained all Video files, it will allow you to find faster a Video File: by saving the folder on an external Hard Disk and by connecting it to another PC, the software will find automatically the file path to associate to a Match.



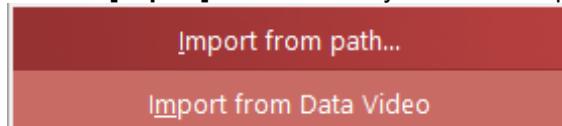
3.4.1 Import matches from Data Video

You can select to import a file by selecting the path or import from Data Video.

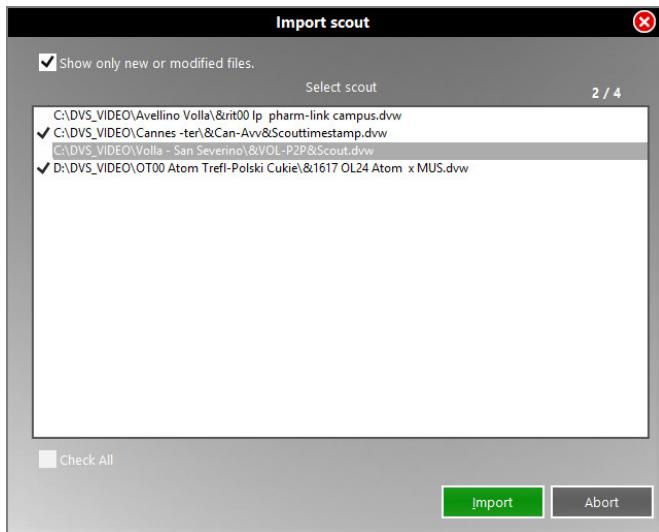
The software allows you to select one ore more matches stored on a Server or an external Hard Disk, created or modified with Data Video.

To Import a match from Data Video, select the Season in which import the matches you want to analyze.

Click on [Import] and choose if you want to import a match from Data Video.



By selecting Data Video the software will display all matches available, select the matches of interest from the following window, then click on Ok.



Data Volley 4 will upload all scout files in the season.

The screenshot shows the "New Season" screen of the Data Volley 4 software. At the top, there are "Teams" and "Tables" icons. Below them is a navigation bar with "Select a team", "New Match", and "Import" buttons. The main area displays two match entries:

Date	Home Team	Score	Away Team	Notes
03/13/2017	Atom Trefl Sopot	3 - 2	Polski Cukier M	ORLEN Liga 2016/2017 - ORLEN Liga 2016/2017 - Faza Zasadnicza, Away - ORLEN Liga 16/17
11/04/2016 00.00.00	Cannes	0 - 0	Avv	supercoppa test

4 Scouting a match

The scouting allows you to quickly transform what you see (performed by the various key players) in a [standard code](#) analyzable by the computer. The scout can be made for one or both teams.

You type the code inside the Scouting Window through the keyboard. You have to type a variable number of characters for each skill, depending on the accuracy of the analysis required. The choice of the type of scouting to be made varies depending on the capacity of the scoutman:

Basic scouting level: 5 required characters [team(1), player number(2), skill(1), evaluation(1)] + 1 optional character (type of hit)

Advanced scouting level: 6 basic characters + max 5 characters [combination(2), starting zone and landing zone(2), landing underzone(1)]

Extended scouting level: the 11 previous characters + max 3 characters that vary according to the skill.

In this regard it should be remembered that to have an objective scout it is important that the data collected are error-free. So the first rule of a scoutman is: **few data but certain!** It is better to scout a skill less, than to scout many improperly.

Before starting to scout is important to know the code used by Data Volley.

4.1 The Data Volley code

The statistic data scouting through the Data Volley Software allows you to quickly transform what you see (the general skills performed by the players) into a standard code that is then analyzed by the computer.

Basically, the statistic scouting represents a structured model for describing the game in order to become a valid and significant support when making team and game decisions.

The main advantages of using a model for the description are: abstraction, summary, low price and rapidity.

These features lead to the primal objective of the statistic data scouting: **objectiveness**.

Following the statistical scouting the data can be used as follows:

- during the match as decision making support and to verify the game plan used (constant check on the players performance, acknowledgement of the opponents deficiencies, distribution of the setters, direction of the attacks and many other)
- before the match for the match plan preparation (through the analysis of the individual and of the opponent team performance, the distribution of the players in each situation and rotation, the direction of the attacks and of the serves).
- during training as additional support to aimed sessions (for example: improving the weak rotations of the team; effectiveness of each attacker; behaviour of the setter in specific situations).

The Data Volley code allows you to turn all the actions that take place during the match in a very specific code that describes, in detail, each hit made by players, to allow you to make precise and detailed analysis of each technical and tactical aspect of the game .

The Data Volley code consists of numbers, letters and symbols, and has positional value, that is to say that the meaning of each character depends on the position in which it is typed. This code allows the user to define in a precise and unambiguous way each hit to make highly specific, detailed analysis.

In order to proceed with the description of the code, we should briefly introduce the concept of **normalization of the code**, which is essential to understand how the program works, and resumed later more specifically. We said that the Data Volley code is highly positional, that is to say that each character has a specific meaning, depending on the location in which it is placed. This pattern is rigid for what concerns the so-called normalized codes, that means reconstructed by the program according to what the user typed in the Scouting Window, and stored in the Codes List Window in the standard format. This system allows to make research and analysis in a quick and easy way.

For what concerns entering the code from the keyboard, it is possible, through some automatism of the program, to exit from the scheme, sometimes, and permit an easier and faster input. During the explanation, we will follow, as a guideline, the structure of the normalized standard code, but we will see, at the same time, how you can shorten the code during the scouting.

Code syntax

Main code					Advanced code					Extended code			Custom
1	2-3	4	5	6	7-8	9	10	11	12	13	14	15	16-20
1	2-3	4	5	6	1-2	3	4	5	6	1	2	3	1-5
* H aV	Play Numb 00..99 \$\$ Tm	Skill S Ser R Rec A Attk B Blk D Dig E Set F Fr B	Type H High M Medium Q Quick T Tense U Super N Fast O Other	+	Cmb		Start zone <i>Attk</i> W. Y. G. P. ..	End zone <i>Attk</i> 1..9 <i>Srv</i> 561 79	End zone+ <i>Attk</i> <i>Srv</i> A B C D	Skill type <i>Attk</i> H Hard Spike P Soft Spike T Tip	Players <i>Attk</i> 0 no block 1 1 player blk 2 2 players blk 3 3 players blk 4 hole block	Special <i>Attk</i> Points 5 Block Out Side O Block Out Long F Block on floor X Direct on floor N Let Continue C block Control N Let Errors 5 Attack out side O Attack out long N Attack in Net I Net contact A Antenna Z Referee call	~~~~~
					Setter Calls	Targ Attk	Esec zone <i>Rec</i> <i>Set</i> <i>Dig</i> <i>Blk</i> <i>Fr B</i> 1..9	Esec zone+ <i>Rec</i> <i>Set</i> <i>Dig</i> <i>Blk</i> <i>Fr B</i> A B C D	<i>Blk</i> A Assist T Attempt	<i>Blk</i> 0 no block 1 1 player blk 2 2 players blk 3 3 players blk 4 hole block	<i>Blk</i> Errors 5 Ball out side O Ball out long F Ball on floor X between hands N hands - Net I Net contact A Antenna P No jump T Position error Z Referee call		
							<i>Rec</i> L on Left R on Right W low O Overhead M Middleline	<i>Rec</i> 1 II phys - Lft 2 II phys - Rgt 3 III phys - Lft 4 III phys - Cnt 5 III phys - Rgt 6 IV phys - Lft 7 IV phys - LftC 8 IV phys - RgtC 9 IV phys - Rgt	<i>Rec</i> 1 II phys - Lft 2 II phys - Rgt 3 III phys - Lft 4 III phys - Cnt 5 III phys - Rgt 6 IV phys - Lft 7 IV phys - LftC 8 IV phys - RgtC 9 IV phys - Rgt	<i>Rec</i> Errors U Unplayable X body error P position error E Lack of effort Z Referee call			
							<i>Srv</i> 1 1 Hand 2 2 Hands 3 Bump 4 Other 5 Underhand	<i>Srv</i> Points N Let Continue N Let Errors O Ball out long L Ball out left R Ball out right N Ball in Net Z Referee call	<i>Srv</i> Points N Let Continue N Let Errors O Ball out long L Ball out left R Ball out right N Ball in Net Z Referee call				
							<i>Set</i> 1 1 Hand 2 2 Hands 3 Bump 4 Other 5 Underhand	<i>Set</i> Errors U Unhitiable I Net touch Z Referee call	<i>Set</i> Errors U Unhitiable I Net touch Z Referee call				
							<i>Dig</i> S on Spike C spike Cover B after Block E Emergency	<i>Dig</i> Errors U Unplayable X body error P position error Z Referee call F Ball on floor O Ball out E Lack of effort	<i>Dig</i> Errors U Unplayable X body error P position error Z Referee call				
							<i>Fr B</i>	<i>Fr B</i> Errors U Unplayable X body error P position error Z Referee call	<i>Fr B</i> Errors U Unplayable X body error P position error Z Referee call				

Scout code specifications

The scout codes are divided into three macro categories:

1. [Main Code](#)
2. [Advanced Code](#)
3. [Extended Code](#)
4. [Custom Characters](#)

Let's see them one by one in detail.

4.1.1 The main code

The main code, which includes primary and fundamental information about each shot, is composed of up to 5 entries (6 characters):

- **TEAM** (1 character)

The first character indicates the team of the player that performs the hit. If the player who touches the ball belongs to the home team, the first character will be indicated by “*”, if he belongs to the away team it will be indicated by “a”.

PLEASE NOTE: if the hit is performed by a player of the home team, there will be no need to add a character as the program, during the code construction phase, will automatically add the * symbol at the beginning of the code. If the hit is performed by a player of the away team, you will have to add the letter "a" at the beginning of the code.

- **PLAYER NUMBER** (2 characters)

The Number on the shirt of the player who performed the hit will always be the first real digit of a scout code. If the hit is performed by a player from the opposite team the letter "a" must be positioned before the number (for example a5). There is no need to add a zero number for those players who have a single number. You can use numbers from 0 to 99 for both teams.

- **BASIC SKILL** (1 character)

This character indicates the performed skill. This table matches the character with the skill:

BASIC SKILL	
S	Serve
R	Reception
A	Attack
B	Block
D	Dig
E	sEt
F	Free ball

- **TYPE OF HIT** (1 character)

This character defines and details the effects of the skills outlined in the previous table:

TYPE OF HIT	
H	High
M	Medium
Q	Quick
T	Tense
U	sUpер
N	Fast
O	Other

With "O" for Other we indicate the balls that can't be classified under the other ball types in the above list.

The charts below are the reference types of the hits, skill by skill: as you can see the type for each skill has a different meaning.

SERVE

TYPE OF HIT	MEANING
High	Floating serve
Medium	Jump float serve
Quick	Jump serve
<i>Tense</i>	<i>Not used in the standard scouting</i>
<i>sUpér</i>	<i>Not used in the standard scouting</i>
<i>N Fast</i>	<i>Not used in the standard scouting</i>
<i>Other</i>	<i>Not used in the standard scouting</i>

RECEPTION

TYPE OF HIT	MEANING
High	On floating serve
Medium	On jump float serve
Quick	On jump serve
<i>Tense</i>	<i>Not used in the standard scouting</i>
<i>sUpér</i>	<i>Not used in the standard scouting</i>
<i>N Fast</i>	<i>Not used in the standard scouting</i>
<i>Other</i>	<i>Not used in the standard scouting</i>

ATTACK

TYPE OF HIT	MEANING
High	High ball
Medium	Half ball
Quick	Quick ball
Tense	Head ball
<i>sUpér</i>	Super ball
<i>N Fast</i>	Fast ball
<i>Other</i>	Other (custom)

BLOCK

TYPE OF HIT	MEANING
High	On high ball attack
Medium	On half ball attack
Quick	On quick attack
Tense	On tense attack
<i>sUpér</i>	On super ball attack
<i>N Fast</i>	On fast ball attack
<i>Other</i>	On other type of ball attack

For the block, reception and defense the type of hit is equal to that of the skill performed immediately before. For example, for the reception, a high reception does not mean it is a high ball but is a reception performed on a serve that is classified as high. The same concept applies to the block against the attack and defense against the attack. For the set, the type of hit varies according to the attack that comes after.

- **EVALUATION** (1 character)

This character defines how the hit affects the game. The table below will show you the evaluation standard for each skill used by the program and by most users and that you will also find in this handbook.

	SERVE
=	ERROR: net ball, out, foot foul or rotation fault by the serving team.
/	VERY POSITIVE: the reception of the opponent team is VERY POOR (see reception).
-	POOR: the reception of the opponent team is POSITIVE or PERFECT (see reception).
!	INSUFFICIENT: the reception of the opponent team is GOOD (see reception).
+	POSITIVE: the reception of the opponent team is POOR (see reception).
#	POINT: the serve determines the end of the rally, the opponent team can't receive or receives but loses the ball on the second touch.

	RECEPTION
=	ERROR: the team can't receive, receives but loses the ball on the second touch or rotation fault.
/	VERY POOR: the ball is sent directly in the opponent court side or the receiving team is forced into a Free Ball.
-	POOR: you can only perform one mandatory attack.
!	GOOD: the ball is out of the 3 meter line, more than one attack combination can be performed but not all.
+	POSITIVE: ball received inside the 3 meter line, more than one attack combination can be performed but not all.
#	PERFECT: It is possible to perform all attack combinations.

	ATTACK
=	ERROR: out, net ball, invasion.
/	BLOCKED: the opponent blocks the attack and scores a point.
-	POOR: easily defended by the opponent who can try to perform an attack.
!	COVERED: blocked but covered by the team that performed the attack.
+	POSITIVE: opponent defended with difficulty and cannot perform an attack.
#	POINT

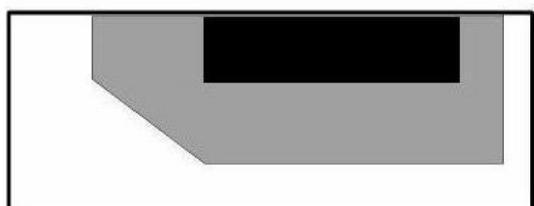
	BLOCK
=	ERROR: block out, net ball, ball landed in own side.
/	INVASION: antenna touch, net touch, foot invasion.
-	POOR: it doesn't allow an easy dig.
!	INSUFFICIENT: covered by the opponent team.
+	POSITIVE: it allows a POSITIVE dig (see dig).
#	POINT

	DIG
=	ERROR: ball not defended or determines the end of the rally.
/	VERY POOR: the ball is sent directly in the opponent court side.
-	POOR: dig or cover that doesn't allow to perform an attack.
!	POSITIVE COVER: cover that allows to perform an attack.
+	POSITIVE: easy dig that allows to perform an attack.
#	PERFECT: very difficult dig or dig after a tip that allows to perform an attack.

	SET
=	ERROR: in the net, out, set foul, court invasion during set.
/	VERY POOR: the ball is sent in the opponent court side.
-	POOR: Not technically accurate set, which does not facilitate the attack.
!	Customizable by the user.
+	POSITIVE: the following attack is with a block of 2 or 3 players.
#	PERFECT: the following attack is without Block or 1 player block.

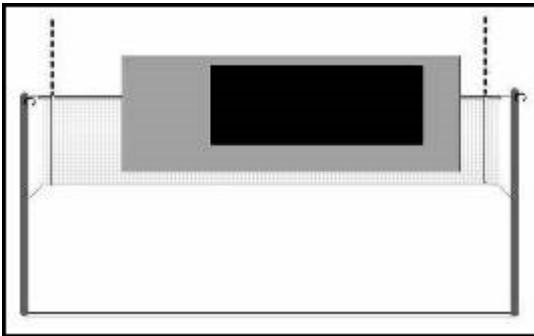
	FREE BALL
=	ERROR: on the floor or out.
/	VERY POOR: the ball is sent in the opponent court side or the team is forced into a Free Ball.
-	POOR: you can only perform one mandatory attack.
!	SUFFICIENT: the ball is out of the 3 meter line, more than one attack combination can be performed but not all.
+	POSITIVE: ball received inside the 3 meter line, more than one attack combination can be performed but not all.
#	PERFECT: It is possible to perform all attack combinations.

The standard reception evaluation generally entails the analysis of various parameters:

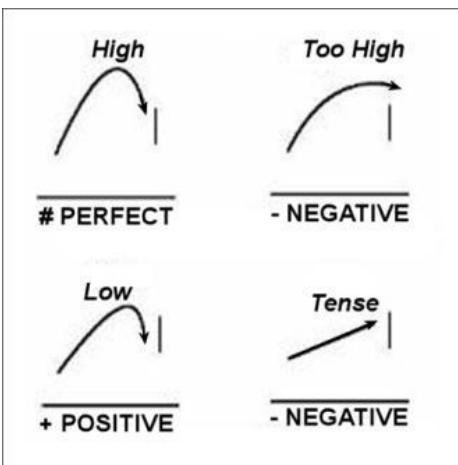


The ball landing point in relation to the net.

- # Perfect
- + Positive
- Negative



The ball landing point in its vertical component.



The trajectory.

The precise but low ball, as you can see in the picture, reduces the effect of the reception by one point (if it was # it will become +, and so on)

Examples of possible codifications:

5SQ# → home team player number 5 performs an incorrect jump serve.
a7AT# → away team player number 7 performs a winning tense attack.

In the Appendix you will find some examples of scouting according to the level.

4.1.2 The advanced code

The advanced code which allows you to define some additional information, which are essential for the study of the analysis, is composed of up to 4 entries (5 characters).

- **COMBINATIONS** (2 characters)
available only if they have been defined into the tables of the Season
- **HIT STARTING ZONE** (1 carattere)
 - The direction of each hit is defined by two characters that indicate the starting zone and the landing zone of the hit.
 - To obtain a detailed analysis the software divides the court into 9 zones, instead of the normal 6:

4	3	2
7	8	9
5	6	1

The **Starting zone** is defined by a numeric character (1...9) that describes the position on the court where the hit has been performed (during a serve, attack or block) or the zone where the ball comes from (if during a reception). The indications to follow for each skill are:

- For a serve you consider the back court zones (1,6,5,7 for the zone between 6-5, 9 for the zone between 6-

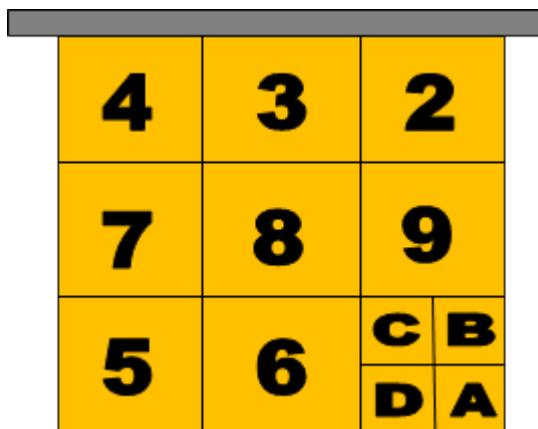
- 1) read more information from page 167;
- For the reception you consider the court zones where the ball was served by the opponents (1,6,5,7,9)
 - For the attack the starting zone is the zone where the attack comes from. If you are using a code from the attack combination list the program will automatically insert the starting zone so it is not necessary to insert it manually.

• HIT LANDING ZONE (2 characters)

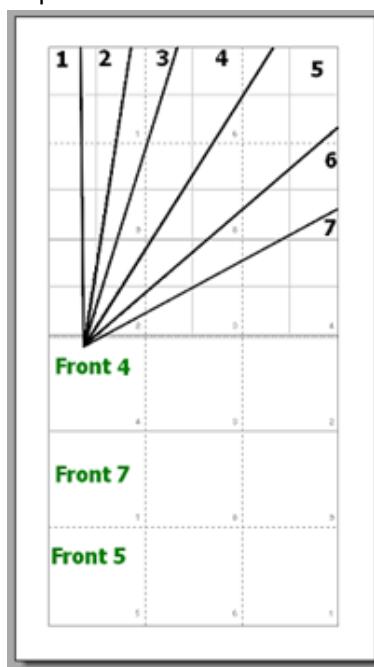
The landing zone is intended as:

- For a reception, it is the zone where the hit is performed (all nine court zones)
- For a serve it is the zone where the ball lands (all nine court zones). When the ball doesn't land in the nine zones, the scout value will be =, and we suggest you indicate the zone nearest to the landing point or the trajectory projection of the ball should it land in the net.
- For a block, the three net zones (4,3,2)
- The landing zone of an attack will be discussed separately as it is possible to use two different types of codification to indicate this zone:

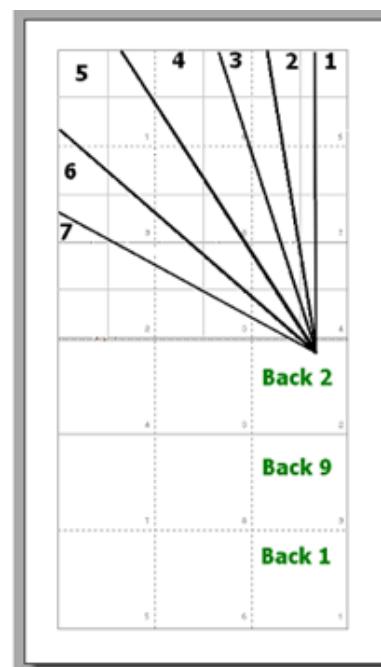
1. **CODING BY ZONES (1..9)** The court is divided into 9 landing zones. When scouting by zones, for the attack and the serve-reception, you can add a second specification character (A, B, C, D) that will indicate the landing sub-zone of the ball inside one of the main zones::



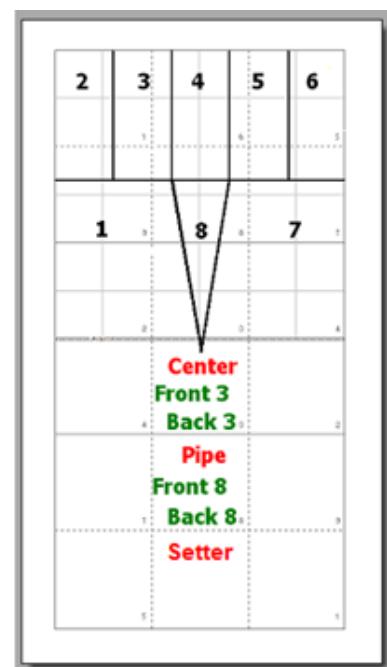
2. **CODING BY CONES (1..9)**, divided as seen below, depending on the landing zone where the attack is performed:



from zone 4/5



from zone 2/1



from the center

PLEASE NOTE: you will need to define if the code for the starting zone of the hit needs to be associated to a zone or a cone checking the related box.

As discussed for the serve, if the attack doesn't land in one of the nine zones we suggest you indicate the nearest zone to the landing position of the ball.

The scouting of the direction of the hit is not a straight forward procedure and will need practise before you are completely familiar with it; we suggest you don't use it during the learning phase of the software.

In the [Appendix](#) you will find some examples according to the level.

4.1.3 The extended code

The extended codes represent the specific characteristics of each hit. It is made up of 3 entries (3 characters).

- **TYPE OF HIT** (1 character)
 - According to the scouted skill it is possible to codify an additional hit specification. These tables outline the skills that can be part of this codification and in what way:

ATTACK	
H	Hard spike
P	Soft Spike – Top Spin
T	Tip

BLOCK	
A	Assist
T	Attempt

RECEPTION	
L	On left
R	On right
W	Low
O	Overhand
M	Middleline

DIG	
S	On spike
C	Spike cover
B	After block
E	Emergency

- **PLAYERS** (1 character)
 - This numeric code is used to define information such as how many players are performing a block, which player is receiving a hit, etc.
 - These tables outline the specifications for each skill:

ATTACK	
0	No block
1	1 player block
2	2 players block
3	3 players block

BLOCK	
0	No block
1	1 player block
2	2 players block
3	3 players block
4	Hole Block

RECEPTION	
1	Two players receiving, the player on left receives
2	Two players receiving, the player on right receives
3	Three players receiving, the player on left receives
4	Three players receiving, the player on center receives
5	Three players receiving, the player on right receives
6	Four players receiving, the player on left receives
7	Four players receiving, the player on center-left receives
8	Four players receiving, the player on center-right receives
9	Four players receiving, the player on right receives

- **SPECIAL CODES** (1 character)
 - This last code is used to define an additional specification to each hit, different and detailed depending on

the type of skill and on the associated evaluation value.

ATTACK								
POINT			CONTINUE			ERROR		
S	Block out - Side	C	Block control	S	Attack out - Side			
O	Block out - Long	N	Let	O	Attack out - Long			
F	Block on floor			N	Attack in Net			
X	Direct on floor			I	Net Contact			
N	Ball touches the net (let)			Z	Referee Call			

BLOCK								
ERROR								
S	Block Out - Side							
O	Block Out - Long							
F	Ball on Floor							
X	Ball between hands							
N	Hands - Net							
I	Net Contact							
P	No jump							
Z	Referee Call							

RECEPTION DIG FREE BALL								
ERROR								
U	Unplayable							
X	Body error							
P	Position error							
Z	Referee Call							

SET								
ERROR								
U	Cannot be hit							
I	Net touch							
Z	Referee Call							

SERVE								
POINT			CONTINUE			ERROR		
N	Let	N	Let	O	Ball Out - Long			
				L	Ball Out - Left			
				R	Ball Out - Right			
				N	Ball in Net			
				Z	Referee Call			

In the [Appendix](#) you will find some examples according to the level.

4.1.4 Customized characters

Data Volley provides the possibility to enter up to 5 characters, personal or non-coded by the program, at the discretion of each user for any information he wants to include.

All the characters that are not interpreted by the program will be automatically entered in the normalization phase, in the position of custom characters.

Custom characters are very useful to search for particular actions in both statistics and video. For example, if we type WH to indicate that an attack was made by the "wrong" hand, we could easily find it by entering the two characters in the boxes reserved for custom code.

Once you understand the code used by the program you are ready to start scouting a match.

4.2 New match

≡ My Season

Click [New Match] to start a new scout.

Select a team

New Match

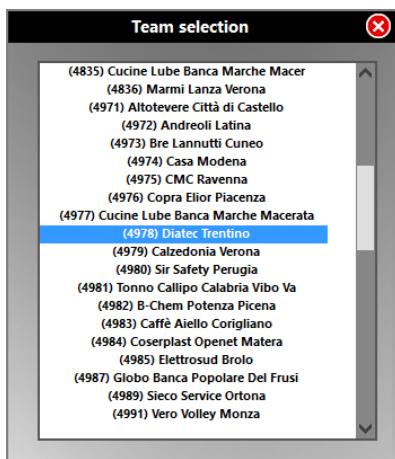
Import

It opens the Match notes windows, in which you have to enter the preliminary informations related to the match:

The Match notes window contains the following fields and features:

- Date info (1):** Date (01/08/2015), Time, Season (2014/).
- Competition info (2):** Competition (FIVB Women's World Championship), Phase (Pool J [J]), Match N. (white box), Day N. (white box), Type (Indoor Rally point).
- Team selection (3):** Buttons to open the Team Database.
- Team details (4):** Team name, Head coach, Assistant, Jersey color selection buttons.
- Venue info (5):** Referees, Spectators (End Time), Receipts, City, Hall, Scout man.
- Score info (6):** A grid for entering set results (Set, Tie-break, Partial score, Score, Duration). The grid shows a 5x3 layout with some cells containing checkmarks or yellow squares.
- Comments (7):** A text input field for comments.
- Buttons (8-9):** Ok (green) and Cancel (grey).

- Match info:** enter the date, starting time, and sporting season.
- Championship info:** enter competition, phase, match number, day number and regulation.
- Open Teams DB:** click the buttons to open the teams database and choose the two playing teams. If they were not present in the window that opens, you must close the match and enter them into the [teams database](#).



- Select the color of the shirt:** Enter the colors of the shirts of the teams in the field, to better identify them during the scouting.



- Location info:** enter additional info about the location
- Score info:** This field will automatically fill during the scouting. The partial scores will be added automatically by the program at eighth, sixteenth and twenty-first point, and at the end of the set will be given the final result. At the end of

each set the number of minutes will be required to the scoutman automatically by the program and included in this window.

7. **Comments:** Useful to enter personal comments

8. **Cancel:** Deletes all the informations entered and opens the scouting window with no info

9. **Ok:** Confirms all the informations and opens the scouting windows.

PLEASE NOTE: you do not have to enter all the information about the match, but in order to proceed with the scout, you must enter both the teams playing the match by clicking on the buttons of point 3.

It is therefore necessary, before you start a match, that you have entered the teams in the Teams DB.

After entering all the required information, click [OK] to open the players list.

4.3 Players list

After entering the relevant information, click **[OK]**. The players list will appear. You have to check that the players actually present in this list correspond with those on the scoresheet.

N.	Id	Code	Name	S1	S2	S3	S4	S5
1		132576	Glass Alisha	4	3	1	6	
2	L	137671	Banwarth Kayla	*	*	*	*	*
3		119055	Thompson Courtney	*	*	*	*	*
10		114051	Larson - Burbach Jordan Quinn	5	4	2	1	
12		119176	Murphy Kelly	1	6	4	3	
13	C	115496	Dietzen Christa Harmotto	6	5	3	2	
14		114059	Fawcett Nicole	*	*	*	*	*
15		142658	Hill Kimberly	2	1	5	4	
16		115495	Akinradewo Foluke	3	2	6	5	
19		141933	Robinson Kelsey					
21		145702	Dixon Tatori	*	*	*	*	*
22		119548	Adams Rachael					

You can access this window at any time during the scouting, simply by using the **List** button.

- Update database:** to update the team in the database after changes.
- Selected player:** edit related data in the fields on the right and then click **[Apply]**.
- Not on roster:** by selecting one or more players and clicking **[Not on roster]**, those players will be deleted from the list related to that match, but not from the teams database.
- Add to the list:** by selecting **[Add]**, the following window, in which you have to enter the data of the new player, will appear:

New player

USA

New player

*N.

*Code

Last name

Name

Nickname

Position

Foreign

By clicking [**Add**], the player will be added to the list. The player will be saved to the team and from that moment on, he will appear in the teams database even beyond the current scouting.

5. **Selected team:** to view the list of the house team or the visiting (if you scout the two teams, it will be important to check both lists).

At the right of the list, beside the name of each player, there are 5 boxes which identify the sets. Before the match these boxes are empty, as they will be filled automatically by the program during the scout:

- with the number of the zone where the player is at the beginning of each set if he is part of the starting six;
- with an asterisk in that set, if he enters replacing an athlete who is part of the starting six;
- the boxes remain empty if the player does not enter the court.

It will be possible to find at any time, even during the analysis, the starting six of each set or the players replaced (using the command **LIST**).

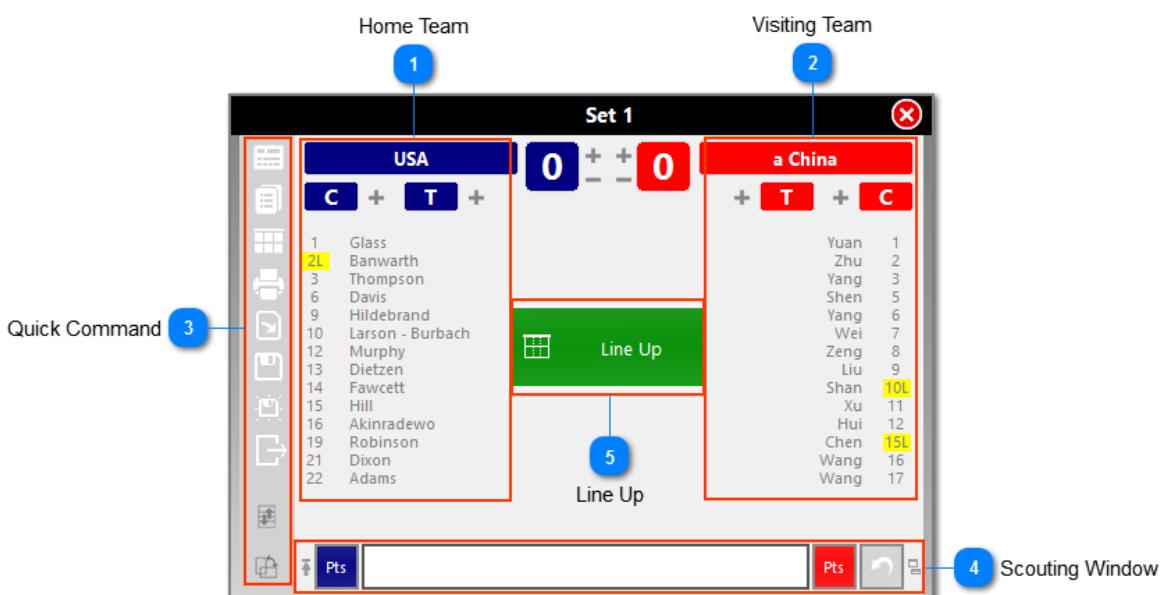
After checking that the players lists are correct, in particular that you have entered the Libero ID in the appropriate column, click [**OK**].

The scouting window will appear.

4.4 The scouting window

It represents the mirror of the main informations concerning the match that you are scouting. It appears following the creation of a new match, after entering the two teams, or when you decide to open a scout already made.

This is the window that appears before entering the Line Up of the first set:



During all the match it displays:

1. **Home team:** on the left.
2. **Visiting team:** on the right.

Under each team name there are score, substitutions, timeouts and players list. Next to the name of each player there is

a number representing the position that the player had in the last starting six or a * which means that in that set the player replaced another. If the player has not joined that set, there will be no symbol next to his name.

3. **Shortcuts:** the most frequent commands available during a match



Opens the match notes windows



Opens the players list window



Opens the starting players windows



Prints the match report



Start copy on removal drive



Save



Save as...



Close scouting



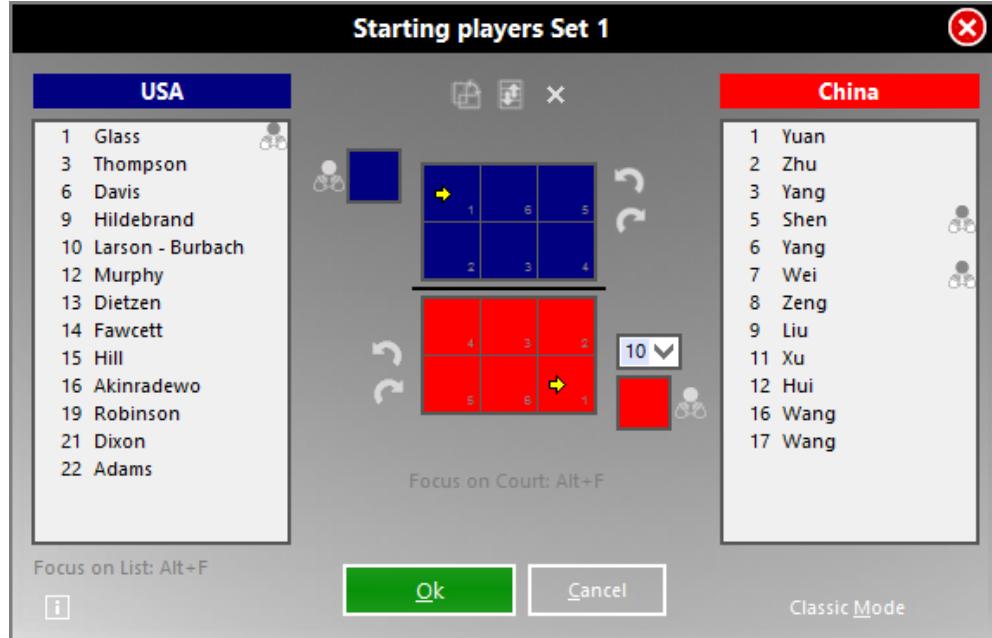
Court change



Rotate court

4. **Scouting bar:** with the buttons to assign points corresponding to the colors of their respective teams and the button , which allows the modification of the last code in the code list. The last line written in the code list is deleted from the code list window, reappears in the scouting bar and can be changed.

5. Line Up: This button appears before the beginning of each set to enter the starting six. Click the button or type "FORM" to enter the starting six. Before the beginning of the first set, the starting players window will be displayed empty.



Enter the Line Up and select the setters. There are several ways to do that:

- Select the players in the list and drag them to the field with the mouse in the desired zone. Drag also the setter in the related box.
- Move the cursor over the players in the list and insert them one by one by a double click. The first player to be

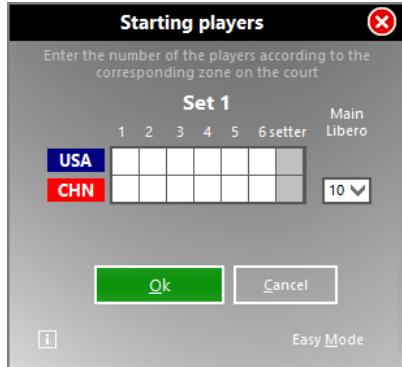
entered will be placed to zone 1, then the others, anticlockwise. The yellow arrow will indicate, however, in which position the next player will be added. By pressing the space bar after entering a player, this will be indicated as setter, and placed also in the related box.

- Move the cursor directly on the court and enter the players by typing their numbers from the keyboard. You can use the arrows to move from a box to an other.

Selecting the first Libero is only for fast typing of the digs of the first Libero from keyboard (for shortcuts see the paragraph [Keyboard remapping](#))

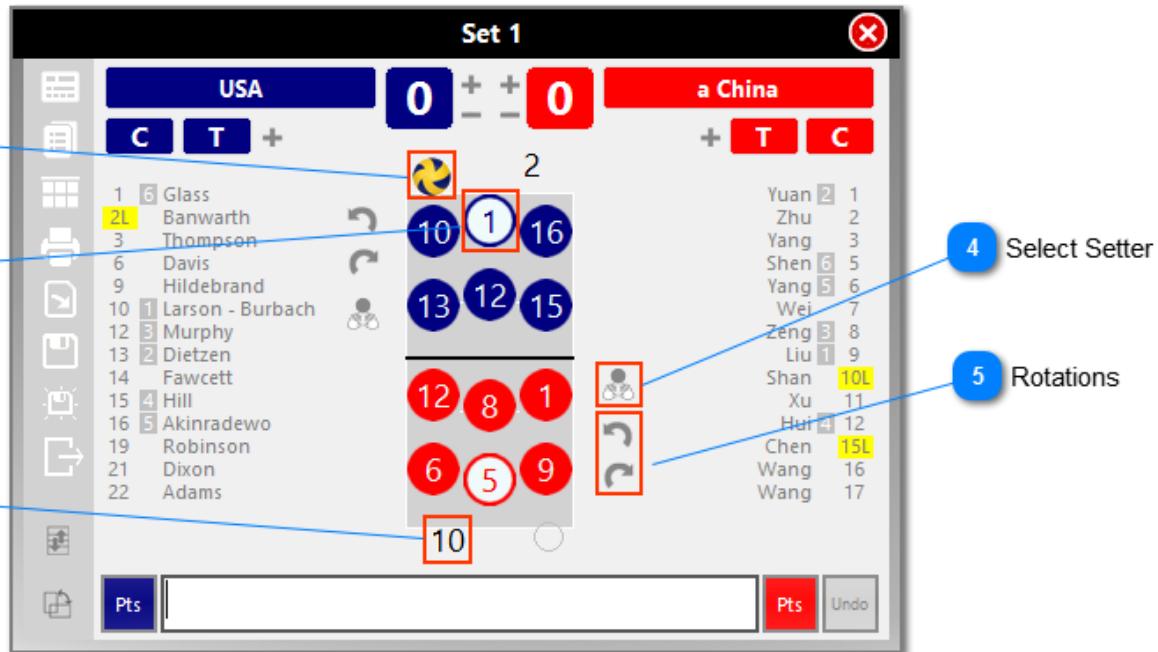
However, when a player is placed in the court, next to his name on the list you will see a number that corresponds to the location where you placed the player in the starting six of that set.

After the first set, Data Volley automatically proposes the Line Up from the previous set, modifiable as desired.



Traditionalist users can always go to Classic Mode (bottom right of the window) and enter the line up in the old mask, by typing the numbers from keyboard and moving between boxes by arrows. The team code and color chosen in the match notes window are displayed.

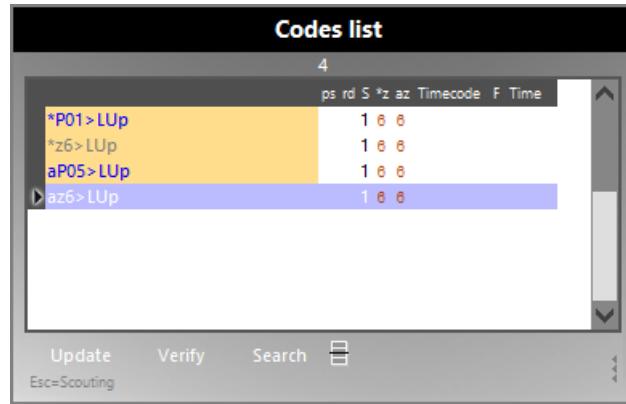
After entering the line up, the court appears. Other important informations and buttons also appear.



- Serving team:** shown by the colored ball placed on the service line. To change the serving team click on the open circle on the other service line.
- Setter:** is represented with the colors reversed compared to the other players of his team.
- Libero 1:** placed out of the court.

There are also additional buttons, useful for displaying the teams on the court.

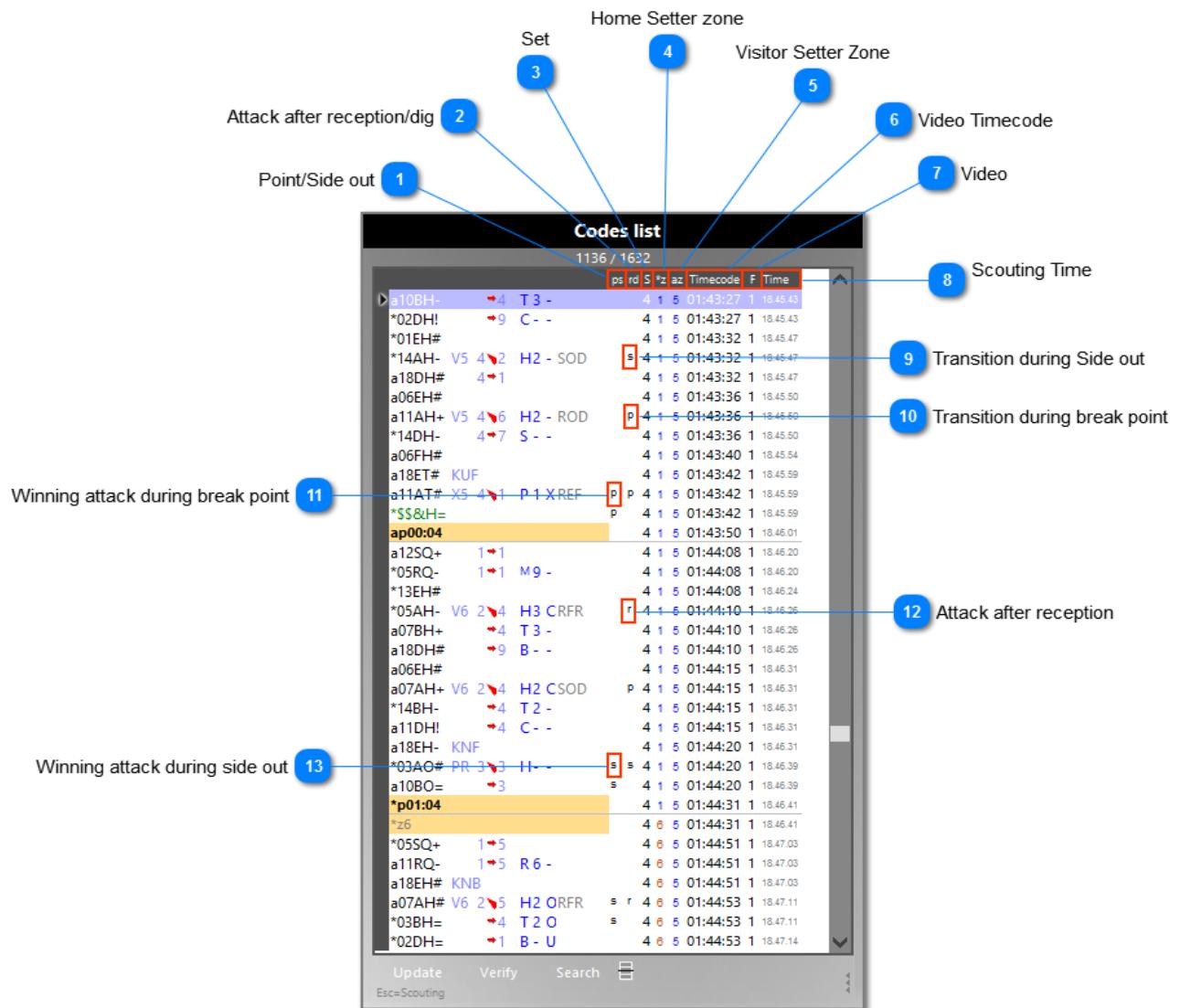
- Define setter:** by clicking this button the command window opens. The operation has been preset, you only have to type the number of the new setter.
- Rotate Line Up:** to rotate clockwise or anticlockwise the Line Up on the court.



On the right the empty [Codes List Windows](#) will appear. It will be filled during the scouting.

4.5 The Codes List Windows

In this window, generally located on the right of the screen and developed vertically, are displayed the codes typed in the [Scouting Bar](#) after confirmation by pressing **[Enter]** or one of the two End Rally buttons. Moving into this window, the codes are normalized ([see paragraph](#)) and verified. The program checks the logical sequence of actions, such as the player who has been assigned the hit is actually on the court, and the sequence of end action and the player who is serving next is correct, for example.



To access the Codes List Window during the scouting to make any changes, you must press the Page Up key. Moving within this window it is possible with the Page Up and Page Down keys and with the arrow keys up and down, or using the mouse. By moving on the code to be modified and pressing **[Enter]** you can proceed with the desired change. For details on the changes to the codes, entering data in the Codes List Window, and code informations, see the related paragraph.

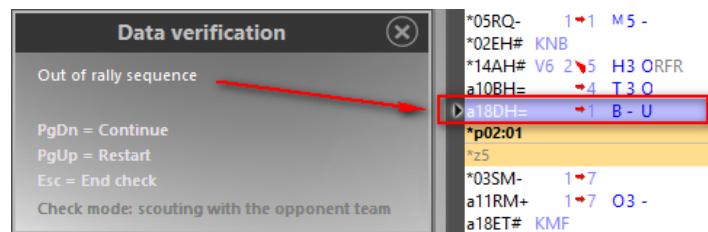
The buttons in the Codes List Window are:

Update

Update Codes: updates statistics after any insertion or modification of the codes within the window, such as the verification.

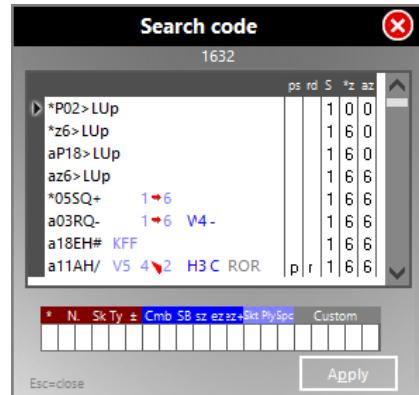
Verify

Verification: activates the code verification for any errors or incorrect logical sequences.



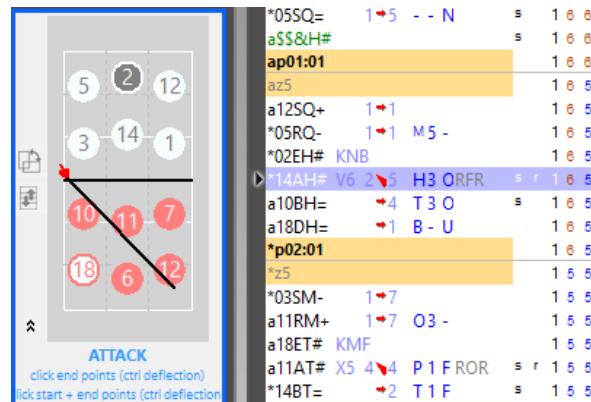
Search

Search: opens a search window where you can enter the "filter" through which the program seeks a specific type of action (eg. All those in which a certain player, or a certain hit, appears and so on)



Show/Hide rotation court

Show/Hide rotation court: a court where you can view the rotation corresponding to that action. You can draw retrospectively action by action, the serving and attacking trajectories (3 points) for example, and the individual pointings of each skill (position of the block)



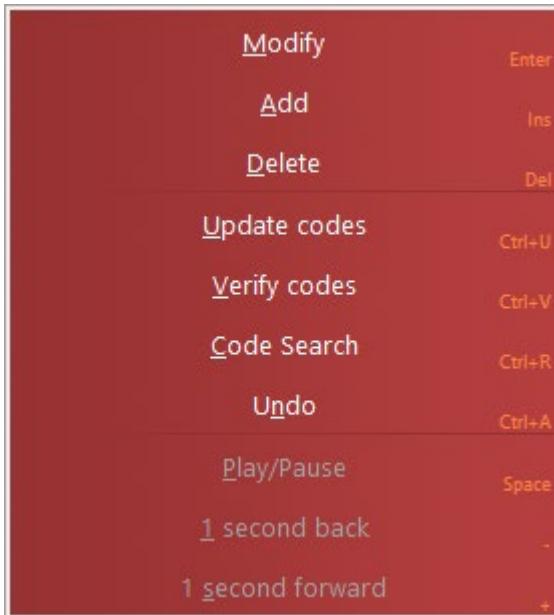
Show/Hide additional informations

Show/Hide additional informations: to view the list with only the fundamental codes or all the informations related to each code

	pc	rd	S	*z	az	Timecode	F	Time
*05RQ=	1	1	L	5	-		p	18.43.38
ap00:02							4	18.43.43
*T							4	18.43.43
a12SQ!	1	1	6				4	18.44.49
*13RQ!	1	1	6	R	4		4	18.44.49

	5							
*05RQ=	1	1	L	5	-		4	
ap00:02							4	
*T							4	
a12SQ!	1	1	6				4	
*13RQ!	1	1	6	R	4		4	

The codes within this window can be edited, added or deleted. Select a code with mouse and right click on it to access this menu. Each command is associated with a specific keyboard shortcut.



When you are focused on the Codes List Window and you want to come back to the Scouting Window, just type [**Esc**].

Difference between [**Enter**] and the End Rally buttons:

- [**Enter**] moves the codes written in the Scouting Bar to the Codes List Window and normalizes them, but it does not assign any point and has no effect on teams eventual rotations.
- The two buttons/commands [**End Rally**] move and normalize the codes to the Codes List Window. The program also assignes the point to the team for which it has been given, rotates clockwise the serving team if that team was receiving in the previous action. Also, it automatically writes the number of the player serving next.

4.5.1 Normalization of the codes

Normalization means the procedure adopted by the program to turn all the inserted codes into series of **standard strings**, with positional value (related to the positions defined during the composing section), recognized by the program in order to make subsequent researches and analysis.

The normalization occurs when you press the End Rally button, and involves the transfer of the codes from the Scouting Bar to the Codes List Window. The Compound Codes are always normalized in two separate codes, with complementary effects (as we saw in the [Compound Code](#) paragraph).

Each string of code is divided in four parts, identifying the components of the code (principal, advanced, extended, customized codes). The main code must always be present while the presence of others is always optional and represents a specification of each hit.

The values corresponding to the starting and landing zone of the ball are identified by a red arrow going from the first to the second and representing also the direction of the hit.

- The black arrow at the left of the code indicates the selected code at that moment.
- The black codes with white background represent the normalized form of the codes entered by the user.
- The blue codes are the extended features of each hit.
- The grey codes represent the personalized code.
- The codes with orange background represent automatic codes entered by the program.

ap11:12
a18SQ- 7→5
*01RQ+ 7→5 M3 -
*02ET# K1B
*05AT# X6 2→2 H2 - RBR
a03DT= 2→5 S - U
*p12:12
*z6
ac13:06

Let us look at the different codes with orange background:

AUTOMATIC CODES	
zn	They are codes that identify, () for the internal team and (a) for the visiting team, the position of the setter (n is the number from 1 to 6 on the current rotation). Thanks to these codes the program is able to recognize at any moment the position of the setter and therefore to updates the data and the analysis, rotation for rotation.
azn	
p	Indicate the assignment of the point for the internal team () and for the visiting team (a),and allow

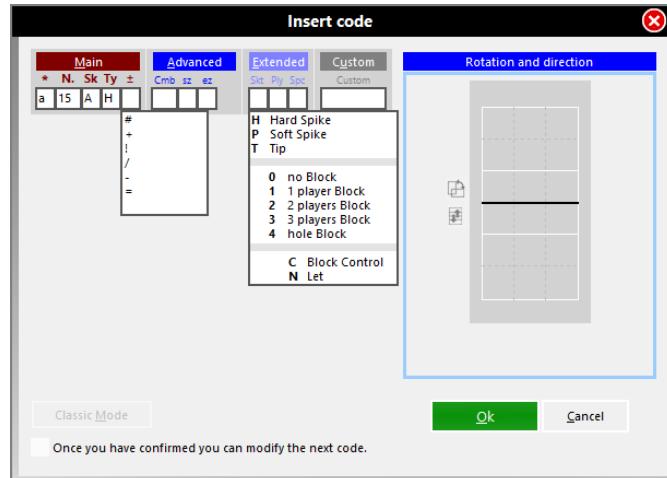
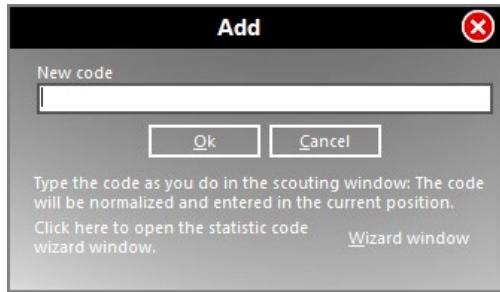
ap	to follow the score also looking at the Codes List Window.
*P	This is the code that identifies the replacement of the setter. It is always important to define who is the setter on the court, because the rotations are defined according to his position (az and *z).
aP	
*C	Identifies a player substitution and are followed by the player number who leaves the game and the player number who enters in his place.
ac	
Green codes	Are the codes that indicate the win or the loss of a point in an undefined way. They are made of a or * followed by \$\$&. They are easily spotted and they can't be modified.

4.5.2 Code input and editing

It is possible to insert a code in any point, directly into the codes list window, by positioning the cursor in the desired point in the list and by then pressing the INS key on your keyboard or right click → Add.

By doing so this window will appear where you can insert the new code. Press the **[OK]** button to add the new code to the list.

In the same window you will also find a wizard window button in the bottom right hand corner, click on it if you want to insert the code using the auto composition window.



The code of the setter call can also be inserted by positioning the cursor in the codes list in correspondence to the desired action and by then pressing the INS key. The call code K1 will be inserted and the code will be normalized and then stored following the automatic standards (see [Setter Calls](#)). If the wizard window is selected, no automatism will be applied and the code will have to be inserted in the correct position.

The inserted codes can be modified at any time, even if they appear in the codes list window, by positioning the cursor on the code and pressing **[Enter]** or by double clicking with the mouse.

The **modify code** function is extremely important. This allows you to modify any incorrect information that may be noticed during the scout verification, and it has been specially designed to allow users to deepen the coding at a later time. This is because those who want to scout in a complete way any skill, in order to make highly specific analysis, would have to type up to 15 characters per shot, with a great waste of time. The program then provides for the possibility to insert all the additional informations at a later time, through an intuitive input window.

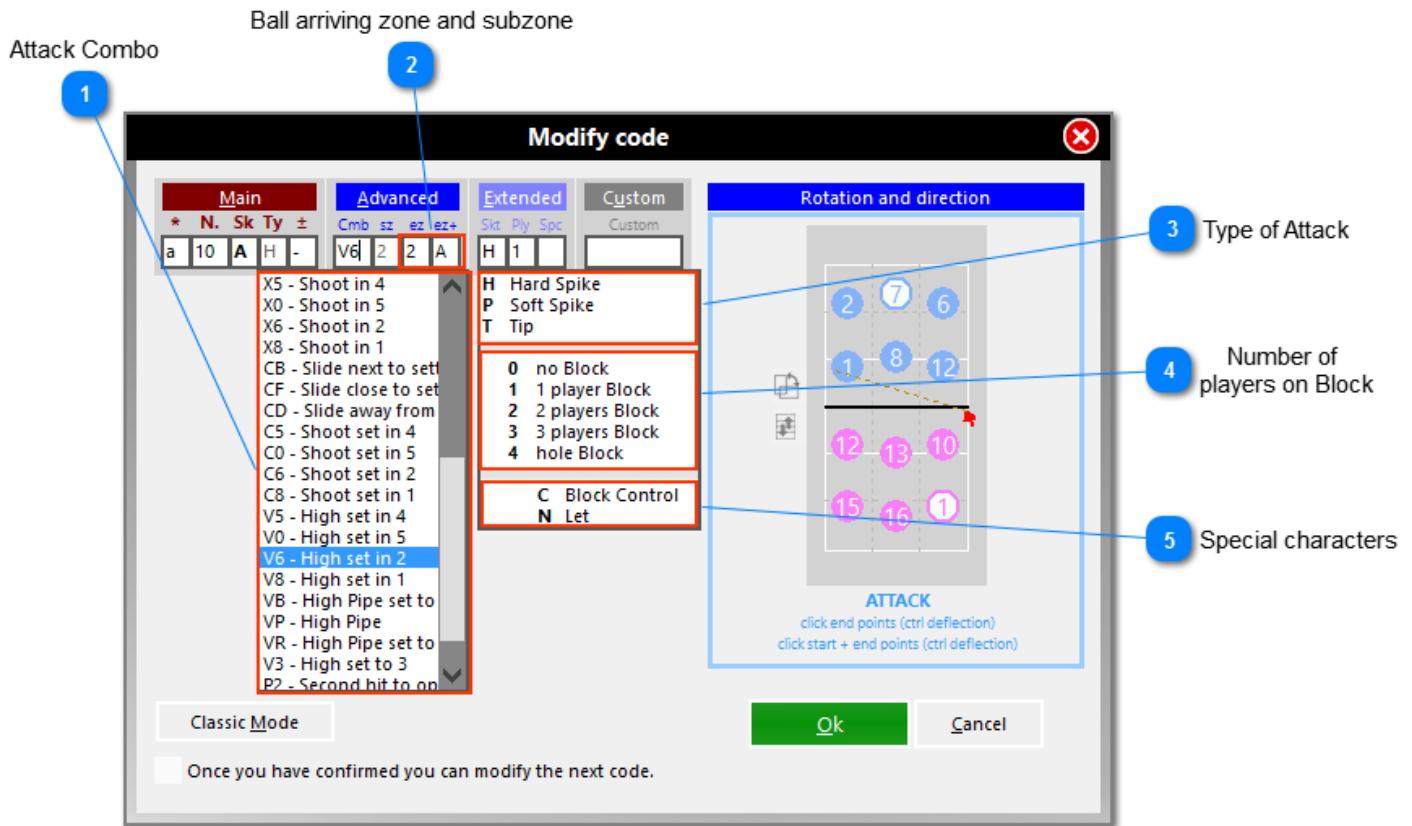
The modify code window is displayed as the following:

The wizard window has a simplified insertion function as per the below image. By positioning the cursor on the cells, the program will automatically suggest the codes that can be inserted in that position, followed by their explanation.

Depending on the codes previously inserted, the program will suggest only the codes that are **compatible** with the selected ones.

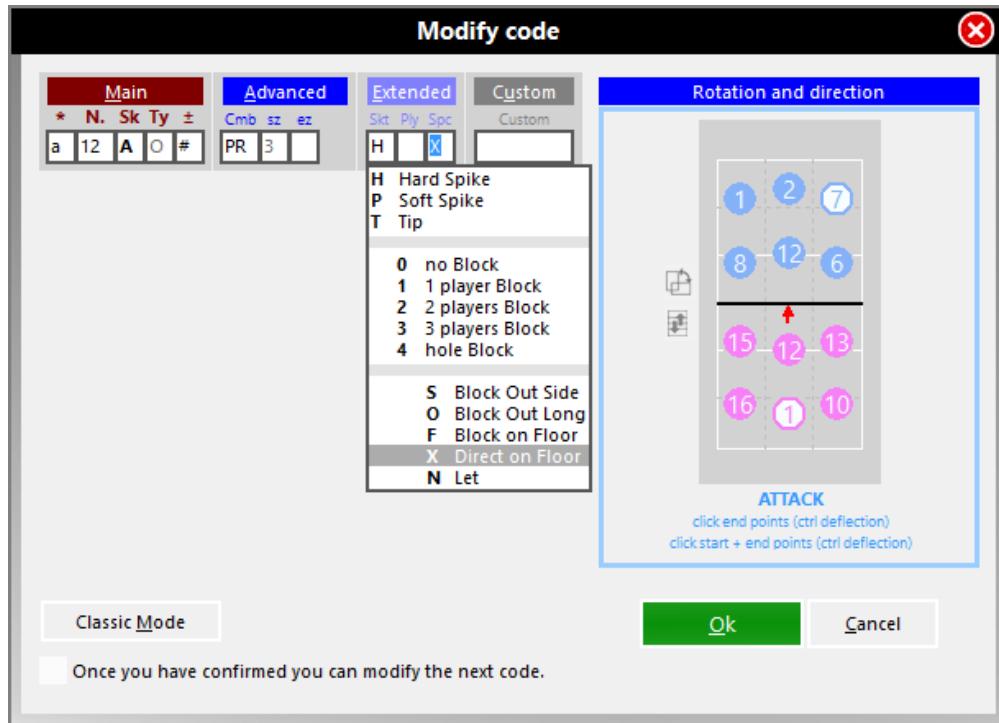
Example 1

This image shows you an example where the attack code is -, which allows the game to continue:



Example 2

Here we have a point attack and the program will suggest the available options for this type of attack (block out side, block out long, block on floor, direct on floor). In this sample we have selected "direct on floor (x)".



Let's now analyze the function of the court on the right of this window.

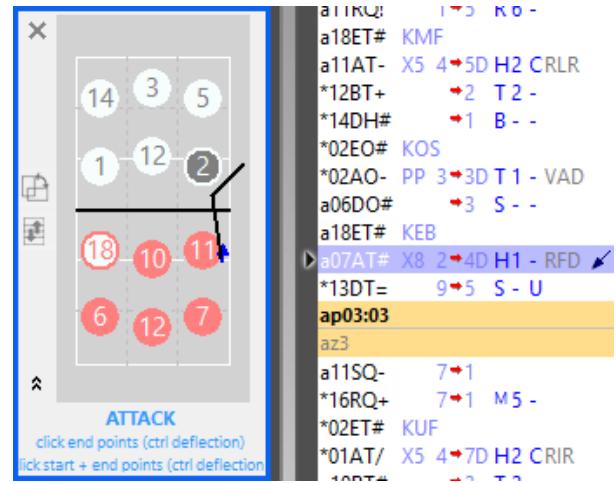
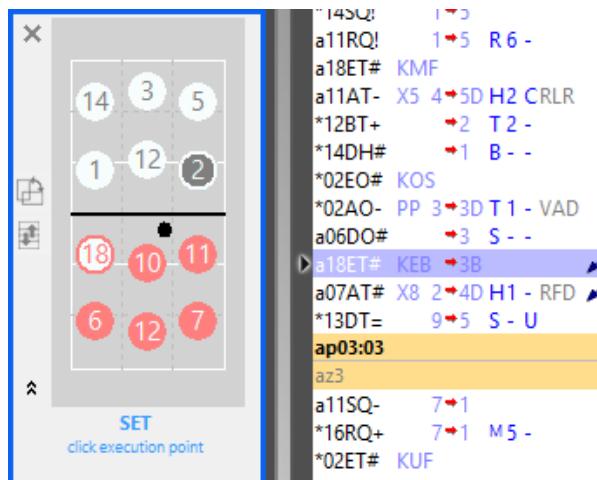
In this court it is possible to draw the **direction of the attacks and the serves in a precise and punctual way** (exact position on the court) also considering a third point caused by the deviation caused by the block.

By using the mouse cursor directly on the court, where the rotations of both teams for that action are displayed, I will be possible to identify the exact trajectory for every serve and every attack. If the trajectory is not the same as the ones already identified as starting and landing zones, the program will update the trajectory with the new indications

Further, it is possible to view the relative rotations for both teams in the court image on the left hand side of the list window by positioning the cursor on any code in the list without having to open the modify code window.

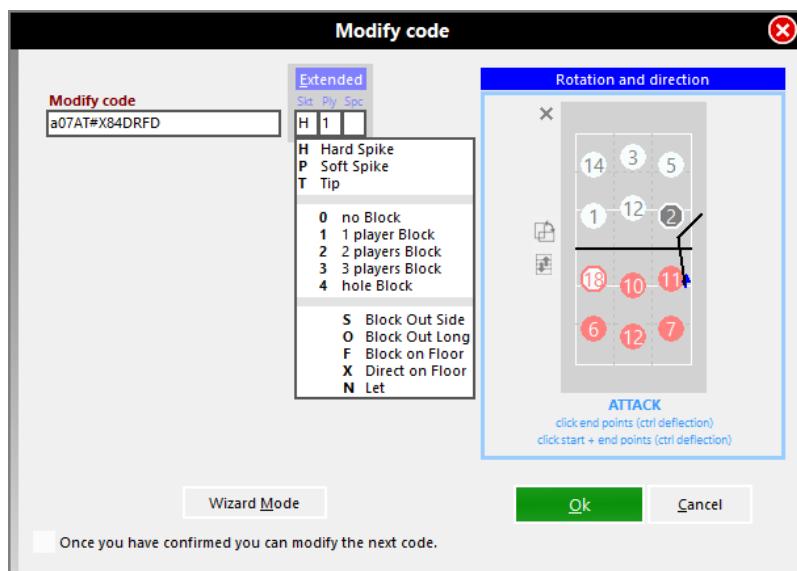
Also this court is editable, with the direction of the attacks and the serves, simply drawing the trajectory (max. 3 points) by using the mouse.

To define the third point, that is the deviation of the ball, it will be necessary to keep the CTRL button pressed.



For other types of skills (i.e. set – E) instead of drawing the direction, you will be able to mark the exact point where the skill is performed.

The insertion of the precise directions, with precise coordinates of the zone where the hit is performed and of the starting and landing zones of the ball, are extremely important as they will be used in the **Direction Analysis** in which all the hits will be displayed in the exact way they were performed using graphs.



It is possible to modify the scout codes using the classic mode without using this wizard window.

By clicking on the classic mode button a modify window will open, similar to this image, where you will be able to modify the code directly from the original code previously typed in the scouting window. Extended codes and point directions can still be added. Use the wizard window key to return to the wizard mode.

PLEASE NOTE: when modifying or adding a code to the codes list window you will always have to run an update **in order to update** all the statistic tables with the new codes.

This command can be given:

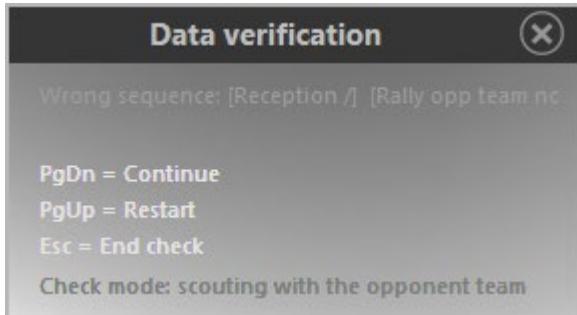
- By clicking **Update**, on the bottom part of the Codes List Window
- By using the shortcut Ctrl key

- By opening the command menu and typing AGGIO
- By clicking the flashing sign in the upper part of the Codes List Window.

Verify the code to check the correct code input or editing.

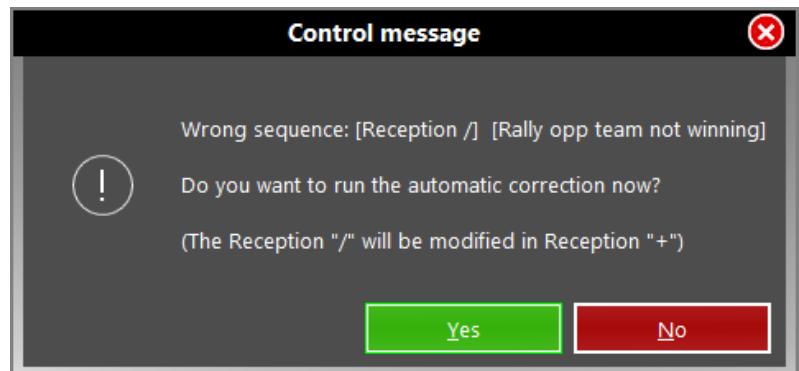
4.5.3 Code verification

By using the Verify button always present in the bottom part of the Codes List Window, or by using the command VER or the key combination CTRL+V, the program checks if the inserted codes are correct and indicates any scouting errors (e.g. unknown codes or entered incorrectly).



The program has a verification function that checks for un-correlation between different types of subsequent codes.

The type of error identified will be displayed in a separate, with a suggestion for entering or modification of the right characters.

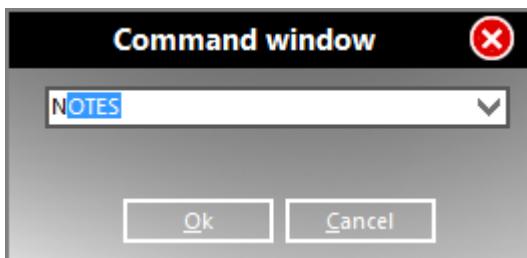


For example, an errors that can be checked or identified by the software could be un-correlation between an end rally that has been assigned and the player that has performed the next serve (the scout-man may have assigned the end rally to the wrong team. Another example could be un-correlation of a compound code.

4.6 The Command Window

To control Data Volley, is necessary to use specific commands. These commands are present largely in form of buttons within the Scouting Window.

But entering a command directly into the command window could be an easier and faster way of launching a command during a scouting, without having to use the mouse to position the cursor on the relative buttons or without having to open the relative menu.



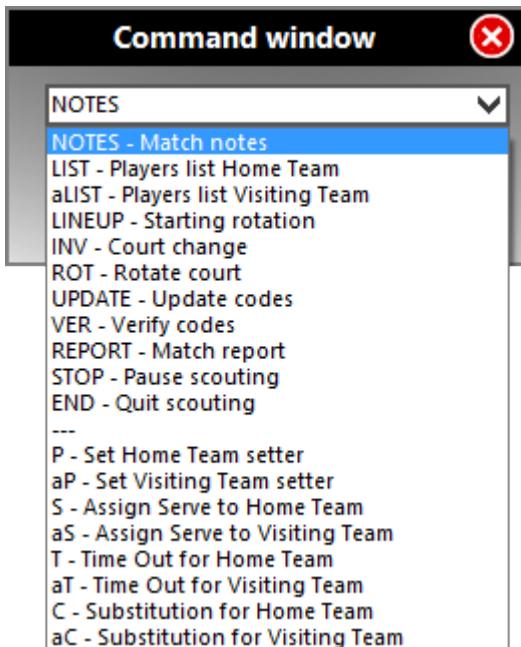
To access the Command Window when you are focused on the Scouting Window, simply press **[Esc]**.

ATTENTION: when you're focused on another window (eg Codes List Window), **[Esc]** brings the focus on the Scouting Windows. When you are on the Scouting Window, however, the same key is used to directly access the Command Window.

Typing a command in the Command Window includes auto-completion of the command: typing the first letter of the command, the software will suggest the related command, along with a brief description of what it means and what it will be inserted later.

Even in the case of substitutions is provided the auto completion: when making that the "closure" of a change, the software will suggest the number of the player came out previously in place of the one you want to replace.

In addition to typing the command you want you can use the drop-down menu of the window itself.



NOTES

this command allows you to view the Match note window where all the match information is recorded. The note window automatically opens at the beginning of each scout but can be opened, by using this command, at any time to modify the information

LIST/aLIST

this command opens the list of the players of the two teams (aLIST opens the away team players list). The list can be modified in this window .This command can be used, for example, when you want to display, during a scouting, the initial line-up to check the position of each player at the beginning of each set, information that can be found in the cells relative to each set, positioned next to each player name.

LINEUP

this command allows you to enter the initial line up for each set.

At the end of each set, the program will automatically suggest the initial line up previously inserted that can be modified.

INV

used to invert the position of the teams on the court. This command positions the teams on the screen in the best possible way. For example, at the start of the match or at the start of the fifth set, the INV command is used if the teams are positioned in the opposite way as they appear on the screen. It can also be used following a tie break when one of the two teams reaches 8 points. At the end of each set the program will automatically invert the position of the team on the court.

ROT

this command allows you to change the position of the courts from horizontal to vertical and vice versa. This command is very important as it allows the scout-man to position the courts in the best way, regardless of his position on the court. If the court is displayed vertically, the team in the top part of the court is the team on the left and the one in the bottom part is the right team (this is important when assigning a point using the end rally left and end rally right keys).

UPDATE

used to update the statistical data that has been modified during a scout, particularly used in the Codes List Window.

VER

this command runs a verification procedure on the information entered in the Codes List Window.

REPORT

this command is used for printing the complete statistical match report relative to the match (or to a set) in a journalistic format. This command can be used during a match (during a time-out or at the end of a set) or once the scouting is complete. To print the match report of a single set you need to enter the command followed by the number of the set, for example **REPORT2**.

STOP

used to pause the scouting time code. This command is used during a scouting, for example on video, when several long pauses are made and they could create problems to the video synchronization.

END

this command is used to save and exit the scouting in the correct way. When entering this command the program will ask you to save the changes that will be confirmed by pressing the Enter key. The program will then suggest a file name that can be changed. The first character must be the & symbol.

P/aP

the number of the setter on court must be identified at the beginning of the set. This command must be used if the setter is substituted during a match, for example in a double substitution (when the zone of the setter changes). In the command window, the letter P followed by the number of the new setter (eg. P5) is used for the home team and Ap followed by the

number of the new setter (eg. aP5), will be used for the away team. In the event of a double substitution, a window will open requesting the number of the new setter on court and the code will be entered automatically in the list. The specification of the new setter is extremely important in order to avoid mistakes in the rotation analysis. There is no need to use this command when, for tactical reasons, a setter is temporarily substituted, because this will not change his position on the court. Similarly, if the head setter is substituted with the reserve setter, the zone of the setter does not change.

S/aS

the initial serve must be assigned to the team that wins the ball possession in the draw before the beginning of the match. The command S is used if the serve is assigned to the home team and the command aS is used if it is assigned to the away team. At the end of each set the program will automatically assign the serve to the correct team. A white ball will appear next to the serve zone, in the rotation window to indicate the team with the ball possession. In the event of a fifth set, the serve will go to the team who wins the draw. The serve can always be assigned by clicking on the small circle next to the serve zone of the team that will perform the serve.

T/aT

this command records the number of time-outs requested by the coach of each time.

T will indicate a time out for the home team and aT will be used for the away team. The time-out counter will be increased by one in the Rotation window.

C/aC

this command is used when substituting a player. C is used for the home team and aC for the away team. The command C followed by the number of the player that leaves the court and the number of the player that enters in his place must be separated by a ". ". For example, C6.7 is entered if the home team player number 6 is substituted by player number 7. When the Enter key is pressed the line-up will be updated in the Rotation Window, the substitution counter will increase by one and a * symbol will appear in the players list next to the player who entered the current set. In the event of a double substitution, within the same team, a space will be left between the two substitutions relevant to the C command, for example C6.7 3.2, where players 6 and 3 have been substituted by 7 and 2.

Now you are ready to start scouting, typing the character in the Scouting Bar.

4.7 The Scouting Bar

Here you will insert, with keyboard, the evaluation codes of the skill performed by the players related to the action they are playing.



Use the arrow on the left to move the Scouting Bar up or down into the Scoreboard.

Use the double windows on the right to unlock/lock the Scouting Bar from the Scoreboard.

Data Volley keeps a copy of the latest data entered and confirmed: in case of accidental switching off or lock of your computer, then you can always start from the last valid action confirmed.

The code related to each hit must be all together without spaces.

eg: 5SH+16

You must enter a space between the code related to one hit and one related to the next.

es: 5SH+16 a6AV#41A

To speed up the data input you can use the [compound code](#).

When you press **[Enter]**, the program saves the codes to the [Codes List Windows](#), after normalizing them.

It is not necessary, even if you want a high level of specificity in the description, to enter all the codes at the time of scouting during the match, but you can enter all the detailed codes later, thanks to a simplified input window and to the video of the match, that you can open directly from the program.

For highly experienced users, who want to try typing the entire code in real time, the program provides a simplified input function: after the input of the principal code, eg. 5#27 (kill high attack performed by player n.5 from zone 2 to zone 7), the user can use the keyboard combination CTRL + SPACE or a Windows pop up menu, or any other key defined by the user, as indicated in the section Tools_Scouting Options_Advanced Scouting, and open a drop down menu in which appear all the possible codes that can follow the one just inserted, as in the following figure:



In this case, as we see, the type of attack, the number of blocking players, and the way in which the player scored the point can be inserted.

Extended codes will be colored in red.

10.5/ 12#37HOX

Regarding the code related to the setter calls, just type, during the related reception, the code of the call (eg K1). The program will automatically assign this code to the set and the setter.

Once the action ended, you just have to assign the point.

4.8 Assigning a point

To assign a point to one of the two teams you will need to press the End Rally key at the end of the action. You can end the rally in two ways:

- Using the keyboard keys previously assigned (see [Keyboard remapping](#)) with End of Rally right and End of Rally left. The default program associates the "<" symbol to the End Rally left and "-" for End Rally right.

PLEASE NOTE: Windows XP may have some problems associating this symbol (-) to End Rally in the scouting window. We advise you to run a test on this key before you start scouting to check if it actually works. If it doesn't work we advise you to assign another key for End Rally and to replace "-" with a near key, for example "," or "m".

- Using the buttons [Pt] positioned on the left and on the right in the scouting bar. It is important to remember that when the Rotation window is displayed vertically, the team that appears on the top is associated to the End Rally left and the team that appears on the bottom part is the End Rally right.

The End Rally will assign the point to the respective team. In case of side-out, it will assign the serve and will modify the rotation in the Scouting Window.

Following the End Rally, the serve code with the number of the player who will perform the serve will be inserted in the Scouting Bar (if set in General Options_automatic serve).

4.8.1 Undo end rally

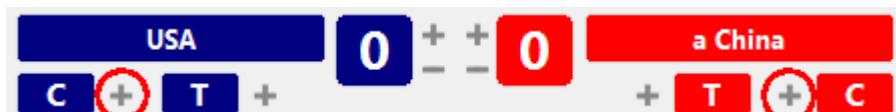
If for any reason you need to cancel an End Rally previously inserted, you can choose one of these two options:

- By pressing the keyboard combination **Ctrl+A**
- By Using the **Undo** (cancel) button, positioned on the right hand side of the scouting window.

When pressing the UNDO button, the previous action will automatically be restored and will appear in the same Scouting Bar where the digits has been inserted before the end of the rally. This will help the user also if he need to modify the code.

4.9 Substitutions and Timeouts

To make a substitution, click on the + beside the letter C under the team.



The following window will appear:



Select the player in the left box, then the one (in the right box) that will enter on court.

After selecting the two players, the corresponding numbers will appear in the white box "Substitutions" in the center of the window.

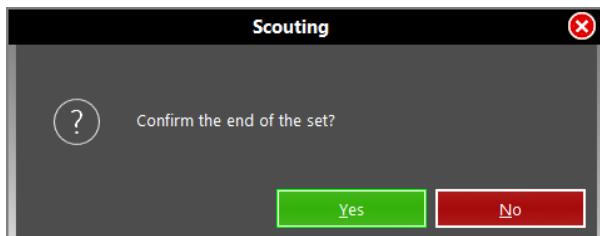
All the substitution can be selected before clicking OK (i.e. double substitution).

Otherwise you can use use ESC. Read the [relative paragraph](#).

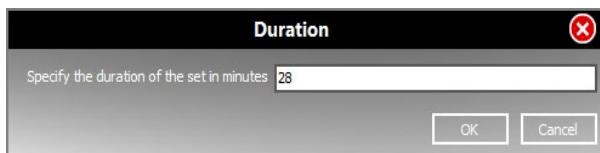
Press the button corresponding to the team requesting it to report a **time out** in the Scouting Window. Scouting timeouts is required for both accurately reflect the progress of the match, and to allow the program to create a proper time-code for video synchronization.

4.10 Closing a set and a match

When the last point of a set has been assigned to one of the two teams this message will appear:



Press the Enter key or click on YES if you want to confirm the end of the set. Click on NO or press the Esc key if the end rally key has been pressed by mistake and you do not want to close a set. By pressing NO the program will automatically cancel the previous End Rally code.



Once you have confirmed the end of the set, you will be asked to insert the total duration of the set in minutes; by pressing [Enter] it will be inserted in the appropriate field in the Match Notes window.

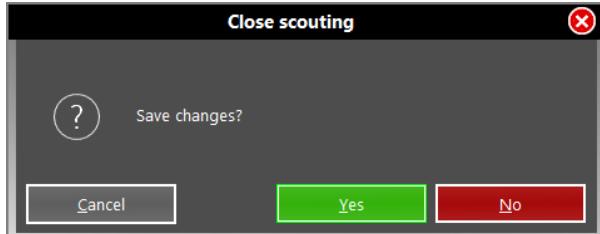
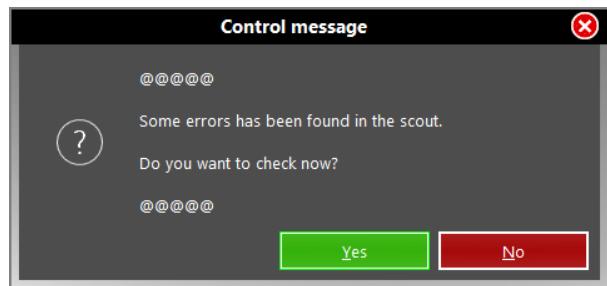
The Scouting Window will also display the end of set code in the ****Nset** format (N will be the number of the set that has just been closed) and will then be positioned in the Codes List window.

4.11 Close Scouting

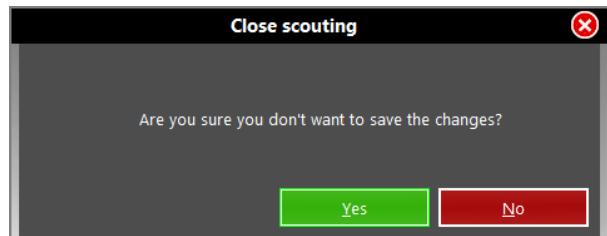
Click [Close Scouting] among Quick Commands of the Scouting Window or [X] in the upper right of the Scouting Windows to close the match.

Before closing the program it checks if there are any errors. If so, it comes out a message asking you whether to save or not save the changed data.

By clicking [Yes] the program does not close the match and opens the [Verify](#) window of the Codes List Window del Quadro Elenco Codici direttamente directly on the first error encountered.



At the end of the verifications the program asks whether to save or cancel and go back to the scout. Let's choose Yes.



If you choose no, it activates another check to make sure there was not a mistake in the previous choice.

4.12 Practice

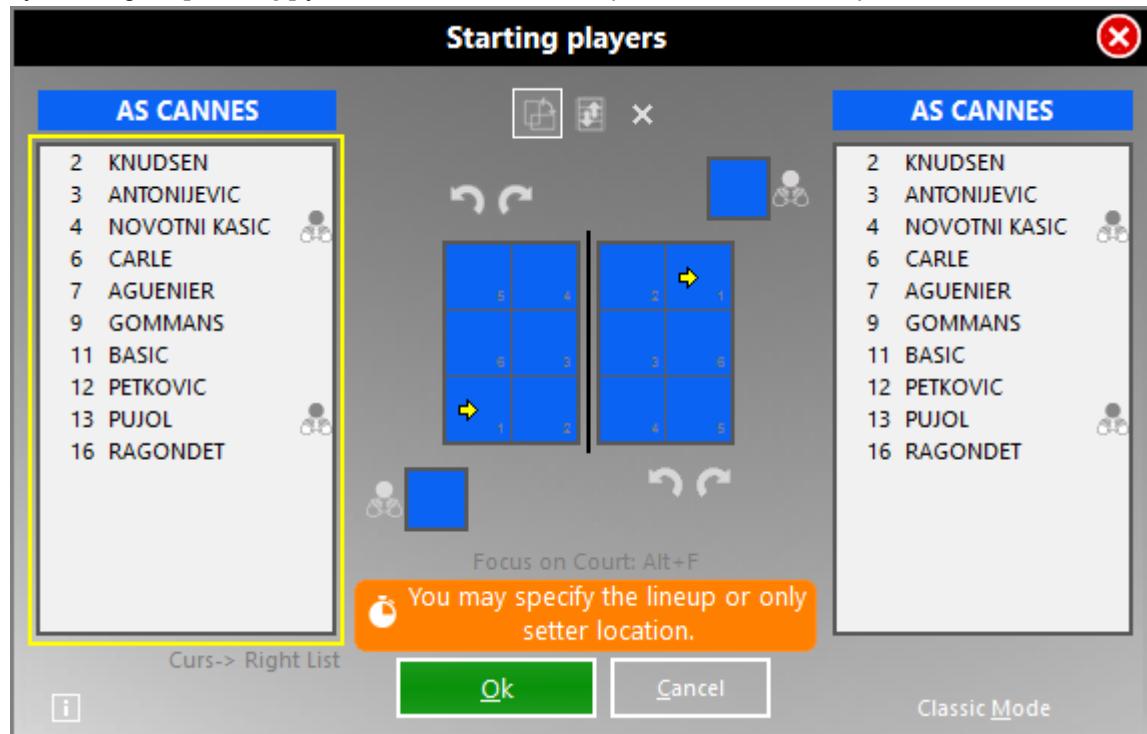
Opening this window you can start to scout a Practice Session with Data Volley 4.

Click on [New Match] and select the team who wants to analyze.

Click on [Practice] Button, in the Opponents team window.

You can start to Scout your practice.

By Clicking on [Line Up] you can set teams, setter position, or the line up for a Drill.



You can set the Focus on a court by using the keys sequence Alt+F on your keyboard.

By Clicking on [New Drill] it is possible to start a drill and to set the Drill Starting Score .



Save your practice, the software will show you the Practice session into the "matches list" checked by icon.

5 Web Client

Data Volley, through its web interface named Web Client, can send to the benches or to other computers in the venue:

- **Real time analysis**

All the analysis available from Data Volley can be sent to the connected clients. Each client receives customized analysis and can choose between full screen and windows analysis mode; the windows analysis mode allows to display more than one analysis simultaneously on the screen and to save the composition, even if the client is logged in from a device different than usual.

- **Scoreboard**

It displays timeouts, substitutions, and rotations during the entire match.

- **Video streaming**

The client receives the streaming directly from the Data Volley computer or from a computer connected to the net.

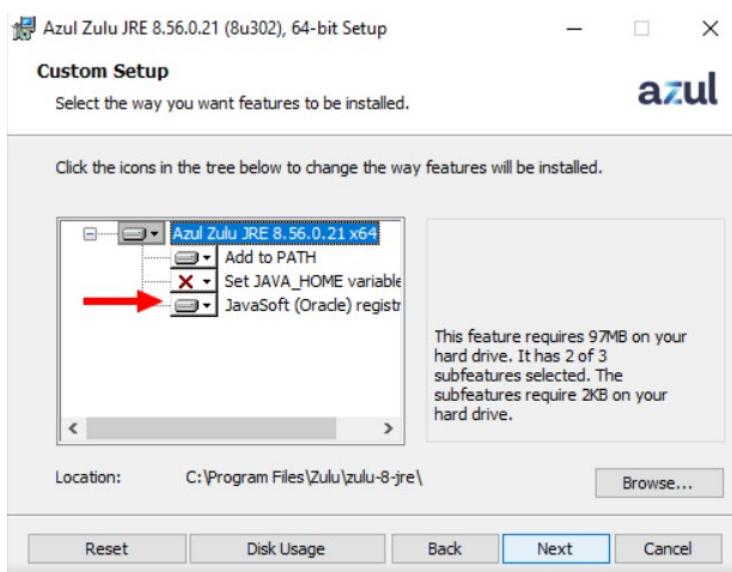
- **Chat**

The scoutman can text to the head coah and his assistants in real time.

- **Last actions replays**

It is possible to watch again the last 4 rallies and tag one or more videos to watch them at your will.

IMPORTANT: In order to activate Web Client you must have a Java Runtime Environment (**JRE**) installed on your machine. If you're using a non-Oracle JRE (like Azul Zulu), you must flag "JavaSoft (Oracle)" registry key during the setup:

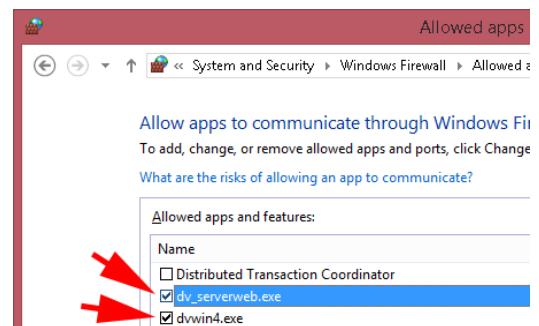


Enable Web Client

From [Tools](#) menu, choose "Web Client" and click [Enable Web Client](#). A setting windows will open. There you can choose which kind of analysis to send to the [bench](#) or to the [press](#) and set the parameters for the [remote capture](#). If you start the Web Client for the first time, please allow Windows Firewall to access to files dvwin4.exe and dv_serverweb.exe.



Verify access in Windows Firewall

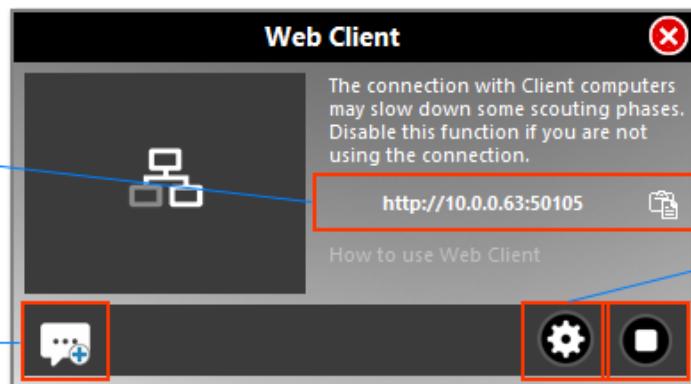


Once you activated the web client, you only have to type the correct address from the browser of the device you are using.

To identify it, just click this icon on the top right.



A Web Client related window will open. There you will find the address to copy



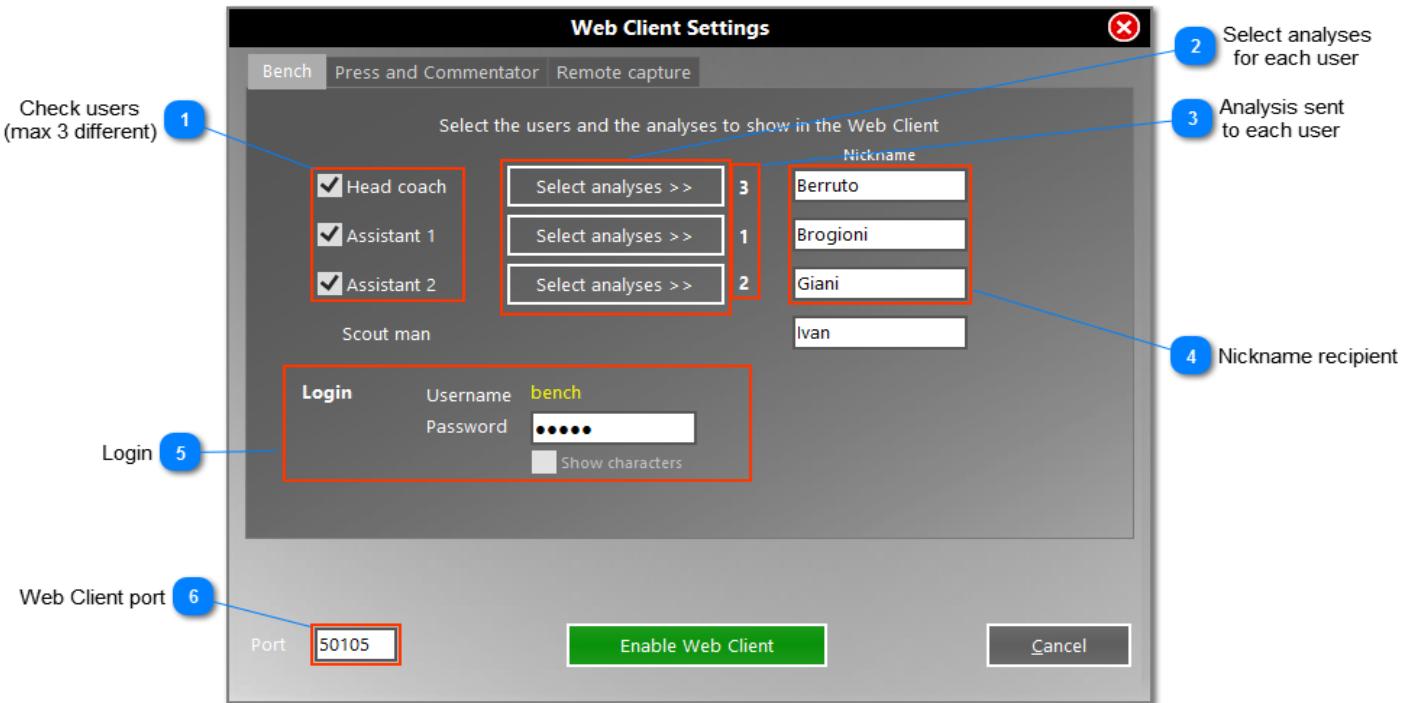
1. IP address: copy the address you find in the window above to the browser address bar of the client (Please note: the address in just an example)
2. Chat: by clicking the button you open the web chat window, through which scoutman and coaches can text each other.
3. Settings: to modify the configuration (e.g.: add or delete analysis requested from the bench)
4. Closes the clients connection

Let us see now how to set each client.

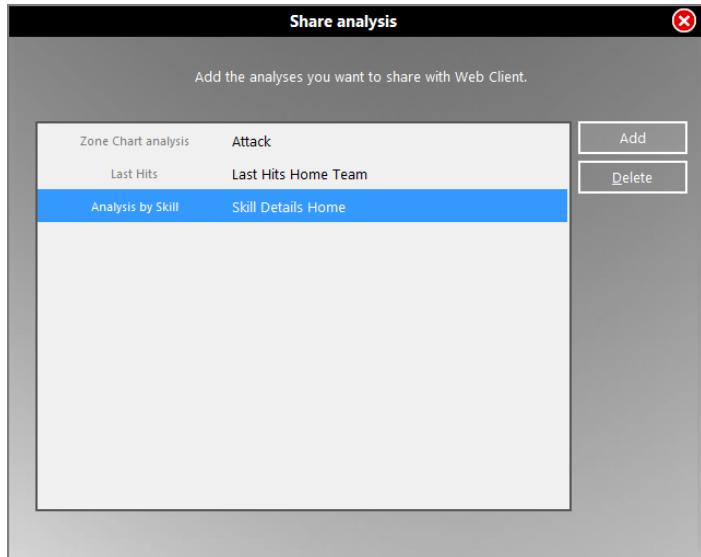
5.1 Web Client Settings for Bench

This window allows to choose up to 3 different workgroups and up to 3 different type of analysis, in order to facilitate their task.

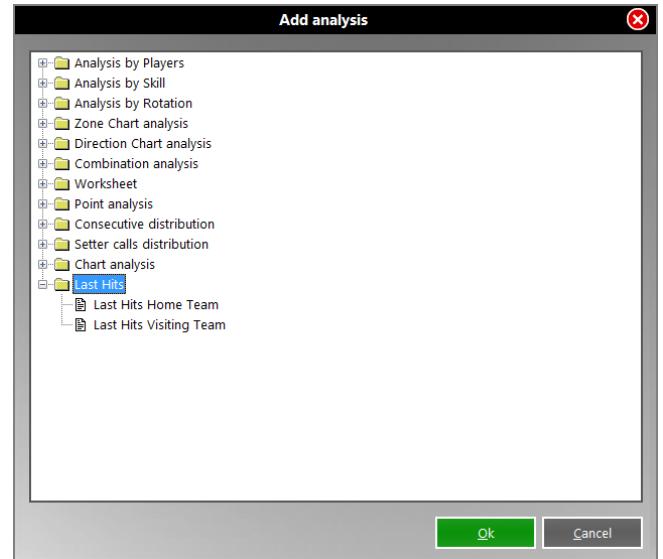
E.G.: you can send to the head coach only the reception analysis, to the first assistant only the analysis of the middleblockers attack, and to the second assistant only the analysis of the setter calls.
Each workgroup can be composed of multiple users.



1. Check the box to choose the recipient of the analysis you want to share (up to 3 different users).
2. Click the button [Choose analysis] to open the analysis sharing window, where you can watch all the shared analysis divided by recipient.



Click [Add] to enter the desired analysis for each recipient.



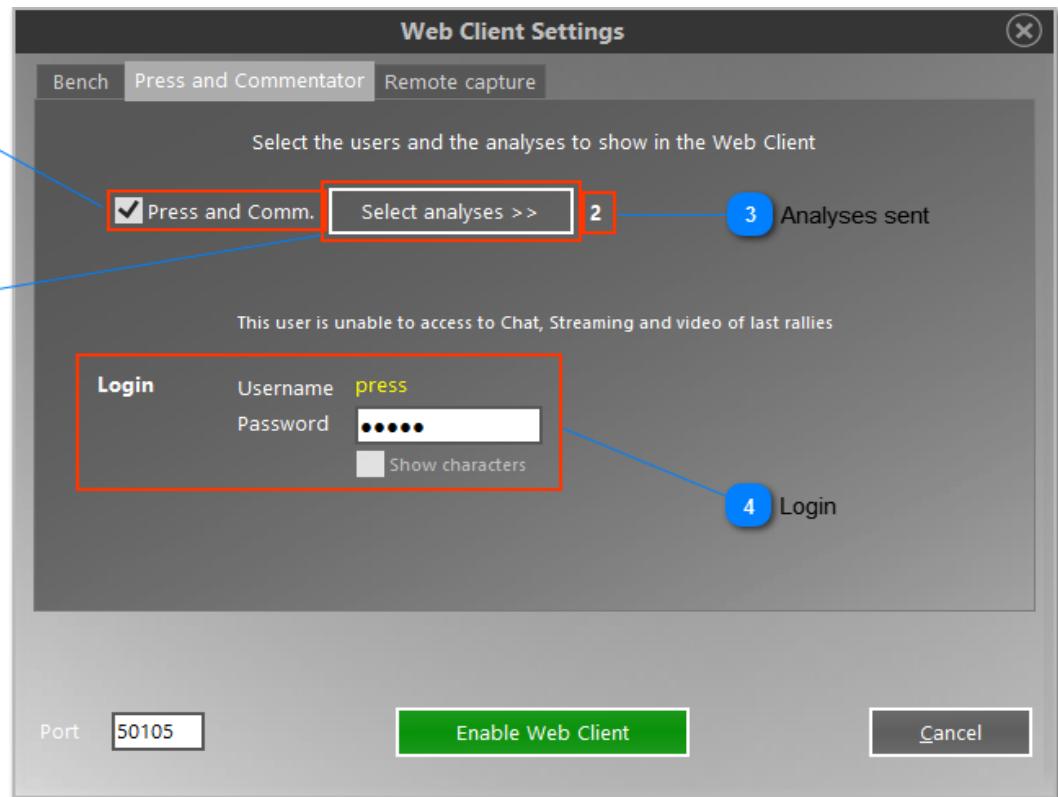
3. Type the name of the recipient of the analysis to be displayed in the Web Client.
4. Type the password to be communicated to the recipient to access the analysis
5. Type the number of the port which communicates to the Web Client (default: 50105)

All the user connected to the net with the log-in information can access the chat, the streaming and the replay and can save replays.

Once set the web client for the bench, you can set the configuration for the press and television.

5.2 Web Client Settings for Press

This window allows to choose which analysis to send to the press in the venue. They can connect to the net through the log-in information given by the scoutman.



The users with this log-in information cannot access the chat, the streaming and the replays.

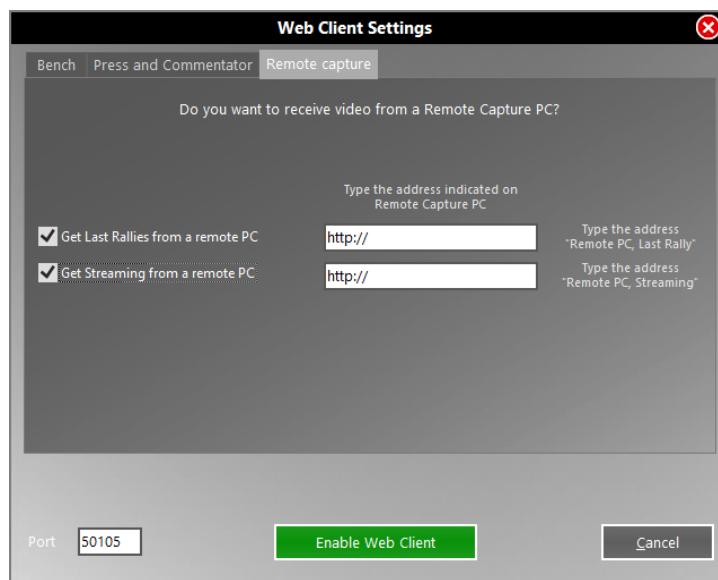
5.3 Web Client Settings for Remote Capture

If you used a different computer to capture the video of the match, you have to type the net address of the computer connected to the camera. Otherwise uncheck the boxes.

You have to set correctly DV4 also on the remote computer to receive the video.

Please note: it is possible to use only one dongle to run both DV4s. First use the dongle on the client and run the remote capture, then insert the dongle on the scoutman's computer to open DV4 on his computer.

Select the boxes related to what you want to receive: the last actions, the streaming or both.



If you have two cameras you can use one to receive a video stream from the remote pc and one to send a video stream from your PC. The bench will see streaming and replays from two different angles.

After setting all the parameters of the Web Client on the server computer (the one with Data Volley 4), click [**Enable Web Client**] to start the server and allow anyone with the correct credentials to use the **Data Volley Web Client**.

5.4 Data Volley Web Client Interface

By typing the address shown by the Data Volley [Web Client window](#) into the address bar, you will come to this page:

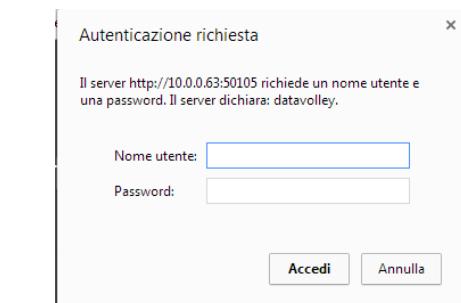
The names displayed in the windows are those you previously inserted into the "Web Client settings" window, and can be customized.

For a better experience we suggest the following browsers:

Internet Explorer, Chrome and Safari for Windows, Mac, Android e iOS



By clicking the button related to your own role, a log in window will open. Type there the log-in informations that the scoutman gave you.



5.4.1 Web Client for Bench

Data Volley 4 allows to configure 3 different users for the bench, even using the same log-in informations. You can state which analysis to share with each user. You can better the analysis for the bench.

Here is what you will see by connecting through the suggested browsers:

1 User

2 Match info

3 Shared Analyses

4 Last Rallies

5 Live Stream

6 Scoreboard

7 Chat

8 Web client Home page

5.4.1.1 Analyses

Shared Analyses
All shared analysis are in the menu. Open ones are surrounded.

Opened compositione
Name of the composition opened at this time.

Windows or Fullscreen
You can choose to display a single analysis in full screen

Hide analyses
Hide all opened analyses in one click

Open composition
To open a saved composition click on this icon. In the next window, you can delete or open a composition.

Hide all analyses

Skill Details

Analyses

5.4.1.2 Last Rallies

Selected rally
The selected rally is in fullscreen.

FFW/REW
Fast Forward or Rewind the selected clip.

Last Rallies
Thumbnails of last 5 rallies.

Favourites
Clicking this button you can review at any time all actions saved in favorites.

Rally's code
The color refers to the serving team

Play Rally
Click here to watch rally in fullscreen.

Add to Favourites
Click on the star to save the Rally in favorites and review it at any time. A new window allows you to save as the action.

This icon  appears when you click on Favorites. Use it to save the position of the clip when the slider reaches the desired position. The number of the second appears next to the icon. This tag allows you to go immediately to the

desired position whenever you open the clip.

5.4.1.3 Live Stream

The screenshot shows the Match Analysis software interface during a live stream. The main area displays a volleyball game between Italy and Poland. The score at the top is Italy - Poland, 2-1 | 25-21 | 25-20 | 15-25 | 24-17. To the right is a sidebar titled "After rec - Rot details" with a list of options: Attack, Home Distribution, Last Hits Home Team, Reception Player detail, Skill Details Home, and Skill and Player details. Below this is a vertical list of numbers from +5 to +20. At the bottom of the sidebar are icons for Score Board, Reset Stream, Last Rallies, and Analyses. A blue callout box labeled "Streaming" points to the video player area. Another blue callout box labeled "Streaming delay" points to the "Score Board" button. A third blue callout box labeled "Reset" points to the "Reset Stream" button. The bottom left corner shows a navigation bar with icons for Home, Hide Chat, and Chat, along with a timestamp (09:47:31, 09:47:42, 09:47:53) and player names (Berruto, Ivan, Berruto) with their respective percentages (54%, tks).

Berruto

Italy - Poland, 2-1 | 25-21 | 25-20 | 15-25 | 24-17

After rec - Rot details

Attack

Home Distribution

Last Hits Home Team

Reception Player detail

Skill Details Home

Skill and Player details

+5
+6
+7
+8
+9
+10
+11
+12
+13
+14
+15
+16
+17
+18
+19
+20

Score Board

Reset Stream

Last Rallies

Analyses

Streaming

Streaming in fullscreen with the delay set during setup.

Streaming delay

Click here to select delay in seconds

Reset

Click the button to return at any time to the live stream.

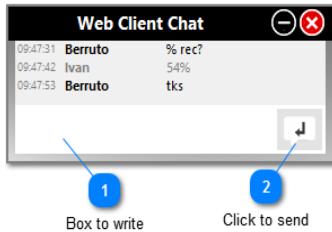
5.4.1.4 Scoreboard

By clicking  the related window will open. This is useful to keep under control substitutions, timeouts, serve and rotations.

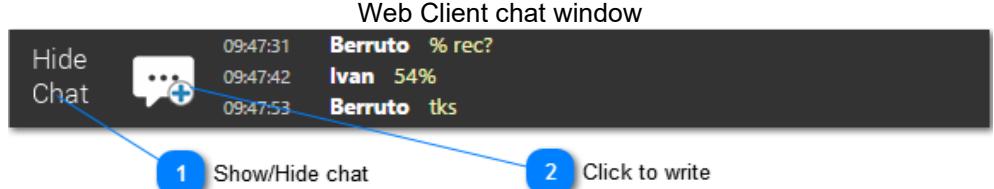


5.4.1.5 Chat

Scoutman's chat window



Web Client chat window



5.4.2 Web Client for Press

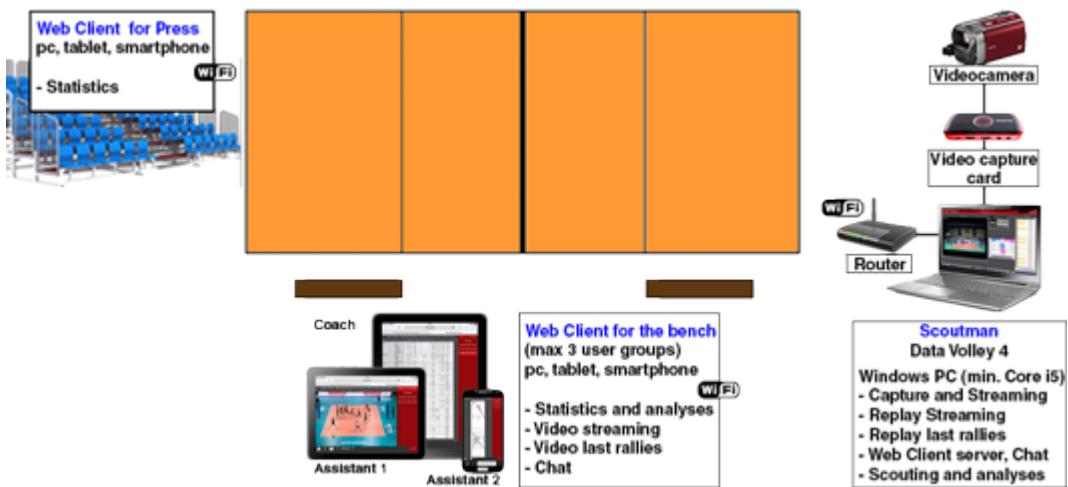
Data Volley 4 can share specific analysis for press and television, which can connect to the Web Client through the log-in information given by the scoutman. There is no limit to the number of user that can log on.

FRANCE		SET	POINTS	SERVE	RECEPTION	ATTACK	BLOCK
Laurent TILLIE		1 2 3 4 5	Tot BP W-L	Tot Err Pts	Tot Err Pos% Exc%	Tot Err Bio Pts Pts%	Pts
2	Grebennikov Jenis (L)	*	-2	-	26 2 35% 10%	-	-
4	Rouzier Antonin	4 3 3 3	28 7+19	16 2 2	-	48 2 5 25 52%	1
5	Cleventer Trevor	*	4	5 2 +2	5 -	2 10 1 20% 20%	8 1 1 3 38%
6	Tonutti Benjamin (C)	1 6 6 6	-	-1 15 1	-	-	-
7	Tille Kevin (L)	-	-	-	-	-	-
9	Ngoetto Ervin	2 1 1 1	15 7 +5	20 3 1 33 2 42%	30% 26 1 4 13 50%	1	
10	Le Roux Kevin	3 2 2 2	11 6 +5	15 4 3 -	-	13 2 - 6 40%	2
11	Lynel Julien	*	4 4	9 5 - 12 2 2 19 3 32%	26% 15 1 3 4 27%	3	
13	Pujol Pierre	*	-	-1 1 1 -	-	-	-
14	Le Goff Nicolas	6 5 5 5	5 - 43 13 -	1 -	-	9 1 1 4 44%	1
15	Dalmedo Horacio	-	-	-	-	-	-
16	Marechal Nicolas	5	2 - +1 1 -	3 -	33% 7 1 - 2 29%	-	
17	Lafitte Franck	*	-	-	-	-	-
18	Rosnard Thibault	-	-	-	-	-	-
Players total:			75 27 +31	98 13 10 92 8 35%	24% 126 9 14 57 45%	8	

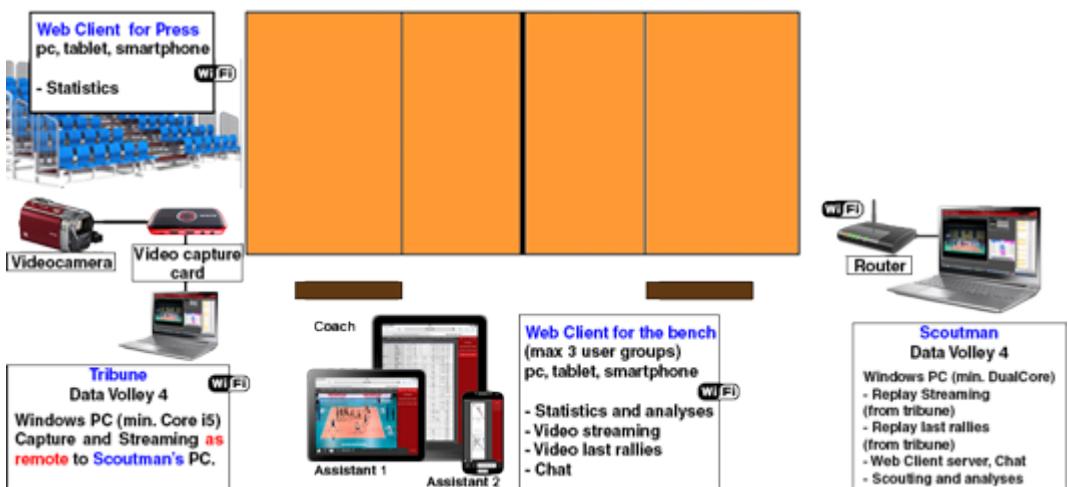
5.5 Venue Configurations

There are two possible configurations, according to the hardware available.

Configuration A: one video camera and one Data Volley 4, with wifi connection

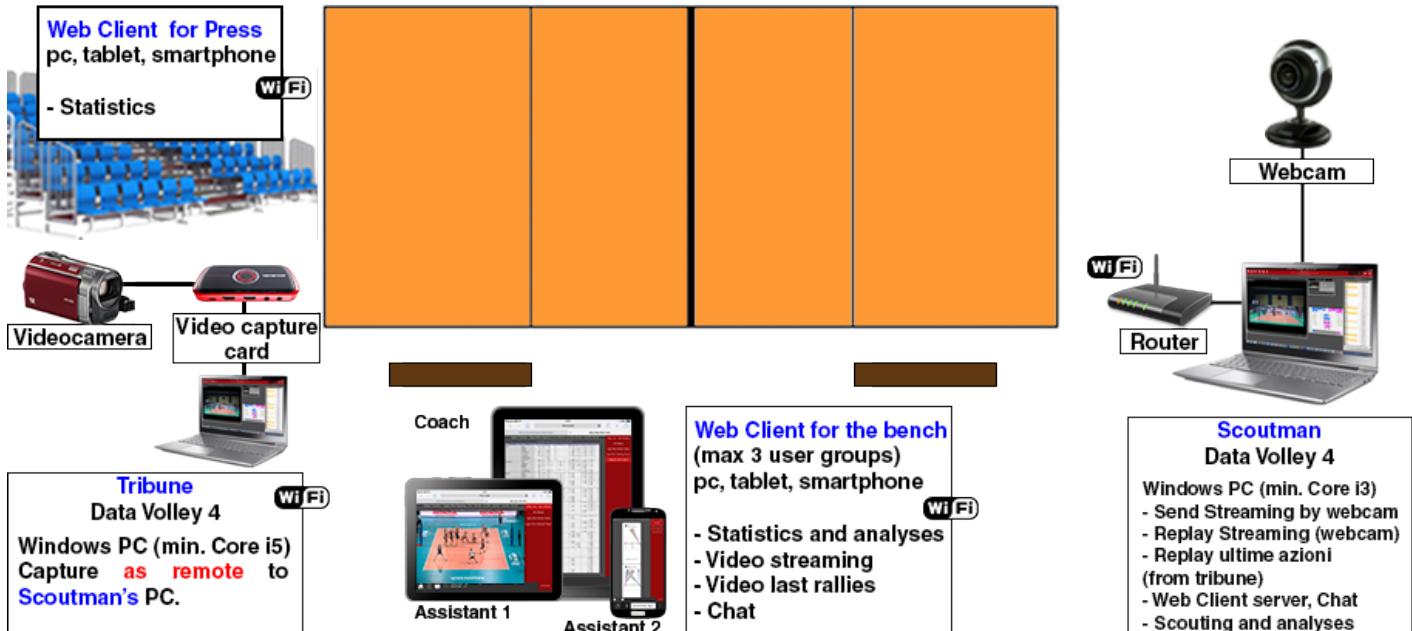


Configuration B: one video camera and two Data Volley 4, with wifi connection

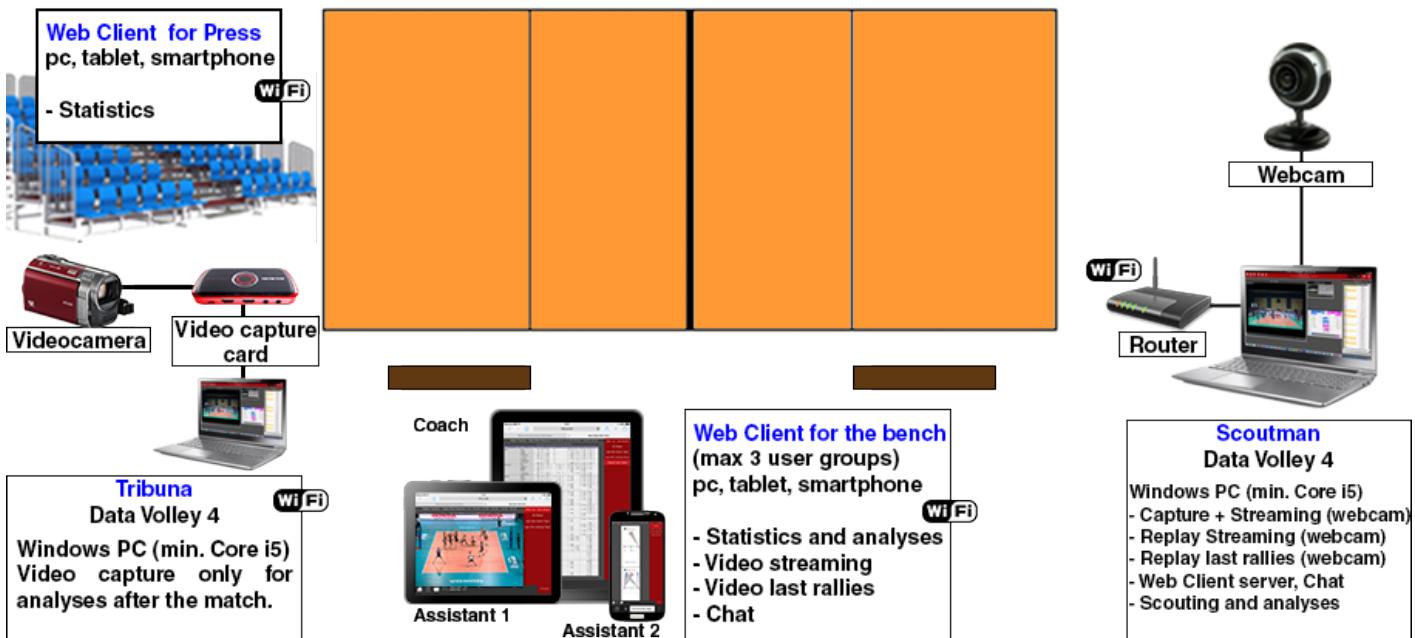


Configuration C: two video cameras (or one video camera and a webcam) and two Data Volley 4, with wifi connection

Option 1



Option 2



Configuration A: the video camera can also be placed next the computer using Data Volley.

Configuration B: capturing and streaming from the Data Volley in the stand allow to keep the scoutman's computer fast. This is useful in case of low performing computer.

Configuration C:

- **Option 1:** suggested for those who want to watch the video of the match from two different points of view: one for the live stream, the other one for the replays. In this case you can analyze aspects that you cannot see with only one camera.
- **Option 2:** suggested for those who have not particular needs about real time video, but would like to have two perspectives for the analysis.

For HD capture we suggest at least an i5 Core.

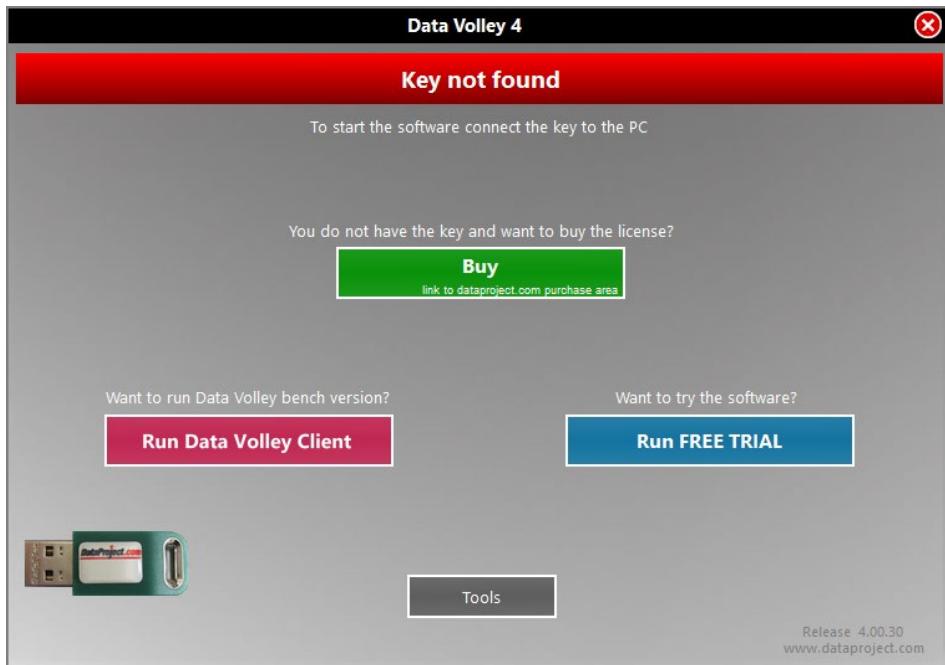
See [Appendix](#) for an example of configuration.

6 Data Volley Client

Data Volley allows another opportunity of bench connection: this is the Data Volley Client.

Compared to the Web Client, Data Volley Client displays the analyses already stored in Data Volley as well as it allows for the creation on new analyses without any restriction. This Data Volley Client which was available in DV2007, has been implemented to help the skilled users to deeply analyse the game allowing them to search any statistical output and create personalized analyses. Beside the analyses, Data Volley Client allows to play live video streaming and to manage the chat. Data Volley Client can be only used on PCs.

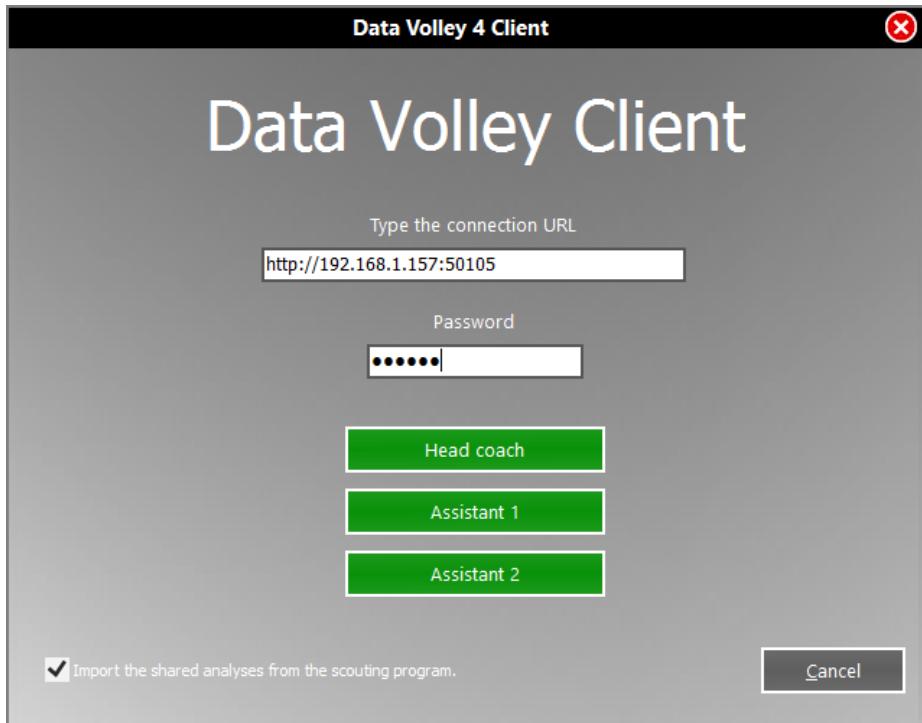
To configure it, just install Data Volley on the PC and once the installation is ended, launch Data Volley without plugging the protection key (dongle). The following mask will be prompted:



Run Data Volley Client

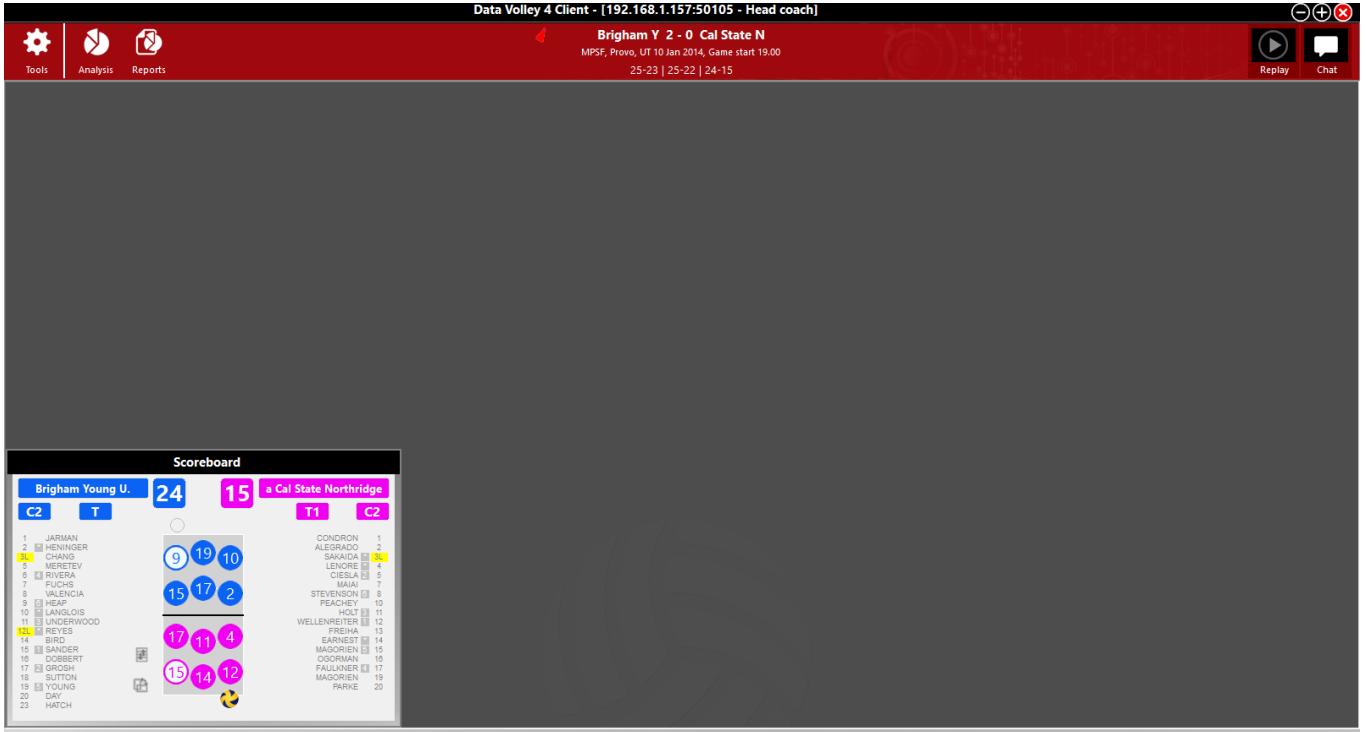
Click on **Run Data Volley Client** and type the IP address and password, just repeating the same procedure as the [Web Client](#).

Finally, log in as **[Head Coach]** or **[Assistant 1]** or **[Assistant 2]**.

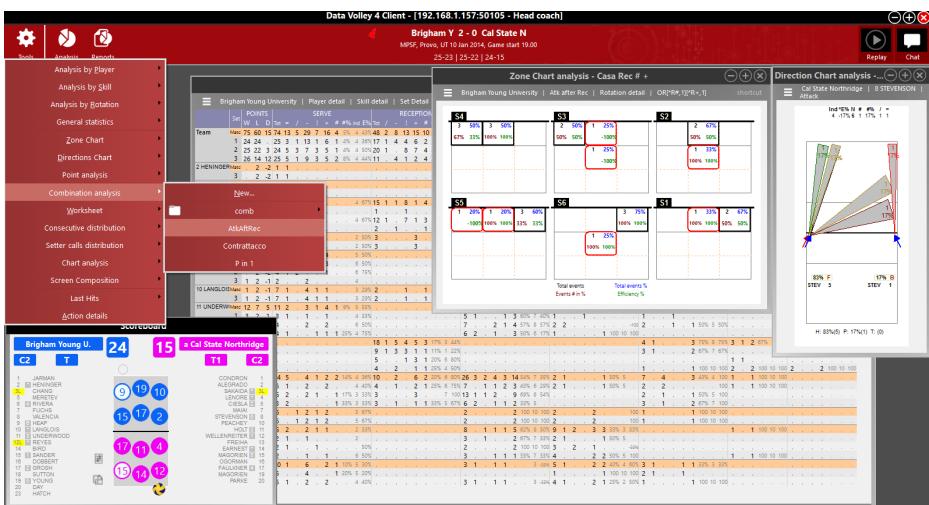
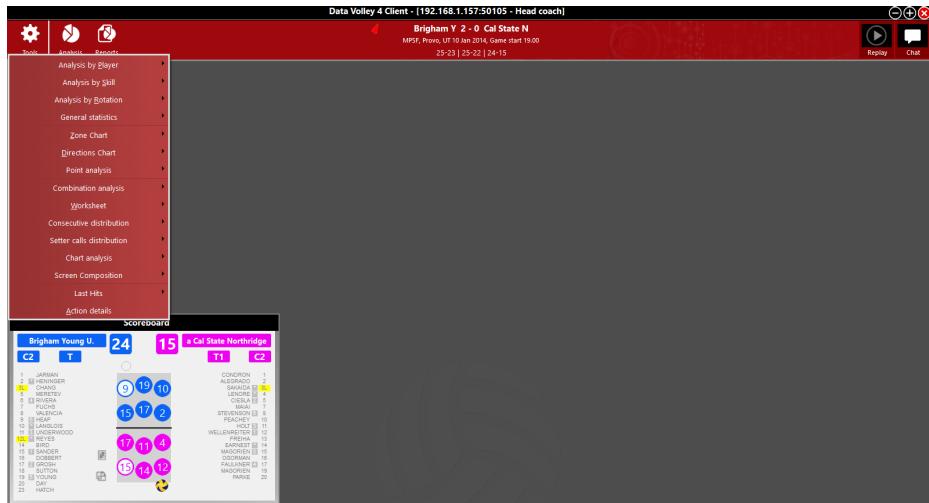


Data Volley Client will be available with the Scoreboard windows already open. On top left the buttons Tools, Analysis

and Report will be available while on the top right are enabled the buttons Replay and Chat



As you can see, by clicking on Analysis the user is free to operate like being in Data Volley. Then, during the match, the Data Volley Client operator may open any type of analysis and manage them accordingly and eventually store one or more analyses. Of course, if the analyses have been previously stored in Data Volley Client, they will be immediately available without needing to rebuild them again (see [this paragraph](#)).

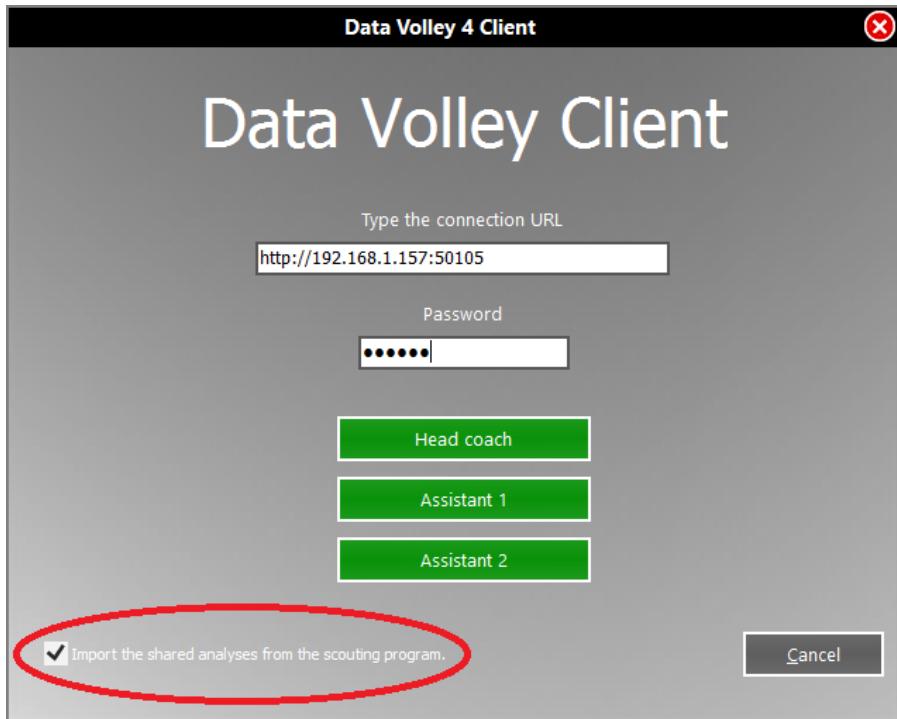


By clicking on Replay it will be possible to watch the streaming of videos being captured (of course, it is available on the scouting PC) while by clicking on Chat it will be possible to Chat with all the devices connected to the Data Volley. Obviously, if the Data Volley Client has been logged as Head Coach, the messages on chat will appear as coming from

the Head Coach and so on... That's why it is important to log in to Data Volley Client with the correct user.

6.1 Importing Analyses from Scouting Computer

By selecting the option "Import Shared Analyses from Scouting Program" Abilitando l'opzione "Importa le analisi condivise dal programma di rilevazione" it will be possible to open in Data Volley Client all the analyses that have been previously shared from the scouting PC for the Web Client.



Then, once logged in the Data Volley Client as Head Coach, all the analyses that the scoutman has shared for the Web Client will be also available on the Data Volley Client. Of course, the free analyses and the analyses previously stored on the PC will be also available. Consequently, by accessing the Data Volley Client as Head Coach or Assistant 1 or Assistant 2 the relative shared analyses will be available.

The diagram illustrates the workflow for sharing analyses. On the left, the 'Web Client Settings' window shows a list of users ('Head coach', 'Assistant 1', 'Assistant 2') with checkboxes and 'Select analyses >>' buttons. On the right, the 'Share analysis' window displays a list of analyses ('Analysis by Players', 'Direction Chart analysis', 'General statistics') with their corresponding ADV codes ('ADV-Total', 'ADV-ATT', 'ADV-SER - SQ / + #', 'ADV-GLOB'). A large yellow arrow points from the 'Select analyses' buttons in the Web Client Settings window to the 'Share analysis' window, indicating that the analyses selected in the Web Client are being shared.

7 Data Volley Reader

The Reader has been developed to meet all the needs of a Volleyball Team Staff. It allows to use Data Volley 4 simultaneously on up to 4 device by using just one licensed key on the main device.

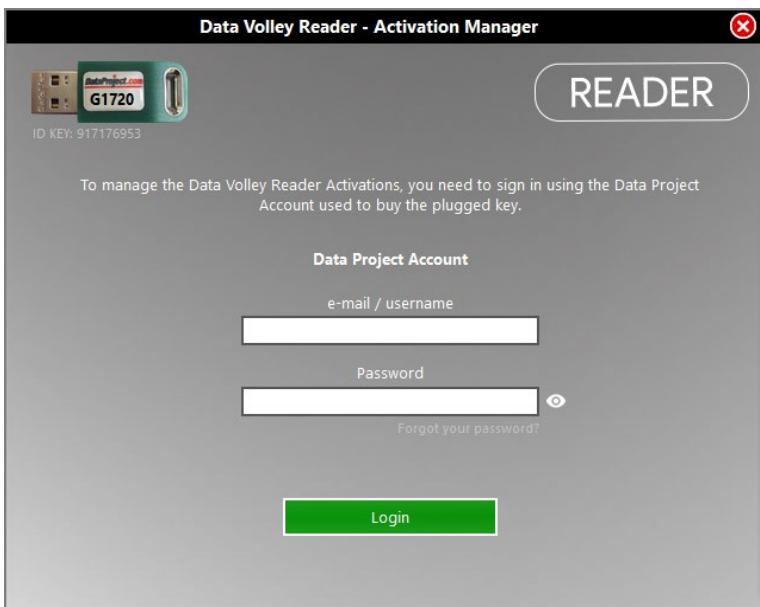
The Reader is a basic tool for all coaches who need to have a personal analysis after a Match, or want to start to analyze the next opponent team.

7.1 Activation on the Main PC

To Start to Use the Reader, you have to activate it on the PC with the Licensed Key connected.

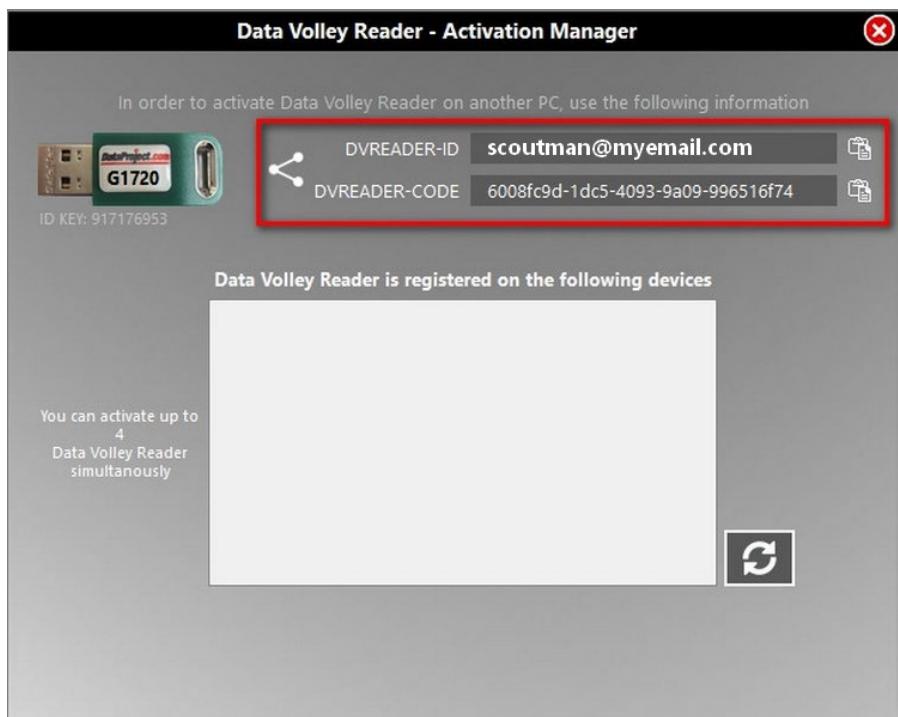
Click on **[Tools]** on the Scoutman PC and select Data Volley Reader - Activation Manager from the Drop-down Menu.

The software will display the following window to Login:



Enter the personal e-mail address or username and password associated to the key to Login.

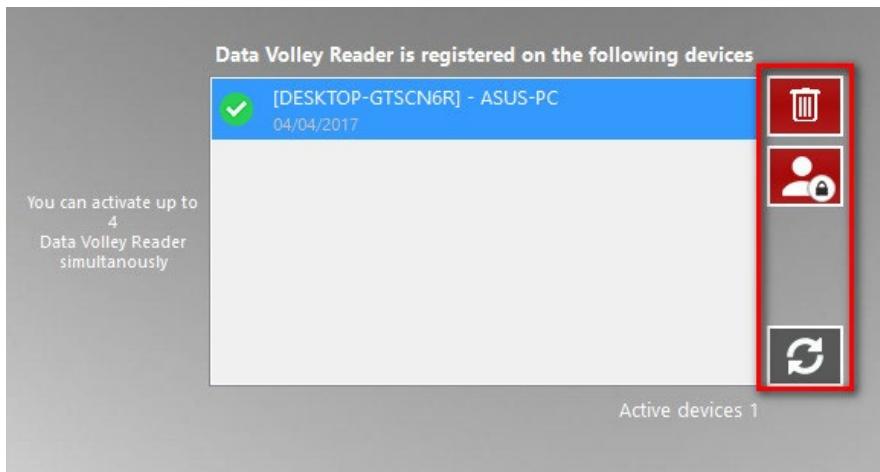
Now, you can Manage the Reader Activations.



The Software will show you the following window in which you can find DVREADER-ID and DVREADER-CODE to enter in the Reader Window on a PC without a Licensed key.

PLEASE NOTE you can activate up to 4 Data Volley Reader simultaneously associated to a Key.

From this window, you can manage all PC activated.

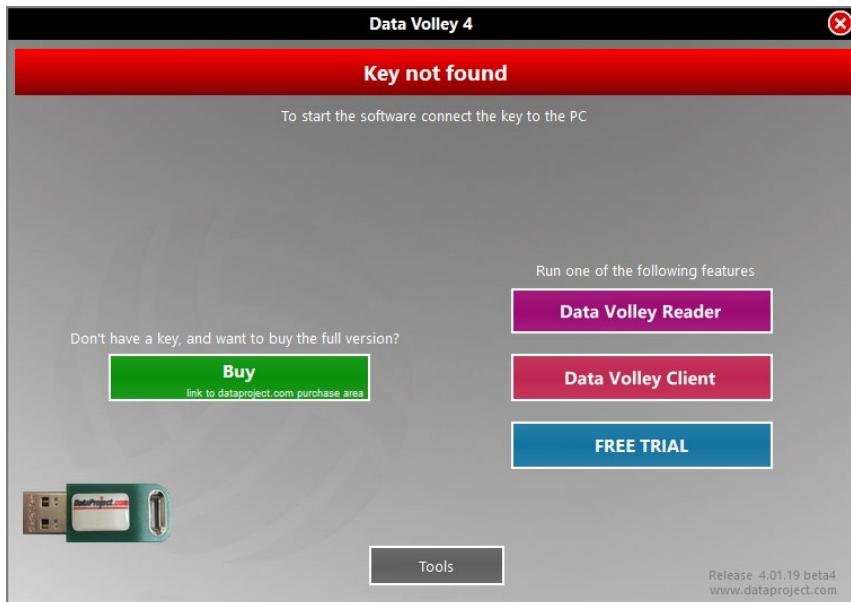


You can delete or lock a Reader User registered on your License by using red buttons displayed on the right side of the list.

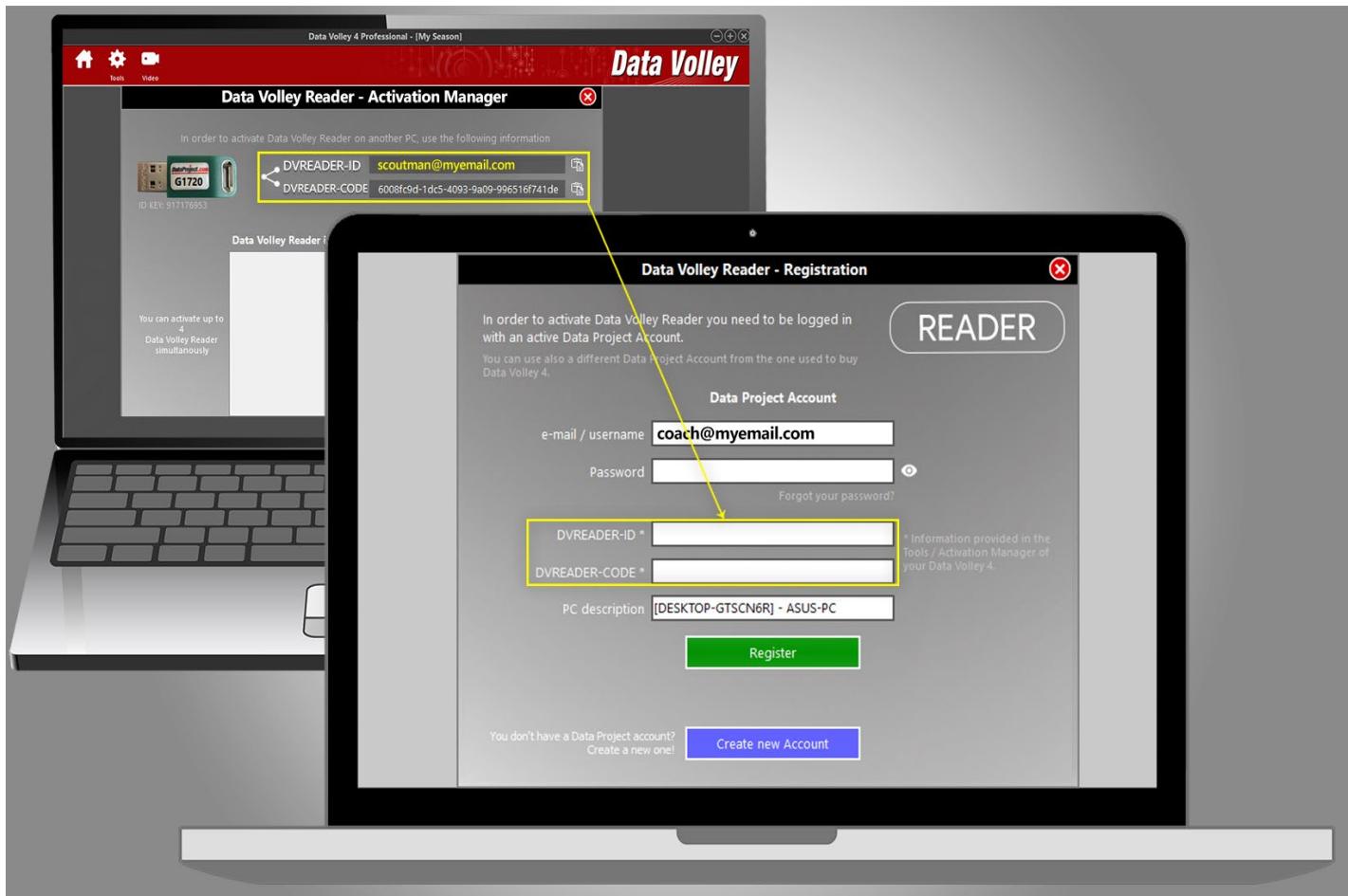
7.2 Register a PC to the Reader

You can Activate Data Volley Reader on a Pc without Key by following these simple steps:

- Launch Data Volley 4



- Click On [Data Volley Reader] to Login.



- Enter your personal e-mail or username and password associated to your Data Project account. It's possible to use the same Account of the Main PC, or you can create a new account by clicking on the Button on the bottom of the window.
- Enter DVREADER-ID and DVREADER-CODE displayed in the Activation Manager window on the Main machine.
- This PC in "Reader Mode" will be automatically displayed on Activation-Reader List of the Main PC.

7.3 Reader Use

The Reader has the same user interface of Data Volley 4:

You can analyze a match, customize, save and export your Analysis, you can search rallies of interest and create a "Total Analysis" by analysing up to 3 matches.

The Reader has, however, some restrictions:

- **Scout**

You can not modify a Scout File or a code.

- **Video**

Capture, Conversion and Streaming are disabled.

- **Rallies**

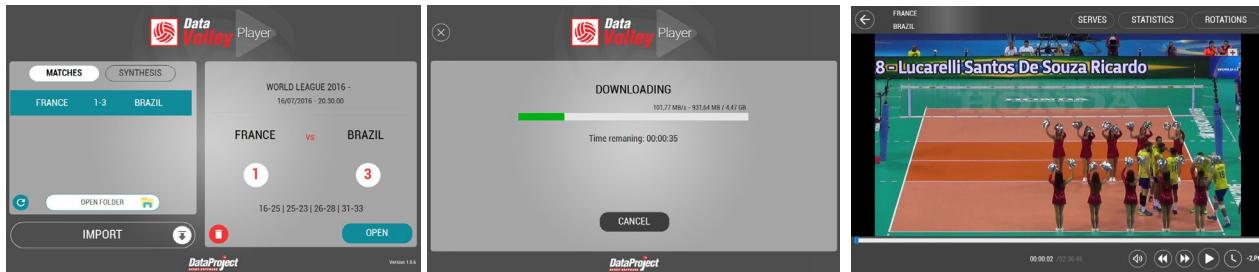
You cannot export a search rallies or create a montage.

- **Web Client**

Web Client is disabled in "Reader mode".

8 Player App

Data Volley Player App is the fastest way to share Match Video Analysis, the basis of the theoretical study of different gaming situations



The App is available on following stores:

- Microsoft Store
- Apple Appstore (MacOS, iOS)
- Google Play Store

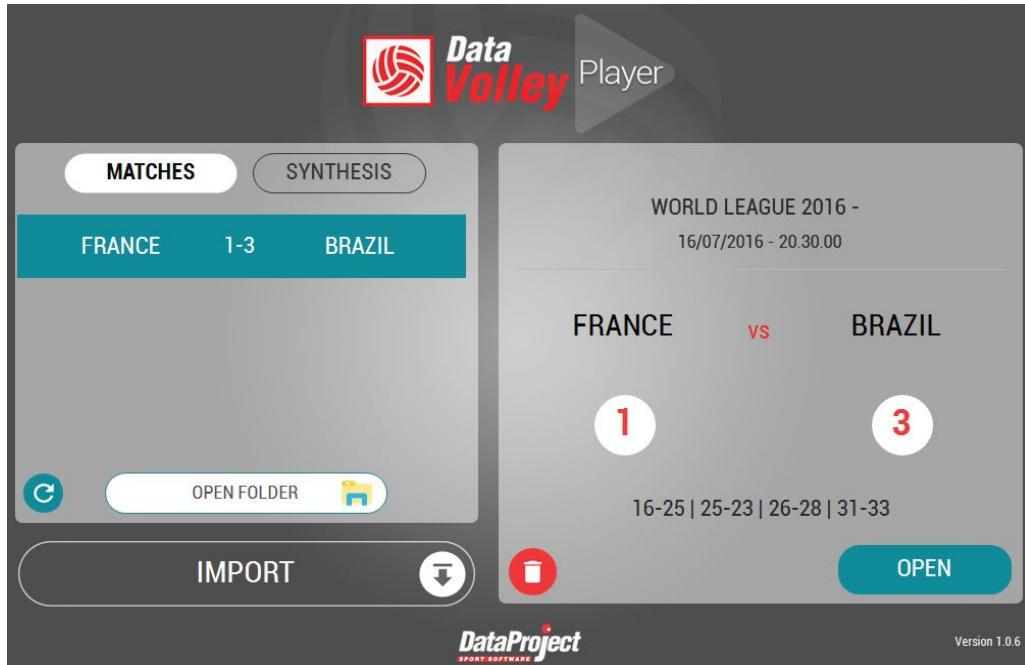
8.1 Minimum Requirements

The App is available for all Operative Systems: Android, iOS, Windows e Mac and it needs of the following minimum requirements:

- **Windows:** Windows 10 (rel 14257.0); 2GB of RAM recommended.
- **Android:** Release 6.0 or higher; 2GB of RAM recommended.
- **iOS:** iPadOS 9.0 or higher.
- **MacOS:** From MacOs 11.0 to MacOs 14.1.

8.2 Home

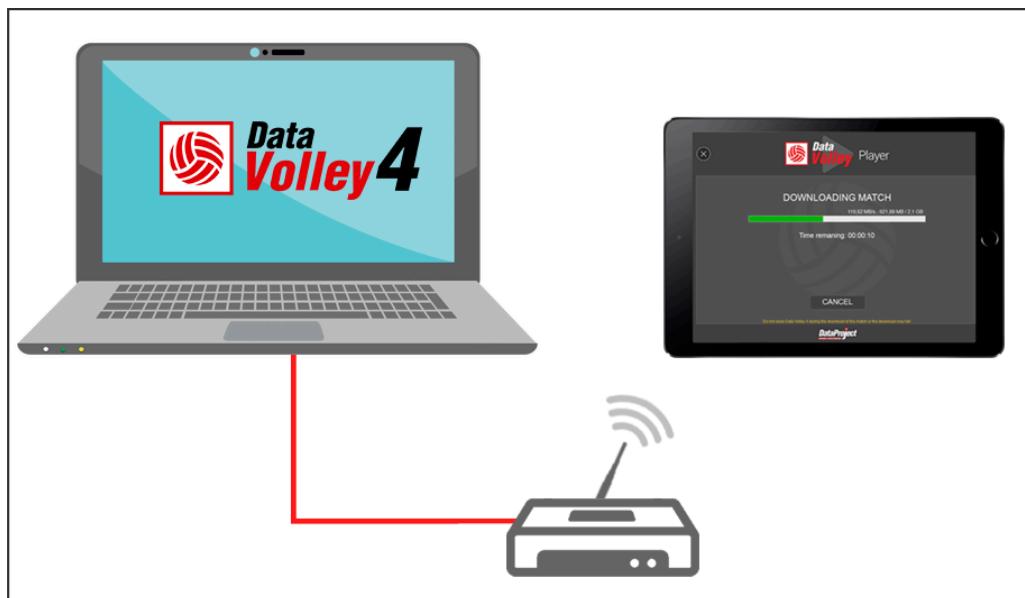
The Player App "Home" displays: on the left side all matches (or Synthesis) downloaded, and on the right side the match information.



The Application allows you to select matches archive or Synthesis Archive by clicking or Tapping on dedicated buttons.

8.3 Network

We suggest a Wi-Fi 5GHz, to have the best configuration connect PC to the router by cable.

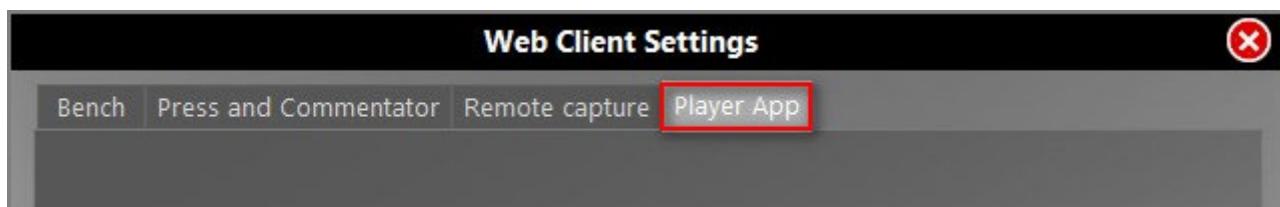


8.4 Download a match or a Synthesis

Launch Data Volley 4 on the main PC.

Click on Tools, open Web Client options and click on settings.

Select "Player App" on the toolbar



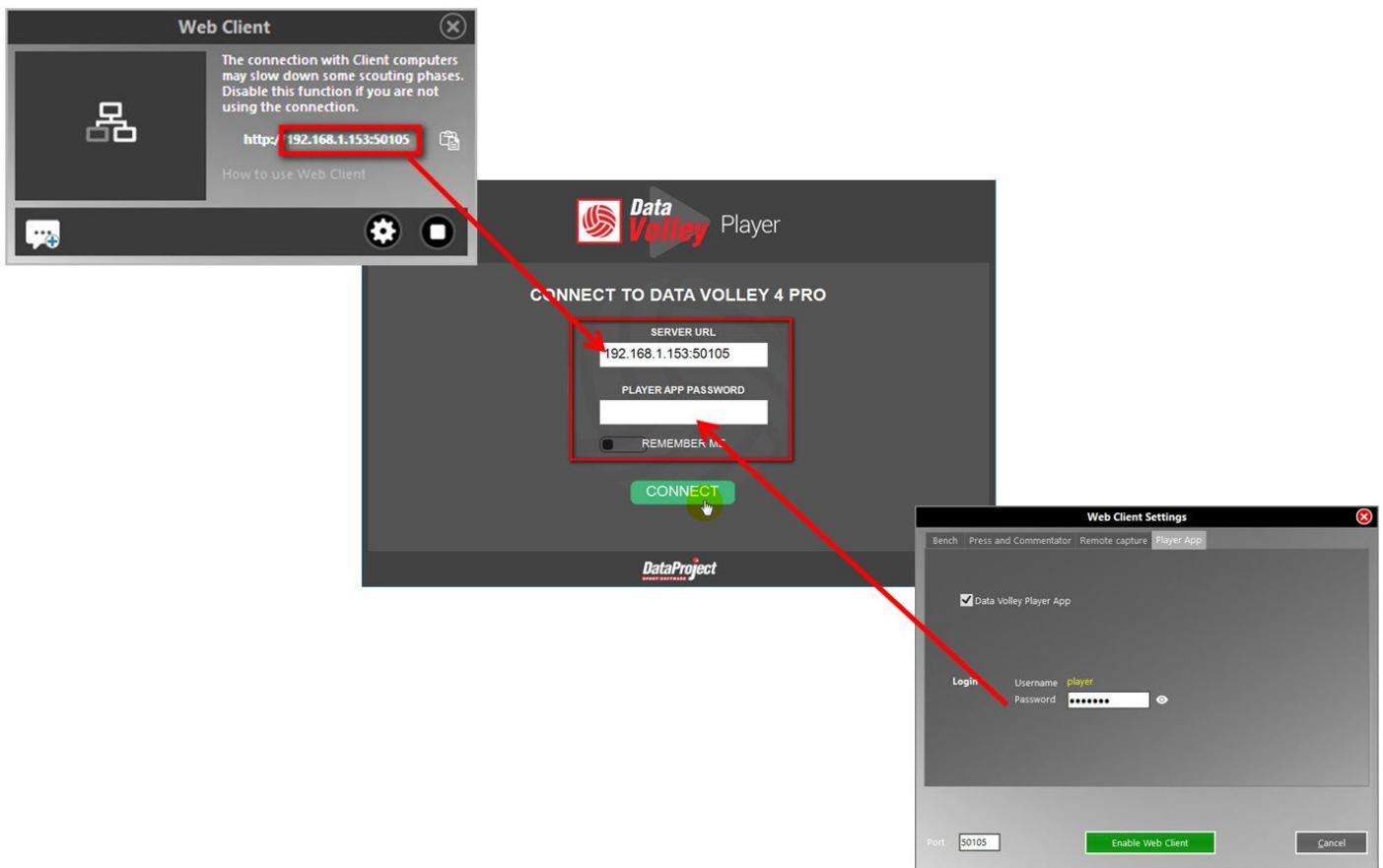
- Check the option Player App

- Enter a password

- Click on Enable Web Client (or Apply if Web Client is just activated).

8.4.1 Connect the Player App to Data Volley

When you launch the App for the first time, the software will ask to enter the Web Client Server URL and password selected on the main PC.



Please leave the Web Client activated to allow the connection between Player and Data Volley 4.

8.4.2 Download

Select "Import" in the Home.

Connect the device to Data Volley 4 by following the previous paragraph instruction.

the following window will be displayed on your device:

MATCHES **SYNTHESIS**

My season 2016-17

Date	Home Team	Score	Away Team	Tournament	Action
04/22/2017	Arizona 2016	1 - 1	University Of San D	Match	!
04/22/2017	Arizona 2016	1 - 1	San Diego State U	Match	!
03/13/2017	Atom Trefl Sopot	3 - 2	Polski Cukier M	OKLEN Liga 2016/2017 - OKLEN Liga 2016/2017 - Faza Zasadnicza, Away - ORLENLiga 16/17	▶
03/12/2017	Azimut Modena	3 - 1	Calzedonia Verona	Superlega 2016, Playoff Quarti	▶
03/08/2017	Nebraska	0 - 0	Asdasd	Regular Si	▶
02/26/2017	Diatec Trentino	3 - 0	Gi Group Monza	2017 Regular Season, Ritorno	▶
02/13/2017	Actors	3 - 0	Singers	Championship Name	!
01/29/2017	Diatec Trentino	1 - 3	Cucine Lube Civitanova	2017 Coppa Italia, Finale 1° - 2° posto	▶

REFRESH **DOWNLOAD SCOUT ONLY** **DOWNLOAD**

DataProject
SPORT SOFTWARE

The Application allows you to download matches from the season opened in Data Volley 4 or to a synthesis from the archive.

Select the match or the synthesis and click on download.

If you select the same match is possible to overwrite the previous match or just download the Scout file. This option allows to have a faster download procedure if the Scout, related to the Video of the match, has been modified ("Download scout only" is available only for matches).

PLEASE NOTE To allow the App to download a match:

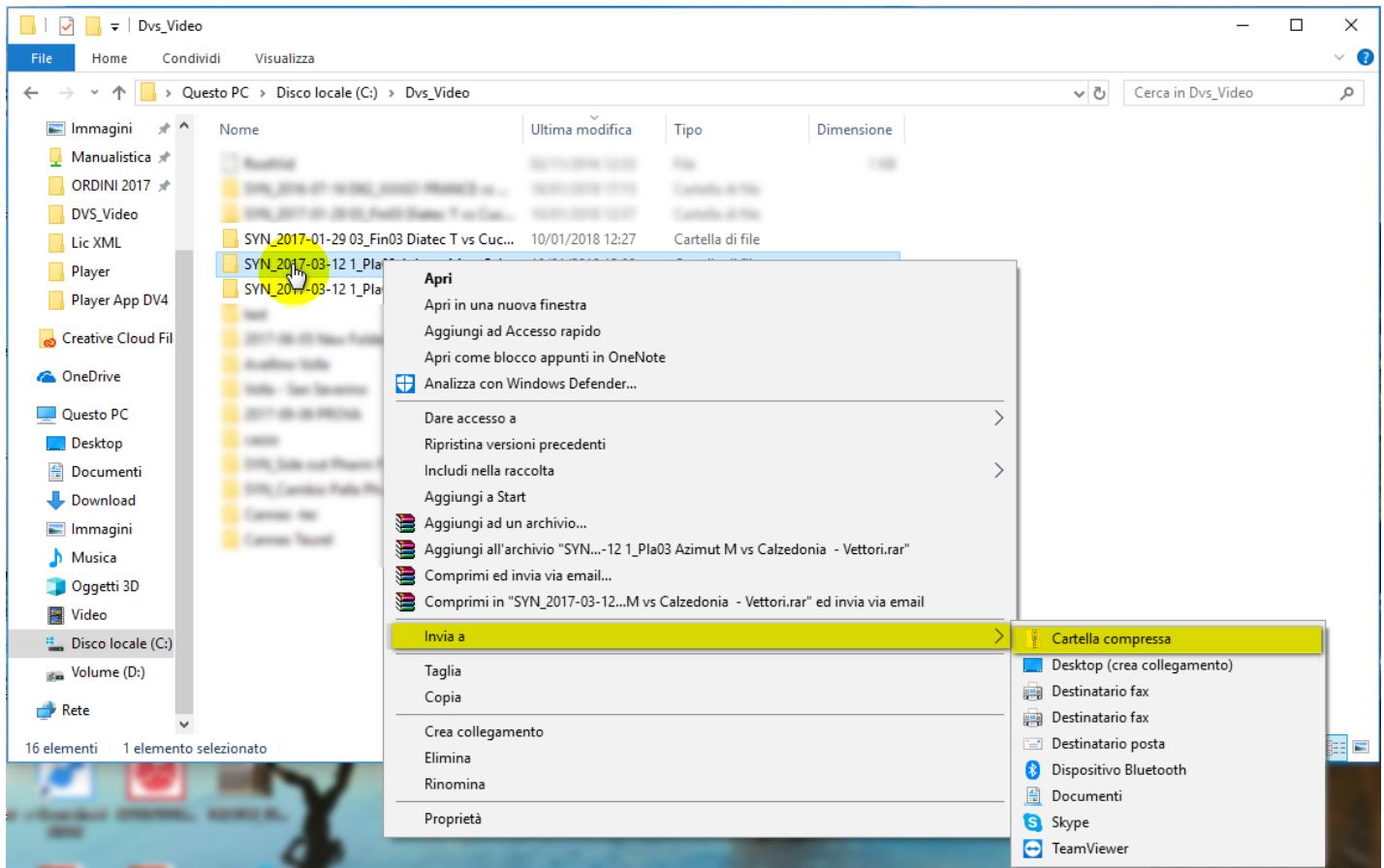
- Launch Data Volley 4 and activate Web Client.
- When the App is downloading, don't close Client and Data Volley 4 on the Main PC.
- If you need to change Season, please change it only when the download is started.
- It's possible to disconnect the device when the download is finished.

8.4.3 Share Synthesis by mail, USB flash drive or cloud

This procedure allows you to share a Synthesis with another device not connected by local network.

8.4.3.1 Create a file to share

First of all, Check the Dvs_Video folder on the Data Volley 4 PC.



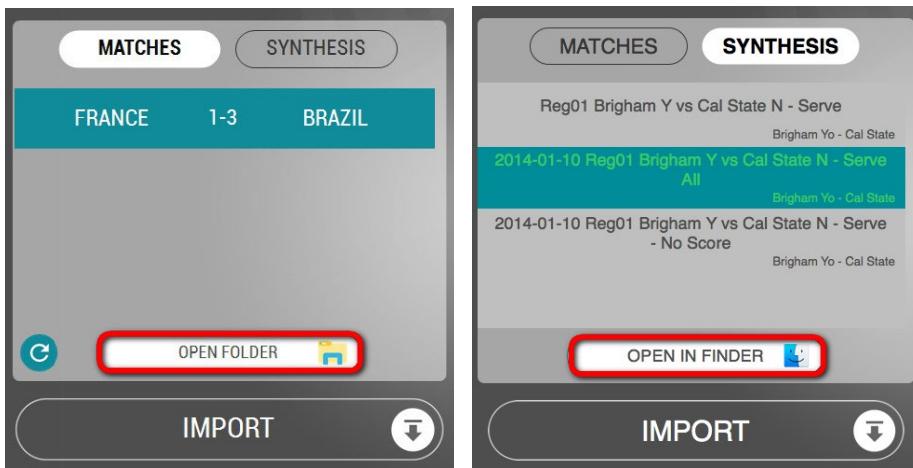
Select the Synthesis folder and Zip it.

Share The Zip file by mail, cloud or USB Flash Drive.

8.4.3.2 Import from path (Windows and Mac)

Download the Zip file and extract it on your PC or Macbook.

It's possible to open directly the Dvs_Video folder by clicking on "Open Folder" ("Open in Finder" for Mac OS) in the application Home Page.



Put the SYN Folder into the Player App Dvs_Video folder, close the window and click on the Refresh Button in Home Page in order to display the imported Synthesis into the list.



8.4.3.3 Copy a Synthesis on iPad

First of all, copy the Synthesis folder on your PC or Mac and launch iTunes.

Connect your iPad to your computer using the USB cable that came with your device.

Click your device in iTunes.

In the left sidebar, click File Sharing section and select the DV 4 Player App.

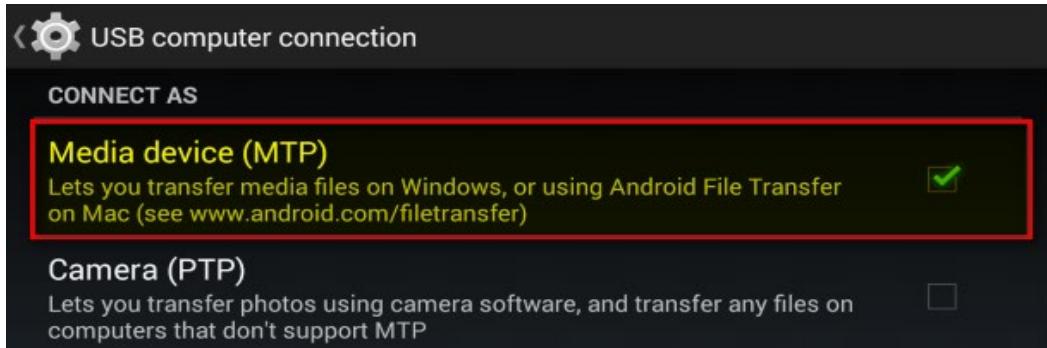
	File Name	Size	Last Modified
504CB7A52806E4E62AD638C433A9B7B90D97DD64	787,1 MB	26/01/18, 12:02	
Application.log	700 KB	Oggi 14:22	
FDECED13C62ED563866C723C488E7C68D028F8C1	zero KB	26/01/18, 12:10	
SYN_Reg01 Brigham Y vs Cal State N - Serve	35,1 MB	19/01/18, 12:56	
SYN_XXX00 XXXXXXXX vs XXXX - test	27,8 MB	31/01/18, 15:29	

Drag and drop the SYN Folder into the App files List or find the SYN folder by clicking on Add.

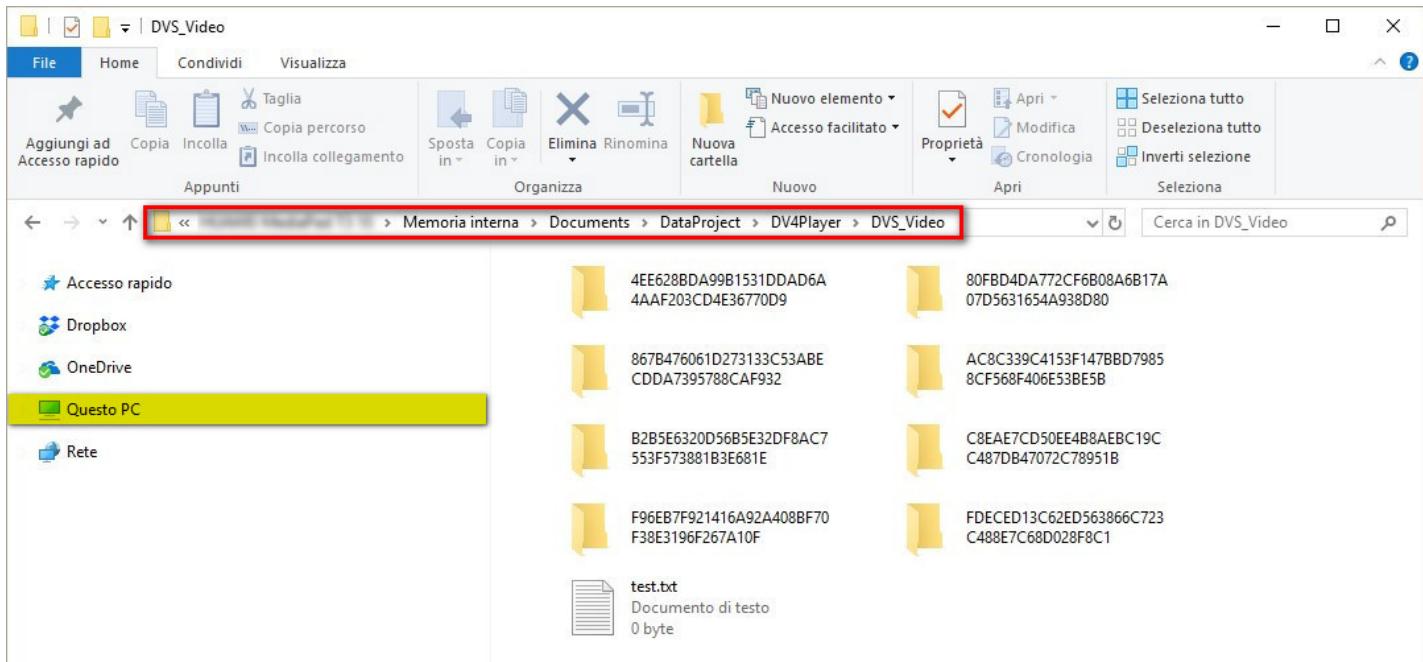
8.4.3.4 Copy a Synthesis on an Android Tablet

Copy the Synthesis folder on your PC and connect the Tablet by USB Cable.

Set from your Tablet the MTP Mode, then Check your Tablet from your PC.



Select the Tablet, then click on Local Storage->Documents->DataProject->DV4Player->Dvs_Video



Drag and drop the SYN Folder into the Tablet Dvs_Video folder.

8.4.4 Match Analysis

Match Analysis is easy and intuitive: you can modify seconds before and after the selected code, scroll through the list of codes, or select a code by clicking or by Tapping.



you can search for rallies of interest by Serves (in order to display the entire match and cut the downtime) Statistics or Rotations filters (Click or Tap on it)

The image displays three side-by-side screenshots of a volleyball statistics application. The left screenshot shows a serve analysis for player 5 Juanlorena Cima, with various service metrics listed. The middle screenshot shows a detailed rally breakdown for France vs Brazil, including player names, serve, reception, and attack statistics. The right screenshot provides a comprehensive summary of the match, including side-out phase, break-point phase, and set statistics.

FRANCE	BRAZIL	FRANCE	BRAZIL	FRANCE	BRAZIL
1	0	9 NGAPETH Rec Q -	9 NGAPETH Rec Q -	1	0
STATISTICS		STATISTICS		STATISTICS	
ROTATIONS		ROTATIONS		ROTATIONS	

8.4.5 Synthesis Analysis

You can click on "play" to display all Analysis or you can filter rallies by using Statistics or Analysis filters.

This screenshot shows a volleyball analysis interface. At the top, it displays the score (France 1, Brazil 0) and the current rally (9 Rec Q -). A red box highlights the 'STATISTICS' button, which is currently active. A yellow box highlights the 'All Analysis' dropdown menu, which lists various statistical categories: P1, P6, P5, P4, P3, and P2. The main area shows a rally highlight for player P1 from France, with the text 'FRANCE | Reception | Setter'. Below the rally highlight, the final score 'France 1 - 3 Brazil' is shown, along with the match details: 'WORLD LEAGUE 2016, Krakow (POL) Jul 16 2016, 20.30' and the set scores: '16-25 | 25-23 | 26-28 | 31-33'. The bottom of the screen shows rally controls (Rally 1/92) and playback controls.

9 Opening a match

When you open the program, it shows all the matches related to the active Season (see [Homepage](#)).

To open a match, simply click on it.

In the header you get all the information of the match itself and buttons appear that allow you to operate directly on the match opened:

- [Match](#)
- [Analysis](#)
- [Printings](#)

When you open a match scouted by different parameters (table of attack combinations, table of setter calls, attack trajectories scouted by zones or by cones), a conversion window appears: you can choose whether to convert the file, aligning it to the parameters you are adopting (the process is guided and almost completely automated), or to leave the file in the original format. In this case some features will be limited. To modify combinations and calls, see the [dedicated paragraph](#).



From the main screen is also possible to:

- [Import a match](#)
- [Delete a match](#)
- [Filter matches:](#)
 - by phase or competition
 - by team

9.1 Match



9.1.1 Modify scout

By clicking on this item the program opens the scout related to the selected match, so you can proceed with the changes you deem necessary.

We suggest you to open the scout only when you want to modify the data (eg to add informations or eventually to correct data when watching a video of a scouting made in real time). To make every kind of analysis, instead, we suggest you to keep open only the match and to close the scout, in order to avoid the accidentally modification of correct data.

9.1.2 Export scout

Through this item it is possible to export the scout of the current match, saving it to one of the following formats:

- **Data Volley 4, Data Volley 2007:** the file will be saved with the prefix & and extension .dvw
- **Data Volley 2:** the file will be saved with the prefix & and extension .leg

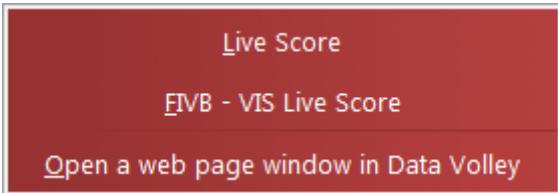
Data Volley 4, 2007 Format

Data Volley 2 Format

9.1.3 Internet

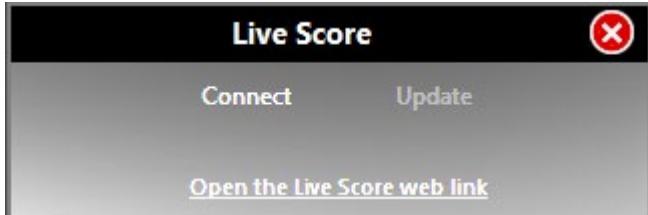
Through this item you can handle at the same time:

- Live scores: results in real time on personal website, which must have been previously defined, with all the required parameters, in [Internet Options](#).
- FIVB-VIS Live Score: In case of FIVB official events.
- Open a web window in Data Volley



9.1.3.1 Live Score

Choosing Live Score this window will appear.



When connected, by assigning the point, the score of the match will be updated on the html page specifically designed

It is possible to check if the service is available clicking on [\[Open the Live Score web link\]](#):

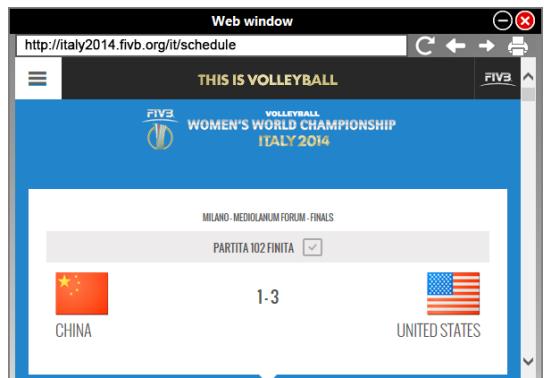
[Open a web page window in Data Volley](#)
[Open a web page in the default browser](#)

9.1.3.2 Open a web page window in Data Volley

This feature allows to open a web page window in Data Volley.

It has been designed to view the page on which the score is updated on-line to allow the scoutman to check if everything is ok and that the data update is working regularly.

However, this window can also be used to view other internet sites deemed important during the course of the match.



9.1.4 Open a video

It allows you to open a movie to associate with the match, to review the video directly from the program windows and easily control and integrate the scout. This makes it possible to complete the scout retrospectively, adding to each code more specific informations that were not included during the match.

Use shortcuts to control the video faster:

[Space] Play/Pause (not available in the edit box)

[-] 2 sec Back (not available in the edit box)

[+] 2 sec Forward (not available in the edit box)

[Shift+F9] Play/Pause

[Shift+F10] 2 sec Back

[Shift+F11] 2 sec Forward

[Shift+R] Rallenty

[Shift+F] FastForward

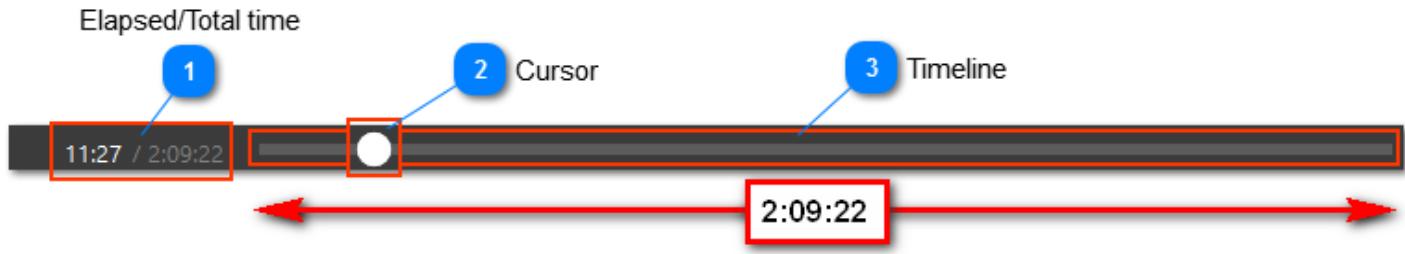
This is the window of the video:



This player can be used to integrate the scout or to make a completely new one, playing the video of the match directly on Data Volley.

Once opened the video, you can proceed with the new scout or with the changes or additions to the code. Further, the buttons below the movie window allow you to access more features:

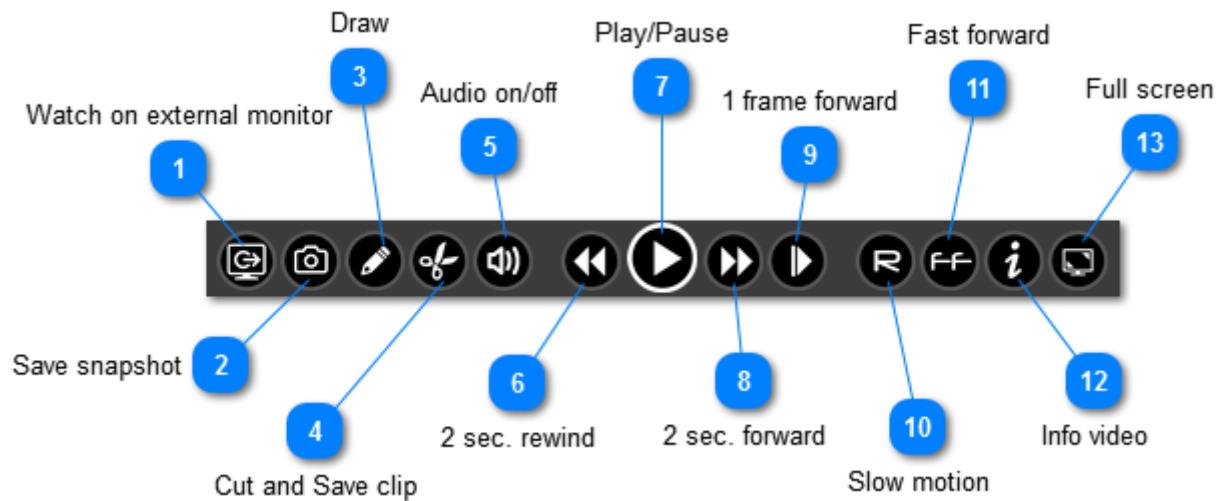
- Just use the cursor on the timeline to quickly move within the video, or click any point of the timeline.



You can make a deeper search within the video by holding the cursor pressed, without moving it. The timeline will become wider, allowing a more accurate search of 60" around the position of the cursor.



- Buttons of the video player:

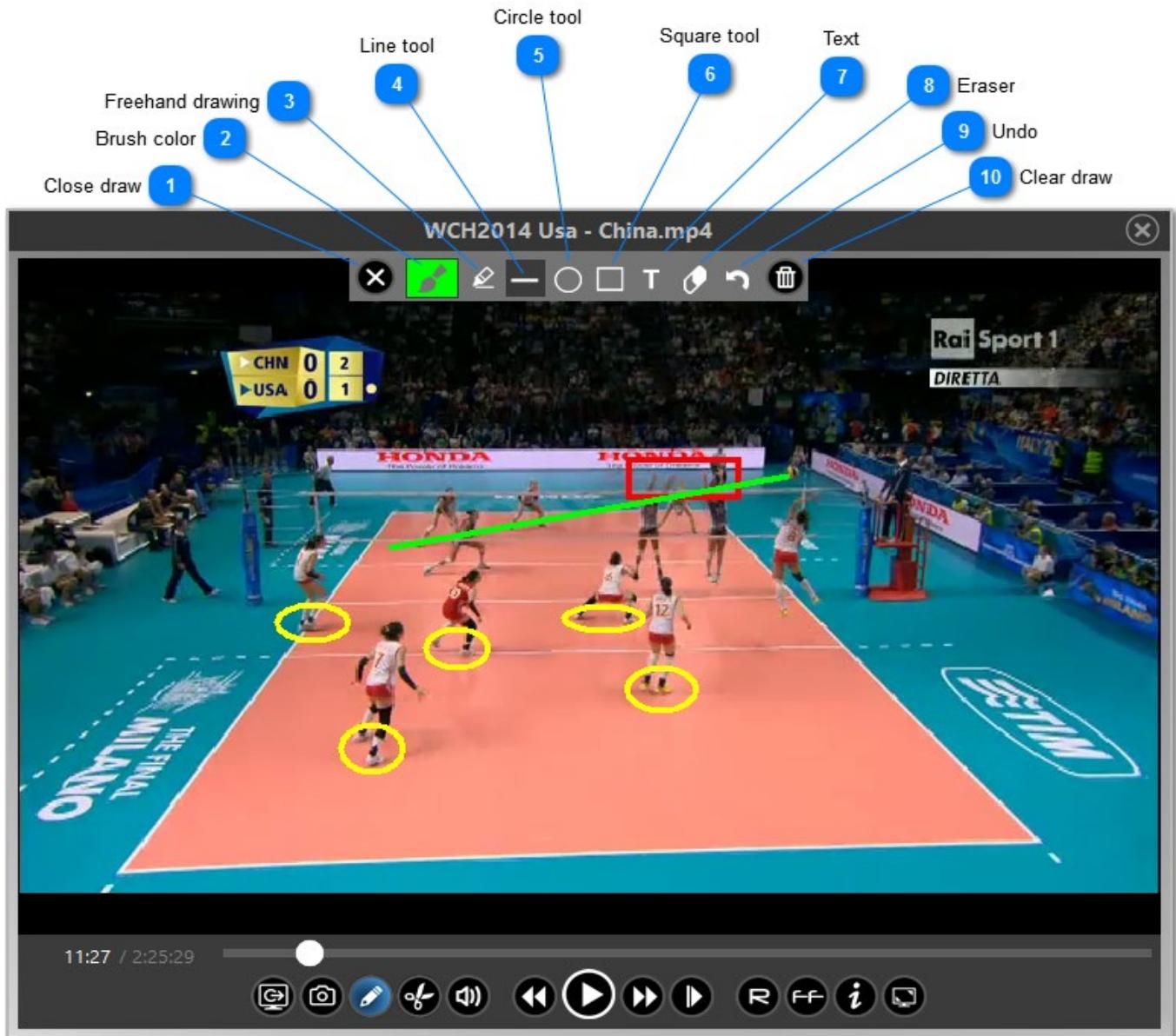


9.1.4.1 Draw



By clicking the button, a graphic editor will appear. You can now draw freehand or through geometric figures (lines, circles, ellipses, squares and rectangles) of different colors directly on the video or on a single frame. This tool is very useful to note down, during the analysis phase, specific situations involving the teams in the court.

Select the desired tool to draw:



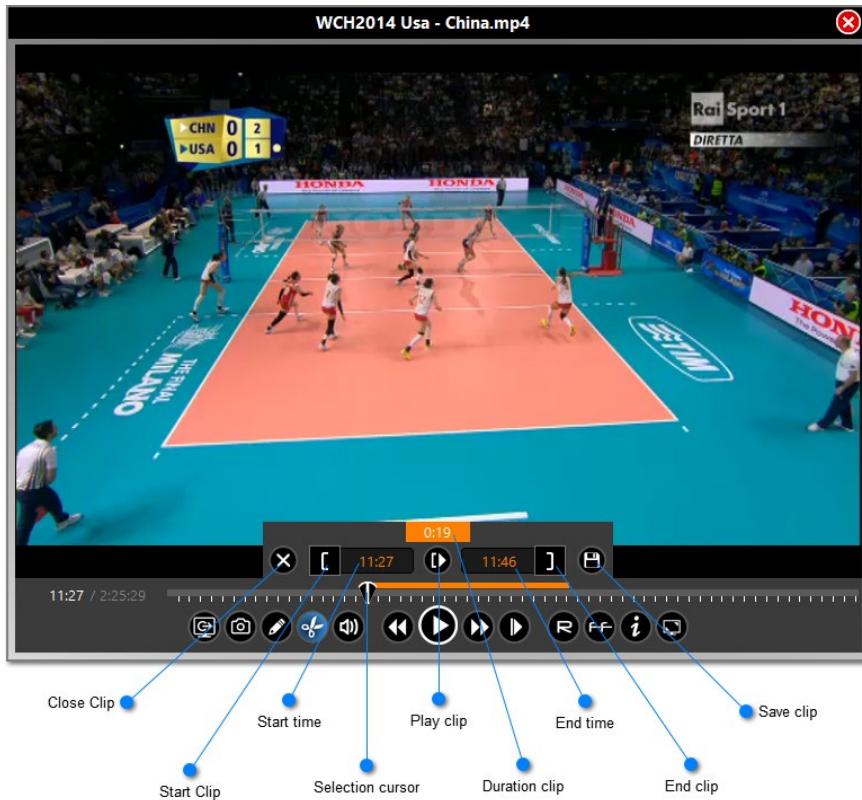
To save the drawing just press

9.1.4.2 Cut and save a clip



By clicking a video editor will appear. This tool allows to select a part of the video to watch again and save without compressing the video another time.

To cut a clip choose both starting and ending point.



To save the clip just press .

9.1.4.3 Alignment Codes

When you open a video, a submenu in the Codes List Windows will appear which will allow you to:

1. [Go top] to go to the first useful code;
2. [Align all codes from the one selected] to align all the codes from the one selected until the end of the video.
3. [Check Alignment] to check that the rally is correctly aligned to the video; Data Volley inputs the S for serve as default skill for the synchronization check but it is possible to change the skill for the check of the synchronization;
4. [Click to change the previous seconds] to specify how many seconds in advance to play the video of the code selected.
5. [Go to the video position] to go to the time of the video associated to the code.
6. [Disable the code positioning on the video] to disable the automatic alignment of the video to the code; this function is useful in case of scouting from the video and you want to complete the scout (e.g. with attack directions or setter calls) during the breaks between rallies, without blocking the progress of the movie.
7. [Tools] to delete the timecode of the code selected or to delete all the timecodes;
8. [Align to the video position (F12)] to use the shortcut key previously set in the Scouting Options which allows to align the code highlighted and all the other codes involved in the rally.

*11EM+ KEF	1 1 6 00:02:44 1	19.06.51
*01AM/ PG 4-2 H -	p r 1 1 6 00:02:49 1	19.06.56
a09BM# 4-2	p 1 1 6 00:02:49 1	19.06.56
ap01:02	1 1 6 00:02:59 1	19.07.06
a17SM- 5-1B	1 1 6 00:03:05 1	19.07.12
*17RM# 5-1B	1 1 6 00:03:05 1	19.07.12
*11EQ+ KSB	0	
*07AQ# CS 2-8	-1	
a17DQ= 2-8	-2	
*p02:02	-3	
*z6	-4	
*c05:08	-5	
*01SM+ 1-5	-6	
a06RM- 1-5	-7	
a03EH+ KEF	-8	
a06AH+ V4 4-5	-9	
*01DH- 4-5	-10	
*08AH- V4 4-9		
a03DH+ 4-9		
a04EM+		
a06AH# V4 4-2		
*\$S&H=		
ap02:03		
az5		
a04SM- 6-5		
*08RM+ 6-5		



- Align code to the video position (F12)
- Tools
- Disable the code positioning on the video
- Go to the video position
- Click to change the previous seconds
- Check alignment
- Align all codes from the one selected.
- Go top

9.1.4.4 Alignment Smart Time

The Code Alignment in Smart Time mode allows the user to adopt a specific synch algorithm created by Data Volley. Thanks to this algorithm, Data Volley automatically sets a specific time gap between the Serve and the first opponent Attack; if the rally continues, Data Volley will set another time gap between the successive Attacks and/ Freeballs. These gaps suggested are quite corresponding to the real development of the game; anyway, if the user wants to change the parameters in the Scouting Options/Synchronize.

IMPORTANT: These parameters have been calculated based on the toss of the ball at the time of the serve; then we strongly suggest the user who is scouting to type S for serve when the player tosses the ball and not when the players makes contact.

The picture below can be more helpful



Of course, if some discrepancies are present in the synchronization, it is always possible to correct them by using the [F12] key or the other alignment options.

When aligning the scout in Smart-Time mode, the software will create the same time-code to the Serve and Reception, the same time-code to Attack-Block or Attack-Dig; also it will give the Set [E] 1 second before the attack and finally the End Rally time-code will be created 3 seconds after the final attack/block code. These values can be always be modified in the Scouting Options

9.2 Import a match

By selecting **[Import]** from the home page, you can import files of scout from a selected path.

It is possible to import only one match at a time. To import more matches, please repeat the operation.

All imported matches will be saved into the current season.

9.3 Delete a match

To delete a match you must check the related box at its left. A red button with a trash will appear.



By using this button the selected match will be moved to the trash. The program always asks for a confirm first to move to the trash a saved match.

By selecting more than a match only the matches related to a certain team will be visible. While selecting all the matches you want to delete, a number next to the trash indicates how many matches will be moved to the trash.

The same selection principle is applied for the [historical analysis](#).

9.4 Filter matches

When there are many matches within a season, you can filter them to individuate some of them more easily. There are two ways:

- to filter matches [by phase or competition](#)
- to filter matches [by team](#)

9.4.1 By phase or competition

When the match notes window is filled with the informations about the competition and its phase, Data Volley allows you to use these elements as filter in the research.

In this way it is possible to display only the matches regarding the selected competition or phase.

It is also possible to select more competitions/phases simultaneously. In the list on the right all the matches related with the selected query will be displayed.

Select a team	New Match	Import			
7			9		
<input type="radio"/> FIVB Women's Volleyball World Championship 2014, Phase C [C]	09/23/2014 20.00.00	Usa	3 - 1	Mexico	FIVB Women's Volleyball World Championship 2014, Phase C [C]
<input type="radio"/> FIVB Women's Volleyball World Championship 2014, Phase F [F]	09/24/2014 10.30.00	Kazakhstan	0 - 3	Usa	FIVB Women's Volleyball World Championship 2014, Phase C [C]
<input type="radio"/> FIVB Women's Volleyball World Championship 2014, Pool F [F]	09/25/2014 20.00.00	Netherlands	0 - 3	Usa	FIVB Women's Volleyball World Championship 2014, Phase C [C]
<input type="radio"/> FIVB Women's World Championship Pool G [G]	09/27/2014 20.00.00	Usa	3 - 0	Thailand	FIVB Women's Volleyball World Championship 2014, Phase C [C]
<input type="radio"/> FIVB Women's World Championship, Pool H [H]	09/28/2014 20.00.00	Usa	3 - 1	Russia	FIVB Women's Volleyball World Championship 2014, Phase C [C]
<input type="radio"/> FIVB Women's World Championship, Pool I [I]	10/04/2014 17.00.00	Serbia	0 - 3	Usa	FIVB Women's Volleyball World Championship 2014, Phase F [F]
<input type="radio"/> FIVB Women's World Championship, Pool J [J]	10/05/2014 20.00.00	Brazil	3 - 0	Usa	FIVB Women's Volleyball World Championship 2014, Phase F [F]
	10/08/2014 20.00.00	Italy	3 - 0	Usa	FIVB Women's World Championship, Pool G [G]
	10/10/2014 20.00.00	Italy	3 - 1	Russia	FIVB Women's World Championship, Pool G [G]

9.4.2 By Team

If you want to display only the matches of a certain team, just click the button:

Select a team

You will see a drop-down menu with all the teams in the database belonging to the active season.

(BRA) Brazil
(BUL) Bulgaria
(CHN) China
(DOM) Dominican Republic
(ITA) Italy
(KAZ) Kazakhstan
(MEX) Mexico
(NED) Netherlands
(RUS) Russia
(SRB) Serbia
(THA) Thailand
(TUR) Turkey
(USA) Usa

Click the team to display the related matches.

Select a team	New Match	Import		
(BRA) Brazil				
7				
<input type="radio"/> FIVB Women's Volleyball World Championship 2014, Phase C [C]	10/05/2014 20.00.00	Brazil	3 - 0	Usa
<input type="radio"/> FIVB Women's Volleyball World Championship 2014, Phase F [F]	10/08/2014 17.30.00	Brazil	3 - 0	China
<input type="radio"/> FIVB Women's Volleyball World Championship 2014, Pool F [F]	10/10/2014 17.30.00	Brazil	3 - 0	Dominican Republic
<input type="radio"/> FIVB Women's World Championship, Pool G [G]	10/11/2014 17.30.00	Usa	3 - 0	Brazil
	10/12/2014 17.30.00	Italy	2 - 3	Brazil

It is still possible to use one more filter concerning the competition/phase of the selected team.

Select a team	New Match	Import		
(BRA) Brazil				
7				
<input type="radio"/> FIVB Women's Volleyball World Championship 2014, Phase C [C]	10/05/2014 20.00.00	Brazil	3 - 0	Usa
<input checked="" type="radio"/> FIVB Women's Volleyball World Championship 2014, Phase F [F]	10/08/2014 17.30.00	Brazil	3 - 0	China
<input type="radio"/> FIVB Women's Volleyball World Championship 2014, Pool F [F]	10/10/2014 17.30.00	Brazil	3 - 0	Dominican Republic
<input type="radio"/> FIVB Women's World Championship, Pool G [G]				
<input type="radio"/> FIVB Women's World Championship, Pool H [H]				

The same selection principle is applied for the [historical analysis](#)

9.5 Analysis

Analysis are the beating heart of Data Volley

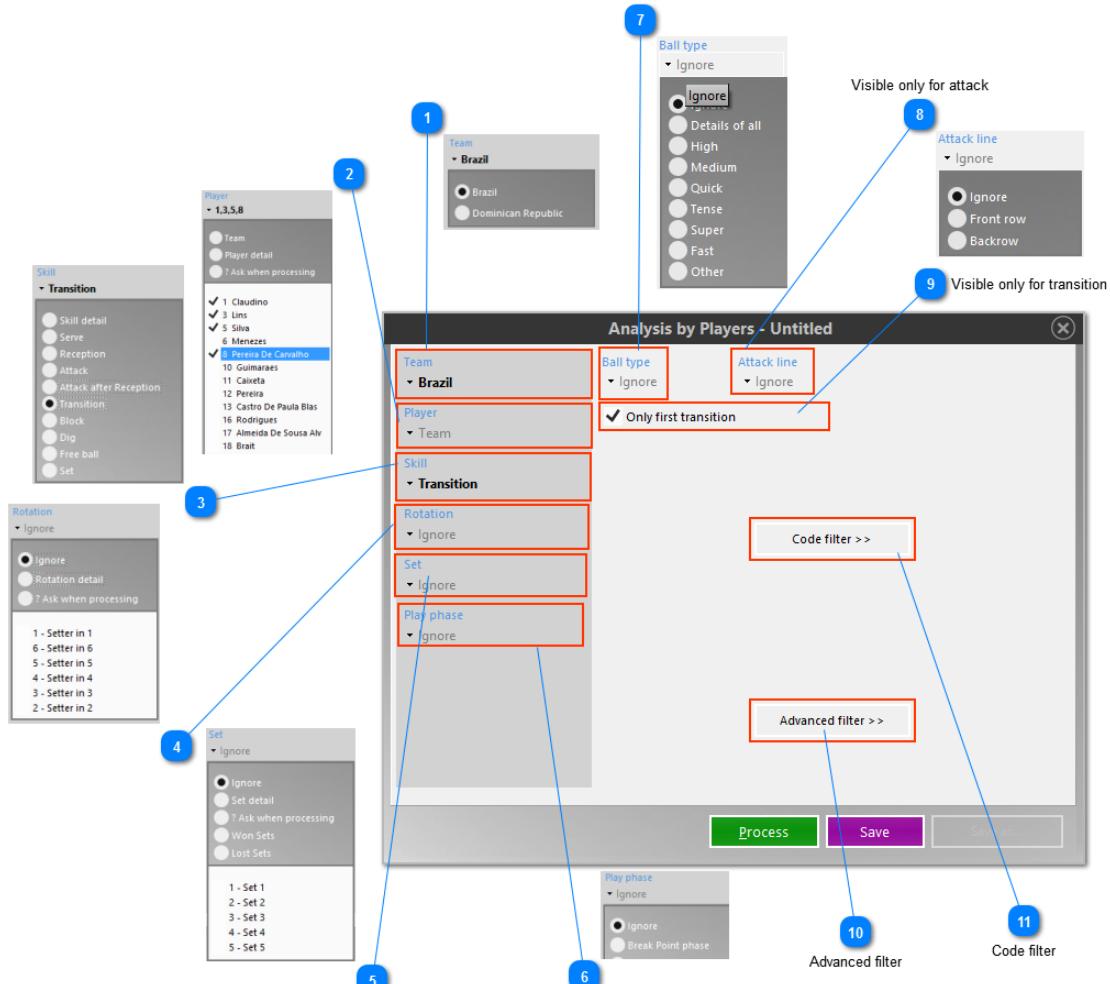
- [Analysis by player, skill and rotation](#)
- [General statistics](#)
- [Zone Chart](#)
- [Directions Chart](#)
- [Point Analysis](#)
- [Combination Analysis](#)
- [Worksheet](#)
- [Consecutive Distribution](#)
- [Setter Call Distribution](#)
- [Chart Analysis](#)
- [Screen Composition](#)
- [Last Hits](#)
- [Action details](#)

By choosing any item of the menu, the program will open a window of analysis where you have to choose the parameters within which to view the statistics of the match in question.

The only exception regards the Last hits section, in which the effects of the hits for each team has been preset.

All analysis can be made both on a single match and on more matches. Exceptions are the Last hits and Action details sections, available only when a single match is open.

Let's see an example of analysis window, in order to introduce which parts is made up of.



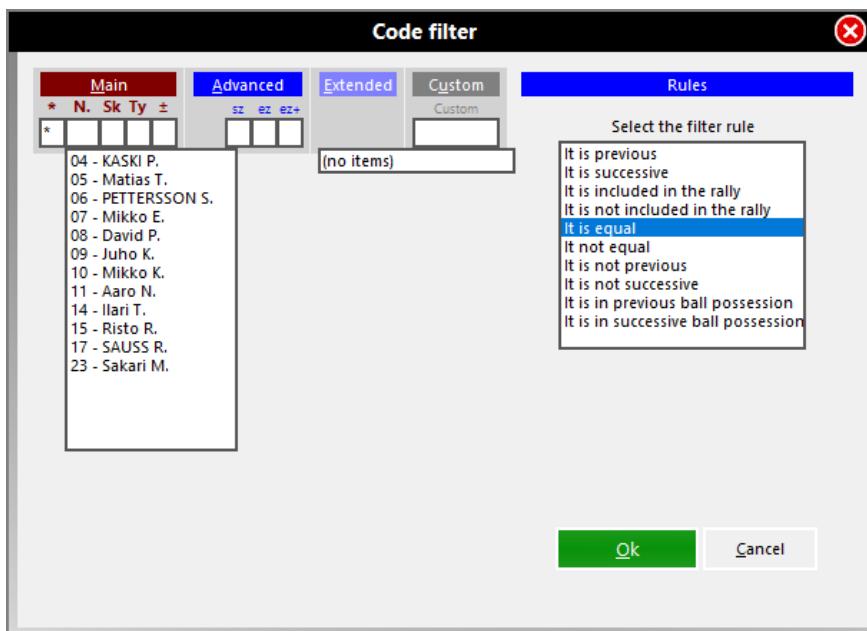
It is possible to decide the main parameters of the analysis:

1. Team: home or away
2. Player: choose to display team, the details of one, more or all the players, or to decide during when processing (click on the player's name from the list of the related drop down menu).
3. Skill: display the detail of all the skills, of one or more players .
4. Rotation: display the detail of all, choose only one or more, or decide during the processing phase.
5. Set: display the detail of all, only one or more, or choose between won and lost sets.
6. Play phase: break point or side out phase.
7. Ball type: a filter to further detail the analysis
8. Attack row: displayable only if you choose attack among the skills, allows to choose between front row and back row. Player Position is available if you choose Reception, Dig, FreeBall and Set.
9. Only first transition: displayable only if you choose transition among the skills. Useful to understand the percentage of break point scored after the first defense.
10. Code filter: to define more precisely the criteria for analysis.



By clicking [Code filter - Add], the following window opens, in which you can define a rule to follow in the choice of the codes to be used for the analysis.

In particular, you use these rules when you need an analysis of events occurring only in certain specific situations.



Filter rules:

- **it is previous:** the skill code entered in this mask must be the one prior to that of the analyzed skill. Eg. you want to analyze all the quick attacks (skill in question) after the reception of the Libero. In the mask you have to put the number of the Libero and the code for reception R). Please note: previous means always the code immediately preceding the one in question in the Codes List Window.
- **it is successive:** the skill code entered in this mask must be the one successive to that of the analyzed skill. Eg. you want to analyze all the receptions followed by an attack from zone 2. The skill in question is Reception, in this mask you have to put attack - A- and Starting Zone -2-. Please note: as in the previous case, successive means always the code immediately following the one in question in the Codes List Window.
- **it is included in the rally:** the entered code must appear in the same rally of the skill
- **it is not included in the rally:** the entered code must not appear in the same rally of the skill in question
- **it is equal:** the skill must have the characteristics defined in this window (i.e. a particular execution zone and a certain type and so on).
- **It is in previous ball possession:** the entered code must appear in the same rally and on the other side of the net previous the skill in object. Ex. show all blocks about Team(*) when Opponents Libero(a) sets; or Show all transitions about team(a) when Attack(A) by Team(*) is of Typology Tip(T).
- **It is in successive ball possession:** the entered code must appear in the same rally and on the other side of the net after the skill in object. Ex. show all attacks about Team(*) when Opponents (a) sets +#.

In the analysis window you can select up to ten rally filter rules at the same time. You can always add, modify, or

delete these rules using the relative buttons.

The screenshot shows a search interface titled 'Search - Untitled'. On the left, there's a sidebar with filters for Team (Diatec T), Player (14 Stokr Jan), Skill (Attack), Rotation (All), Set (All), and Play phase (All). The main area has 'Ball type' and 'Attack line' dropdowns, both set to 'All'. Below these is a 'Code filter rules' section containing a table:

*	N.	Sk	Ty	±	Cmb	SB	sz	ez	ez+	Skt	Ply	Spc	Custom	Rules
A		R	#											It is previous
B		R	+											It is previous
C		A	T		X6	2								It is equal

Below the table are buttons for 'Add default filter', 'Add', 'Modify', and 'Delete'. Underneath is a 'Filter results that' section with three options: 'respects at least one rule (OR)', 'respects all rules (AND)', and 'custom formula' (which is selected, showing '(A or B) and C'). There's also an 'Advanced filter >>' button. At the bottom are 'Process', 'Save', and 'Save as...' buttons.

In the way to select the correct rally, you have to select a code filter rules. If filters are strictly correlated and they have to work in the same rally select AND, if one of the filter generated must be in the rally, select OR, select custom formula to specify how filter have to work each other.

Ex. Select all rallies containing attacks of number *14 after a reception "+" OR "#" AND the combination is of typology X6.

Advanced filter: an even more detailed analysis.

- You can choose one phase of the set by ticking the option "Process only a part of the set" and defining the score range (if for example you want to view the hitters performance between the 20th and 25th point).

When the starting score set in the filter is ≥ 16 and is Set 5 (for Beach is 3), then starting score is decreased of 10 points. So, in case I am filtering actions ≥ 20 , for Set 5 will be considered the actions starting from 10.

- In the rotation section, you can choose to consider only the rally where a setter of the opponent team is positioned in a certain zone by selecting an entry from the rotation on court drop down menu.
- By ticking in the players on court section you can choose to consider only the rally where the selected players of the teams are on the court. The players will be selected in the fields in this section through the drop down menus.
- It is also possible to select players position on the court related to the setter starting position. This filter works for 6 players including setter. You can use it, for example, to analyze some skills when an Outside Hitter plays closed or far from the setter position. Ex. 2 Show all transition when the setter is in position 1 and number 12 is in position 4.

The screenshot shows the 'Advanced filter' dialog. It has several sections:

- Score:** Contains a checked checkbox 'Only analyse part of a Set', a 'starting point' field set to 20, and a 'ending point' field set to 99. To the right, it says 'Score Deviation: Both ≥ 20 ' and 'It's referred to both teams'.
- Rotation (opponent team):** A note: 'Only consider the rally where the setter of the opponent team is positioned in the desired position.' Below it is a dropdown menu with 'avellino' and 'All'.
- Players on court:** A note: 'Only consider the rally where the selected players are present on court.' Below it are two dropdown menus: 'volley v' and 'avellino', both currently set to 'All'.
- Buttons:** At the bottom are 'Ok' and 'Cancel' buttons.

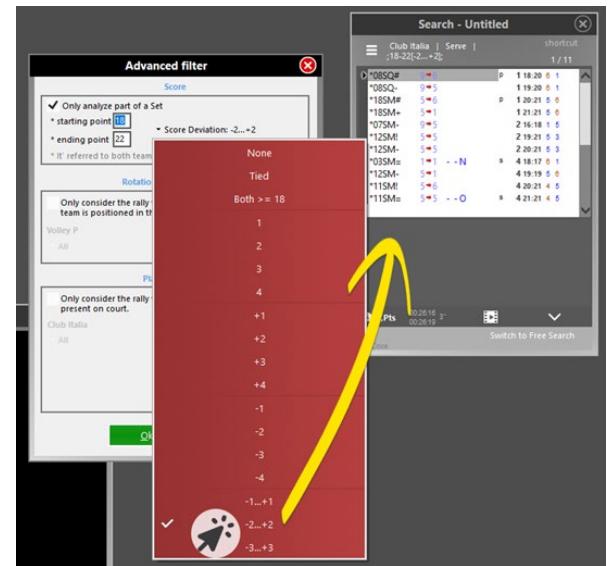
You can even more refine the Advanced Search by using the **Score Deviation** filter. Clicking on “Score Deviation” tick, a list of further options will appear:

- **Generic Filters**

- **None**: no additional filter applied.
- **Tied**: only shows actions in which teams are tied.
- **Both**: only shows actions where both teams have a score equal to or greater than the one indicated (*starting point*).
- **1 / 2 / 3 / 4**: only shows coded where difference between the scores of the two teams is 1/2/3/4.

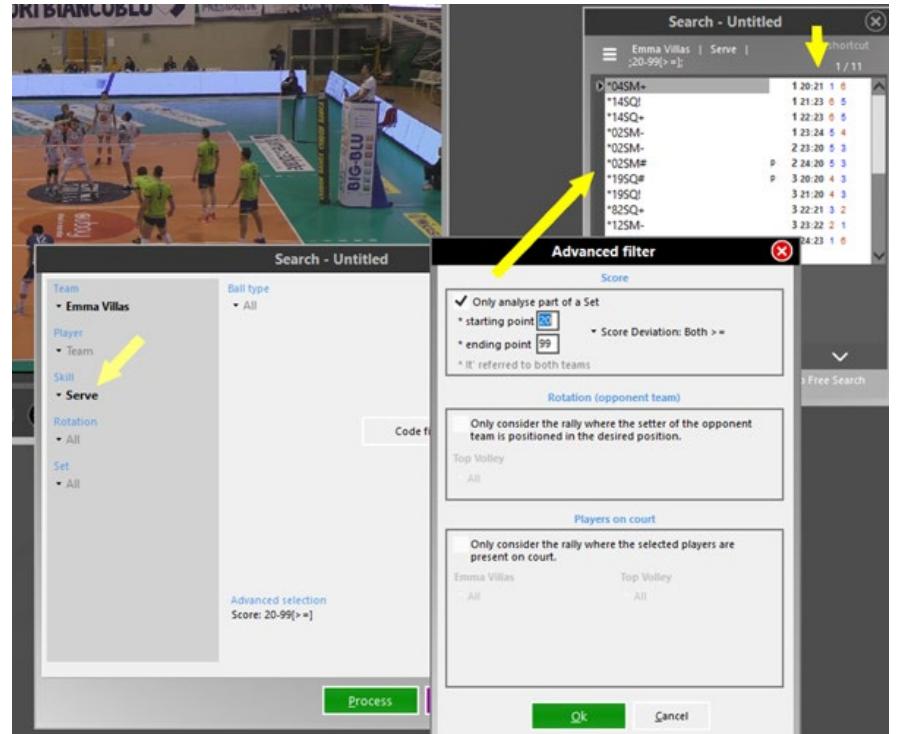
- **Team Specific Filters**

- **+1 / +2 / +3 / +4 / +5**: only shows actions where selected team has a 1/2/3/4/5 point of advantage.
- **-1 / -2 / -3 / -4 / -5**: only shows actions where selected team has a 1/2/3/4/5 point disadvantage.
- **-1...+1, -2...+2, -3...+3**: filters a range of score deviations.



- **Quick Example:**

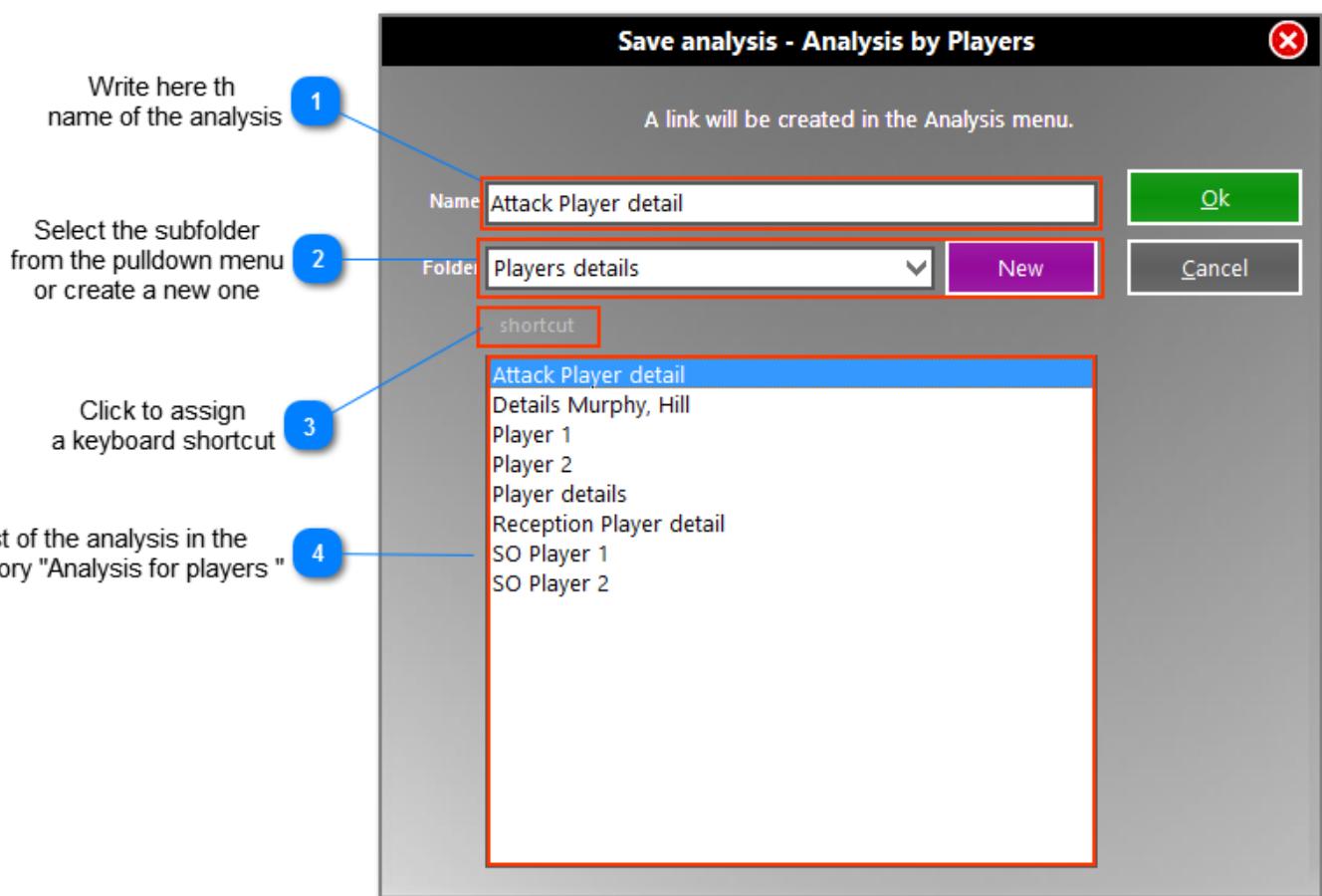
Here you can see how it works: after ticking “Only analyze part of a set”, selecting starting and ending point, and then selecting “Both” you can see the resulting list which features only actions from both teams with scores equal or greater than 20:



9.5.1 Save and modify analysis

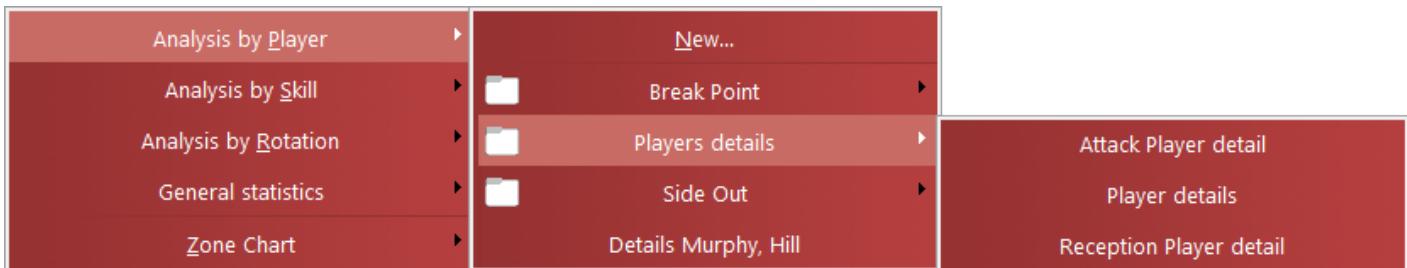
You can save the personalized analyses, defined with the above mentioned parameters, in order to retrieve them at any time without having to enter the parameters again in the window.

Once all the settings are selected for a certain analysis click [Save] and choose a name for the analysis, insert it in an eventual sub folder, and click [Ok].



In the analysis window you can also associate shortcut keys or key combinations to the saved analyses. This shortcut key will allow you to open the desired analysis by simply pressing a key on the keyboard. This function is designed for the analyses that are used more often especially during a match or to supply information to the bench between sets, as it offers a direct and immediate way of accessing the desired options.

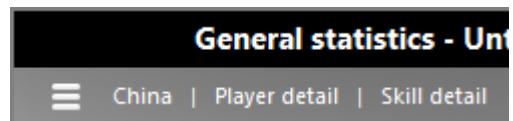
This new analysis will be saved in the analysis folder group of the same category (i.e. player analysis). The saved analyses will be listed in the sub menus of the general analysis menu, as shows in this example:



All the saved analyses will be displayed and can be modified through the [Organise Analysis](#) window.

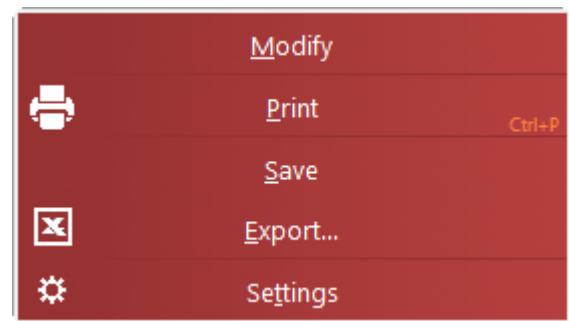
To edit an analysis, once opened, simply click the label immediately below the title.

For more options, right click on the analysis or click on the left of the label.



The program opens a menu with several entries you will find in all analysis

- Modify: opens the window where to changes parameters
- Print: opens the print preview with options.
- Save: save the current analysis
- Save as: save the analysis with a different name after changes
- Export: export the analysis to Excel, with .xls extension



An Option entry, different if present for each analysis, will be explained within the respective analysis.

Let us see all the categories of analysis.

9.5.2 Analysis by player, skill and rotation

These three types of analysis appear to be very similar. What differentiates these three analysis is essentially the order in which data are presented:

- **Analysis by player:** analysis by player allows you to create an analysis prospect where the information is organized by player with the following order:
➤ player/skill/rotation
- **Analysis by skill:** foresees the following order:
➤ skill/player/players (team)/rotation
- **Analysis by rotation :**
➤ Rotation/player (team)/skill

The choice between one and another depends on the type of information you want to obtain from the statistic tables.

For example: the analysis by player can be used when you want to value the performance of one or more players when performing different skills or different rotations (or both), the analysis by skill can be used when you want to view the progress of a skill compared to different players; the analysis by rotation is used if you want to view the trend of a skill depending on the rotations.

The first two columns "Ind" and "Eff" show, respectively, the personalized **index** value according to the parameters indicated in the [Weight for custom evaluation](#) section, and **efficiency** according to the parameters indicated in the [Efficiency](#) section.

In these sections you can decide if you want to display the respective value. This decision will affect these analyses.

Here are some examples of table analysis to outline the differences between the analyses:

Analysis by player

Details of all the Murphy's and Hill's skills

Analysis by Players - Details Murphy, Hill																				shortcut					
Player	Skill	Type	S	Se	Ind	*E%	Tot	=	%	BP	pS	/	%	BP	pS	-	%	!	%	+	%	#	%	BP	pS
12 Murphy	Serve				5	57%	7	1	14%	.	1	2	29%	.	.	4	57%
	Attack				5	8%	39	3	8%	3	.	5	13%	3	2	14	36%	.	.	6	15%	11	28%	3	8
	Atk after Rec				6	30%	20	1	5%	1	.	1	5%	1	.	6	30%	.	.	4	20%	8	40%	.	8
	Transition				4	-16%	19	2	11%	2	.	4	21%	2	2	8	42%	.	.	2	11%	3	16%	3	.
	Block				2	-17%	12	6	50%	2	4	2	17%	.	.	2	17%	2	17%	2	.
	Dig				8	75%	8	2	25%	1	6	75%
	Set				7	100%	4	4	100%	
15 Hill	Serve				5	50%	12	1	8%	.	1	5	42%	.	.	5	42%	1	8%	1	.
	Reception				5	62%	40	1	2%	1	.	1	2%	.	.	13	32%	.	.	11	28%	14	35%	.	.
	Attack				8	58%	31	1	3%	1	7	23%	.	.	4	13%	19	61%	10	9
	Atk after Rec				8	60%	10	1	10%	1	1	10%	.	.	1	10%	7	70%	.	7
	Transition				8	57%	21	6	29%	.	.	3	14%	12	57%	10	2
	Block				.	.	3	1	33%	.	1	1	33%	.	.	1	33%
	Dig				8	81%	16	2	12%	1	6%	.	.	13	81%
	Set				7	100%	3	3	100%

Analysis by skill

Details of the skills and details of all the players

Analysis by Skill - Players Skill detail																		shortcut								
Skill	Type	Player	S	Se	Ind	*E%	Tot	=	%	BP	pS	/	%	BP	pS	-	%	!	%	+	%	#	%	BP	pS	
Serve	Team	5	38%	93	5	5%	5	1	1%	.	.	53	57%	.	.	28	30%	6	6%	6	.	.	.			
		1 Glass	5	36%	11	7	64%	.	.	4	36%			
		3 Thompson	6	45%	11	6	55%	.	.	4	36%	1	9%	1	.	.	.			
		10 Larson - Bur	5	31%	16	1	6%	1	.	.	.	10	62%	.	.	3	19%	2	12%	2	.	.	.			
		12 Murphy	5	57%	7	1	14%	1	.	.	.	2	29%	.	.	4	57%			
		13 Dietzen	4	25%	8	2	25%	2	1	12%	.	4	50%	.	.	1	12%			
		14 Fawcett	5	25%	4	3	75%	.	.	1	25%		
		15 Hill	5	50%	12	1	8%	1	.	.	.	5	42%	.	.	5	42%	1	8%	1	.	.	.			
		16 Akinradewo	6	47%	15	8	53%	.	.	5	33%	2	13%	2	.	.	.			
		21 Dixon	4	11%	9	8	89%	.	.	1	11%		
Reception	Team	5	59%	91	5	5%	5	1	1%	.	.	31	34%	.	.	22	24%	32	35%			
		2 Banwarth	5	61%	28	1	4%	1	.	.	.	10	36%	.	.	6	21%	11	39%			
		10 Larson - Bur	4	52%	21	2	10%	2	.	.	.	8	38%	.	.	4	19%	7	33%			
		13 Dietzen	-3	.	1	100%	1		
		15 Hill	5	62%	40	1	2%	1	1	2%	.	13	32%	.	.	11	28%	14	35%			
		16 Akinradewo	7	100%	1	1	100%		
Attack	Team	6	28%	145	9	6%	9	9	6%	6	3	49	34%	.	.	20	14%	58	40%	18	40	.	.			
		1 Glass	10	100%	1	1	100%	.	1	.	.	.		
		10 Larson - Bur	4	-10%	29	3	10%	3	4	14%	3	1	14	48%	.	.	4	14%	4	14%	2	2	.	.		
		12 Murphy	5	8%	39	3	8%	3	5	13%	3	2	14	36%	.	.	6	15%	11	28%	3	8	.	.		
		13 Dietzen	7	41%	17	1	6%	1	.	.	.	8	47%	.	.	8	47%	1	7		
		14 Fawcett	7	46%	13	4	31%	.	.	3	23%	6	46%	1	5	.	.			
		15 Hill	8	58%	31	1	3%	1	.	.	.	7	23%	.	.	4	13%	19	61%	10	9	.	.			
		16 Akinradewo	8	53%	15	1	7%	1	.	.	.	2	13%	.	.	3	20%	9	60%	1	8	.	.			
Atk after Rec	Team	7	31%	78	6	8%	6	4	5%	4	.	23	29%	.	.	11	14%	34	44%	.	34	.	.			
		10 Larson - Bur	4	-25%	16	3	19%	3	3	19%	3	.	7	44%	.	.	1	6%	2	12%	.	2	.	.		
		12 Murphy	6	30%	20	1	5%	1	1	5%	1	.	6	30%	.	.	4	20%	8	40%	.	8	.	.		
		13 Dietzen	7	38%	13	1	8%	1	.	.	.	6	46%	.	.	6	46%	.	6		
		14 Fawcett	8	50%	6	1	17%	.	.	2	33%	3	50%	.	3	.	.	.		
		15 Hill	8	60%	10	1	10%	1	.	.	.	1	10%	.	.	1	10%	7	70%	.	7	.	.	.		
		16 Akinradewo	8	62%	13	2	15%	.	.	3	23%	8	62%	.	8	.	.	.		
Transition	Team	6	24%	67	3	4%	3	5	7%	2	3	26	39%	.	.	9	13%	24	36%	18	6	.	.			
		1 Glass	10	100%	1	1	100%	.	1	.	.	.		
		10 Larson - Bur	5	8%	13	.	.	.	1	8%	1	7	54%	.	.	3	23%	2	15%	2		
		12 Murphy	4	-18%	19	2	11%	2	4	21%	2	2	8	42%	.	.	2	11%	3	16%	3	.	.	.		
		13 Dietzen	8	50%	4	2	50%	.	.	2	50%	1	1		
		14 Fawcett	7	43%	7	3	43%	.	.	1	14%	3	43%	1	2	.	.	.		
		15 Hill	8	57%	21	6	29%	.	.	3	14%	12	57%	10	2	.	.	.		
		16 Akinradewo	5	.	2	1	50%	1	1	50%	1		
Block	Team	2	7%	58	22	38%	5	17	.	.	.	10	17%	.	.	12	21%	14	24%	11	3	.	.			
		1 Glass	-40%	5	30%	60%	1	2	.	.	.	1	20%	.	.	1	20%		
		10 Larson - Bur	-33%	3	2	67%	2	1	33%		
		12 Murphy	2	-17%	12	6	50%	2	4	.	.	2	17%	.	.	2	17%	2	17%	2		
		13 Dietzen	4	47%	19	3	16%	1	2	.	.	4	21%	.	.	5	26%	7	37%	5	2	.	.	.		
		14 Fawcett	7	67%	3	1	33%	.	.	2	67%	1	1		
		15 Hill	.	3	1	33%	1	1	33%	.	.	1	33%		
		16 Akinradewo	2	-15%	13	7	54%	1	6	.	.	1	8%	.	.	2	15%	3	23%	3		
Dig	Team	7	73%	100	23	23%	4	3	.	.	.	4	4%	.	.	73	73%	
		1 Glass	7	68%	19	6	32%	3	13	68%
		2 Banwarth	7	71%	24	5	21%	2	8%	.	.	17	71%
		3 Thompson	8	80%	5	1	20%	4	80%
		10 Larson - Bur	8	78%	18	4	22%	2	14	78%
		12 Murphy	8	75%	8	2	25%	1	.	.	.	1	100%	.	.	6	75%
		13 Dietzen	.	1	1	100%	.	.	1	50%
		14 Fawcett	5	50%	2	1	50%	1	6%	.	.	13	81%	
		15 Hill	8	81%	16	2	12%	1	6%	.	.	2	50%	.	.	2	50%	
		16 Akinradewo	5	50%	4	2	50%	1	.	.	.	2	18%	.	.	5	45%	3	27%	
		21 Dixon	10	100%	3	3	100%

In this table we can see how we can compare a skill and a reception, in this example, according to the different rotations (first column). With a statistic table like this one, the scout-man can immediately identify in which type of rotation the team is not good enough in (for example, rotation 4 with 29% efficiency, rotation 1 with two point errors) and make the relevant improvements and corrections.

This type of table, and with different levels of specificity and that can be modified, can be created in a moment using the parameters required in the analysis window.

CLICK TO RALLY

You can click a cell and see all related actions.

The screenshot shows a software interface for volleyball analysis. At the top, there's a header "Analysis by Rotation - Attack after positive reception" with zoom controls (-, +, X). Below it is a table with columns: S, Player, Skill, Type, Se, Ind, *E%, Tot, =, %, BP, pS, /, %, BP, pS, -, %, !, %, +, %, #, %, BP, pS. The table contains data for several players from AS Cannes. A yellow arrow points to a cell in the "#BP" column for player 9 GOMMANS E, which is highlighted with a yellow box. A cursor icon is shown clicking on this cell. To the right of the table is a "Search - Rotation" window showing a list of rotation entries. A yellow arrow points to the first entry in the list: "*06AT# X6 2\4 H2-". The video player window below shows a volleyball match in progress with a timestamp of 7:32 / 1:34:45. The search window has a filter "(AorB)andC*[R#,1][R+,1][06#,5]" and shows page 1 / 9.

9.5.3 General statistics

By clicking the fourth entry in the analysis menu, the program will open a window with the filters to set the parameters of the analysis.

When selected the parameters, press **[Process]** to display the results.

The screenshot shows a "General statistics - Ur" window. On the left is a sidebar with expandable sections: Team (China), Player (Player detail), Skill (Skill detail), Rotation (Ignore), Set (Ignore), and Play phase (Ignore). The main area is currently empty.

The program will display the following window with the detailed description of the match analysis:

Single Match

General statistics - USA - Players details

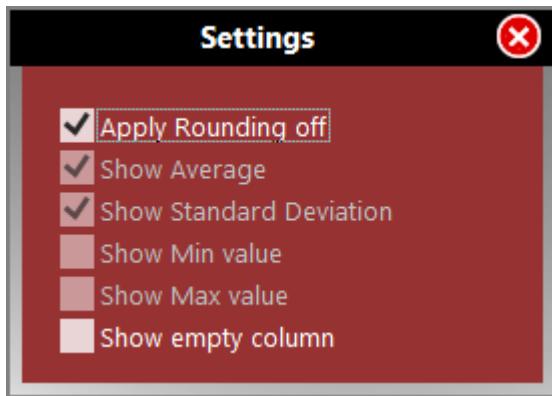


Historical Analysis

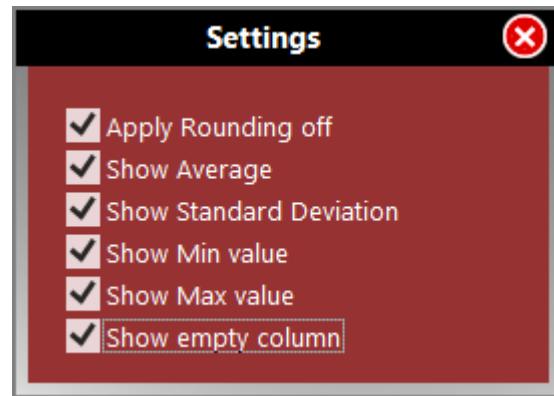
Total General statistics - USA

(USA) Usa		Skill detail																																				
Match	Score		POINTS		SERVE				RECEPTION				ATTACK				BLOCK																					
	W	L	W	L	D	Tot	=	-	+	#	%#	Ind E%	Tot	=	-	+	#	%#	Ind E%	Tot	=	-	!	+	#	%#	Ind E%	Tot	=	/	-	!	+	#	%#	Ind E%		
MEX	3-1	94	70	94	70	24	93	6	12	21	48	6	6%	5	81%	62	6	22	17	17	27%	4	55%	116	9	4	41	10	52	45%	7	34%	57	16	.10	.20	.11	.19
KAZ	3-0	75	57	75	57	18	73	10	18	40	5	7%	6	62%	55	1	21	18	17	31%	5	60%	101	3	5	30	11	52	51%	7	44%	44	15	.5	.20	.4	.9	
NED	3-0	79	66	79	66	13	78	7	29	37	5	6%	5	64%	67	5	19	24	19	38%	5	64%	113	3	8	36	14	52	46%	7	36%	51	18	.7	.13	.25	.9	
THA	3-0	75	58	74	58	16	72	12	27	27	6	8%	5	46%	55	3	16	22	14	25%	5	65%	89	7	8	26	11	39	44%	6	38%	39	8	.7	.9	.13	.34	
RUS	3-1	114	108	114	108	8	113	10	62	38	5	4%	5	36%	99	4	32	45	18	18%	5	64%	162	4	11	58	22	69	43%	7	33%	63	23	.11	.15	.14	.22	
TUR	3-1	102	86	102	86	15	113	10	41	61	30	5	5%	5	36%	81	3	25	23	20	30%	5	65%	136	6	7	54	13	56	41%	7	32%	75	31	.12	.15	.14	.22
BUL	3-0	75	52	75	52	23	73	7	14	18	7	10%	5	36%	48	2	18	17	11	23%	4	58%	87	6	.24	.12	45	52%	7	45%	36	15	1.6	.7	.7	.19		
SRB	3-0	75	64	75	64	11	73	7	38	25	5	7%	5	41%	52	3	13	25	11	21%	5	65%	80	4	7	28	4	39	49%	7	35%	48	16	.8	.15	.11	.23	
BRA	0-3	66	75	66	75	-9	67	2	45	17	3	4%	5	30%	65	5	18	26	15%	5	65%	98	7	8	37	9	37	38%	6	22%	48	23	.8	.13	.4	.8		
ITA	0-3	65	75	65	75	-10	66	7	14	40	14	4	6%	5	29%	67	2	23	16	24	38%	5	60%	115	3	9	48	13	42	37%	6	26%	43	23	.8	.10	.2	.9
BRA	3-0	79	65	79	65	14	77	7	24	17	3	4%	5	29%	64	2	28	17	17	37%	4	53%	107	5	7	29	14	52	49%	7	37%	36	9	.5	.17	.5	.14	
CHN	3-1	94	94	101	94	-7	93	5	1	53	28	6	6%	5	38%	91	5	31	22	32	35%	5	65%	145	9	9	49	20	58	40%	6	28%	62	20	.10	.12	.14	.24
Match Avg	83	82	83	75	75	7	82	7	39	28	28	5	5%	5	37%	87	3	22	22	19	11	12	6	7	38	13	49	49%	7	30%	50	18	.8	.14	.9			
Standard Dev	15	18	15	21	15	13	15	3	1	18	6	11	1	-	18	2	1	6	8	7	-	25	2	3	11	5	9	5%	-	-	12	6	1	2	4	5		
Min Val	65	52	65	52	-13	66	2	12	14	3	-	-	-	-	48	1	13	16	11	-	80	3	24	4	37	-	-	36	9	.5	.7	.2						
MaxVal	114	105	114	115	24	113	12	82	21	48	7	-	-	-	99	6	2	32	45	32	-	162	9	11	56	22	89	49%	7	33%	57	31	3	12	.20	.14		
Total	993	888	992	904	88	979	84	6	471	21	337	80	6%	5	43%	806	41	3	268	270	228%	5	62%	1348	66	81	456	153	593	44%	7	33%	597	220	4	95	186	112

By rightclicking or clicking  you enter the options menu, where you can choose what you want to be displayed or hidden in the analysis.



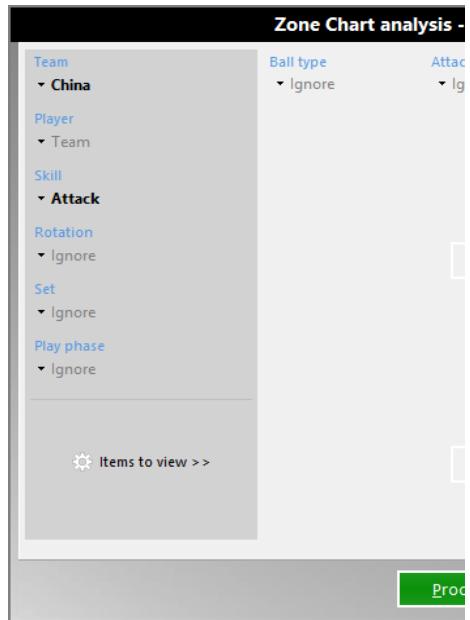
Single match



Historical Analysis

9.5.4 Zone Chart

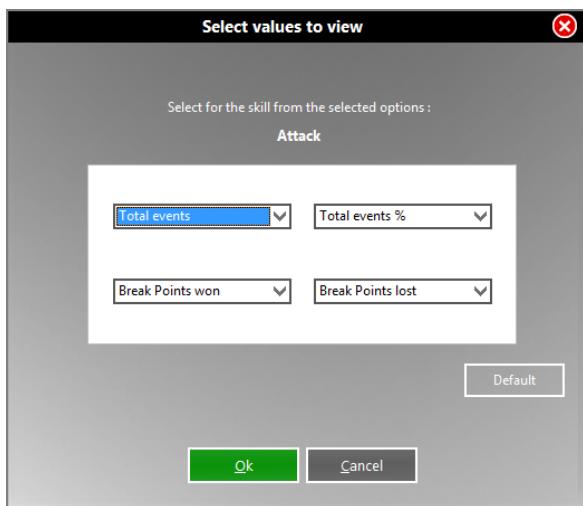
This type of analysis allows you to elaborate the developed data of the analysis by player, by skill and by rotation, by also indicating where the hits were performed, from which player, in the different rotations and with determined values. In order to take advantage of this function it is necessary to have scouted the starting zone and the landing zones of the hits using the attack combinations (that automatically associate a starting zone of the attack hit).



The window that will be displayed will be slightly different to the standard one:

Apart from the fields where we can choose to view the analysis by team, players, skills, rotation and all the other information relative to the hits and to the game phases, we will see the button called "Items to view" positioned on the bottom of the window on the left hand side.

By clicking this button a window will be displayed where you will need to indicate the four values that will be associated to a zone on the court and that relate to the selected skill.



This example shows this information relating to the attacks of the team:

- Total hits performed in every zone
- Percentage of the hits performed from that zone
- Lost points from that zone
- Won points from that zone

Click [Ok] and then [Process] the Zone Chart analysis window opens

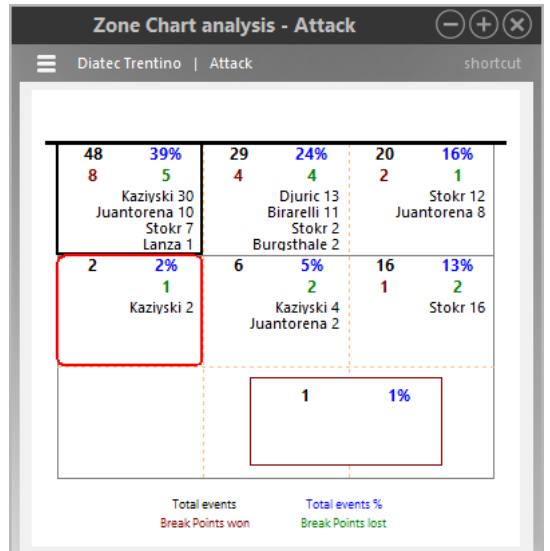
The **RED** zone will indicate the zone with the lowest number of hits; the **BLACK** zone will indicate the zone with the highest number of hits.

The grey line on the top will indicate the values of the hits where the starting zone could not be identified.

The zone with **Lowest/Highest** value is always identified considering the "upper – left" value of each zone.

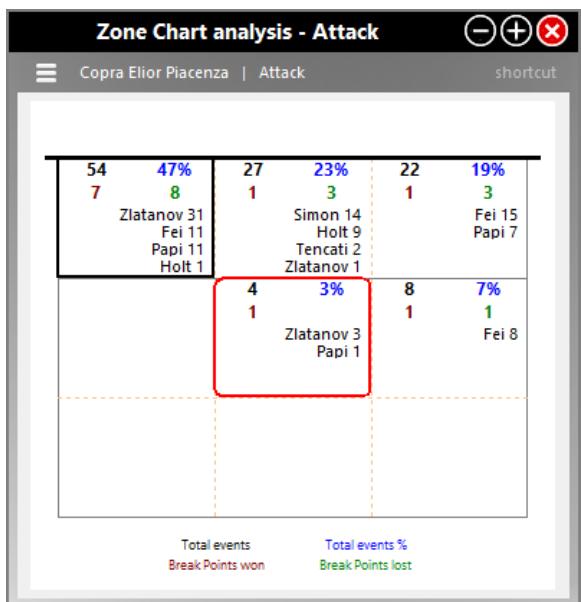
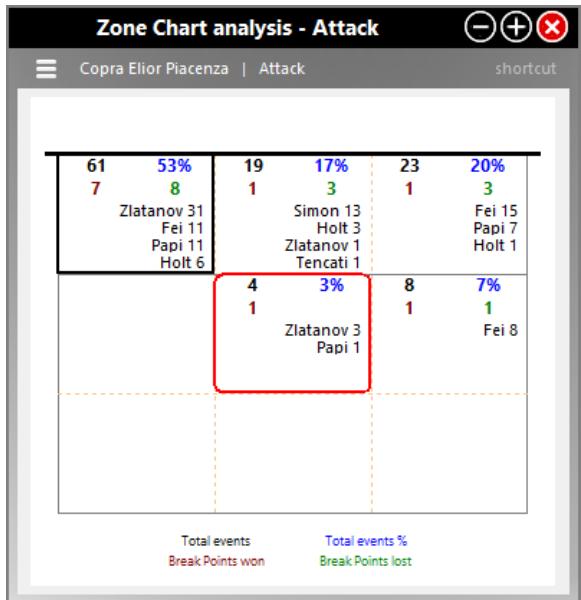
If you chose to display for Attacker served in the options, the lower right shows the shots with combinations where the attacker served is the Setter.

You can therefore run an analysis on any type of hit, rotation, player, set and so on depending on the type of information you want to obtain.



The analysis by zone for the attack is slightly different depending on if you want to view the zones in a standard way or depending on the target attacker (to define a target attacked you need to use attack combinations).

This option can be defined in [Tools General Options Analysis](#).



TARGET ATTACKER

If this option is selected, the hit as described in the previous example will be counted with the hits from zone 2, because the player from zone 2 is the one that performed the hit therefore the starting zone, is not considered. At this stage, all attacks are classified as "Target attacker – 'Setter'" and they will appear in a box between zone 6 and 1.

The first type of analysis is helpful if you want to consider the efficiency of the hits according to the zone where they were performed. The second type of analysis is used if you want to consider the distribution of the setter.

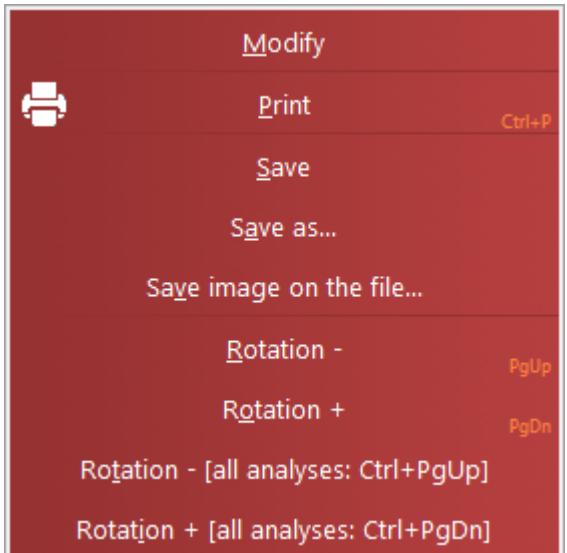
In the Zone Chart menu, retrievable by right click, or by the related button, it is possible to save the image in order to insert it in a eventual printing.

If you have chosen to display a specific rotation, for example S1, you will find "**Rotation + and -**" in the drop down menu :

These functions allow you to immediately skip from one rotation to the next: these are very important functions for the second coach that has to follow the attacks of the opponent team during the match. By pressing **PgUp** the attack trajectories of the opponent team will be displayed live, depending on the previously defined settings, with tactical and technical benefits.

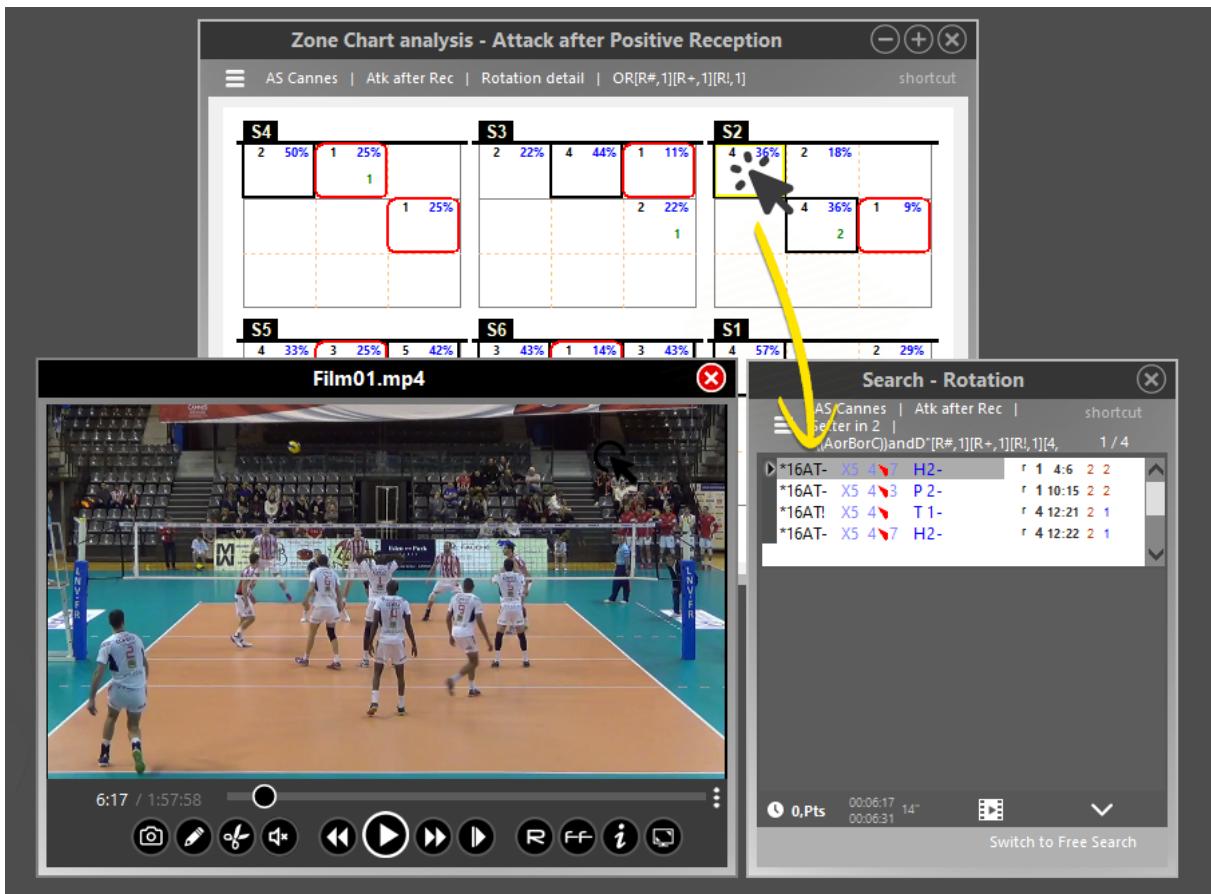
If you are carrying out several analysis on a specific rotation, it's possible to change the rotation of the current and other active analyses by using the **Ctrl+PgUp** e **Ctrl+PgDn** shortcuts.

In the General Options [Analysis](#) window you can enable the "Show current rotation" to automatically update the rotations in real time. You will still be able to manually change the rotation but only until new information is received from the scout man. You can temporarily deactivate the automatic rotation update by using the **Ctrl+Del** shortcut. This manual setting will not change the previously set function in the general options window.



CLICK TO RALLY

You can highlight a single zone by moving the mouse in zone chart. Clicking on it you can see the related and filtered codelist in the panel.

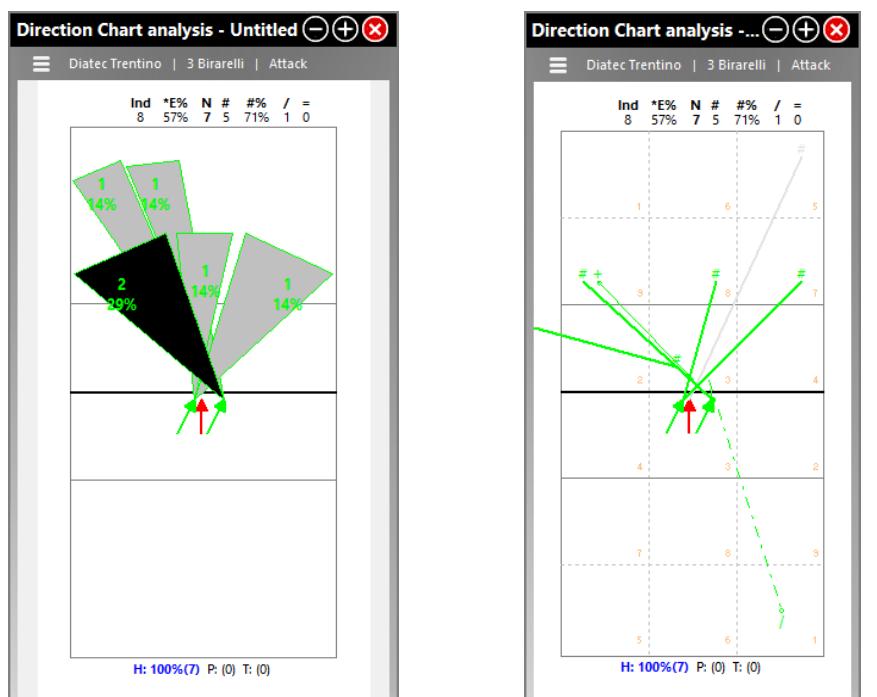
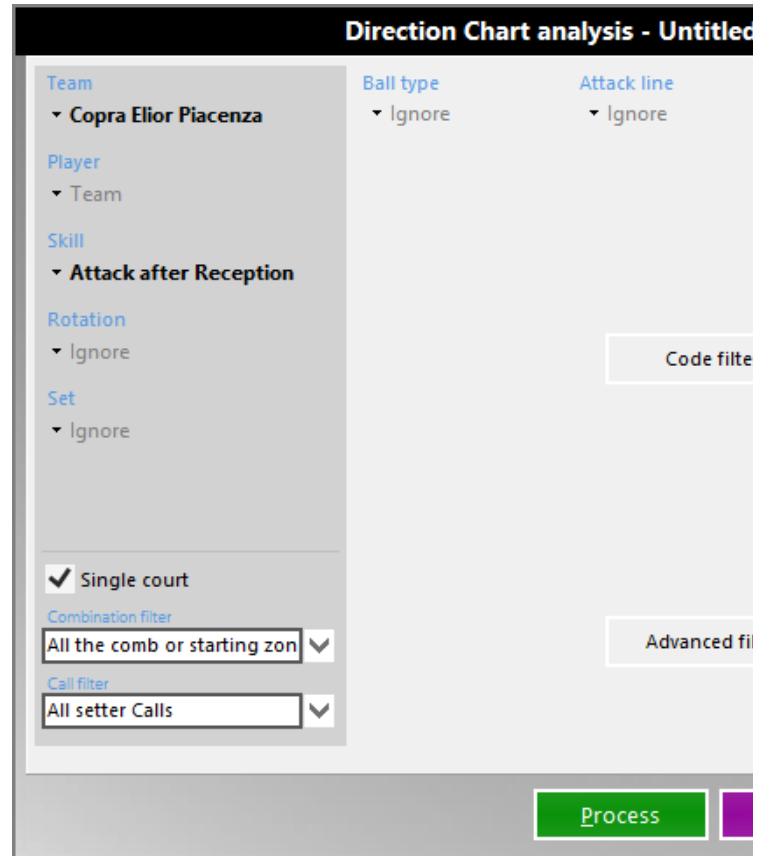


9.5.5 Directions Chart

The direction chart allows you to graphically view the trajectory of the skills Serve, Attack, Attack on reception and Transition.

To use this function it is necessary that the starting and landing zones of the hits on which you want to run the analysis, have been previously scouted.

As for the other analysis provided by Data Volley, the parameters for the analysis by direction can be chosen as requested.



Let us see an example: if you want to view all the hits performed by home team player number 3. You will have to select the skill in the analysis window: attack and player number 3. You will see the results in the following pictures, depending on the scouting (by zone or by cones).

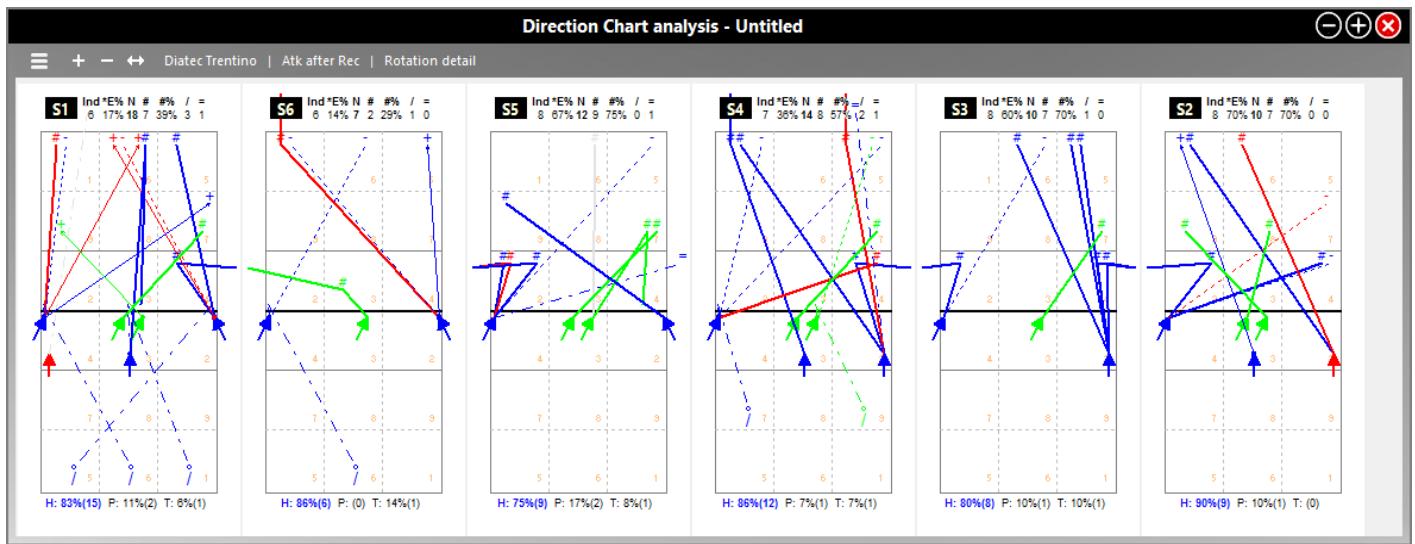
The trajectories of the attacks of the selected player are displayed in one court. The different effect values are divided by colour.

It is possible to view the colours divided by group values (i.e. black for positive effects, green for effects that allow the rally to continue, red for the negative effects).

This option can be defined in [Analysis](#).

Let us see another example: if you want to view the attacks after reception of all the players or a team, rotation by rotation.

You will have to select team, attack after reception and rotation details.



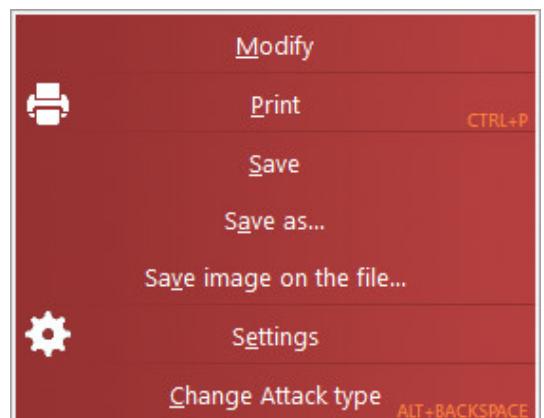
The windows will display:

- Above the court, the rotation [P1]..[P6], the efficiency (Eff), evaluation index value (ind), the total number of hits (N), the total number of positive hits (#), the percentage of the positive hits (#%), total number of blocked hits (/), total number of negative hits (=).
- In the starting zone of the hit, the player in the different attack positions compared to the setter (F front, B back, C center, P pipe), the number of hits and their percentage compared to the total number of hits, the different attack combination approaches with the relevant colours and the direction previously arranged in the related table.
- In the landing zone, the attack/serve trajectories in different colours, and different parabola to indicate a Hard Spike (hard, the line is straight and continuous) and Soft Spike (supported, it is a zig zag line), Tip (top spin, is a dashed parabola).
- In At the end of the court, the total number (in absolute value and percentage) of the attacks Hard (H), Soft (P), Tip (T) are carried out. By changing the type of attack you can immediately show a Hard, Soft, Tip or All type of hit by using the Alt+backspace shortcut.

In the direction analysis menu, reachable by right click or by the related button, it is possible to modify the analysis or print, save the picture to insert it in a printing composition.

If you have chosen to display the trajectory of a specific rotation, for example S1, you will find "[Rotation + and -](#)" in the drop down menu.

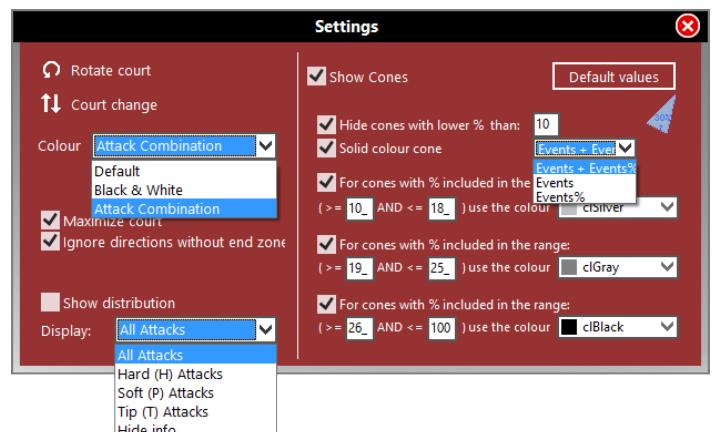
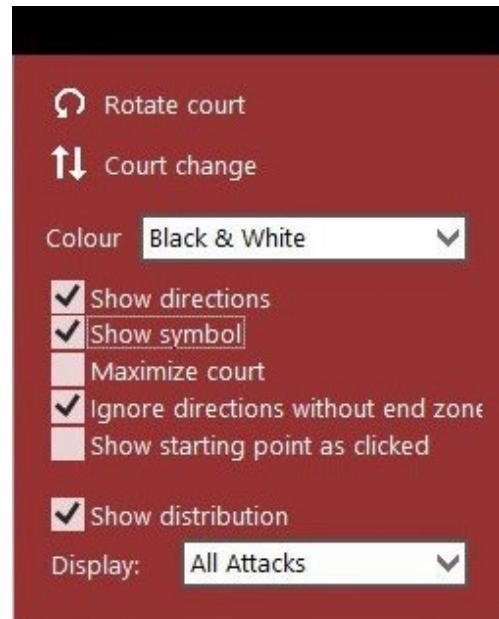
Change attack type: allows to choose a Hard Spike, a Soft Spike, a Tip without entering the options.



By clicking **[Settings]**, you access a graphic and functional settings window, that allows you to represent and study the requested attacks in a professional, specific and personal way, in an interactive way.

- Rotate court: turn 90 degrees at a time counterclockwise.
- Invert court: 180 degrees rotation.
- Color: black trajectories or equal to those you set in Tools_General Options [Analysis](#) Symbol Colors.
- Show directions: shows the ball trajectory from the starting zone to the landing zone
- Show Symbol: shows effects at the end of trajectories.
- Maximize court: enlarges the court adapting it to the window size.
- Ignore directions without end zone: shows/hides trajectories without landing zone
- Show Starting zone as clicked: shows the starting zone manually assigned to the hit
- Show distribution: add the distribution to the direction chart analysis

The software allows to filter a skill in object by Type (EX All Attacks, Hard, Soft, Tip)



In addition to the previous:

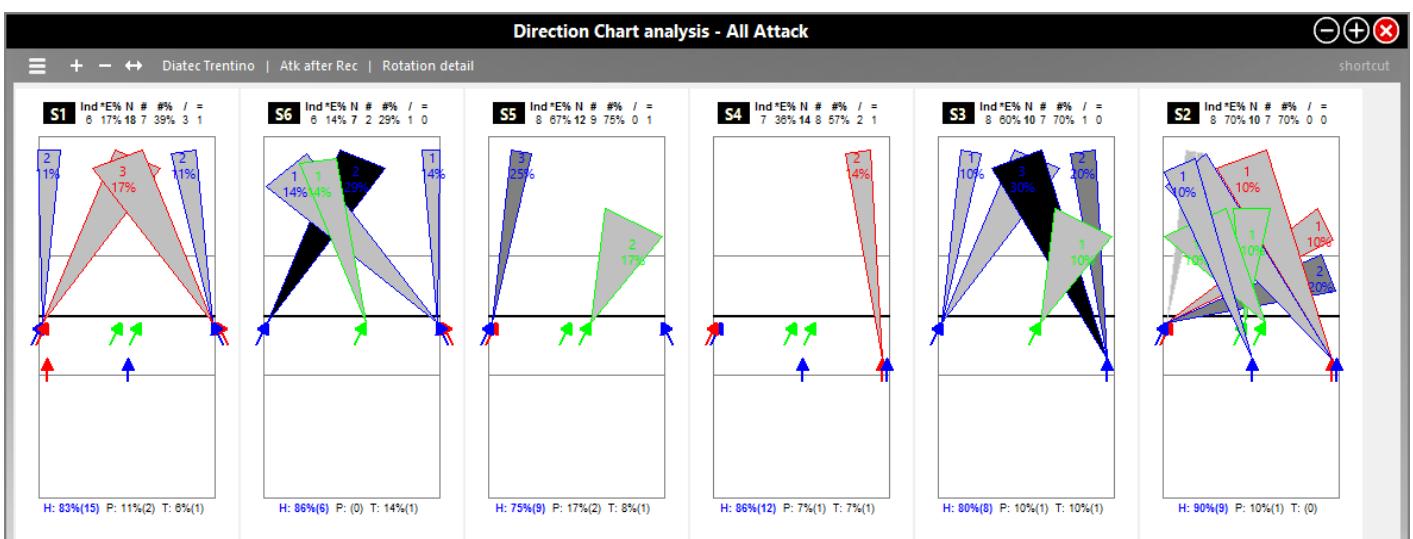
- Color: also added color equal to that chosen in [Attack Combinations](#).
- Show starting zone as clicked:
- Show distribution: displays the distribution of the setter
- Display (attacks): to filter Hard, Soft and Tip attacks, all or none
- Show cones: explanation below.

Show cones

It allows you to modify the graph using cones of the attack. This can only be applied when the codifying system that has scouted the match allows it or if the match has been converted to a cone system. You can change the colour of the cones in relation to the number of hits, in percentage, addressed to that particular zone/direction.

You can choose to not represent cones with a small number of hits and change the cone colour filler according to the density of the hits, in percentage compared to the total of hits. You can also choose whether to represent the cones with full color or only delimit them, (for full: input of number of hit, or percentage, or both)

If the attack trajectories are scouted using a cone codification it is possible to represent the analysis shown in the previous image in the following way by activating the CONE option:



In the attack combination table you can choose to scout the landing point of the attacks according to the relative direction

(cone) or according to the landing zone.

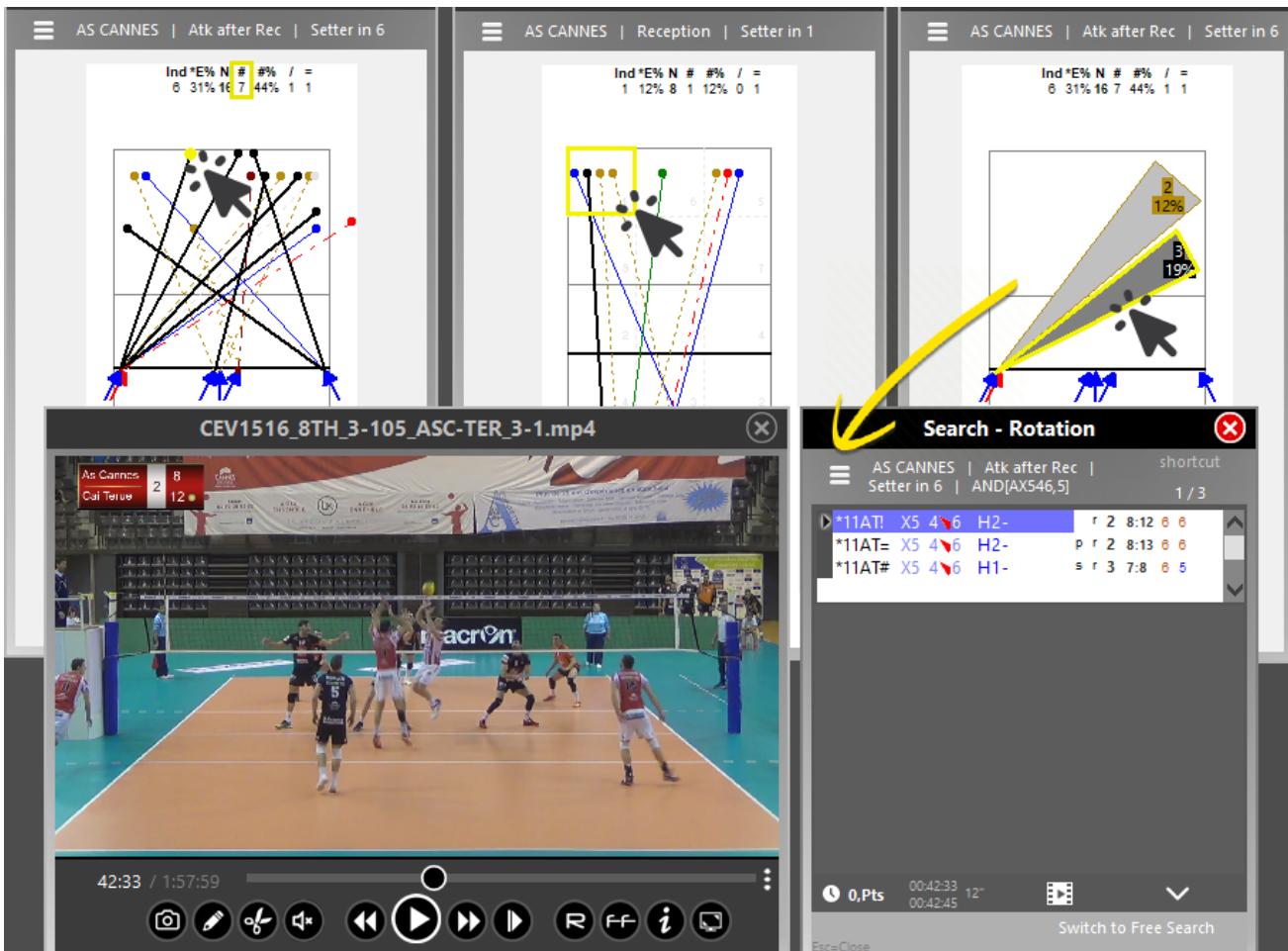
This choice must also be made when you want to elaborate a file from another user if they use a trajectory scouting system that is different to the prearranged one.

Any type of conversion requires an adjustment because of the different scouting/display systems, defined by different technical objectives, choose the direction of the attack (the cones represented in the [attack combinations](#) paragraph) and the landing zone of the ball on the court.

When scouting the attack and serve trajectories by point (indicating the landing zone and the starting zone with the mouse), these adjustments are not necessary and the landing zones and the cones will be represented faithfully.

CLICK TO RALLY

You can click a cone, a direction, a zone, a court or hits to see all the related actions.



9.5.6 Point Analysis

This analysis allows you to compare the points won by the two teams in a break point phase and compare them dividing them by skill.

This is an example where the total numbers of points of both teams, during the break point, are compared without detailing the rotations.

Point analysis - General																		
S in:	Set	Team		BP	Ace	%	Att	%	Block	%	Err Op	%	Err Op	%	N Serv	BP%	N Rec	pSO/Re
		Match	China	41	5	12%	17	41%	6	15%	9	22%	13	32%	95	43%	88	55%
			USA	40	6	15%	18	45%	11	28%	3	8%	5	12%	93	43%	91	55%

The points on break point of the two teams are displayed in the first column (serve/ace, attack, block, opponent error, opponent error in attack).

The last two columns represent:

- il the number of serves and % of points performed during the serve phase(or break point phase)
- il the number of receptions and % of points carried out during the reception phase (or sideout phase).

You can also decide if you want to display a point analysis detailed by rotation. In this case the point analysis in comparison will be referred to every position of the setter of the team selected in the analysis window where the choices are made.

Point analysis - Rotation Detail																		
USA Rotation detail			shortcut															
S in:	Set	Team		BP	Ace	%	Att	BP	Block	BP	Err Op	%	Err Op	%	N Serv	BP%	N Rec	pSO/Re
6	Match	China	5	1	20%		1	20%	.	.	1	20%	3	60%	18	28%	20	55%
			USA	9	3	33%	3	33%	3	33%	22	41%	17	71%
5	Match	China	4	1	25%		2	50%	.	.	1	25%	1	25%	16	25%	21	48%
			USA	11	2	18%	5	45%	3	27%	1	9%	1	9%	23	48%	16	75%
4	Match	China	3	.	.		3	100%	8	38%	6	50%
			USA	3	.	.	3	100%	7	43%	7	57%
3	Match	China	3	1	33%	2	67%	2	67%	9	33%	6	100%
			USA	6	.	8	62%
2	Match	China	5	1	20%		3	60%	1	20%	11	45%	9	67%
			USA	3	.	.	2	67%	1	33%	9	33%	11	55%
1	Match	China	21	2	10%		8	38%	4	19%	5	24%	7	33%	33	64%	26	46%
			USA	14	1	7%	5	36%	5	36%	2	14%	3	21%	26	54%	32	34%

9.5.7 Combination Analysis

This type of analysis is used to display the statistic performance according to the played attack combinations. The attack directions must be scouted before you can use this function.

The window that will appear is the standard analysis window but you can choose limited skills: attack (without differentiation), attack after reception and transition (that correspond to the moments when the attack combinations are performed).

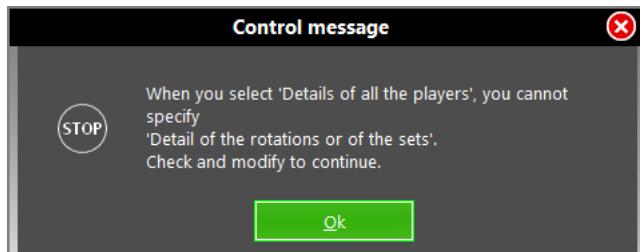
If for example we run an analysis on the attack with details of the players, the following analysis prospect will be displayed:

Combination analysis - Combinations Detail Home																															
USA Player detail Attack			shortcut																												
Player	S Set	X5 Shoot in 4	V5 High set in 4	CF Side close to set!	X6 Shoot in 2	X7 Quick lower set	X1 Quick	V6 High set in 2	XP Pipe	V8 High set in 1	PP Setter tip	Tot	*E%	#%	Tot	*E%	#%	Tot	*E%	#%	Tot	*E%	#%	Tot	*E%	#%					
Team	Mat	40	42%	48%	21	5%	19%	16	56%	63%	14	36%	50%	7	43%	57%	6	50%	67%	4	50%	50%	3	-33%	.	2	.	50%	1	100%	100%
3 Thompson	1	100%	100%	
9 Hildebrand	4	50%	50%	5	-40%	
14 Fawcett	5	20%	20%	2	11	36%	45%	4	50%	50%	2	-50%	.	2	.	50%	.	.	.		
15 Hill	16	50%	56%	7	14%	29%	3	33%	67%	
19 Robinson	15	40%	47%	7	29%	29%	1	.	.	.	
21 Dixon	12	75%	75%	.	.	.	3	67%	67%	1	
22 Adams	4	25%	50%	.	4	25%	50%	5	60%	80%	

The chart is divided into columns: the players are displayed in the first columns and the different attack combinations will appear in the other columns. The first row of each column will describe the combination.

The number of times the combination was repeated by the team and by each player will be indicated in each column (in the example we can see that the combination X5 was performed 25 times, 10 times by the player n 15; the combination X6 13 times, 9 by number 12 and 3 by number 15 and so on). The efficiency and the missed ball (ball on floor) percentage will be indicated next to these numbers.

Please Note::



CLICK TO RALLY

You can click on a Combination Analysis table cell to see all the related actions.

The screenshot shows the DataVolley software interface. At the top is a 'Combination analysis - Untitled' window with a table of statistics for AS CANNES. A yellow arrow points from the table to a 'Search - Rotation' window on the right, which displays a list of rotation patterns. Below these are video player controls and a timeline showing a volleyball match in progress.

Player	S Set	X5 Shoot in 4			X6 Shoot in 2			V5 High set in 4			X8 Shoot in 1			X1 Quick			X7 Quick lower set			PF Tot
		Tot	*E%	#%	Tot	*E%	#%	Tot	*E%	#%	Tot	*E%	#%	Tot	*E%	#%	Tot	*E%	#%	
Team	Mat	24	33%	46%	7	29%	57%	6	17%	33%	5	60%	80%	5	20%	40%	4	25%	50%	3
	6	7	43%	57%	3	67%	67%	1	0%					2	-50%					
	5	4	75%	75%	2	0%	50%							3	67%	67%	1	-100%		1
	4	5	20%	40%				1	0%		1	-100%					2	50%	50%	
	3	5	-20%								3	100%								
	2	3	50%	50%																

CEV1516_8TH_3-105_ASC-TER_3-1.mp4

Search - Rotation

shortcut
1 / 5

- *12AT= X8 9\1 p r 1 4:7 4 3
- *12AT# X8 9\5 s r 1 5:9 3 2
- *12AT# X8 9\5 s r 2 15:17 3 3
- *12AT# X8 9\4 s r 2 17:18 2 2
- *12AT# X8 9\1 s r 3 11:15 3 2

0.Pts 00:09:36 6 00:09:42 Switch to Free Search Esc=Close

9.5.8 Worksheet

The worksheet is an **advanced analysis feature** and allows you to manage the scouted statistic information in a simple and customized way. The worksheet will allow you to create new and in depth analysis, different to the ones predefined by the software to independently expand the scouted information by entering complex algebraic formulas.

The worksheets will allow you to obtain specific and detailed information almost immediately.

The wizard formula function guides you through the formulation of a custom analysis, therefore helping you create the worksheet.

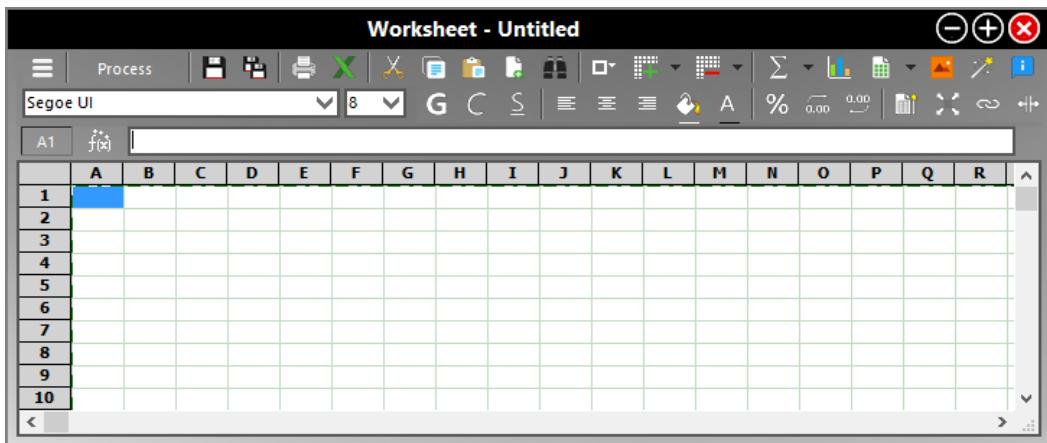
Data Volley Worksheet makes the managing of statistics completely free and provides the ability to develop customized analyzes by entering formulas at any level of complexity.

The easiest way to make a worksheet is the Wizard Formula, that guides the user to the composition of his custom analysis. After positioning on the box where you want to enter the first data, you can access Wizard Formula as follows:

- By right click of the mouse or by clicking the button and choosing the Wizard Formula option from the menu.
- By clicking the button

To work perfectly with worksheets, you need to look at some examples that demonstrate the composition, and then adjust all the functions to your needs.

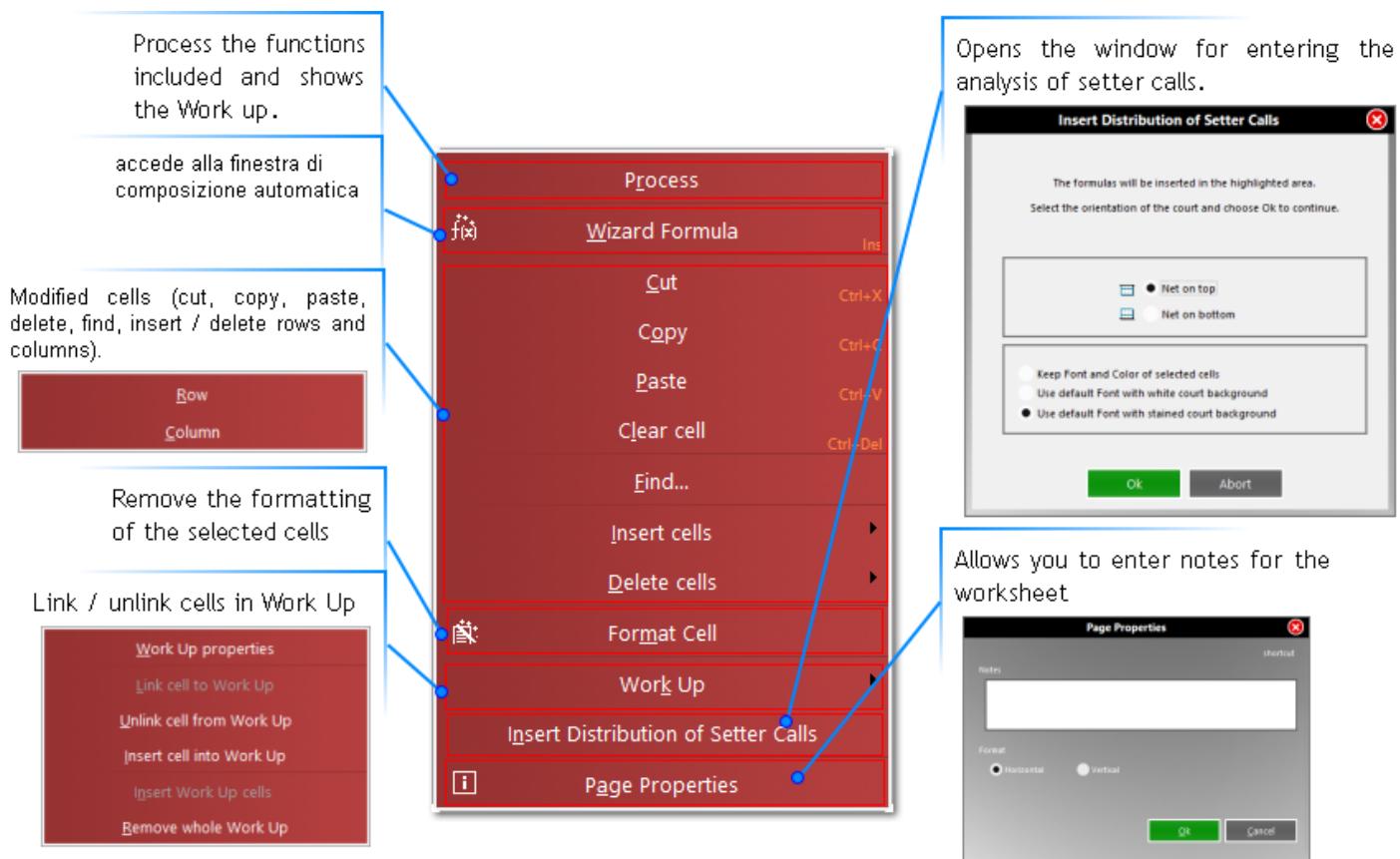
The worksheet is displayed as shown (it will be completely empty until you start entering information):



Let us see, step by step, how to make a worksheet.

9.5.8.1 Control Menu

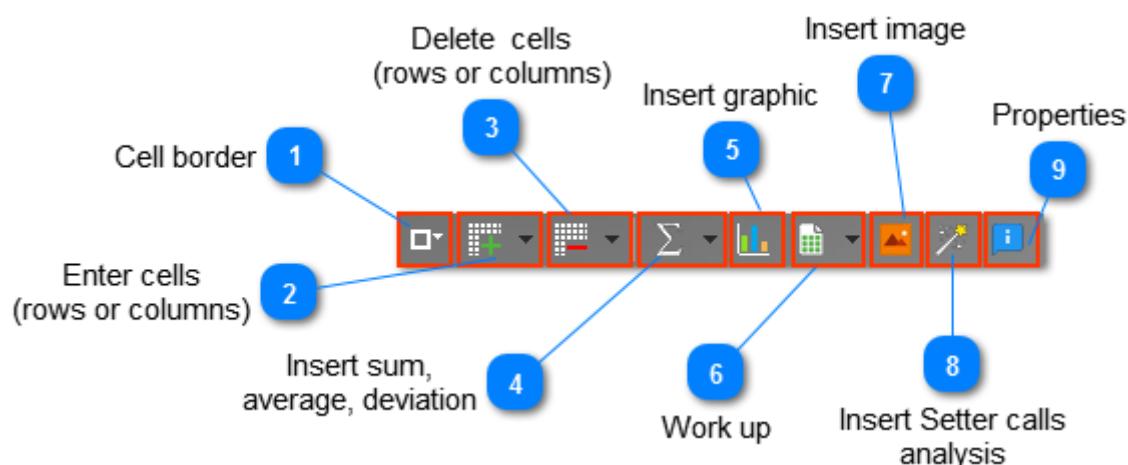
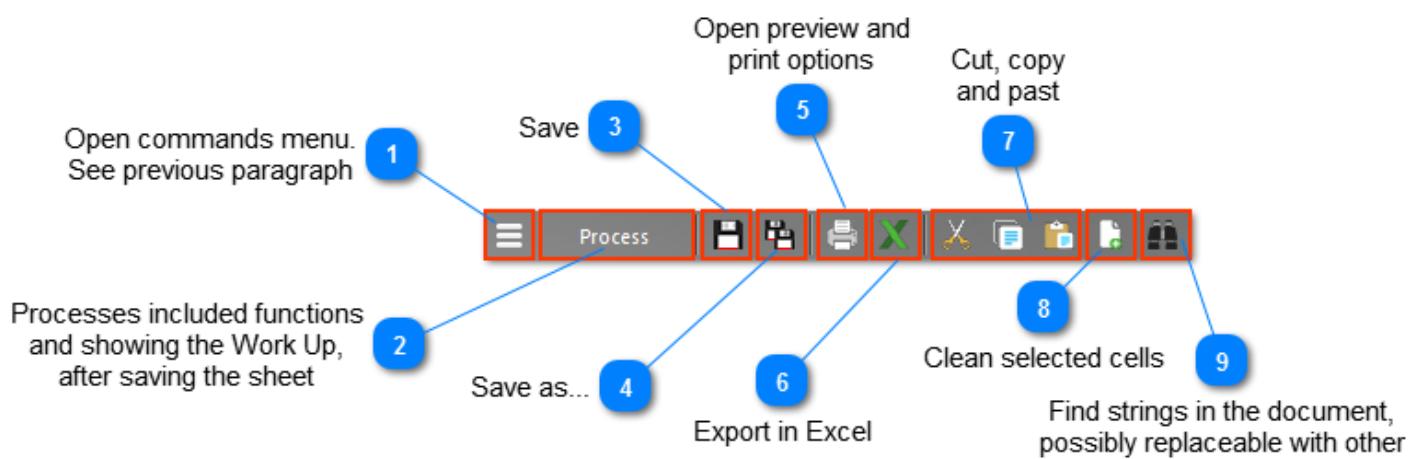
When you are focused on a worksheet window, the Control Menu, which varies depending on the context, will look as follows:



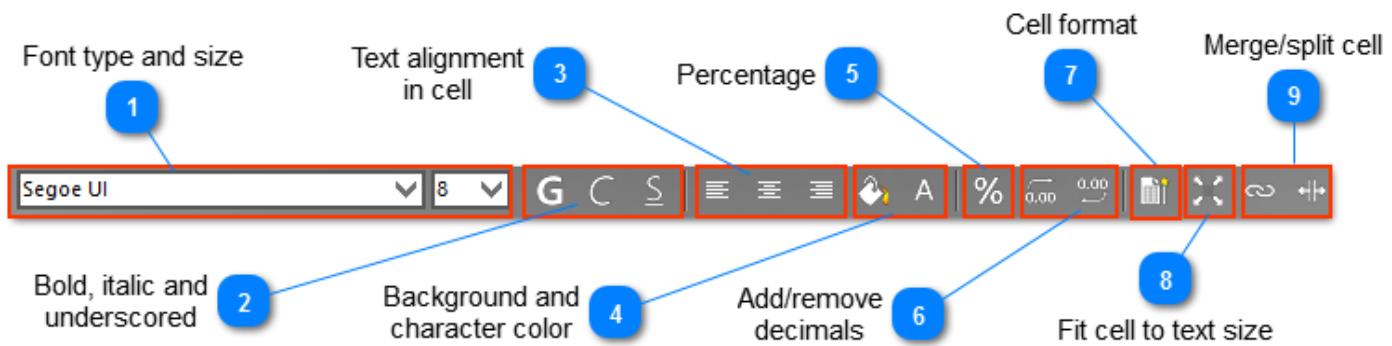
9.5.8.2 Icons

Let us now briefly see the icons used in the processing window of the worksheet, with a short description of the meaning of each.

First Row



Second Row

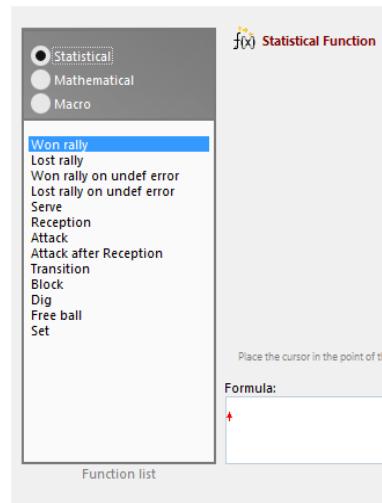


9.5.8.3 Functions

Statistical functions:

Are those concerning the data collected during the match, and allow to open the wizard.

In the bottom right field the program will compose the formula according to the requests, and it will be possible to use mathematical symbols to make even more complex analysis (eg. home team's wrong serves divided by away team's wrong serves).

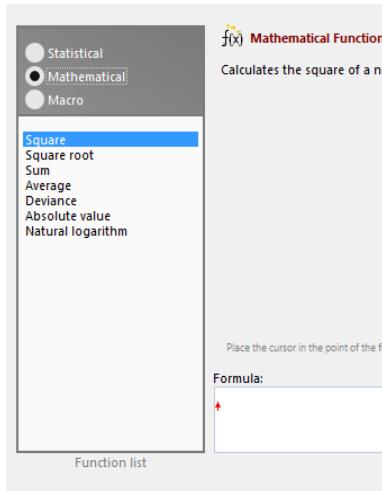


Mathematical functions:

They allow to fill one or more cells with the result of a mathematical function among those proposed.

The use of this type of formula is very simple. You select from the list the function you want to insert by double clicking it with the mouse, and follow, from time to time, the instructions that appear on the window itself.

In this example we selected the sum: you will have to choose the data to be included in the formula (from the starting cell to the final) if you want to apply the formula to separate elements. Otherwise, if you want to apply a function to the elements that are part of a process, you will only have to indicated the cell where the process is shown.

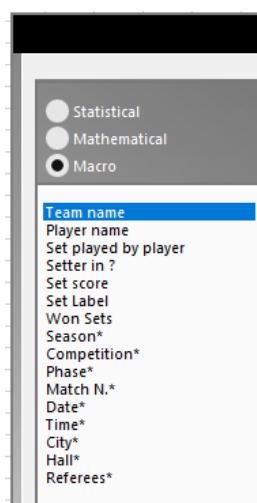


Macro functions:

Macro allow to fill the worksheets with data referring to matches that the program will automatically update.

You can therefore display:

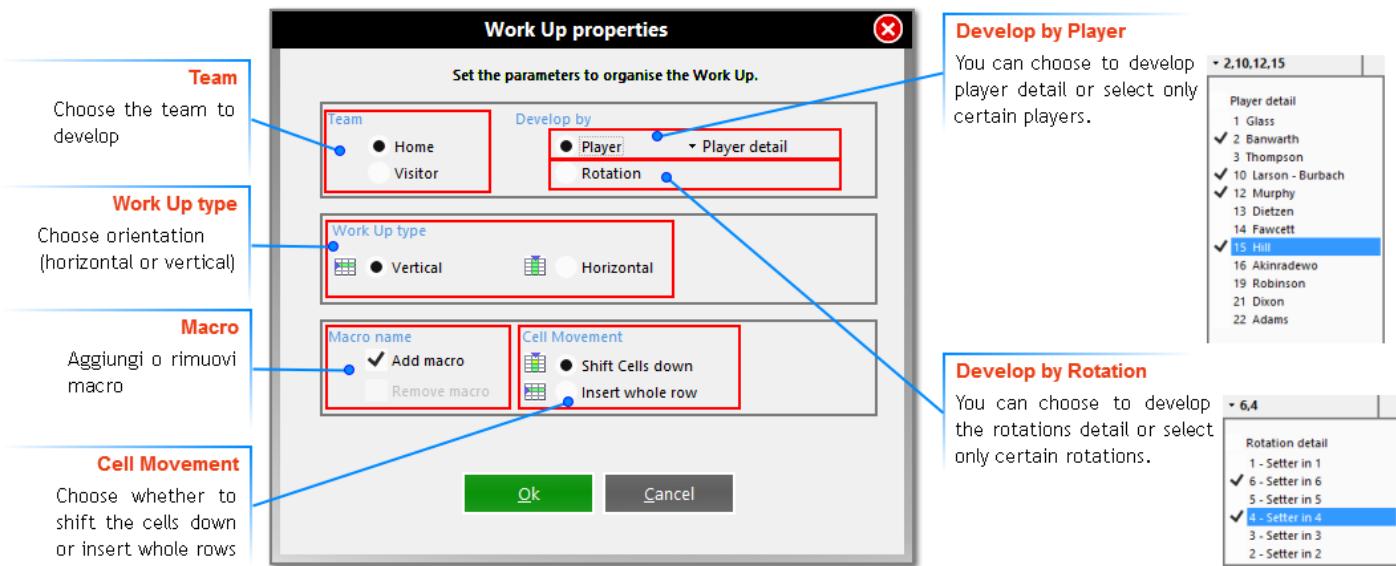
- Home or away team's name
- Player's name, by detecting it from the number of shirt
- Number of played sets by player
- The position of the setter on the court
- The score of the sets, exploitable even as element of technical/statistical formulas
- A label describing the set in question (eg set 1)
- Number of Sets won for the selected team.
- The season of the active match*
- The competition of the active match*
- The phase of the active match*
- Match number of the active match*
- Date of the active match*
- Time of the active match*
- City of the active match*
- Hall of the active match*
- Referees of the active match*



All the items with “ * ” are available only when the worksheet is processed on a single match.
You can find some examples of how to make a worksheet in the [Appendix](#).

9.5.8.3.1 Work Up properties

After choosing the desired filter function, the Work Up properties window opens, in which you set the parameters for organizing the work up of the cell.



Click [Ok] when you finished.

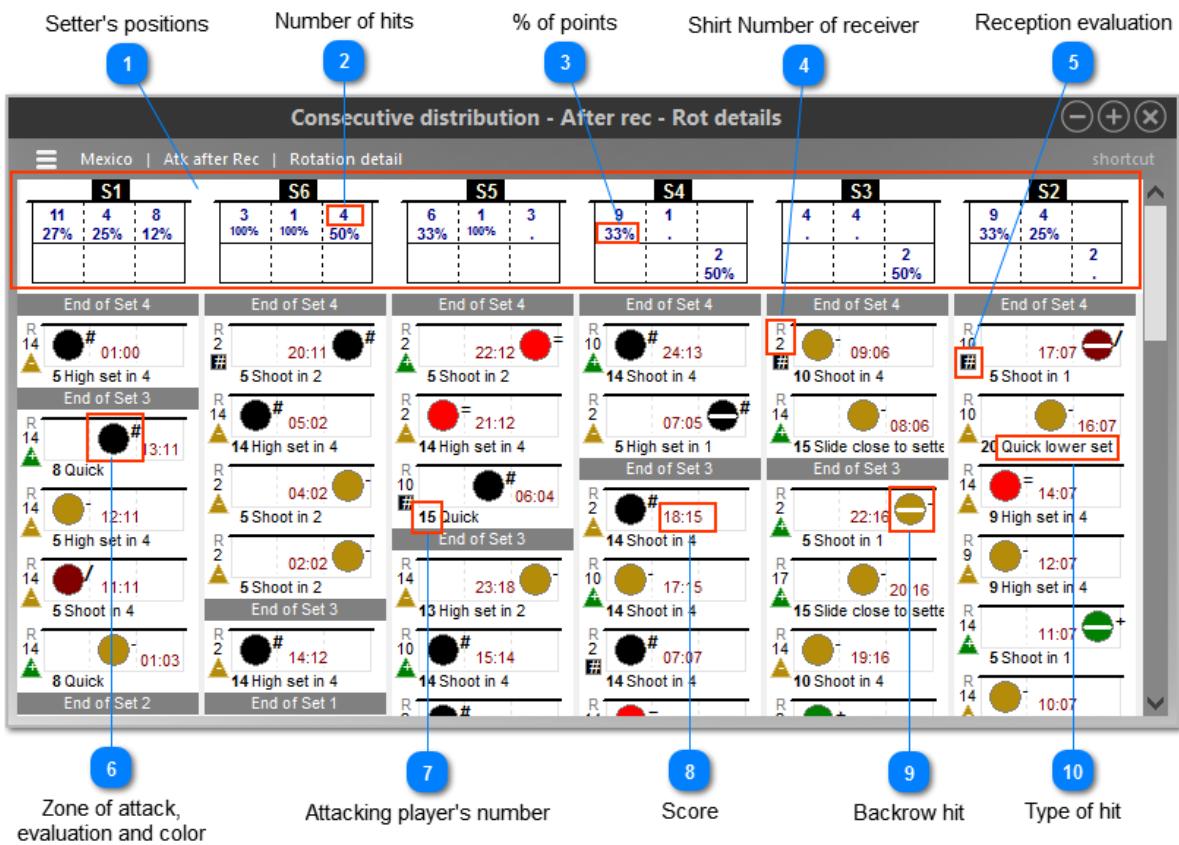
9.5.9 Consecutive Distribution

This kind of analysis, that can only be performed if the starting zones of the attacks or attack combinations have been scouted, allows you to view in detail, the game distribution of the setter, point by point. If you choose to analyse an attack after reception, an effect value will be displayed for the reception that preceded the attack.

The distribution analysis window is similar to the standard analysis one but it will be limited to the attack skill (attack after reception or hit back after dig-transition).

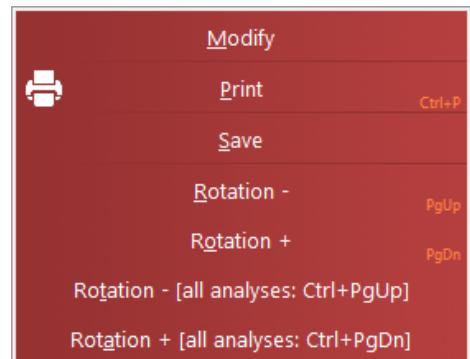
If for example, we want to view the distribution of the attack after reception, divided by rotation (we suggest you always choose to view the details of the rotations)

The analysis window that will appear will be similar to the following one:



In the Consecutive Distribution menu, retrievable by right click or by the related button, it is possible to save the image, to make a printing composition.

If you are making several analysis on a specific rotation, it's possible to change the current rotation by using ["Rotation + and -"](#).



CLICK TO RALLY

You can click a cell to see all related actions.

Consecutive distribution - Reception +#					
shortcut					
S1	S6	S5	S4	S3	S2
2 100%	5 60%	2 50%	5 40%	3 100%	1 100%
	.	50%	100%	.	2 100%
	66%			3 100%	1 100%
End of Set 3					
R 16 # 15:17 12 Shoot in 4	R 5 08:11 # 12 Shoot in 2	R 16 23:18 7 Quick	R 9 ! 00:06 9 Shoot in 4	R 16 15:14 16 Shoot in 4	R 16 # 16:15 13 Setter tip
End of Set 1					
R 5 # 07:11 3 Quick lower set	R 16 00:01 3 Quick far from sett	R 16 13:12 9 Shoot in 4	R 16 04:01 11 Shoot in 4	R 16 11:15 # 12 Shoot in 1	R 16 # 06:08 13 Setter tip
End of Set 3					
R 11 # 00:00 3 Quick	R 11 02:04 # 12 Shoot in 2	R 11 09:11 # 7 Quick lower set	R 11 11:14 # 16 Shoot in 4	R 11 04:04 # 16 Shoot in 4	R 11 # 05:06 11 Pipe set to 6-5
End of Set 3					
R 16 25:26 11 Shoot in 4	R 5 08:09 # 7 Quick lower set	R 16 14:16 # 16 Shoot in 4	R 16 17:18 # 16 Shoot in 4		
End of Set 2					



CEV1516_8TH_3-105_ASC-TER_3-1.mp4

As Cannes 2 3
Cai Terus 4 0

35:30 / 1:57:59

0.Pts 00:35:30 6°

Switch to Free Search

Search - Rotation

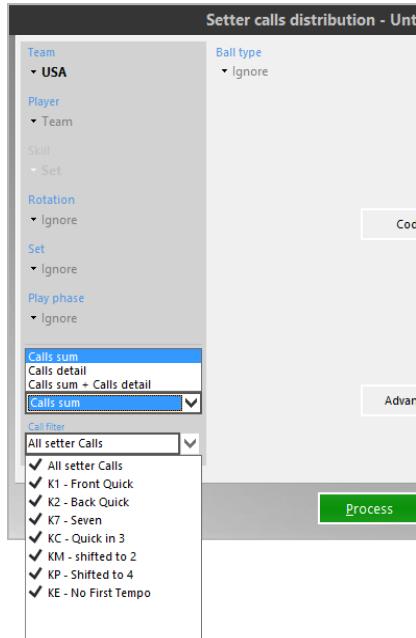
AS CANNES Atk after Rec shortcut	
Setter in 4	
*((AorB))andC[R#,1][R+,1][4,5]	
*07AQ# X7 4 3 H2-	s r 2 3:4 4 4
*11AT# X5 4 7 H2-	s r 2 14:16 4 4
*07AQ- X7 4 4 P 1-	r 3 9:11 4 3
*11AT/ X5 4 4 H2-	p r 4 4:5 4 4
*09AT! X5 4 3 H2-	r 4 4:6 4 4

9.5.10 Setter Call Distribution

The analysis of the setter call, according to the calls (where and how the front line middle blocker attacks on reception following the instructions given to him by the setter) allows you to graphically display the run ups of the middle blocked and the intervention percentage.

To use this function it is necessary to scout the setter calls and the attack combinations.

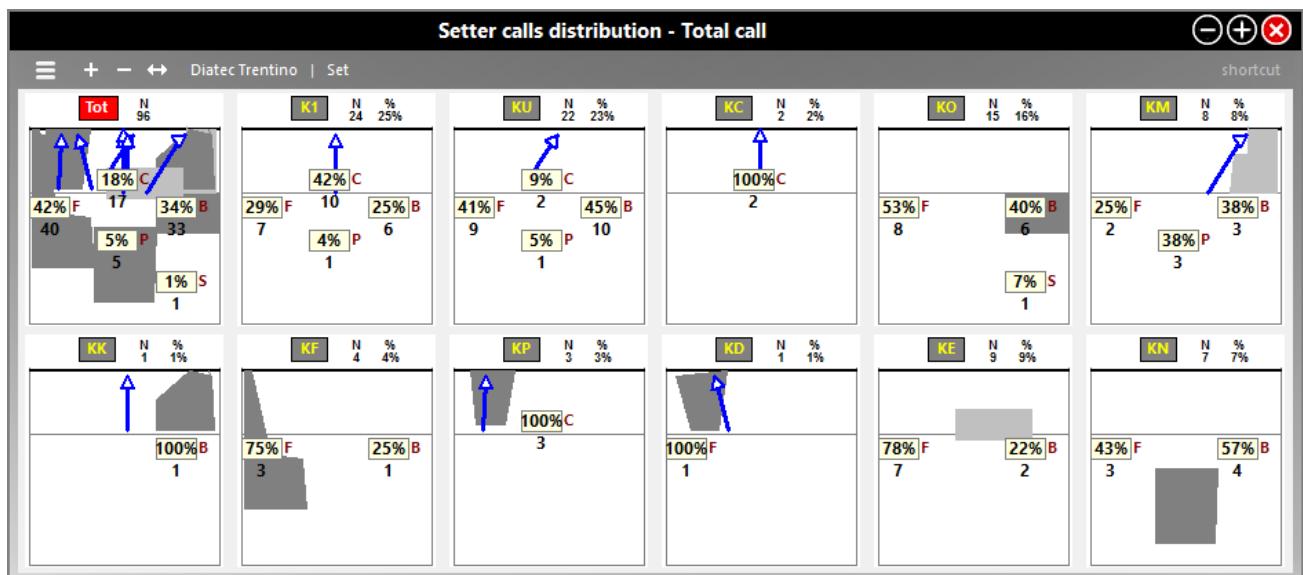
The setter call analysis, as the others Data Volley analysis, allows you to customise the desired parameters.



The setter call window is slightly different to the standard window. There are two additional fields on the left:

- If you want the program to show all the setter calls in only one court, if you want a court for each call, or both at the same time.
- the selection of the setter calls to indicate one, more, or all the calls you want to be shown.

Example: If you want to see all the setter calls of the home team in a single court box and also in several courts (select both options in the drop down menus in the two boxes);

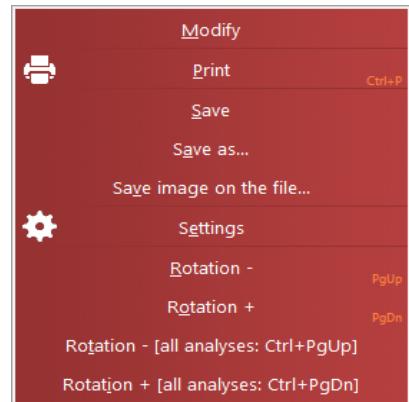


In the first box, with the red header, you will find all the calls with the respective approaches of the middle blocker; the intervention zones are coloured in grey.

The number of the hits and the percentage % in respect to the total number of hits is displayed below the letter "N".

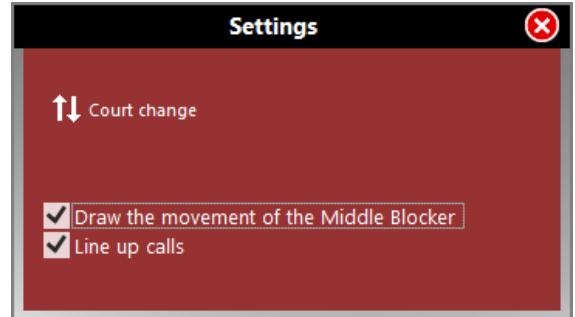
You will therefore have a number of courts corresponding to the number of the scouted setter calls, with the relative code, number and percentage of the performed hits.

On the court you will see the percentage and the numbers in absolute value that correspond to the actual setter distribution to the various attackers (C middle blocker, B back, F front, P pipe, S setter, - negative reception).



In the Setter Calls menu, retrievable by right clicking or by related button, it is possible to save the image, to print it later with others. If you are making several analysis on a specific rotation, it's possible to change the rotation of the current and other active analyses by using "[Rotation + and -](#)".

By clicking [Settings], you access a graphical and functional settings windows that allows you, interactively, to study and represent the requested attacks in a high professional, specific and personal way.



- Court Change: rotation of 180°.
- Draw the movement of the Middle Blocker: enlights the approaches of middle blockers.
- Line up calls: the program put the same calls in the same column, divides by rotation

CLICK TO RALLY

You can click on a zone or a court and see all the related actions.

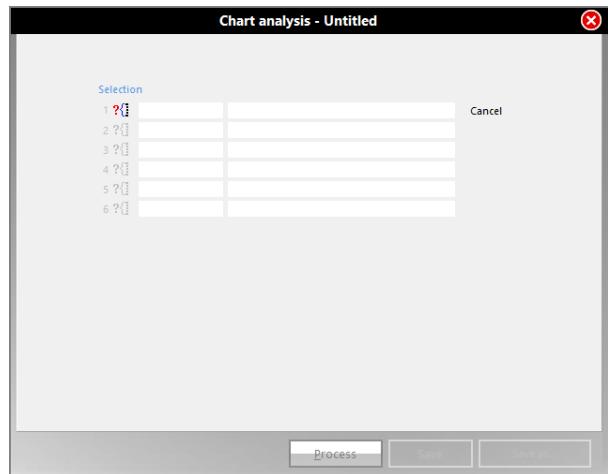
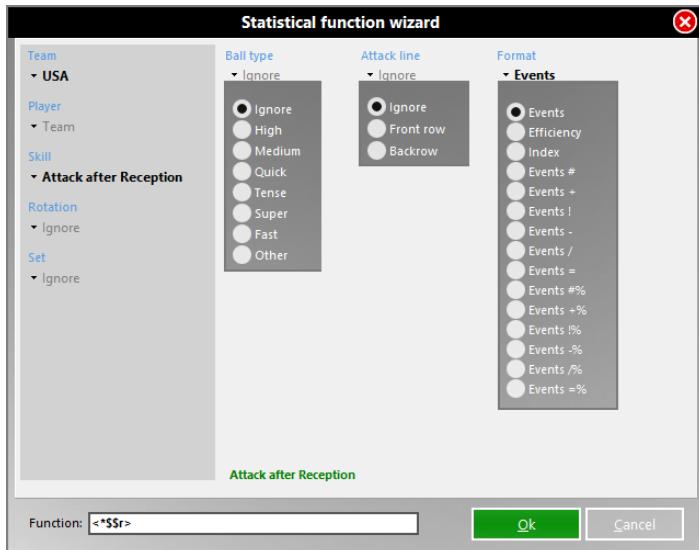
The screenshot illustrates the Click to Rally feature. On the left, a video player shows a volleyball match. In the center, a court diagram displays setter call distributions for rotations S1, S6, and S5. A yellow arrow points from the S5 diagram to a search results table on the right. The table lists various setter calls with their counts and descriptions.

*13EH-	KSC	2 --	1 23:22 5 4
*13EH+	KAC	2 --	2 1:0 5 6
*13EQ-	KIC	2 --	2 2:3 5 5
*13EQ+	KPC	2 --	2 13:15 5 5
*13EQ+	K7C	2 --	3 8:9 5 4
*13EH+	KAC	2 --	4 1:2 5 6
*13EQ+	K1C	2 --	4 23:18 5 5

9.5.11 Chart Analysis

In this window, you can make up to a maximum of 6 selections. →

By clicking on the question mark on the left side of the blank field, the program will open a wizard window for guided composition of the graph. ↓

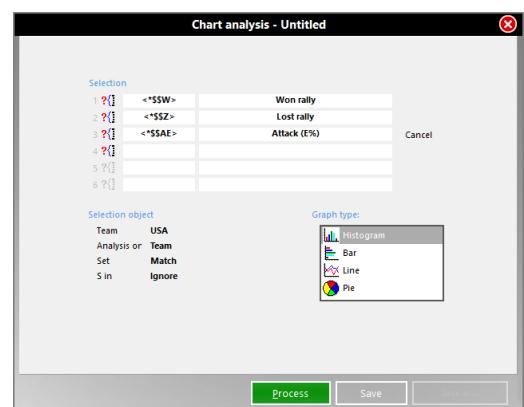
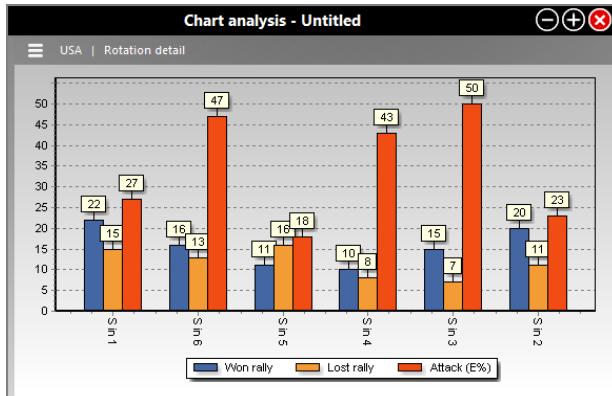


← Use the filters according to your choice and click [OK].

Now you can choose one or more players or the players detail.

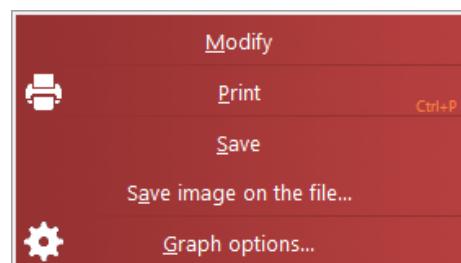
After entering the values, you can always change them by selecting the button to the left of each line. →

Select the desired type of graph and click [Process]. ↓



← The program will show the selected graph.

In the Chart analysis menu, retrievable by right clicking or by related button, it is possible to save the image, to print it later with others..



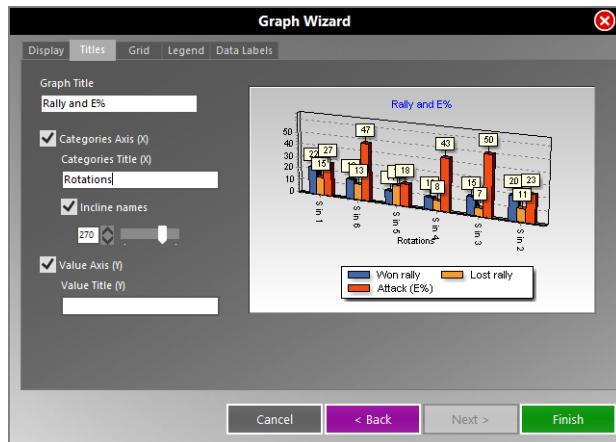
By clicking Graph options you access the settings window.

1. Choose the style of the graph and click [Next]

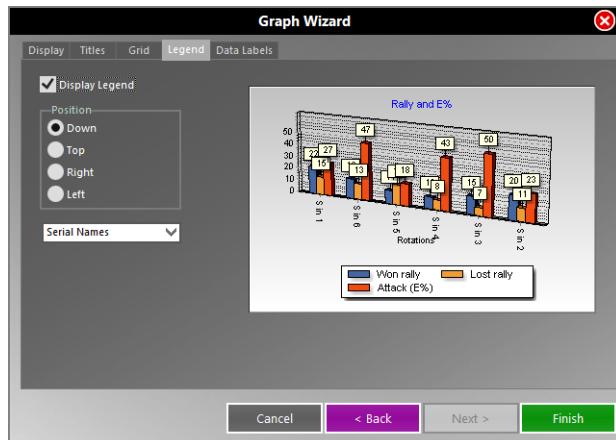
2. Define the displaying options



3. Enter Titles



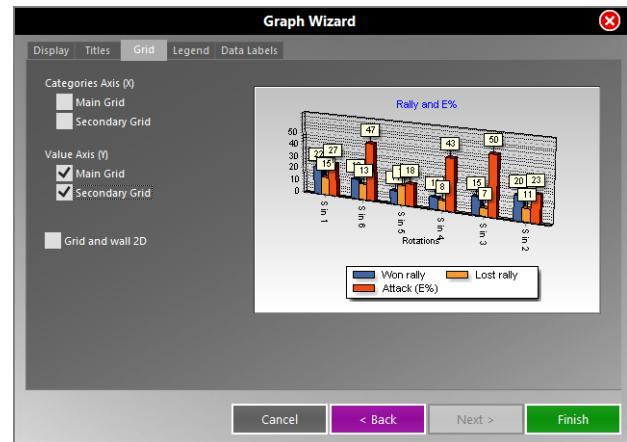
5. Choose the Legend Display options



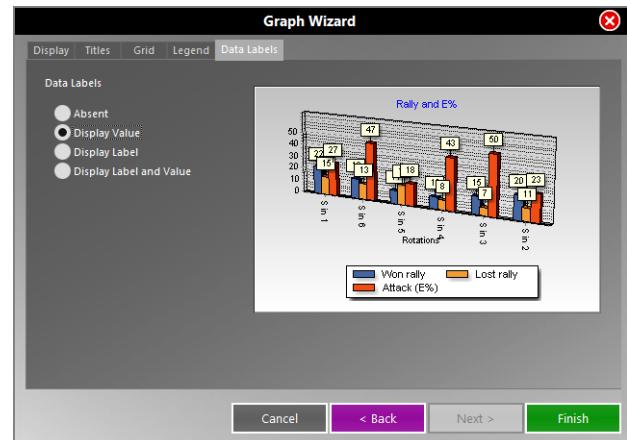
Click su **[Finish]** to see the result.

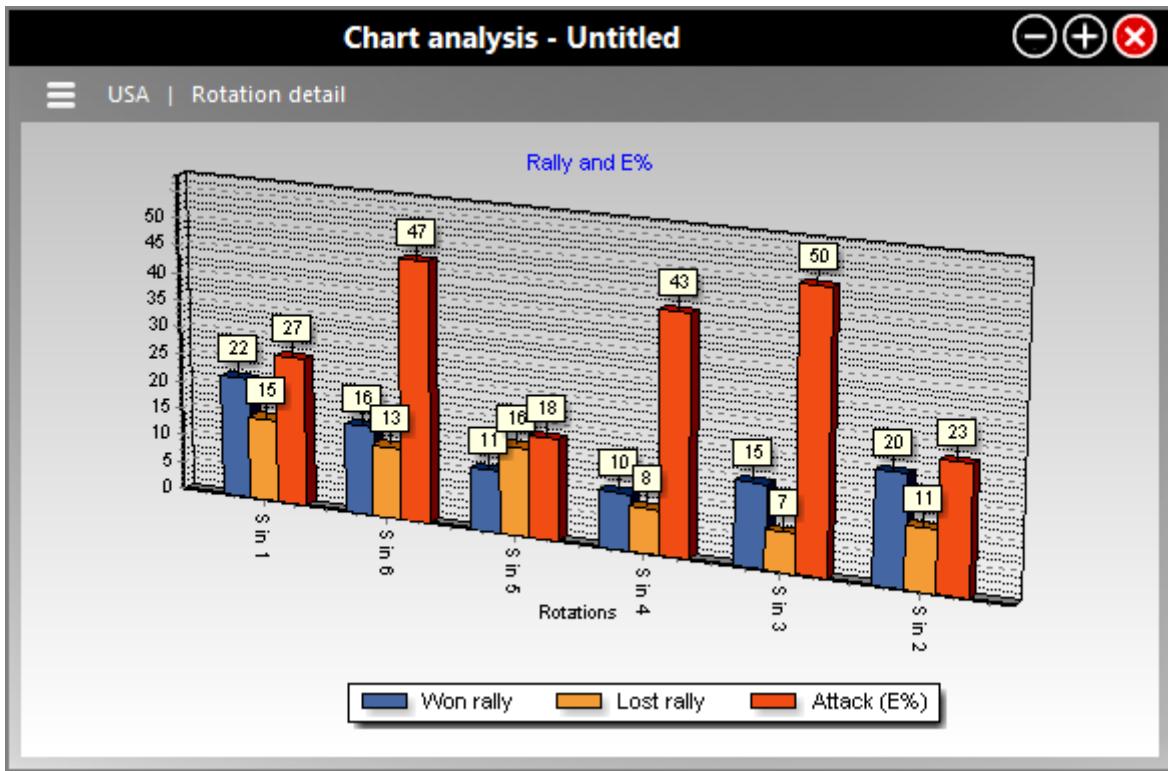


4. Define the Grid



6. Choose the Data Labels





9.5.12 Screen Composition

This entry allows to memorize a certain disposition of the tables of analysis made on the screen of the computer, to quickly retrieve them later.

Let us suppose that you have, on your screen, several analysis open: a zone chart, an analysis by player, a direction chart and a worksheet.

If you often use these analysis together, it can be useful, after positioning them in a way easy to read, to save the screen composition.

In this way the program memorizes the disposition and will retrieve it on the screen at any moment.

Any changes can be made to the composition via the menu that appears by clicking the right mouse button.

9.5.13 Last Hits

This analysis displays a table that shows the results of the last four hits for each skill performed by each player.

Team	Last Hits - USA				Block	Dig
	Serve Ind *E%	Reception Ind *E%	Attack Ind *E%	Last Hits - USA		
1 Glass	5 38% ▲ / 1 ▲ ▲ ▲ 4	5 59% # ▲ # ▲ # 4	6 28% ▲ # # # # 4	▲ # # = 4	# # # # 4	
2 Banwarth	5 36% ▲ 3 ▲ ▲ ▲ 4	.	10 100% # 2	▲ = 3 = 4	# # # # 4	
3 Thompson	6 45% ▲ ▲ ▲ 3 ▲ 4	5 61% = ▲ ▲ # # ▲ 4	.		# = # 3	
10 Larson - Burbach	5 31% ▲ ▲ # ▲ 4	4 52% ▲ 3 = ▲ ▲ # 4	4 -10% = 3 ▲ ▲ ▲ ▲ 4	= 3 ▲ 4	# # # # 4	
12 Murphy	5 57% ▲ ▲ = 3 ▲ 4	.	5 8% ▲ ▲ = = 1 4	= = = = 4	# # # 4	
13 Dietzen	4 25% = / ▲ ▲ ▲ 4	-3 . = 4	7 41% # 3 ▲ ▲ ▲ ▲ 4	▲ # ▲ ▲ 4	▲ 4	
14 Fawcett	5 25% ▲ 3 ▲ ▲ 4	.	7 46% # ▲ ▲ ▲ # 4	# 4	= 4	
15 Hill	5 50% ▲ = 3 ▲ ▲ 4	5 62% ▲ ▲ ▲ ▲ ▲ 4	8 58% ▲ # # # # 4	= 3 ▲ 4	# # ▲ # 4	
16 Akinradewo	6 47% ▲ ▲ 3 ▲ ▲ 4	7 100% ▲ 1	8 53% ▲ 3 # # # 4	= ▲ 3 # 4	# 3 = 4	
19 Robinson		
21 Dixon	4 11% ▲ ▲ 2 ▲ 3 ▲ 4	.	.	.	# 2	
22 Adams		

The window is divided into five columns, one for each skill, in addition to the one with the list of the players.



Group Colors: winning, losing and null effects



Different Colors separate: one color for each effect

The effects for each skill for each player are colored according to the choice made in Tools->General Options->[Analysis](#):

9.5.14 Action details

What the program writes in the Codes List Window in only one column, here appears divided by score.
Each line corresponds to an a rally, from the serve to the end of the rally.
You can filter by team, rotation and/or by set.

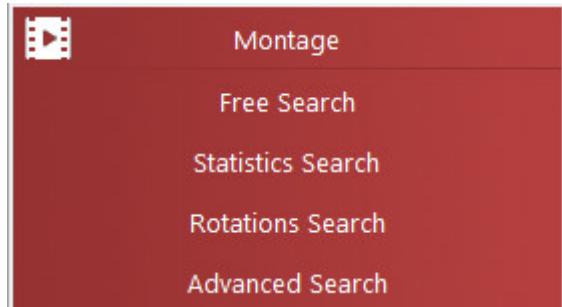
Action detail								
USA Skill detail								
7 : 5	ap07:05	a10SH#	*10RH=					
7 : 6	ap07:06	a10SH-	*10RH+	*12AH-	a15AH-	*08AH-	a15BH+	a12AH#
7 : 7	ap07:07	a10SH-	*02RH#	*01AH#	a\$S&H=			
8 : 7	*p08:07							
8 : 7	*z5	*01SH-	a15RH+	a12AH=	*\$S&H#			
9 : 7	*p09:07	*01SH-	a02RH#	a13AH#	*\$S&H=			
9 : 8	ap09:08							
9 : 8	az5	a13SH-	*08RH#	*02AH#	a16BH=			
10 : 8	*p10:08							
10 : 8	*z4	*08SH-	a10RH#	a16AH#	*\$S&H=			
10 : 9	ap10:09							
10 : 9	az4							
10 : 9	ac12:03							
10 : 9	ac01:14							
10 : 9	aP3							
10 : 9	az1	a03SH-	*08RH+	*02AH#	a16BH=			
11 : 9	*p11:09							
11 : 9	*z3	*12SH-	a15RH#	a16AH#	*\$S&H=			
11 : 10	ap11:10							
11 : 10	az6	a15SH+	*02RH-	a10AH+	*07BH-	a14AH#	*\$S&H=	
11 : 11	ap11:11	a15SH#	*10RH=					
11 : 12	ap11:12	a15SH+	*08RH-	*06AH#	a\$S&H=			
12 : 12	*p12:12							
12 : 12	*z2	*06SH-	a15RH#	a10AH-	*07BH+	*02AH+	*01AH-	a10AH-
13 : 12	*p13:12	*06SH+	a15RH-	a14AH-	*02AH/	a14BH#		

9.6 Rallies



By clicking on the following icon , the software will show you Rallies Menu.

In this section it's possible to search codes, to create a Montage or to analyze and modify some codes as it's just possible by clicking on [\[search\]](#) under the codes list window of a Scout.
it is also possible to produce a search codes without associating a video to a file scout.



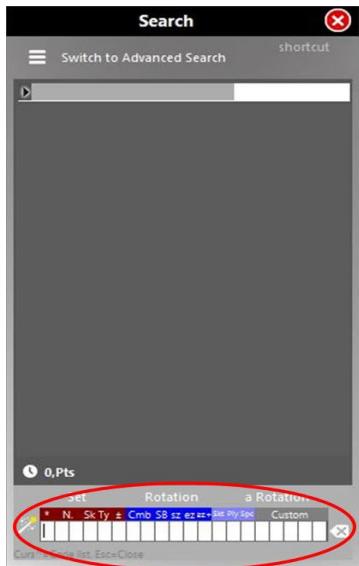
By choosing an item of the menu, the software will open a window of analysis where you have to choose the parameters within which to view the statistics of the match in question.

Choose one of the following option:

- Free Search
- Statistics Search
- Rotations Search
- Advanced Search

9.6.1 Free Search

By Clicking on the option "Free Search", it's possible to select particular sequences of rallies by entering codes into the table positioned at the bottom of the window.

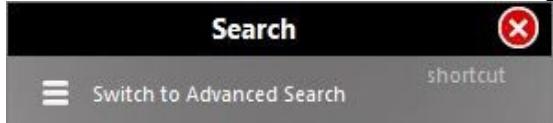


The first position identifies the team that you want to analyze. This is possible because during the scouting phase the two teams were identified by two symbols: "*" home team, "a" away team.

We suggest you click on the [Wizard] button for a better understanding of the other fields. Once you have selected the team and the player, you can choose the technical tactical event, the type of valuation and all characteristics of the code as set in the reference table.

You don't necessary have to fill in all the fields, but only the ones which allow you to filter the required actions. For example, if you want to view all rallies for player number 5 of the home team, you would have to enter *05 and press the Apply button.

To save a Search, Click on the menu in the higher left corner of the window.

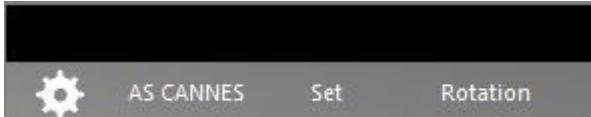


. Click on [Save] from drop-down Menu.

9.6.2 Statistics Search

By Clicking on "Statistics Search" Data Voley 4 will show you the match statistics.

in the higher left corner of the window there are 4 button:



[OPZIONS] you can select or deselect informations to visualize into statistics..

By Clicking on the Team name you can choose to analyze another team.

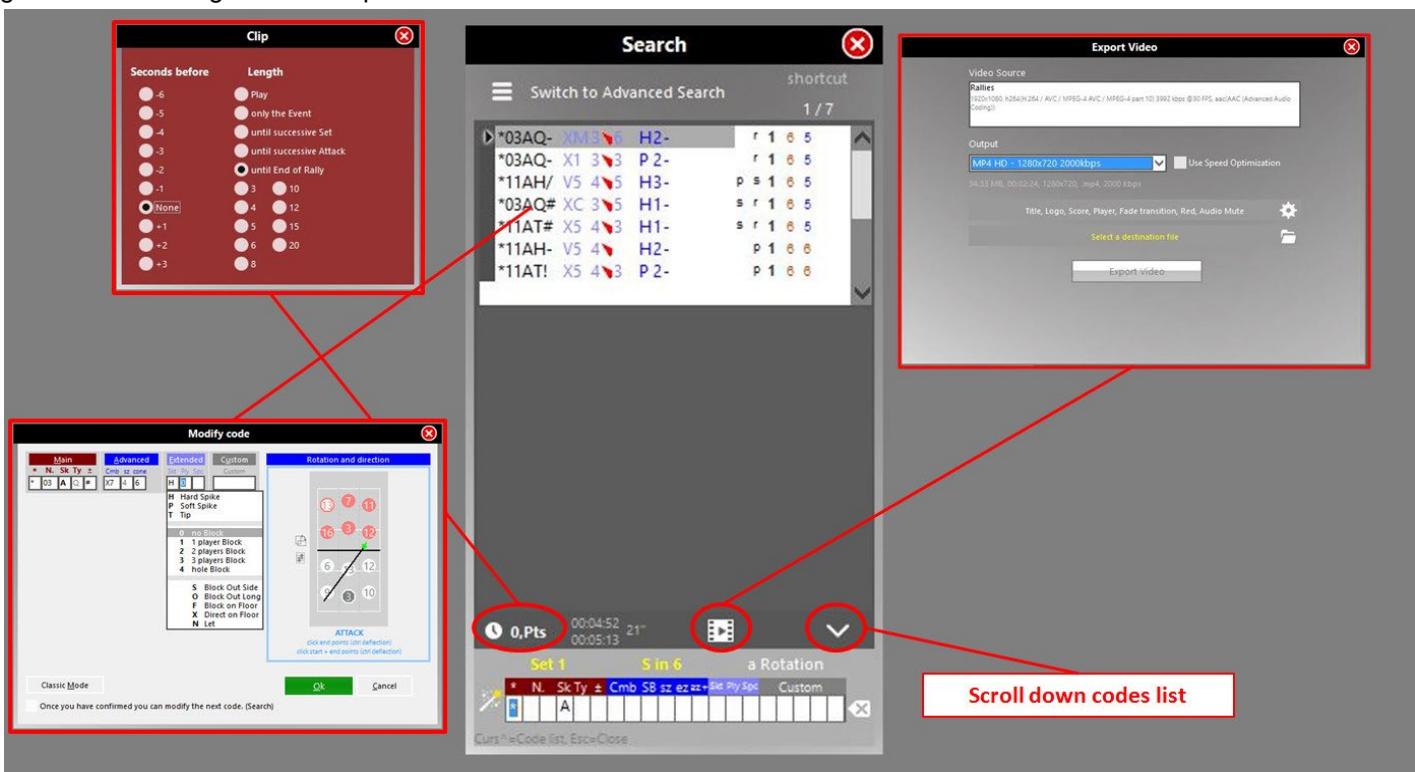
Click on the Button [set] to limit the search for example Set 1, or Set 1,3,4 etc.

The [Rotation] button selects the codes about one or more rotations.

From the statistics window you can select the team you want to display the statistics present in the scout. To perform an analysis click on the action/player or on the number or anywhere in the window according to the actions you want to display. The program will automatically display the codes associated to the actions and they will be displayed in sequence.

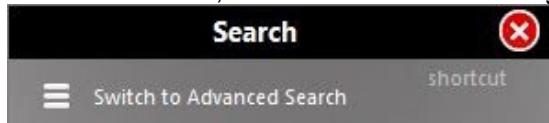
Statistics Search																																																								
	AS CANNES			Set		Rotation																																																		
	SERVE				RECEPTION				ATTACK				BLOCK			DIG			FREE BALL			SET																																		
Team	Tot	=	/	-	!	+	#	Tot	=	/	-	!	+	#	Tot	=	/	-	!	+	#	Tot	!	+	#	Tot	=	-	+																											
2 KNUDSEN	101	10	4	44	10	31	2	73	3	2	20	10	21	17	115	8	11	30	8	8	50	62	19	2	3	10	13	15	66	18	4	7	32	5	6	1	2	3	117	4	2	111														
3 ANTONIJE	1															7		1	3			3	14	4	1	1	1	2	5	5	2	3		1	1		1																			
5 KOVACIC	15	.	1	4	1	5	4	17	7	1	4	5	.	2	.	1	1	6	.	.	6									
7 AGUENIER	14	1	.	4	2	7	8	.	1	2	.	.	5	20	7	.	1	4	6	2	2	1	.	.	1	4	.	.	4												
9 GOMMANS	2	.	.	2	.	.	.	2	1	1	6	.	2	2	.	2	3	1	.	.	2											
11 BASIC	10	1	1	3	1	4	.	22	2	1	5	4	7	3	30	1	3	8	4	3	11	6	2	.	1	1	2	.	5	1	.	2	2	.	1	.	1	.	2	.	.	2														
12 PETKOVIC	15	3	1	3	2	4	2	36	3	3	7	2	1	20	6	.	.	2	2	2	10	3	.	1	3	3
13 PUJOL	17	2	.	9	1	5	.	1	.	1	7	1	1	2	.	.	3	9	3	1	.	2	1	2	14	3	.	11	98	4	2	92												
16 RAGOND	18	2	1	9	1	5	.	33	.	10	5	9	9	.	21	3	2	6	.	4	6	4	2	.	.	.	2	13	3	1	.	7	2	2	.	2	6	.	.	6																

In the search window it is possible to modify "start rally" and "end rally", to modify a code, to scroll down codes list, to generate a Montage and to export a video file.



PLEASE NOTE By double clicking on a Code or Pressing [Enter] you can modify a code. All codes changed will be saved in the Scout.

To save a Search, Click on the menu in the higher left corner of the window.



. Click on **[Save]** from drop-down Menu.

9.6.3 Rotations Search

By Clicking on "Rotations Search" the software will display all rallies divided for Rotation, Side Out/Break Point and rallies won and Lost.

Rotations Search						
FRANCE	Set					
	Side Out			Break Point		
	Tot	Won	Lost	Tot	Won	Lost
Setter in 1	19	11	8	16	6	10
Setter in 6	19	12	7	21	8	13
Setter in 5	21	12	9	16	4	12
Setter in 4	22	11	11	16	4	12
Setter in 3	15	10	5	17	7	10
Setter in 2	12	10	2	13	3	10

Select on the top of the window the team and, if you want, the set to analyze.
Click on Stats to start a search, the software will select automatically the rallies of interest.

Search X

Switch to Advanced Search shortcut

1 / 19

*02RQ+	1 1:1 6 6
*02RQ-	1 1:2 6 6
*02RQ#	1 1:3 6 6
*02RQ-	1 1:4 6 6
*16RQ-	1 9:12 6 6
*09RQ#	2 0:1 6 1
*05RQ-	2 13:8 6 1
*05RQ!	2 13:9 6 1
*05RQ-	2 13:10 6 1
*\$S&H#	2 13:11 6 1
*09RM+	2 21:21 6 1
*02RQ#	3 0:0 6 1
*09RQ!	3 9:6 6 1
*02RQ!	3 16:16 6 1
*09RQ#	3 24:25 6 1
*11RQ!	4 0:1 6 1
*09RQ-	4 14:9 6 1
*09RQ-	4 24:25 6 1
*02RQ!	4 31:32 6 1

0, Pts 00:03:22 19° ▼

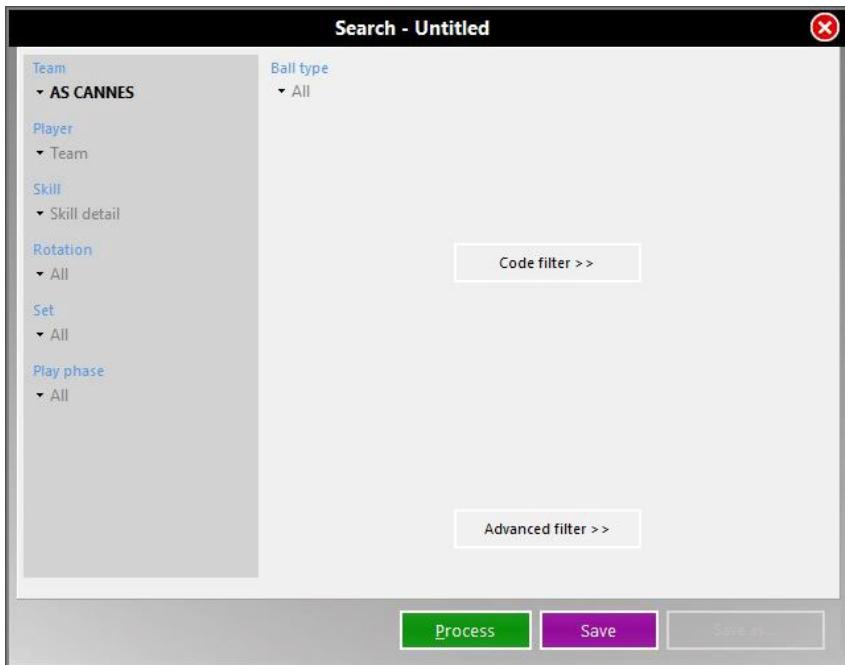
Set Rotation a Rotation Custom

* N. SkTy ± Cmb Sz sz ez++ Blk Ply Spd Custom

Esc Close

9.6.4 Advanced Search

By Clicking on **[Advanced Search]** the Software will open a search window with filters totally customizable.



It's possible to apply different filter rules to have a specific codes search. Data Volley 4 works in this window, following the same regulations of the other analysis. Use Code Filter and Advanced Filter to customize your search.

See section [7.5 Analysis](#)

To save a Search, Click on the menu in the higher left corner of the window.



. Click on **[Save]** from drop-down Menu.

9.6.5 Montage

The Montage allows you to create a queue of analysis to export in one video file.



The Montage window displays: On the left side buttons to manage Montages and the list of montages already saved. In the middle of the window you can find the analysis contained in the montage selected, on the right side all tools to add analysis in the montage or to manage them and the button to switch to the Timeline.

Montage

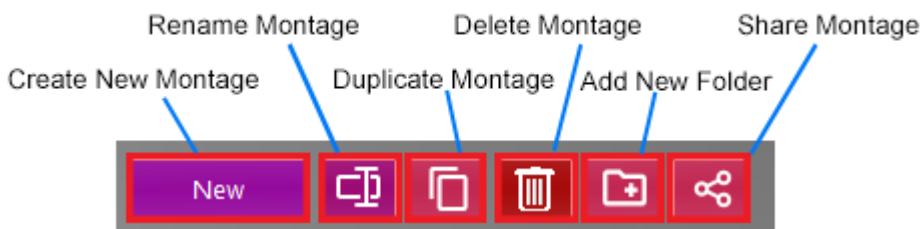
The screenshot shows the Data Volley 4 software interface for managing montages. At the top, there's a toolbar with icons for New, Copy, Paste, Delete, Add, and Share. Below the toolbar is a sidebar containing a 'Sample Folder' with various items like 'Ace Home', 'Attack after Rec. Alma Valley', etc. The main area displays a table of processes:

Process	Ply	S in	Set	
R1	\$\$	1	0	-3,Pts
R6	\$\$	6	0	-3,Pts
R5	\$\$	5	0	-3,Pts
R4	\$\$	4	0	-3,Pts
R3	\$\$	3	0	-3,Pts
R2	\$\$	2	0	-3,Pts

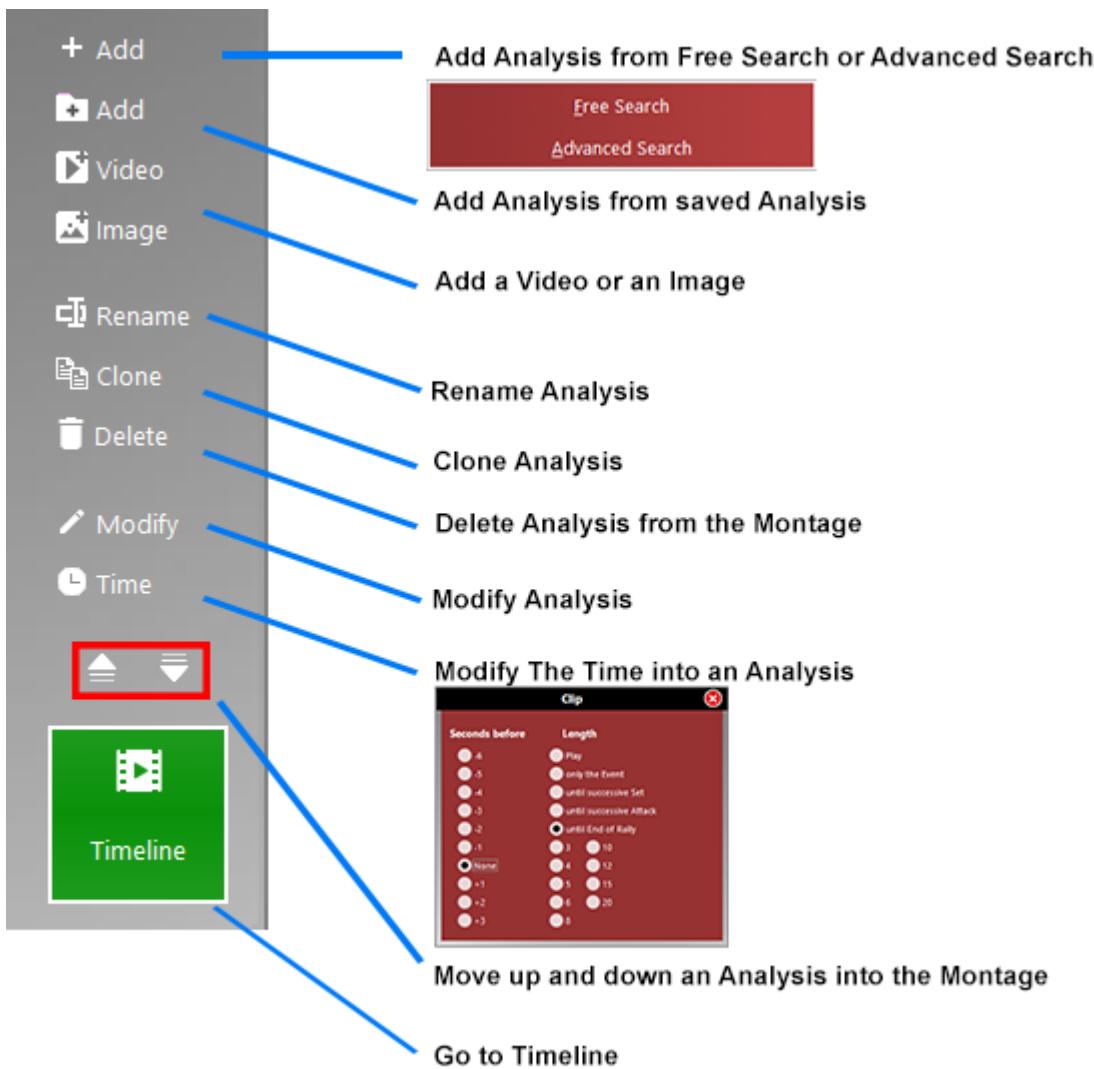
To the right of the table is a vertical toolbar with options: Add, Video, Image, Rename, Clone, Delete, Modify, Time, and Timeline. A green 'Timeline' button is highlighted. At the bottom left, there's a link to 'Import montage from Data Video'.

9.6.5.1 Manage Montages

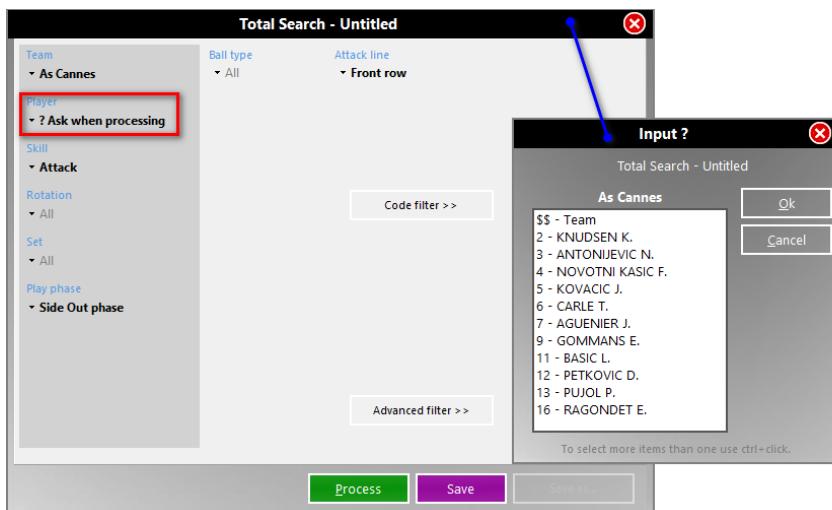
Data Volley 4 allows you to manage Montages by using buttons placed in the top left corner of the window. It's also possible to drag a montage already created into a new folder or organize all montages by using the "drag and drop" tool.



9.6.5.2 Manage Analysis into a Montage



Changes applied to Montage search settings are not applied to saved Analysis and the other way around.
Add Analysis from Free Search and Advanced Search allows to create Analysis to add to the Montage. Analysis created into this window will be not added to the list of Analysis already saved.
Add Analysis from saved Analysis is a tool to speed up the Montage creation. It allows to add analysis from those saved and available in the list. It is also very useful to add the filter "Ask when processing" (ex. If the search is related to a player), when creating an Analysis by using Advanced Search. In this way the software will ask you to specify the player when you'll switch to the Timeline. (see the picture below)



Add Video or an Image it's a tool to add a video file or a picture to the Montage.

Rename Analysis allows to modify the name of an Analysis into the Montage.

Clone Analysis allows to duplicate an Analysis contained into the Montage.

Delete Analysis from the Montage use this tool to delete an Analysis from those contained into the Montage.

Modify Analysis allows you to customize an Analysis.

Time allows to customize the duration of clips related to an Analysis.

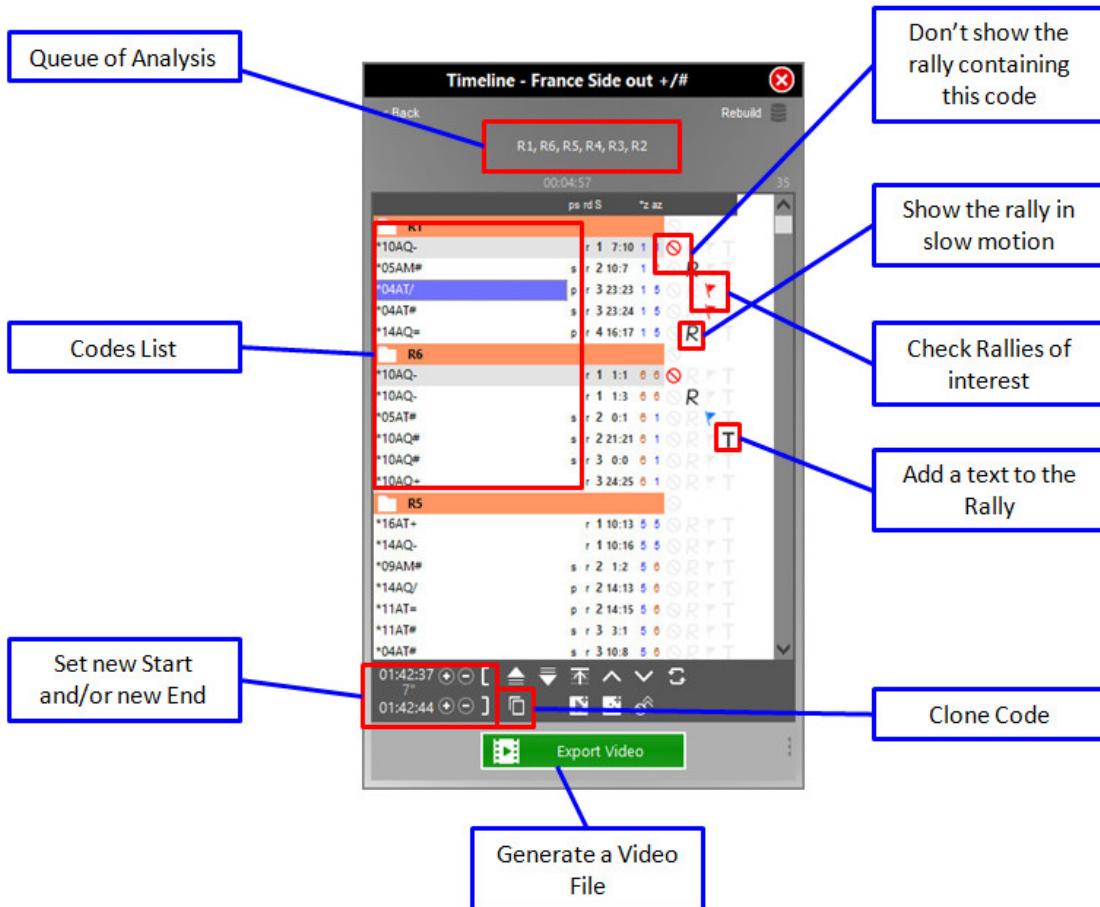
Move up and down an Analysis into the Montage use the arrows to move te selected analysis into the list.

click on **[Timeline]** to customize and export the montage.

9.6.5.3 Timeline

At this point, the Software will display the Timeline window, with which you can further define montage and viewing criteria.

In the Timeline window, you can see all the Analysis applied in orange colour, and all filtered codes listed by criteria used in your montage.



Click on "Queue of Analysis" to deselect an Analysis .

The Software will show all the analysis and the correlated codes.

In the lower left, you can Modify start and end time assigned to each code .

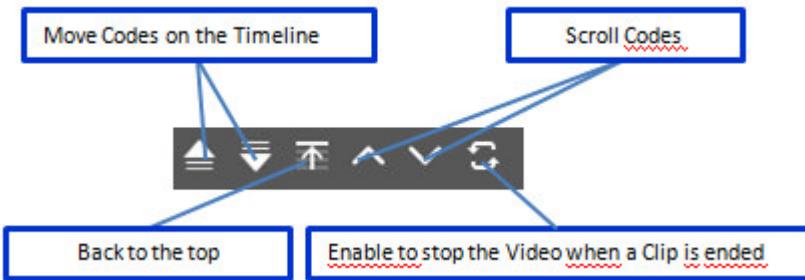
It's possible to clone a code to show the rally one more time.

For each code you can:

- to Select/Deselect the visualization of a code.
- To Show rallies in "slow motion".
- To Check rallies of interest.
- To Add a text to a rally.

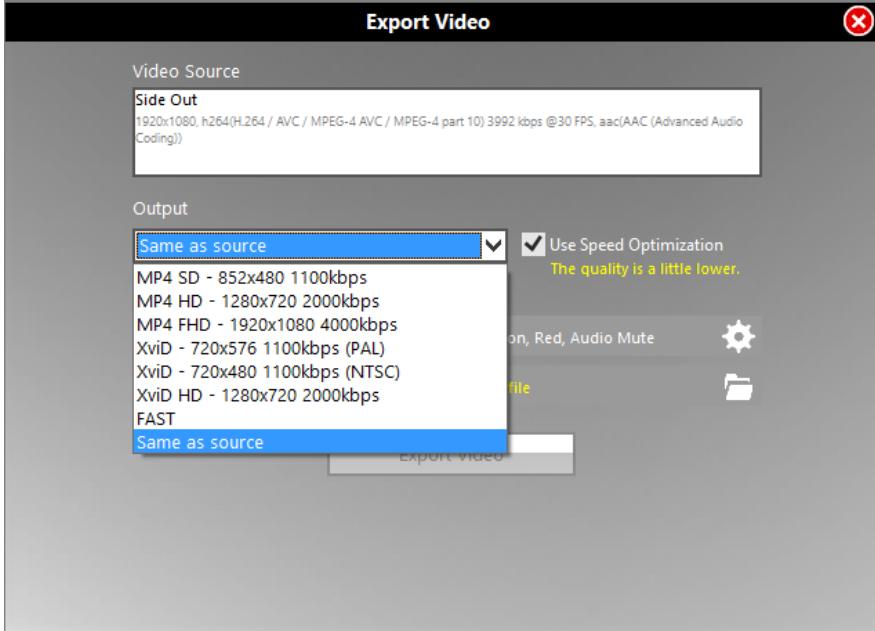
you can move a code up or down on the timeline to modify the sequence of the rallies by clicking on the arrow keys, in the lower right of the window, .

Use the other keys to scroll up or down the codes. (See next picture)



To Create a file Video from the timeline, click on **[Export Video]**.

Select the Output format and the Destination file into the following window.



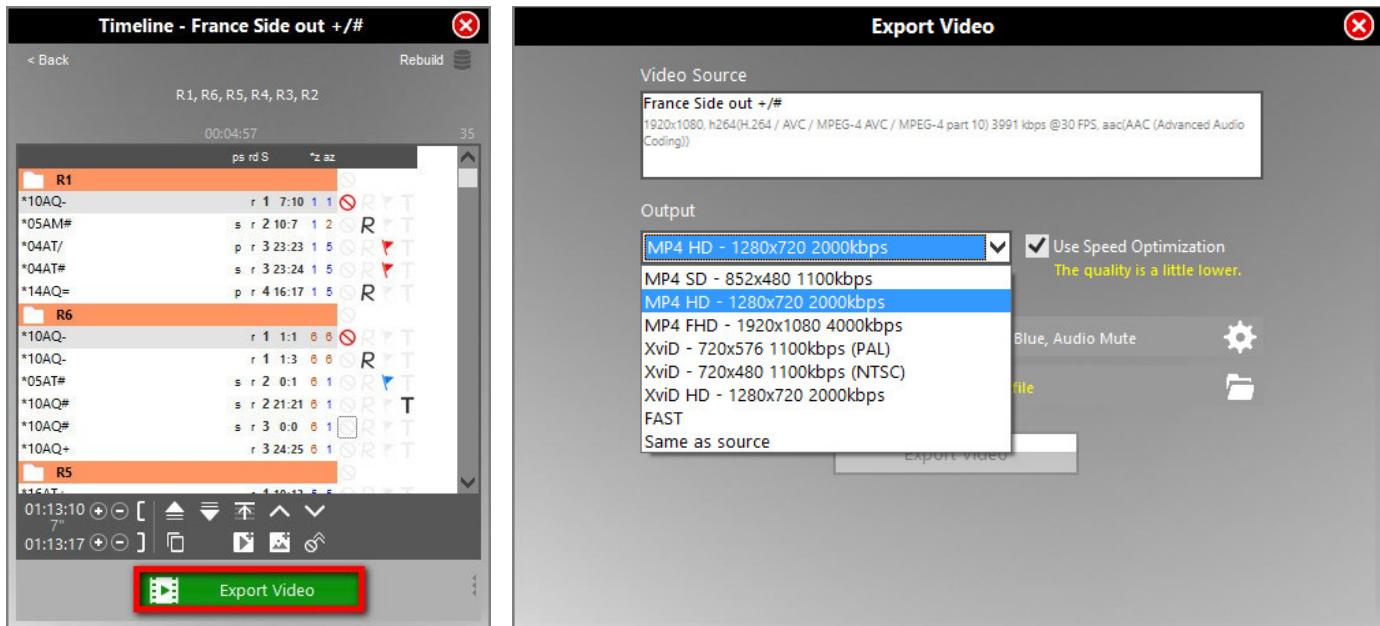
Click on **[Export]**

PLEASE NOTE "FAST" mode allows you to generate a video file in few time, if it's available. The Logo will be showed only on title. Player and Score stamp will be ignored. you cannot show slow motion and Text.
"Same as source" creates a Video file by using the same standards of the source files .

[9.6.5.2 Create a Synthesis](#)

The Software allows you to export a montage as a simple video file or to generate a Synthesis.

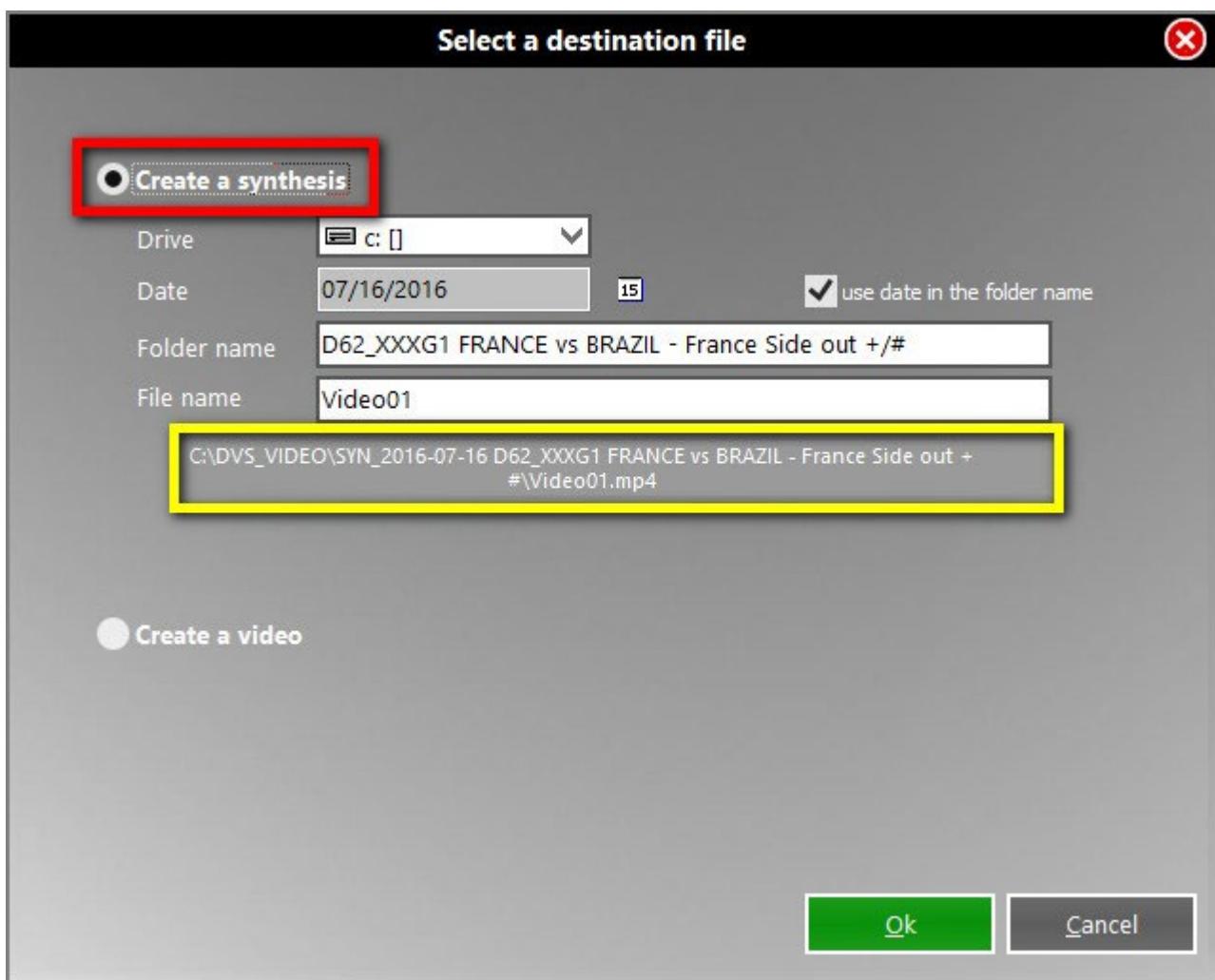
Click on Export Video in the Timeline window and select the output.



Select the destination file by clicking on the folder icon



DataVolley 4 will display a new window in which you can select to create a Synthesis or a video file.



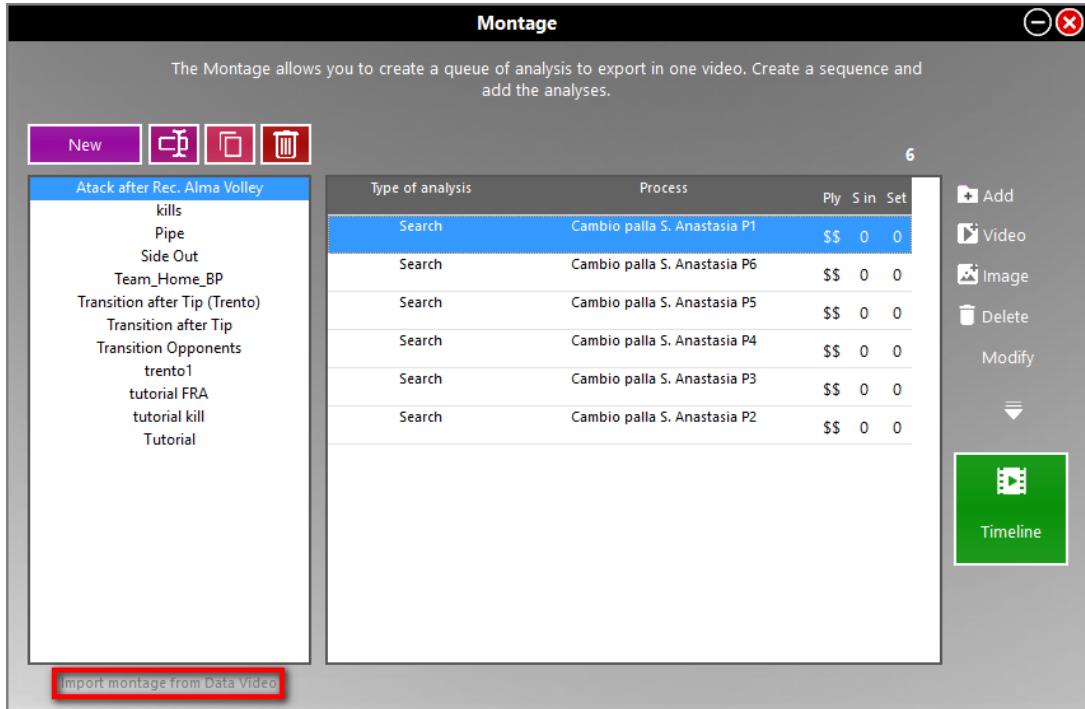
The Software will automatically purpose to create a SYN file, this operation will create a folder folder contained a socut file and the video, to the path in the yellow box.

PLEASE NOTE The SYN folders will be archived into the DVS_VIDEO folder in the selected drive. It will be a simple

procedure to search a synthesis to share it.

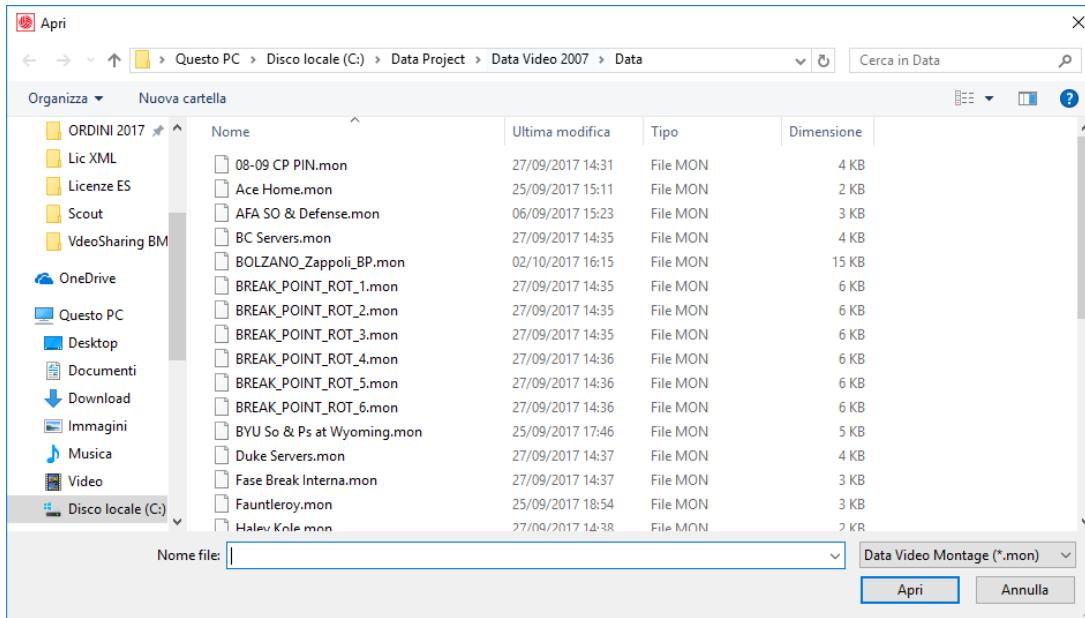
9.6.5.3 Import a Montage from Data Video

The Software allow you to import a Montage file from Data Video 2007.



Click on Import Montage from Data Video, in the lower part of the window.

Click on Browse, then select the .mon file to import in Data Volley 4.



The Software will import the Montage and the Analysis contained.

9.7 Printings

9.7.1 Report

Through this entry it is possible to display and print the report of the match, an overview giving all fundamental statistical informations of the match for each team, subdivided by player. By selecting this entry from the general analysis menu, the program will display a window, in which you can chose to print the report of the entire match or the report of one or more sets in your preferred language

The program will display the print preview window where you can:

- directly print through the default printer
- save the report as a pdf document
- save the report as a jpeg file
- save the report as HTML file



Vote
Originates from a global average that considers the values on the single skills (if sufficient numbers of skills are performed). For the setter you have to consider, apart from the evaluation for the serve and the block, the positive attack percentage on a positive reception.

Opponents
Report
Mediolanum Forum

Date	10/12/2014	Receipts	Hall
Time	20.30.00		
City	Milano		
Referees	PASQUALI Fabrizio (ITA) - RODRIGUEZ Susana (ESP)		

Points and stats per Set
You can value the way the points are assigned and compare the team stats in the different sets.
PLEASE NOTE The Value "Opponents Error" is derived from the following Formula: Total score -(minus) Serve points - Attack points - Block Points.

Team totals	76	28	+43	95	4
Points won:	Ser	Att	Blo	Op Err	
Set 1	1	15	3	6	26
Set 2	1	15	1	3	20
Set 3	1	15	3	6	25
Set 4	3	16	2	3	24

Reception
It is considered perfect (Exc%) when it allows the setter to perform any type of attack. A positive reception (Pos%) is when it allows the setter to set the ball in the first line but with difficulty (within the three meter line but it is not perfect).

1st Attack after negative reception
You can value the attack ability of the team on a obligated high ball (attack stats on negative reception without a first line possibility).

Transition
You can value the ability to get a break point after a dig

Points per rotation
Team rotations are identified by the position of the setter. This section indicates the positive or negative value on the score of

USA	Set 1	Set 2	Set 3	Set 4	Set 5	Set 6	Set 7	Set 8	Set 9	Set 10	Set 11	Set 12	Set 13	Set 14
1	Glass Alisha	4	3	1	6									
2	Banwarth Kayla	—	—	—	—									
3	Thompson Courtney	—	—	—	—	1	1	+	11	1	1	1	1	1
10	Larson - Burbach J.	5	4	2	1	*	*	6	4	-4	16	1	2	1
12	Murphy Kelly	1	5	1	5	*	*	12	1	1	25	1	1	1
13	Dietzen Christa H.	6	5	1	5	*	*	16	2	3	1	1	1	1
14	Fawcett Nicole	—	—	—	—									

China

Points S in Diff	Receptions	88
Points SO	48	
6 +13	Each 1.83 Reception	1 Point
5 -5		
4 -9		
3 +3		
2 -4	Each 3.39 Serve	1 BreakPoint
1 -3	1	

KILL ON RECEPTION

1st ATTACK AFTER POSITIVE RECEPTION (+#)							
Errors	Blo	Pts%	Tot	Err	Pts%	Blo	Errors
0	4	54%	52	53	45%	3	3

ATTACK ON DIG

1st ATTACK AFTER NEGATIVE RECEPTION (-#)							
Errors	Blo	Pts%	Tot	Err	Pts%	Blo	Errors
1	2	41%	22	25	40%	1	3

USA

BP	Breakpoint	Pts	Points
Err	Error	Blo	Blocked
Pos%	Positive #	Exc	Excellent
W-L	Won - Lost	In	Starting Setter
Starting line-up			
Substitute			
6 +3			
5 +7			
4 -3			
3 -3			
2 -2			
1 -9			

Software:
Data Project S.r.l.
www.dataproject.com

9.7.1.1 Calculation of grade in the report

$$\text{Grade of serve} = [(= \times 0) + (- \times 4) + (+ \times 7) + (/ \times 8) + (\# \times 10)] / \text{total of serves}$$

If the grade is lower than 5.5, it is rounded to 5.5
 You get a grade in Serve only if you performed at least 5% of the serves performed by the team

Grade of reception = [(“=” x -3) + (“/” x -3) + (“-” x -1) + (“+” x 7) + (“#” x 10)] / totale Ricezioni

If the grade is lower than 5.5, it is rounded to 5.5

You get a grade in Reception only if you performed at least 12% of the receptions performed by the team.

Grade of attack = [(“=” x 0) + (“/” x 0) + (“-” x 5) + (“+” x 5) + (“#” x 10)] / totale Attacchi

If the grade is lower than 5.5, it is rounded to 5.5

You get a grade in Attack only if you performed at least 7% of the attacks performed by the team.

Grade of block

If the number of # blocks is higher or equal to (number of played set x 1) → grade = 8.5

If the number of # blocks is higher or equal to (numero di set giocati x 0.8) → grade = 8

If the number of # blocks is higher or equal to (numero di set giocati x 0.5) → grade = 7

Regarding the setter, the program considers also the attacks after positive reception (+ #) performed by the team when he is on the court.

Grade of attack after positive reception

= [(“=” x 0) + (“/” x 0) + (“-” x 5) + (“+” x 5) + (“#” x 10)] / total of attacks after positive reception.

You get a grade for those attacks only if their number is higher than the 30% of the number of attacks performed by the team.

FINAL GRADE = sum of grades / number of grades

9.7.2 FIVB P2

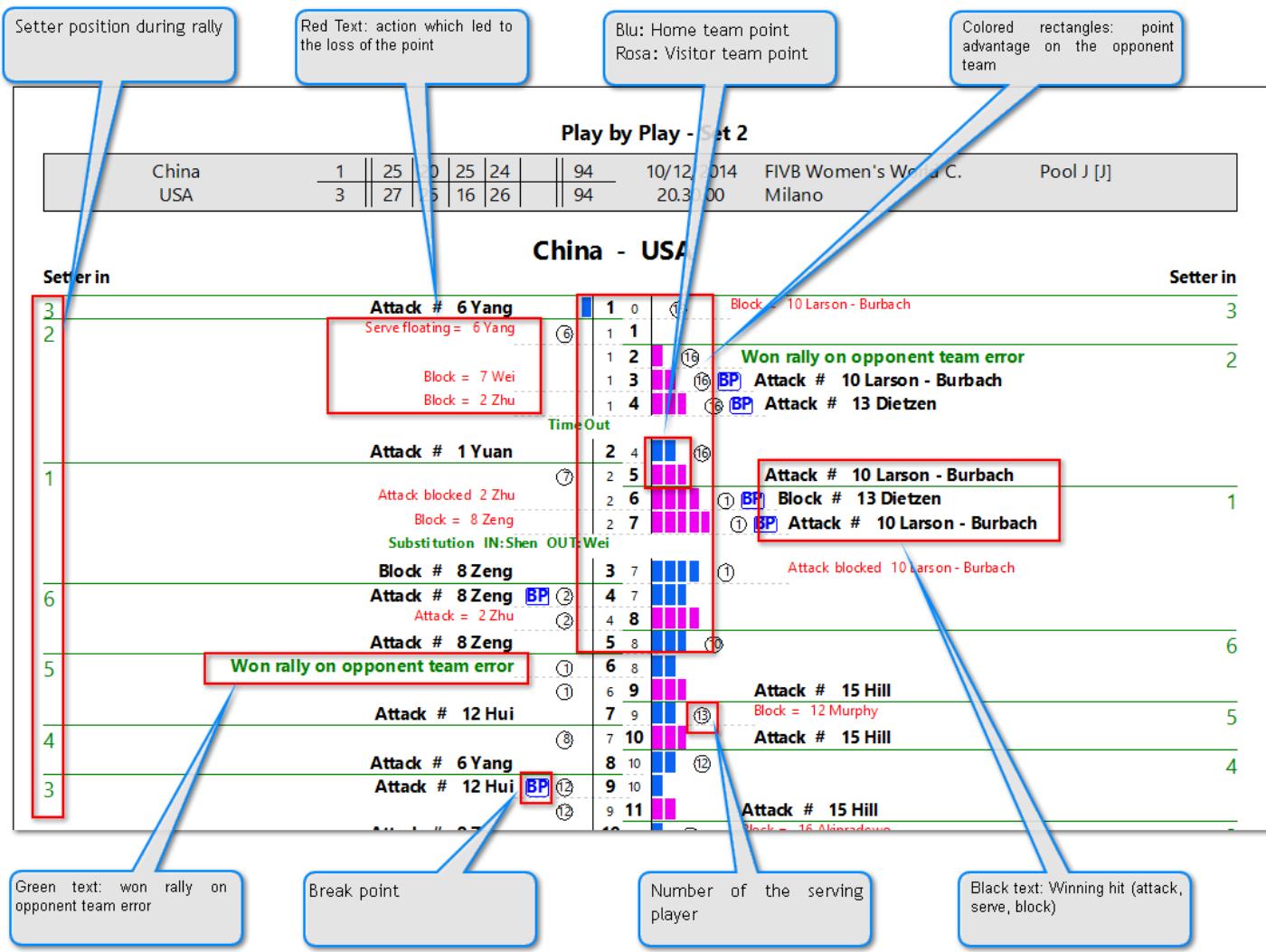
Through this entry it is possible to display and print the report of the match. This Format gives you the possibility to print Teams and Top Scorers selected by Scoring Skills. By selecting this entry from the general analysis menu, the program will display a window, in which you can chose to print the report of the entire match or the report of one or more sets.

FIVB VOLLEYBALL - Match result											
Norcea 2013 Pool B											
Match: Date: 24.09.2013 Spectators: 111											
City: DOMINICAN REPUBLIC											
Referee: JOHN SPRAW											
Match duration: Start: Total: 1:11 Set duration: 0:26 0:26 0:21											
U.S.A. United States of America DOM DOMINICAN REPUBLIC											
1. ANDERSON MATTHEW ■■■■■ 11					2. CAMPOSANDO KELVIN ■■■■■ 3						
3. CALDWELL KYLE ■■■■■ 10					4. HERNANDEZ WILFRIDO ■■■■■ 7						
5. LEE DAVID ■■■■■ 15					6. CASTILLO JOSE ■■■■■ 1						
7. PRODY WILLIAM ■■■■■ 17					8. CONTRERAS VILLAS ■■■■■ 1						
9. TROY MURPHY ■■■■■ 5					10. FRIAS MARIO ■■■■■ 3						
11. CHRISTENSEN MICAH ■■■■■ 11					12. CACERES JOSE ■■■■■ 1						
13. MENZEL JEFFREY ■■■■■ 4					14. TAPIA HENRY ■■■■■ 11						
15. CLARK CARSON ■■■■■ 8					16. SEGOVIA TON ■■■■■ 11						
17. HOLTMAN WILL ■■■■■ 17					18. TAPIA HENRY ■■■■■ 11						
19. CHRISTENSEN MICAH ■■■■■ 11					20. CAMPOSANDO KELVIN ■■■■■ 3						
21. TAUANA VAAPUTI ■■■■■ 7					22. HERNANDEZ WILFRIDO ■■■■■ 4						
22. L GROVER ■■■■■ 1					23. CONTRERAS VILLAS ■■■■■ 1						
Coach: John Spraw Assistant: Hart Fuerbringer					Coach: OSEL VASQUEZ Assistant: YONASTON FABIAN						
TEAMS AND PLAYERS PERFORMANCES											
Won Pts Total Atk			Nb Name			Scoring Skills			Won Pts Total Atk		
40 76 Total Team			8 PRODY WILLIAM			Spike			27 72 Total Team		
21 27 Total Team			9 CHRISTENSEN MICAH			11 27 Total Team			15 TAPIA HENRY		
3 15 Total Team			10 HOLTMAN WILL			12 17 Total Team			16 CONTRERAS VILLAS		
8 16 Total Team			11 CHRISTENSEN MICAH			13 17 Total Team			17 CAMPOSANDO KELVIN		
12 29 Total Team			12 TAUANA VAAPUTI			14 20 Total Team			18 HERNANDEZ WILFRIDO		
1 17 Total Team			13 CLARK CARSON			15 22 Total Team			19 TAPIA HENRY		
3 11 Total Team			14 PRODY WILLIAM			16 23 Total Team			20 SEGOVIA TON		
9 73 Total Team			15 ANDERSON MATTHEW			17 24 Total Team			21 TAPIA HENRY		
14 17 Total Team			16 TAUANA VAAPUTI			18 25 Total Team			22 HERNANDEZ WILFRIDO		
75 173 Total Team			17 CHRISTENSEN MICAH			19 26 Total Team			23 CONTRERAS VILLAS		
15 40 8 PRODY WILLIAM			18 CLARK CARSON			20 27 Total Team			24 TAPIA HENRY		
Starting line-up			Points scored			Captain			Opponent		
Substitute			Attempts			Libero					
Opp = Opponent											
MIKASA Gerflor MIKASA Gerflor MIKASA											

9.7.3 Play by Play

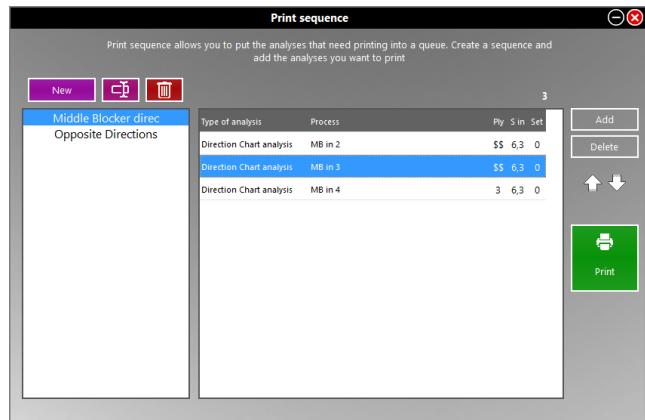
Through this entry it is possible to check the trend of a set or the entire match, play by play. By selecting this entry a window with a drop down menu will appear.

The play by play analysis displays the trend of the match rally after rally.



9.7.4 Print sequence

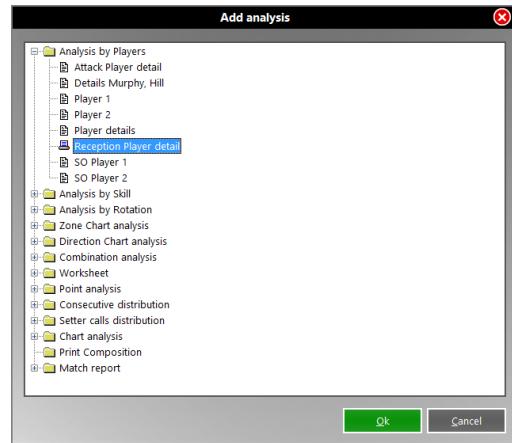
The Print sequence entry allow to create a list of analysis (sequence) to be printed according to the selected order.



It is possible to add, delete and rename the sequences shown in the left column of the window.

For each sequence it is possible to add, remove or move up and down the different analysis through the related buttons.

To insert an analysis into a sequence it is necessary that the analysis has been previously saved.

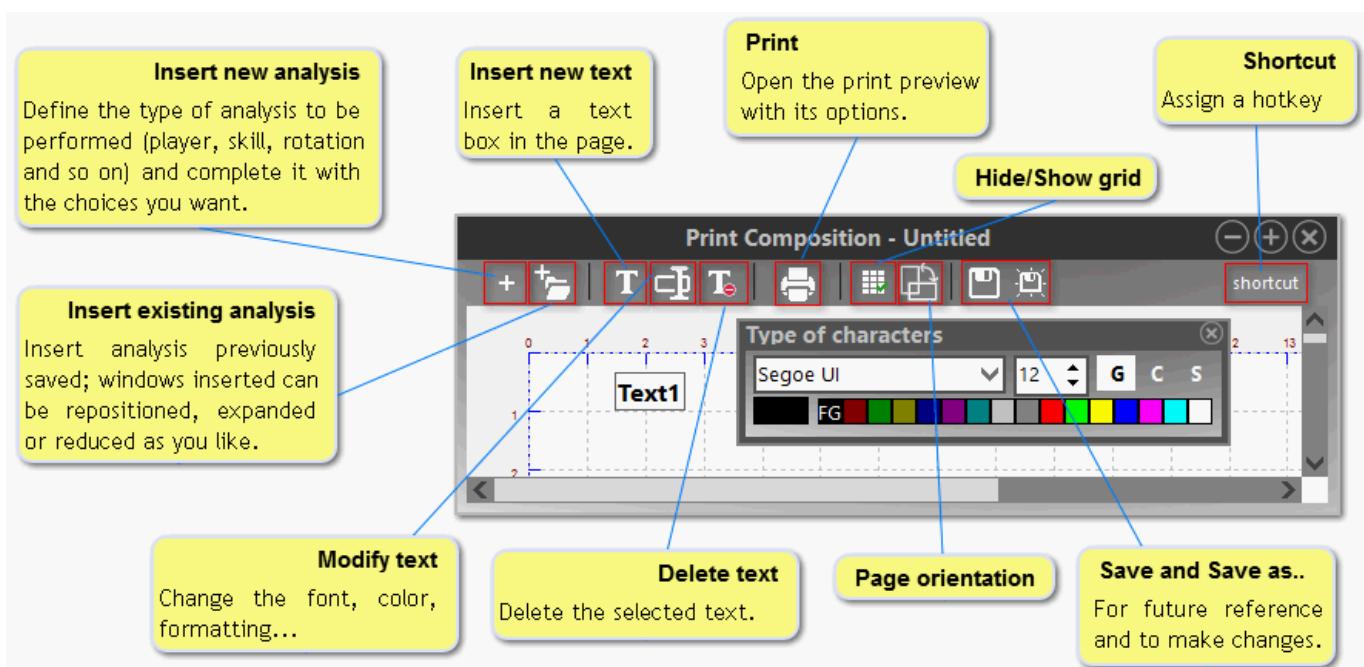


The addition of an analysis into a sequence can be done by selecting it from the following window.

After inserting all the analysis, press [Print].

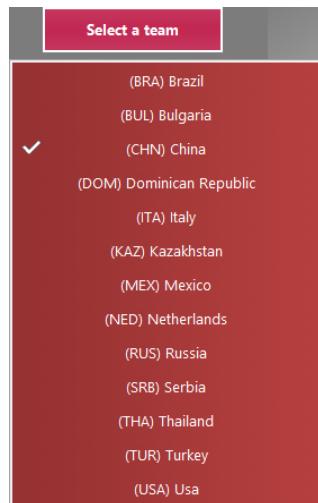
9.7.5 Print Composition

It allows to create a printed sheet including different types of analysis, according to the desired sequence and layout. By selecting this entry the program will propose an empty page bordered with the measures of the printing sheet in which it will be possible to insert, through the related buttons, the analysis you want to be printed. You can open several print compositions, now even during scouting.



10 Historical Analysis

You can analyze more than one match played by the same team directly from the main page.



By clicking [Select a team] you will see a drop-down menu with all the team belonging to the active season.

After selecting the team, Data Volley will filter all the matches of the season, displaying only those played by the selected team.

Select all the matches you want to analyze, then click [Analysis]. The number on the bottom right shows the number of selected matches.

The Software allows you to invert the chronologic match order displayed by clicking on the button

Click on the Button to customize the match order to Analyze.

It's possible to move up or down a match into the list of matches selected in order to process Stats and Video Analysis order by your custom selection.

The main bar of the application shows the infos regarding the selected matches.

Now you can use the analysis and print menu for the historical analysis. By clicking on the highlighted section you can still change the number of matches you want to analyze or customize the matches order.

Total Analysis				
				Apply
<input checked="" type="checkbox"/>	02/26/2017 18.00.00	Diatec Trentino	3 - 0	Gi Group Monza
<input checked="" type="checkbox"/>	01/29/2017 17.30.00	Diatec Trentino	1 - 3	Cucine Lube Civitanova
<input checked="" type="checkbox"/>	01/15/2017 18.00.00	Diatec Trentino	0 - 3	Sir Safety Conad P
				2017 Regular Season, Ritorno
				2017 Coppa Italia, Finale 1° - 2° posto
				2017 Regular Season, Ritorno

10.1 Opponents Stats Analysis

The Software allows you to analyze The team selected or to process a Video or Stats Analysis related to the Opponent Teams.

This tool is very helpful to have a complete and detailed Team Analysis: For example it's possible to process Analysis in order to display the Opponents attack direction related to a specific rotation of the Team selected.

PLEASE NOTE By selecting Opponents it's not possible to display an Analysis by Player or Player detail, the software will always display a Team Total Analysis.

11 Synthesis

The Synthesis is created from a montage of one or more matches, by using one or more video analysis selected. It allows you to have a fast and smart analysis.

11.1 Synthesis Archive

It's possible to open the Synthesis Archive by clicking on the button in the home.

Matches Synthesis

It is possible to filter files by team or competition.

11.2 Synthesis Menu

Selected Synthesis and Analysis 1

Select analysis to display 2

Code List 3

In this window you can select analysis to display. You can select rallies to display or analyze by scrolling or selecting codes from the list.

11.3 Share a Synthesis

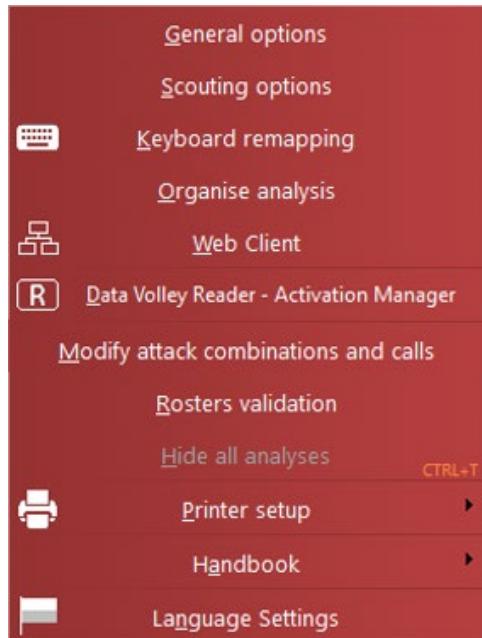
You can share a synthesis with another Data Volley 4 user by copying the SYN folder from your Dvs_Video folder.

PLEASE NOTE It's mandatory to paste the SYN folder in the Dvs_Video folder in order to find it in the synthesis archive. If on the other PC there's no Dvs_Video folder, choose a drive and create it manually.

To Share Synthesis with a Player App user [click here](#).

12 Tools

The Tools menu allows you to best organize all program options



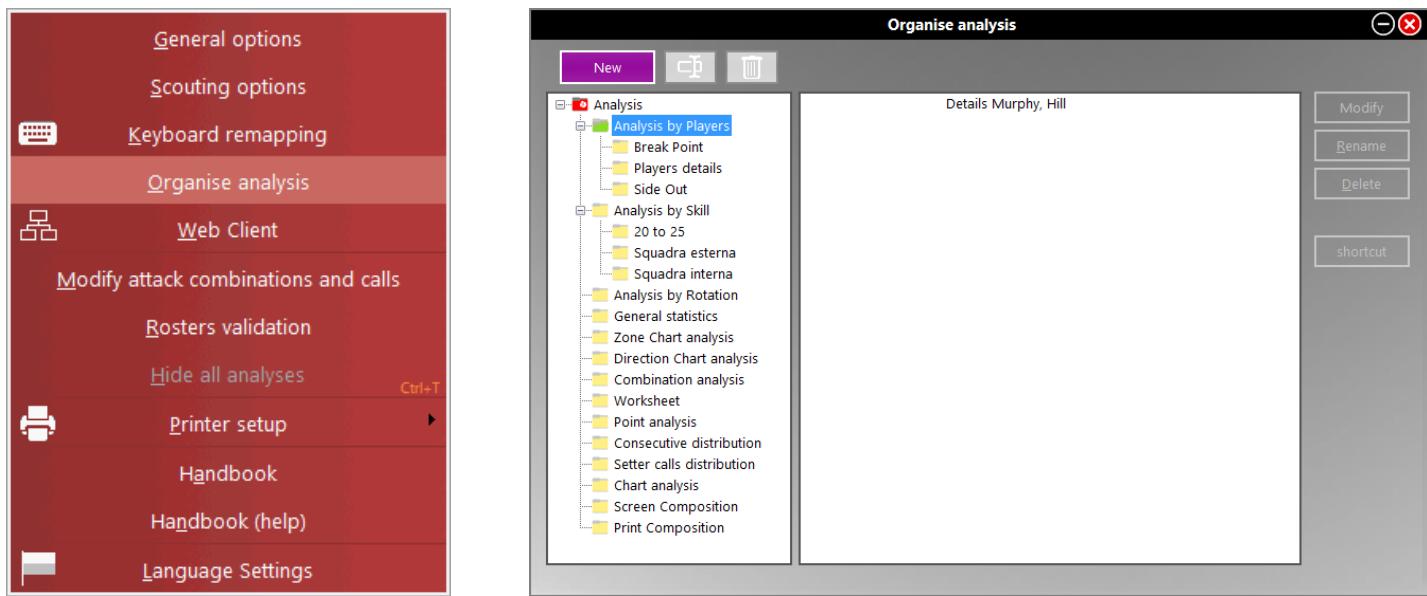
[General Options](#), [Scouting Options](#) and [Keyboard Remapping](#) have already been discussed in the [Introduction to the first use](#). [Web Client](#) and [Data Volley Reader](#) are treated in a separate chapter.

Let us see now the following topics:

- [Organize analysis](#)
- [Modify attack combinations and calls](#)
- [Rosters validation](#)
- [Hide all analysis](#)
- [Printer Setup](#)
- [Handbook](#)
- [Language Settings](#)

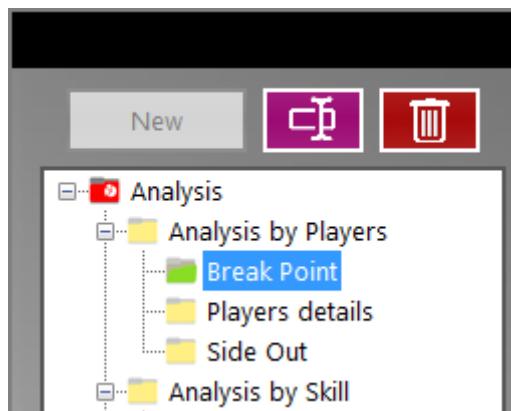
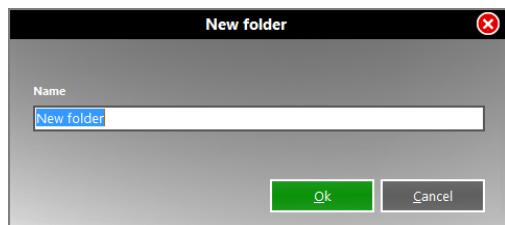
12.1 Organise analysis

By clicking on organise analysis, you can view saved analyzes and make, if necessary, any changes. The window that opens shows on the left all the types of analysis provided by Data Volley. By selecting one of these macro-categories of analysis, other eventual sub-folders will appear, and, on the right, the program will show analysis saved by the user related to that category or sub-folder.



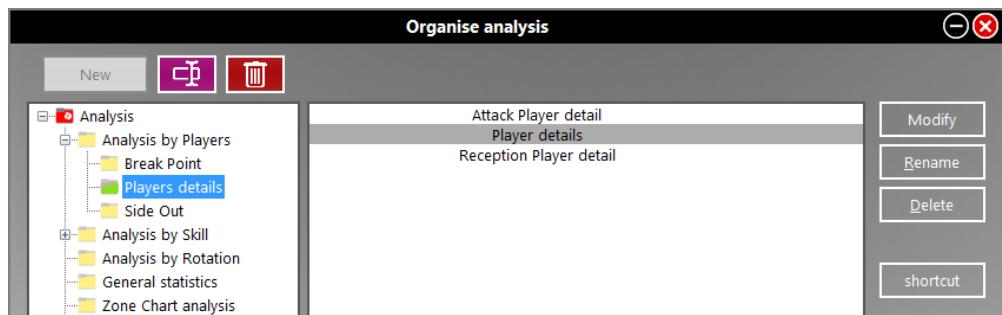
By clicking [New] it is possible to add sub-folders to each category of analysis.

Selecting a sub-folder, it is possible to rename or delete it, by clicking the related buttons.



The folders you create remain stored only if there is at least one analysis.

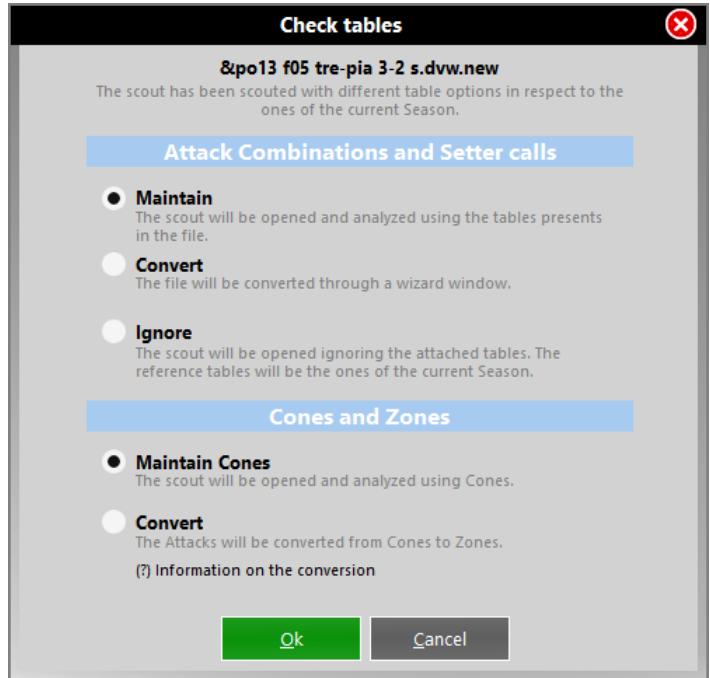
Selecting one of the analysis stored in a category or sub-folders, you can edit, rename, remove it or assign a keyboard shortcut using the buttons on the right of the window.



Please note: it is not possible to create folders and categories with the same name.

12.2 Modify attack combinations and calls

Data Volley can make analysis also on data from scouting made by other operators, if made in Data Volley format. The tables of attack combinations, setter calls etc.. may be different. Therefore when Data Volley opens the file, allows you to adapt it to the tables of the current Season, and it automatically verifies it, opening a new window where you can:

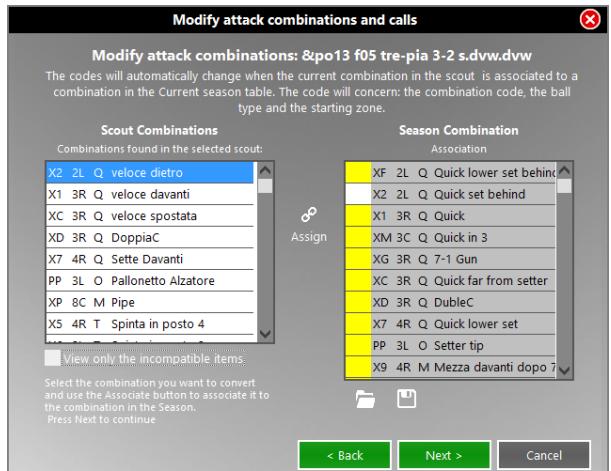


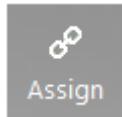
By choosing **Keep**, the program asks you to choose how to handle the direction of attack (cones or zones).

By choosing **Convert** or selecting Tools→Modify attack combinations and calls, the following window, in which you can choose or confirm the file to convert, will appear:

Then, another windows will open. On its left it will show the combinations of the file, on its right the combinations of the season. Data Volley automatically associates identical codes. The codes which can not be automatically associated, have to be modified manually:

- Select the combination in the left table (the one attached to the file to be converted)
- Select the corresponding one in your own table (the one on the right)
- You can associate multiple combinations using "," as separator. When you associate, if you have already assigned a combination, it adds another (example: **PX, P5**).





confirm association



cancel association

We suggest to save this conversion structure, so you can use it again the next time you will receive another file from the same scoutman.



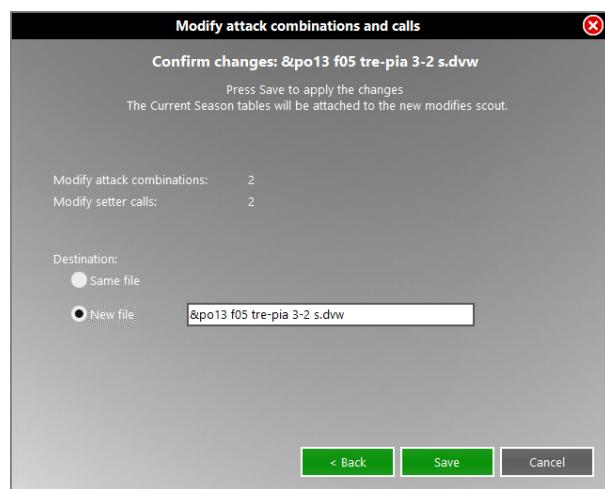
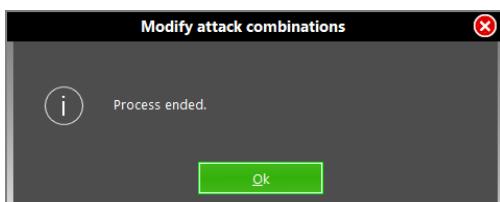
save association to the default combination folder



load a previously saved association

- By clicking **[Next]** you will proceed with the same association/conversion mode to setter calls.
- At the end, you can modify or overwrite the file in question or create a new file, leaving intact the original file.

A pop up message appears when the conversion is complete.



By the same principle (control and conversion), if the file was detected with a different way of coding of the trajectories of the hits (zones or cones), it will be possible to convert it according to your personal system.

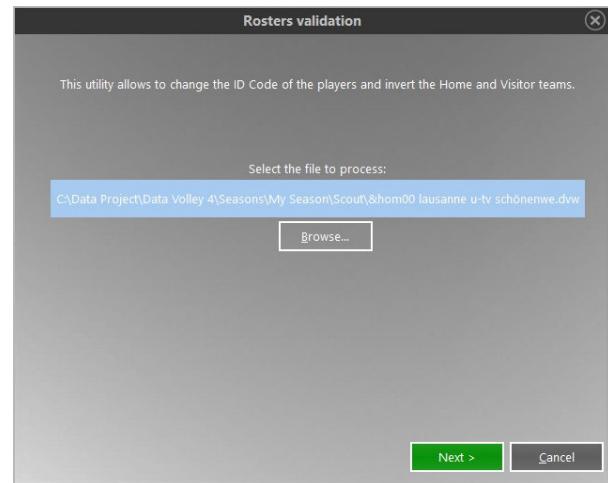
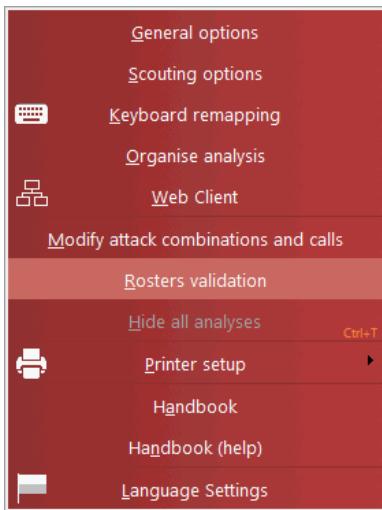
12.3 Rosters Validation

The function of the rosters validation function is used to check the accuracy of the players on the scoresheet. This is useful when a player is manually put on the scoresheet or when you request the scouting file to the opposing team.

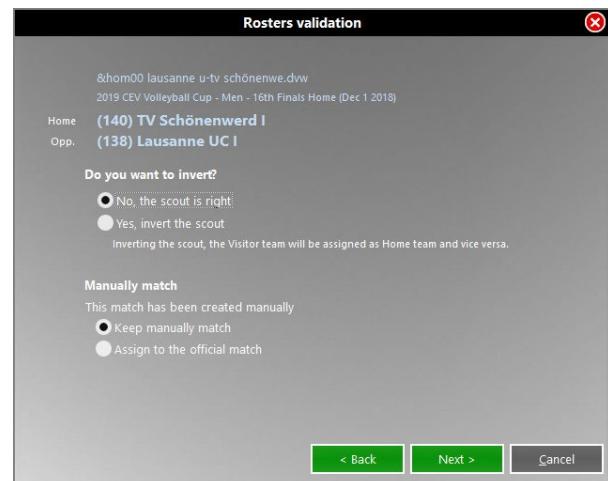
PLEASE NOTE If you want to associate a match manually created to an match from online calendar, first of all it's

mandatory to download the teams related to the competition: Click on in the Season window and select Import -> Import from "League/ferderation online"

Select Rosters Validation from Tools and the program will open the window in which you will select the file to be processed.

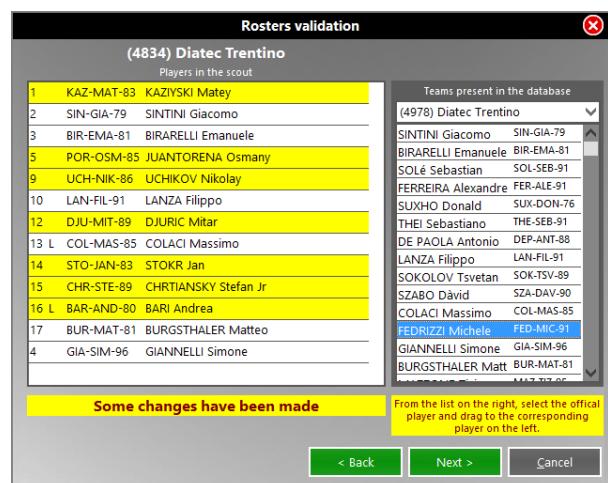
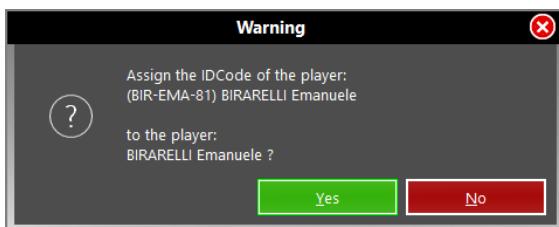


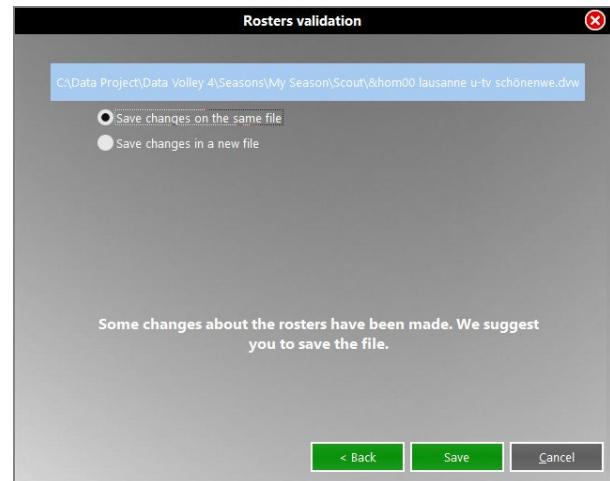
Here you can invert teams if necessary. This occurs when the file is sent to the opposing team which has indicated its team as that of "home" even if it's an away game. If you're working on a match Manually created, it's possible to keep manually match or to assign to an official match



This window will show the possible errors manually made in the list of players. The codes which are not compatible with those officials will be highlighted in yellow. Then select the player from the list on the right (official list) and drag it to the corresponding position in the list on the left.

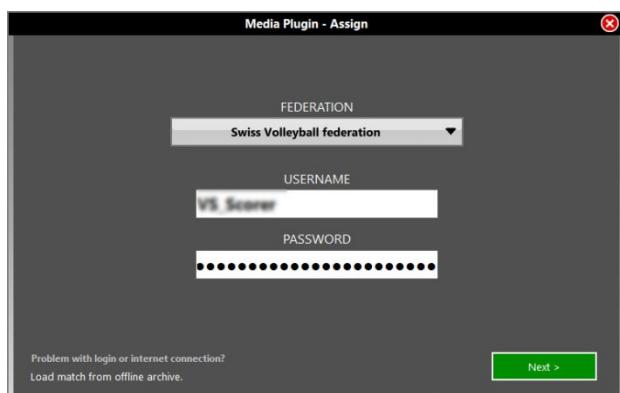
A pop up message will ask to confirm the changes:



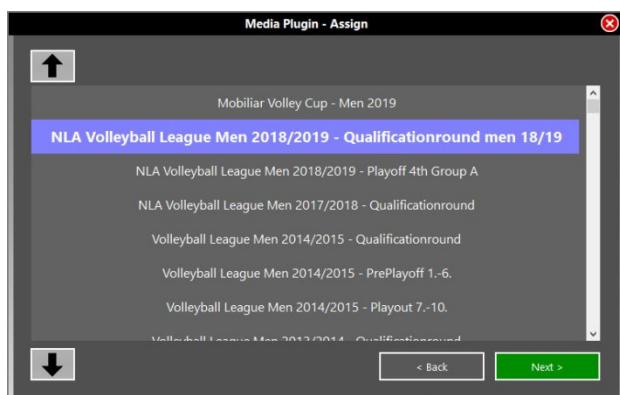


After checking both teams, we suggest you to save the file. The choice is to overwrite the existing file or save the file with a new name. By choosing to save a new file, the program suggests the path where to save the file and the name of the file, both modifiable at will. Click **[Save]** to apply the changes.

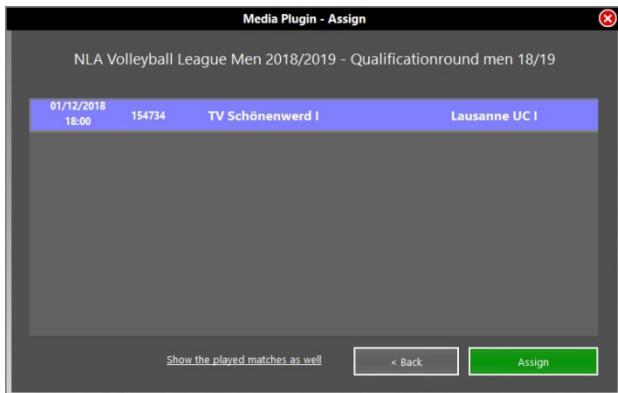
If you choose to associate the scout file to an official match, the software will automatically display the Media Tool Login window.



Select the federation and enter your personal username and password.



Select the Competition related to the match



Data Volley 4 will automatically suggest the match to which assign the scout file.

Select the correct match and click on assign

To complete the operation select “upload” from the Match main menu.

12.4 Close all analysis

This function allows you to close all opened analysis windows.
To speed up the action, use the key combination **Ctrl + T**

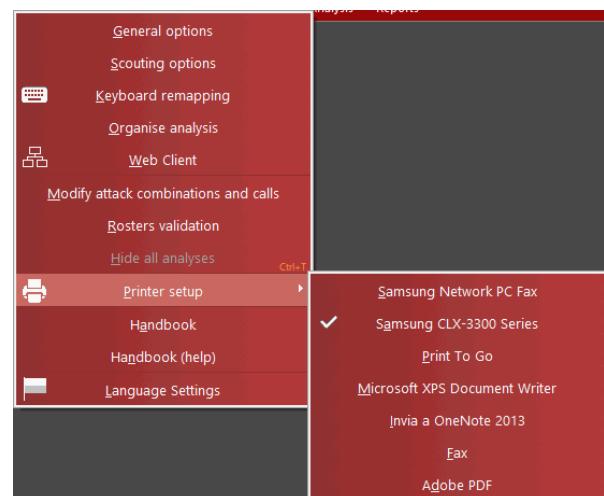
12.5 Printer Setup

Data Volley works with any printer installed on your computer.

The program automatically detects the installed printers and proposes a drop-down menu when you select the **Printer Setup**.

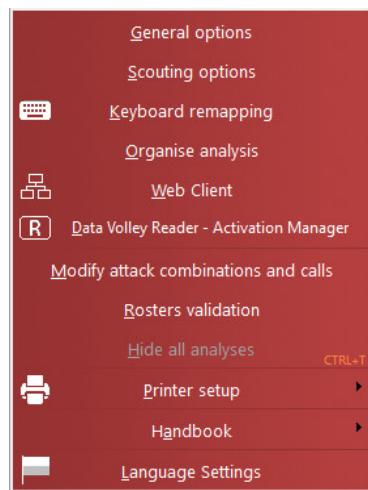
It is important to set up the printer correctly through the file menu and make sure the printer is connected because when you launch the print option during the scouting and analysis phase the program will automatically select the default printer without requesting confirmation.

Before starting the scout, it is therefore necessary to check that the printer set is the correct one.



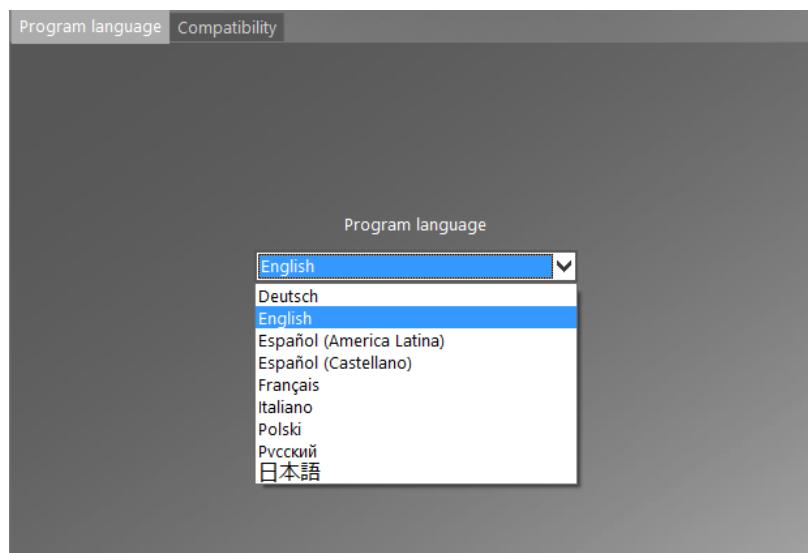
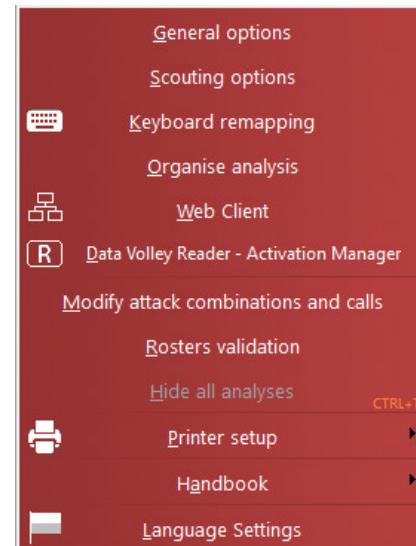
12.6 Handbook

Open a PDF Handbook.

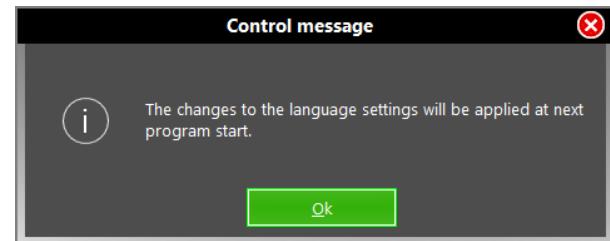


12.7 Language Settings

Click on **Language Settings** from the Tools drop down menu to open the corresponding window.



A single installation of Data Volley lets you to use it in 8 different languages: Italian, English, French, Spanish (Castilian and Latin American), German, Polish, Russian and Japanese and to select from 3 different Date Format.



After choosing the desired language, a control message warns that the change will be applied at next program start.

To properly read non-Latin characters in files created with Click & Scout, Data Video 2007, Data Volley 2007, you must specify the code page encoding.

This change is required ONLY if you read / write special characters in a language other than the one set on your PC (for example, read a scout with Russian characters on a PC set in Italian).

Program language **Compatibility**

Data Volley 4 uses the Unicode encoding to manage Notes, Teams and Player names ensuring the compatibility with any language.

The previous version of Data Volley, Data Video and Click&Scout, save the scouts and teams using the Code Page of the PC language.

Then, to read not latin characters presents in the names or texts included in the files created with above software, it is needed to select the encoding Code Page.

Use the following Code Page to manage files for previous software

1252 (ANSI - Latino I) Default value

Code page is another term for character encoding. It consists of a table of values that describes the character set for a particular language.

WARNING: modify the default value only if you want to read/write special language characters that are missing in the OS language in use.

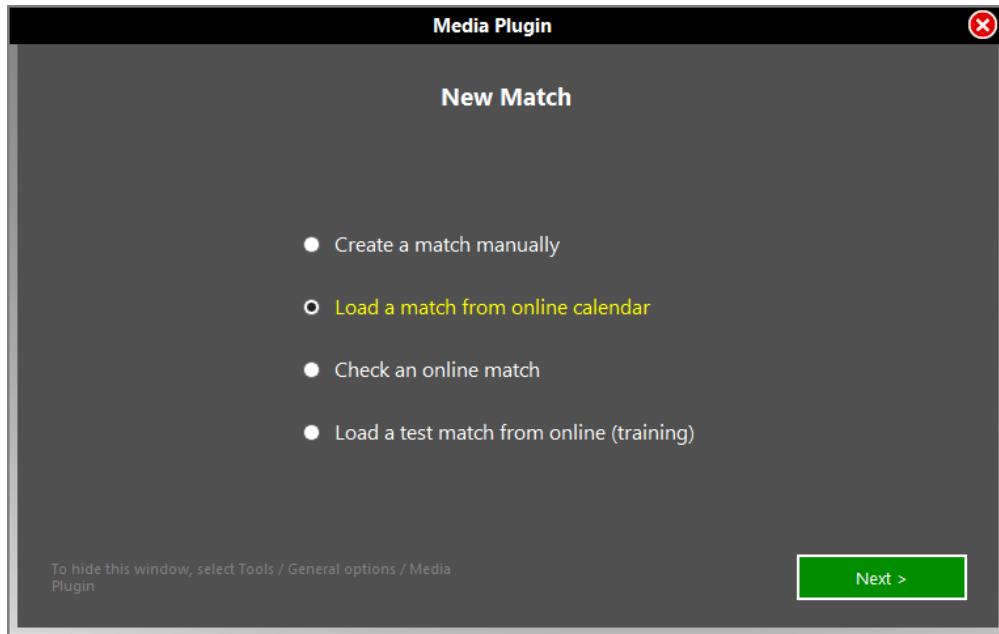
Eg: you want read/write special characters of the poland alphabet on an english windows.

13 Appendix

- Manage Online Matches
- Examples of scouts
- Examples of compound code
- Examples of combinations and calls
- Examples of worksheets
- Example of DV4 network (France National Team)

13.1 Media Tools

Enabling the online match management and clicking on **[New Match]** another menu will open, with these 4 buttons.



1. Create a Match manually

Click this button to load your custom matches.

2. Load a match from online calendar

1. Choose your Federation or League, enter your username and password click on **[Next]** button.
2. Choose Competition among those available and click on **[Next]** button.
3. Choose the match you want among those present and click on **[Load Match]** button.

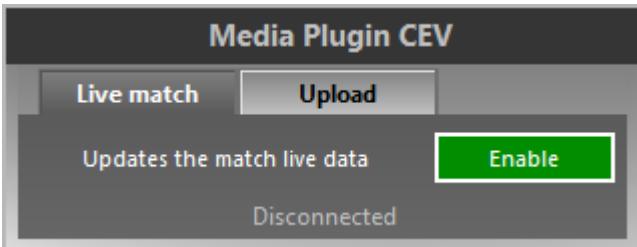
This screenshot shows the "Media Plugin" login interface. It has fields for "USERNAME" containing "your username" and "PASSWORD" with masked input. A dropdown menu under "FEDERATIONS" is set to "Confédération Européenne de ...". At the bottom, there is a note about login issues and a link to an offline archive, along with "< Back" and "Next >" buttons.

This screenshot shows the "Media Plugin" interface after logging in. It displays a list of competitions:

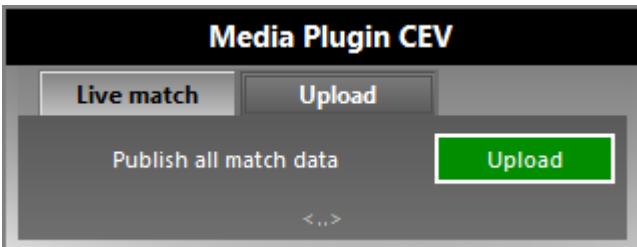
- 2015 CEV Volleyball European Championship - Men - Pool A in Sofia (BUL)
- 2015 CEV Volleyball European Championship - Men - Pool B in Turin (ITA)
- 2015 CEV Volleyball European Championship - Men - Pool C in Varna (BUL)
- 2015 CEV Volleyball European Championship - Men - Pool D in Busto Arsizio (ITA)
- 2015 CEV Volleyball European Championship - Men - Playoff matches in Sofia (BUL)
- 2015 CEV Volleyball European Championship - Men - Playoff matches in Busto Arsizio (ITA)
- 2015 CEV Volleyball European Championship - Men - Quarterfinals in Sofia (BUL)
- 2015 CEV Volleyball European Championship - Men - Quarterfinals in Busto Arsizio (ITA)

At the bottom, there are "< Back" and "Next >" buttons.

Once loaded the match, insert the players on the online roster for each team (you can still add players manually). When placing the Line Up you can load information directly from e-scoresheet, the software to compile the official scoresheet (if available for the Federation).

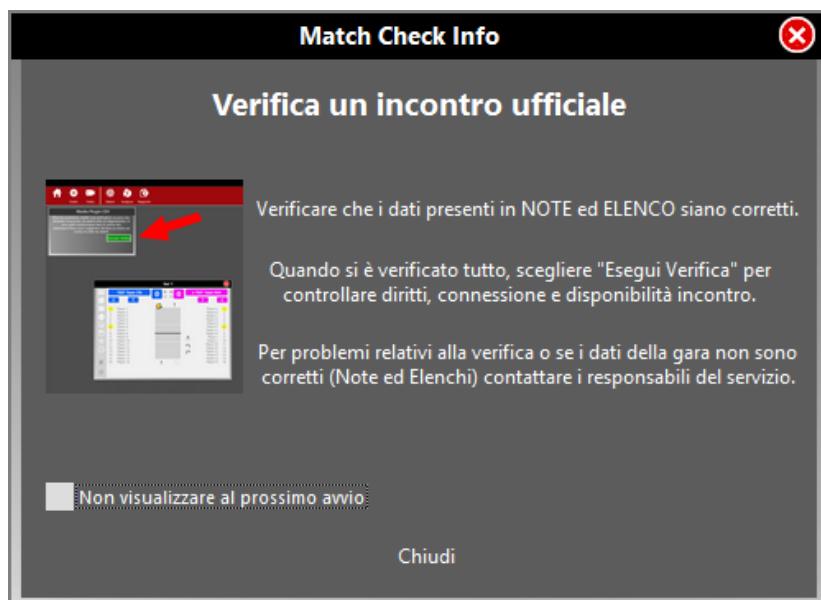


Before start the match, enable Live Match, needed to update the result online on the website of your Federation or League.

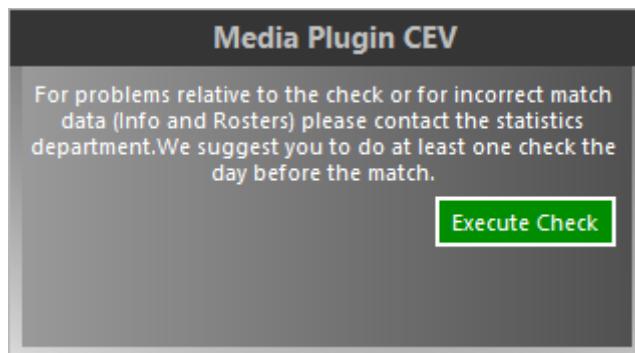


At the end of the match click on [Upload] to send the official result of the match. You can also send the report at the end of each set (required for some Federations).

3. Check an online match



For avoiding problems with the official matches you need to control your match one or two days before. In particular, we must ensure that the permissions and rosters are correct and that the internet connection is working properly. After selecting the competition and the Match to go and found that the info and rosters are correct, click [**Execute Check**]. The verification shall be recorded in the database of the Federation.



N.B. Not available for Italian leagues.

4. Load a test match from online (training)

To test the functionality of the Media version you can do a Trial Match. The steps to follow are the same as in the previous paragraph. The only differences are that you will need to enter a username and password as "scorertest".

N.B. Not available for Italian leagues.

13.2 Serve Starting Zone

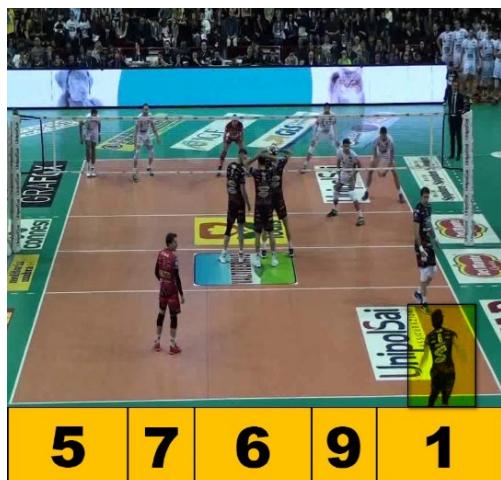
The direction of each hit is defined by two characters that indicate the starting zone and the landing zone of the hit. The **Starting zone** is defined by a numeric character that describes the position on the court where the hit has been performed (during a serve, attack or block) or the zone where the ball comes from (if during a reception). For the serve you consider the back court zone divided into 5 starting zones (1,9,6,7,5)



- **1** If the ball is served from zone 1.
- **9** If the ball is served from the zone between zone 1 and 6.
- **6** If the ball is served from zone 6.
- **7** If the ball is served from the zone between zone 6 and 5.
- **5** If the ball is served from zone 5.

Examples

Serve from zone 1



Serve from zone 9



Serve from zone 6



Serve from zone 7



Serve from zone 5



13.3 Examples of scouts

Basic Level

SCOUTED TEAM:

HOME TEAM ONLY (to the left, red shirt)

SCOUTED SKILLS:

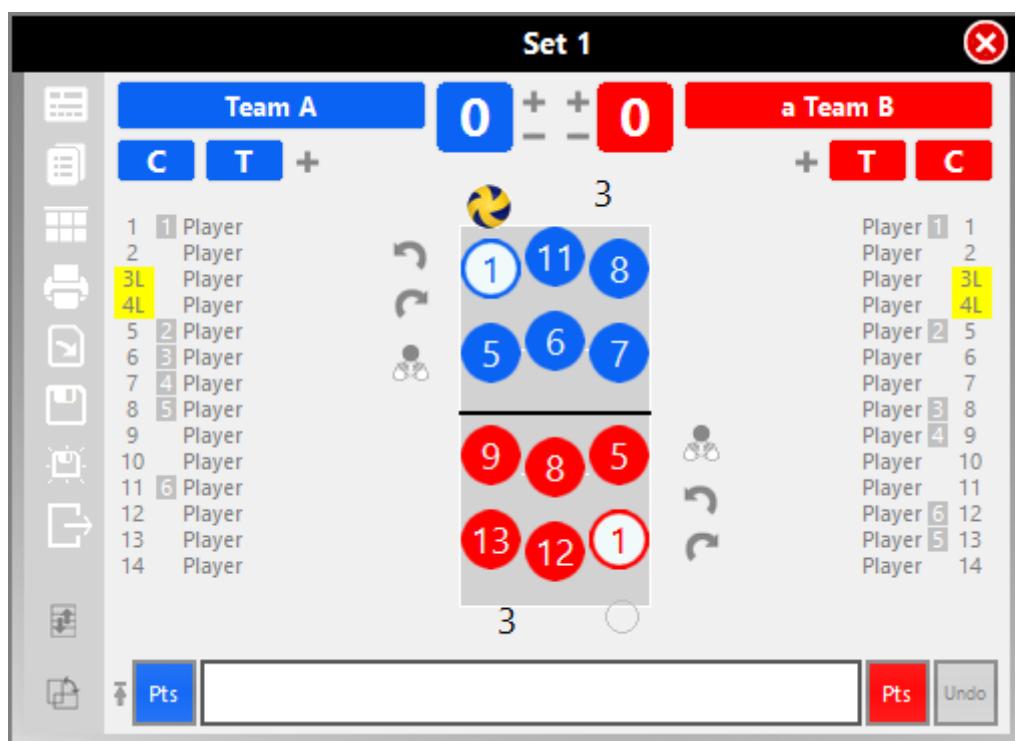
SERVE, RECEPTION, ATTACK, BLOCK (only when it influences the continuation of the rally)

SPECIFICITY LEVEL:

LOW (player, skill with no type specification, evaluation. Directions and advanced characteristics are not scouted).

To scout one team only, in Tools→Scouting Options→[General Scouting](#), just check the NO box in the automatic serve option.

The scoreboard window indicates the initial line up in this rotation:



RALLY DESCRIPTION	CODE IN THE SCOUTING WINDOW	NORMALIZED CODE
-------------------	-----------------------------	-----------------

The away team serves, n.8 perfectly receives; n.4 performs a positive attack but does not hit the floor and the ball is returned; n.14 performs a positive/winning attack.	8R# 4+ 14# end rally left	*08RAH# *04AH+ *14AH# *p01:00 (score) *z6 (new rotation)
N°6 serves an ace	6S# end rally left	*06SH# *p02:00
n. 6 serves; perfect reception by the opponent and a positive/winning attack is performed.	6S- end rally right	*06SH- ap 02:01 az4
Opponent serves, n.8 receives, the opponent blocks and scores a direct point.	8R/ end rally right	*08RH/ ap 02:02
Opponent serves positive reception by n.6, n.4 performs a negative attack, the opponent rebuilds and n.4 performs a winning block.	6R+ 4- 4B# end rally left	*06RH+ *04AH- *04BH# *p03:02 *z5

Medium Level

SCOUTED TEAMS:

BOTH (home team on the left, away team on the right using the compound codes)

SCOUTED SKILLS:

SERVE, RECEPTION, ATTACK, BLOCK (only when it influences the continuation of the rally)

SPECIFICITY LEVEL:

MEDIUM (player, skill, evaluation type. Directions and advanced characteristics are not scouted).

To scout both teams, in Tools→Scouting Options →[General Scouting](#) we suggest yo enable one of the two options for the automatic serve. It is better to use player number+serve code if you don't use Data Video and you don't want to edit the video. Choose only player number if you want to edit the video.

RALLY DESCRIPTION	CODE IN THE SCOUTING WINDOW	NORMALIZED CODE
Opponent n.4 jump serves and n.8 performs a perfect reception; n.4 performs a quick positive attack but negative; opponent n.3 hits back with a high ball that does not touch the floor; n.14 performs a positive/winning on tense attack	a4SQ.8# 4Q a3- 14T# end rally left	a04SQ- *08RQ# *04AQ+ a03AH- *14AT# *p01:00 (score) *z6 (new rotation)
n.6 jump serves an ace on the Libero.	6SQ.8= end rally left	*06SQ# a08RQ= *p02:00
N.6 high serves, the opponent libero player performs a perfect reception; Opponent n.5 performs a positive/winning tense attack.	6SQ.8# a5T# end rally right	*06SQ- a08RQ# a05AT# ap 02:01 az4
Opponent n.5 serves feet on the floor, n.8 receives from the net; Opponent n.3 closes with a direct point	a5S.8/ a3# end rally right	a05SH/ *08RH/ a03AH# ap 02:02
Opponent n.5 serves feet on floor, n.6 performs a positive reception but not perfect; n.4 attacks a quick ball with negative effect; Opponent n.3 returns a quick ball, n.4 performs a winning block.	a5S.6 4Q- a3Q.4# end rally left	a05SH! *06RH+ *04AQ- a03AQ/ *04BQ# *p03:02 *z5

Advanced Level

SCOUTED TEAMS:

BOTH (home team on the left, away team on right using compound codes)

SCOUTED SKILLS:

SERVE, RECEPTION, ATTACK (combinations), BLOCK (only when it influences the continuation of the rally)

SPECIFICITY LEVEL:

HIGH (player, skill, type, evaluation, attack and serve starting and landing zones).

Code	Zone	Ball	Attac.	Description	37
CF	2 ↘	N	Center	Slide close to setter	
CD	2 ↗	N	Center	Slide away from setter	
C5	4 ↗	U	Front	Shoot set in 4	
C0	7 ↗	U	Front	Shoot set in 5	
C6	2 ↗	U	Back	Shoot set in 2	
C8	9 ↗	U	Back	Shoot set in 1	
V5	4 ↗	H	Front	High set in 4	
V0	7 ↗	H	Front	High set in 5	
V6	2 ↗	H	Back	High set in 2	
V8	9 ↗	H	Back	High set in 1	

The shown table represents the attack combinations previously set and customized in [Attack Combinations](#). These combinations will be used for this example.

RALLY DESCRIPTION	CODE IN THE SCOUTING WINDOW	NORMALIZED CODE
Opponent n° 4 jump serves from zone 1, n.8 performs a perfect reception in zone 6; n.4 performs a positive attack from the first line but does not touch the floor towards zone 5; opponent n.3 hits back with high ball from zone 4 towards zone 1 but does not touch the floor; n.14 performs a positive/winning tense ball attack in zone 5	a4SQ1.8#6 4C1+5 a3G4-1 14W4#5 end rally left	<pre>a01SQ- 1→6 *08RQ# 1→6 *02AQ+ C1 3→5 H- - a06AH- G4 4→1 H- - *14AT# W4 4→5 H- - a\$S&H= *p01:00 *z6</pre>
N.6 jump serves an ace from zone 6 on the libero in zone 6.	6SQ6.8=6 end rally left	<pre>*06SQ# 6→6 a08RQ= 6→6 *p02:00</pre>
n.6 jump serves from zone 6, the opponent Libero perfectly receives in zone 6, the opponent n.5 performs a positive/winning attack from zone 2 to zone 5	6SQ6.8#6 a5W2#5 end rally right	<pre>*06SQ- 6→6 a03RQ# 6→6 a05AT# W2 2→5 H- - *\$S&H= ap02:01 az6</pre>
Opponent n.5 serves feet on the floor from zone 5, n.8 receives a high ball in zone 6; opponent n.3 closes with a positive/winning point from zone 3 to zone 1	a5S5.8/6 a3H#31 End rally right	<pre>a04SH/ 5→6 *08RH/ 5→6 a05AH# 3→1 H- - ap02:02</pre>
Opponent n.5 serves with feet on the floor from zone 5, n.6 performs a positive reception but not perfect in zone 5; N.4 performs a negative attack on a quick ball, first row back, in zone 5; Opponent n.3 rebuilds quick ball, first line front; n.4 performs a winning block	a5S5.86-5 a3C1.4# end rally left	<pre>a04SH! 5→5 *06RH+ 5→5 *02AQ- C2 2→5 H- - a05AQ/ C1 3→3 H- - *02BQ# →3 *p03:02 *z5</pre>

Subsequent changes

Considering the amount of information that can be scouted by Data Volley we advise you to not enter all the information relative to a hit, directly in the scouting bar. We can enter information during the main scouting phase (for example at the end of the rally during ball change he can enter the directions of the attacks that have just been performed) or in a second moment whilst watching the video of the match using media player in the program. Let us see, in this 4th

example of scouting, how the codes can be changed retrospectively. For this purpose we will use as an example some actions already present in the previous levels and will extend through the specific wizard under the program with all the additional information.

This example outlines the code modification procedure after the main scouting.

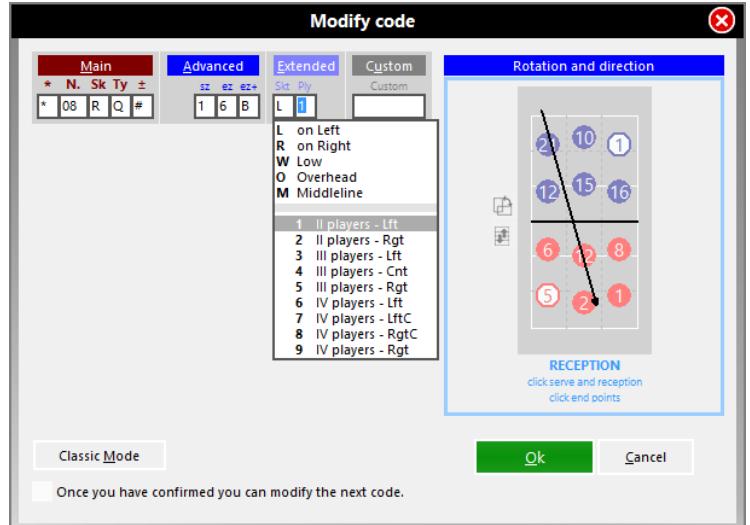
This example will refer to actions present in the previous levels but will be detailed and amplified with the help of the specific code modification wizard.

The following example was described in the previous example, it will be outlined, code by code, using the available extended characters that will appear in blue, in the modify code window that will appear when double clicking on the codes in the codes list window.

Opponent n.1 jump serves in zone 1, n.8 perfectly receives in zone 6, sub zone B

The reception is performed by two players, from the player on the left and from his left.

a01SQ- 1[•]6B
*08RQ# 1[•]6B L 1 -



Enter in the Extended code cells the L (on the left of the receiver) and 1 (reception performed by two players by the player on the left) to indicate the reception code).

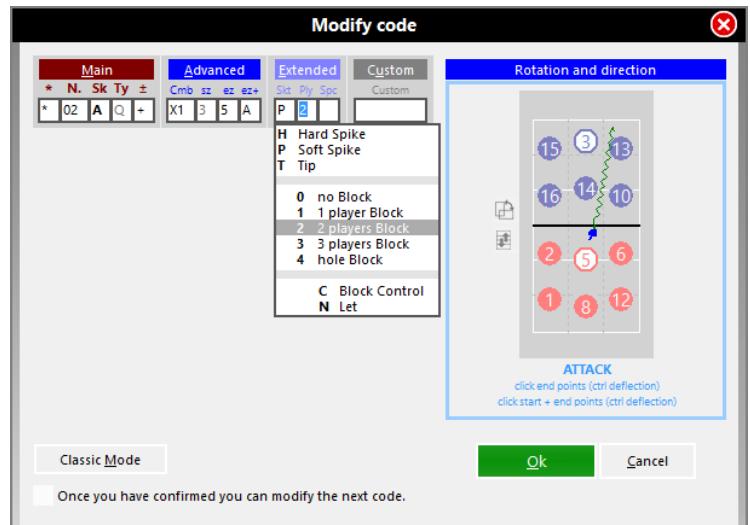
Otherwise you can draw the trajectory on the court, and the program will fill the field related to the sub zone with character B.

In this case you only have to add the sub zone in the first of the two codes, because the program will automatically update the second following the changes to the first code

n. 2 positive attack from the first row but not on the floor towards zone 5, sub zone A.

The attack is a top spin (soft spike) performed against a 2 player block.

*02AQ+ X1 3[•]5AP 2 -

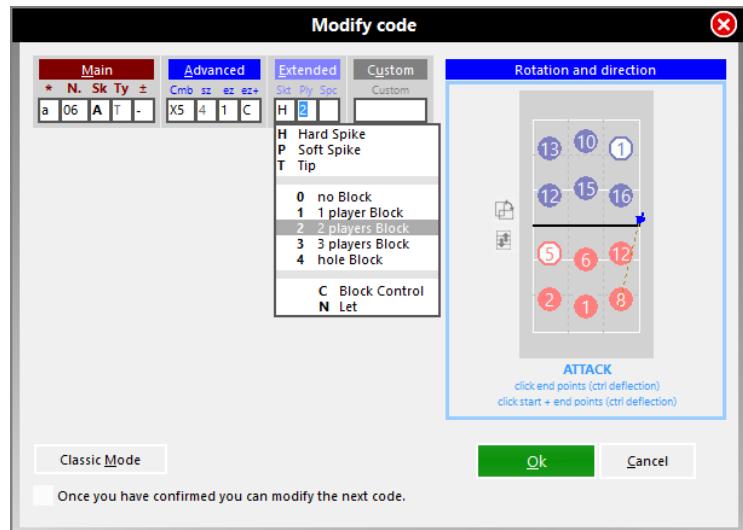


Enter the sub zone A and the two extended codes that define the specific type of attack and the number of players performing a block.

Opponent n. 6 hits back with a high ball from zone 4 towards zone 1, sub zone C, but does not hit the floor..

The attack is a hard hit against a two player block.

a06AT- X5 4[•]1CH2 -

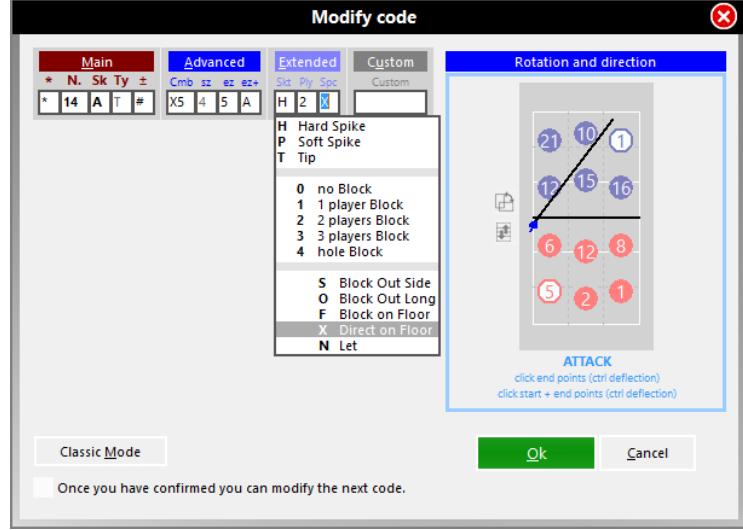


Enter the relative sub zone, type of hit (H) and number of players performing the block (2)

n. 14 posit/winning attack tense ball in zone 5, sub zone A.

The attack is a hard spike, against a 2 player block, that hits the floor directly.

*14AT# X5 4 5A H2 X



Enter sub zone (A), hit (H) and number of players blocking (2).

Since the attack was winning, a new box appeared, where you have to define how the point was made: in this case ball directly on the floor (X).

13.4 Examples of compound code

Example 1

Case: home team player number 5 jump serves from zone 1 to zone 5, the opponent player number 3 receives in zone 5 with – value (in this case the serve will have a + value).

The two single codes will be:

- 5SQ+15 a3RQ-15

By using the compound code, replacing "space" with “.” we will type:

- 5SQ1.3-5

This is how the new abbreviated code is created:

- The “a” has been removed from the second code because after a serve the opposite team has to try and receive the ball
- The “R” has been removed from the second code because the reception must come after the serve.
- The type of reception Q has been removed from the second code because after a jump serve there will be a reception of a jump serve (so it will always be a Q)
- The landing zone has been removed from the first code and the starting zone has been removed from the second code in order to write both of them only once as the end zone of a serve is the starting zone of the reception
- The serve value has been removed as it is linked to the reception value.

This method saves time as you don't have to type in so many digits but it also allows you to be able to insert the codes whilst watching the action without having to wait for the next skill to be performed before you can continue. For the code in the above example it will be possible to input the serve codes a few seconds before the player actually performs the hit, because the skill, type and starting zone are already determined and when the reception is performed you will only have to add the receiver's number, the zone where it was performed and the evaluation, information that you will need to complete both codes.

Example 2

Case: jump/float serve performed by the home team player number 5 from zone 1 and perfect reception of the opponent player number 2 of the away team in zone 7.

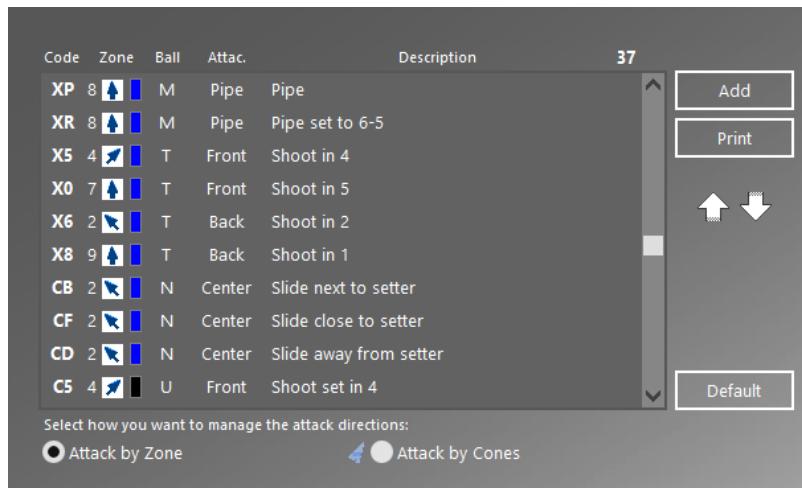
- As for single codes, when we have compound codes the program will automatically insert the default parameters, previously set, where the information is missing.
- If High (H) was previously set as a default parameter, the H from the code can also be removed. The compound code will then be: **5S1.2#7**

13.5 Examples of combinations and calls

Combinations are particular codes that enable specific skills to be scouted quicker and more accurately. You can define set and attack combinations.

Attack

You can define an unlimited amount of ATTACK combinations to define the various types of attacks. Each attack combination is made of 2 alphanumeric characters (es. X2, PP etc).



The attack combination code must be previously defined and associated with a type of attack in the relative [table](#). The combinations in this table always relate to a particular **Season**.

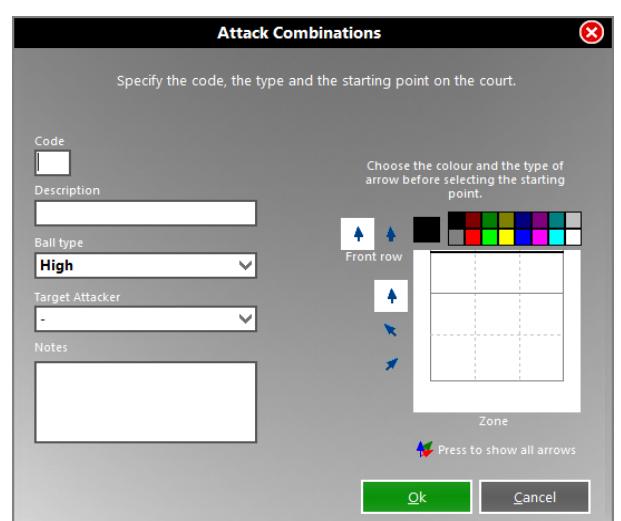
You can modify, add or remove attack combinations in this window.

While modifying attack combinations the following window will appear where you will have to define the following:

- A two character code;
 - The type of ball;
 - The target attacker;
- The target attacker is the player on the court to whom the ball is served, defined by his position on the court (regardless of the starting zone in the combination)

The possible options are:

- **front:** zone 4 attacker (if the front row has been chosen) or 5-7 if the court has been divided into 9 zones (if the second line has been chosen);
- **back:** zone 2 attacker (the front row has been chosen) or 1 - 9 if the court has been divided into 9 zones (if the second line has been chosen);
- **center:** zone 3 attacker;
- **pipe:** zone 6-8 attacker if the court has been divided into 9 zones



zones;

➤ **setter**: setter attack

- there is a notes box to add any information you want;
- the court image on the right hand side can be used to:
 - choose the arrow for the first or second line
 - choose the direction of the run up and the attacker's position when he hits the ball with one of the arrows.

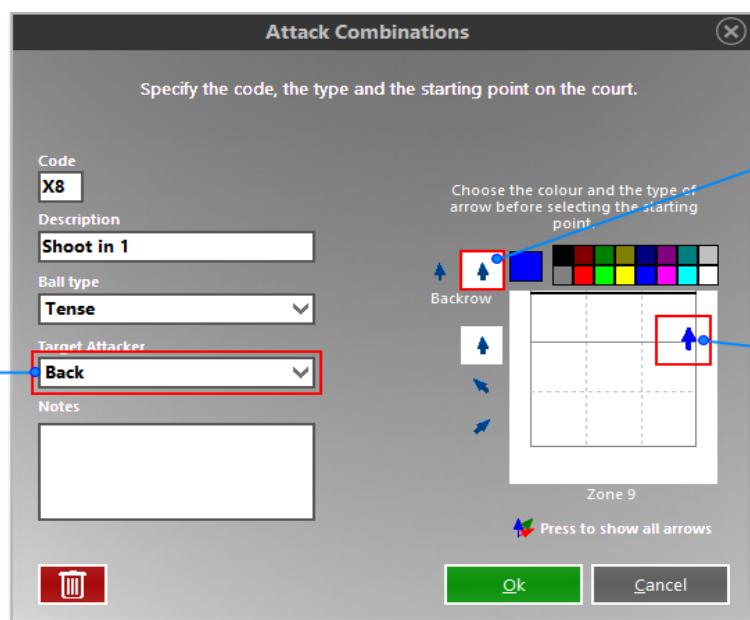
The above information will define the starting position of the hit (for example if you use the second line arrow and you position it in zone 2, the program will automatically tell you that the run up starts in zone 9 and the ball is hit in zone 2).

Each attack combination can define:

- type of attack (quick, high, etc)
- the exact position where the hit is performed in respect to the court and the setter;
- initial position of the attacker who hit the ball regardless from where he touched it;
- specific information on the type of attack;

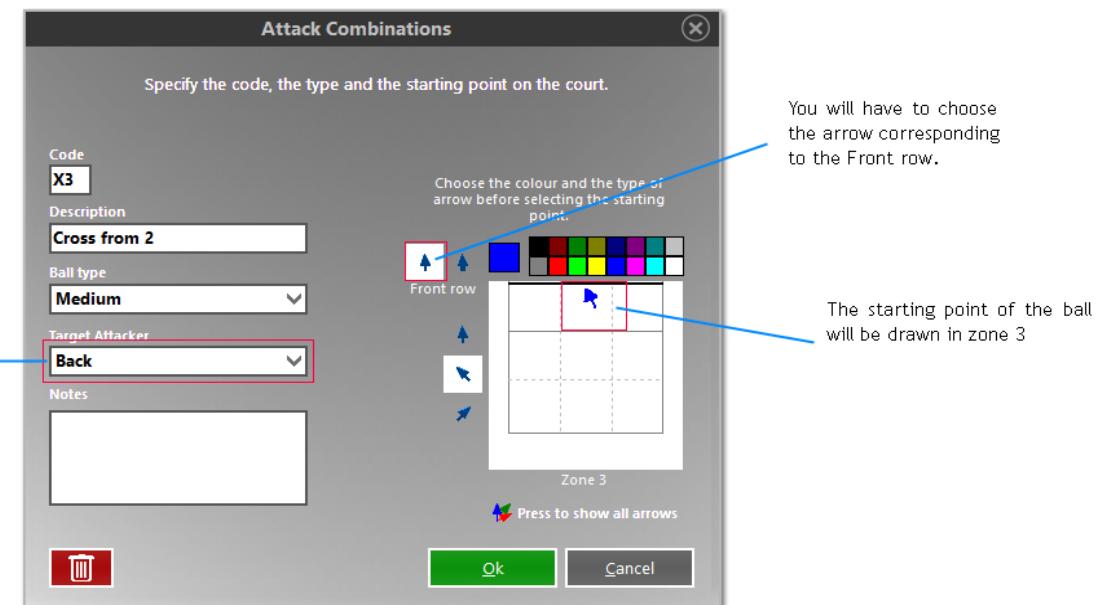
Example 1

A combination of a tense attack is defined and the attacker is in position 1 (backrow), the attack combination window should be completed as follows:



Example 2

A front cross is defined that start in zone 2 in the front row but the attack is then performed in zone 3. The attack combination window should be completed as follows:



The attack combination can either replace certain information in the main code to speed up typing (eg. when using the attack combination it is not necessary to type the skill –a– and the type of hit –h– and the starting zone of the hit) and can provide additional information: it is important to be able to identify similar hits but not identical ones, for example the attack performed from the first row-front played near the setter will be slightly different to the attack performed from the first row but NOT played as near as the setter. In this case the two types of attacks can be identified by two different attack combination codes.

As previously stated, when using the attack combination it is not necessary to insert skill, type and starting zone as they are already part of the combination.

Example of codification: **a5C1# (→a05SQ#3)**

Set

This type of code, **K + number**, will be associated to the set code (E) during the normalization phase and will be used in the new type of analysis called Distribution. The different setter call codes must be inserted in the relevant [table](#), before they can be used.

Input during the scouting

To scout a setter call you will have to indicate the code relating to the call (i.e. K1) in any point of the action before the end rally call and before the serve is performed, if the scout-man is able to identify the call before the start of the rally.

If a value is not set, a default value will be associated to the set code defined in the [Scouting Options](#). The setter call code will automatically be completed with the number of the setter on court of the team with the reception and the type of ball of the next attack. This code will be inserted in the [Codes List Window](#) after the reception code.

Example 1

2SQ1.65C# a6AT41# K1 e.r. rgt

Player number 2 of the home team jump serves from zone 1, player number 6 of the away team perfectly receives in zone 5C and then performs a forced attack from zone 4 to 1 that touches the floor. The setter had called the middle blocker to the first row (base 1) . The setter call can also be entered at the beginning of a scouting sequence code if the scout man can identify the call before the serve : i.e.K1 2SQ1.65C# a6AT41# E.R. rgt.

Up to 3 additional characters can be associated to the setter call:

- set evaluation (eg. K1#)
- zone where the set is performed, from 1 to 9 (eg K12 or K1#2)
- sub zone of execution, from A to D (eg K12A)

The program, during the normalization phase, will assign the hit to the setter on the court, and will associate it to a setter code (E). If within the rally there is already a setter code, the call code will be inserted in the set already present, otherwise the program will create a new one.

Example 2

If we enter K1#3A, the code will be normalized as follow: *02EQ- K1C → 3A

That means the home setter is n. 2, and it has been associated a quick (Q) set (E) with evaluation -, call K1, performed in zone 3, subzone A.

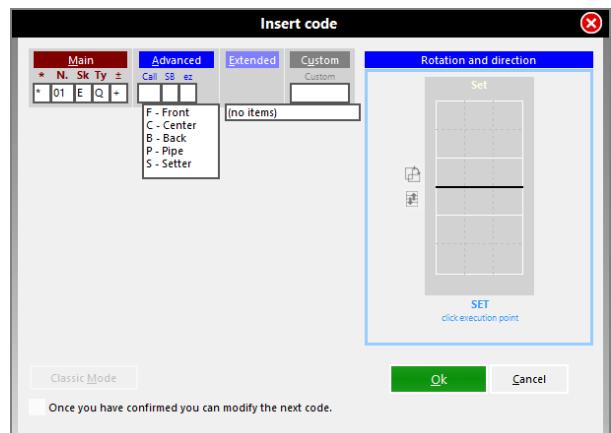
In case after the set it has been performed also an attack combination, within the set code it will be added also the information related to the target attacker (derived precisely from the combination of attack performed, in this case K1C). Instead, In case after the set it has been performed no attack combination, (eg. for negative set), it will be possible add the information related to the target attacker directly inside the setter call code.

Import from the Codes List Window

If you want to enter the setter calls at a later time (eg after the end of the action, or the next time watching the video of the match), it is possible, by focusing to the Codes List Window, and by using the **Ins** key at each desired action. To take advantage of the automatic setter code generation about which we spoke before, you just have to put the code in the white line of the window that appears on the screen and press enter.



Instead, if you choose the input through the wizard mask (button at the bottom right), you must enter all the required parameters (team, player, skill, call). The program helps you step by step to the compilation, opening the drop down menu related to each code. In addition you have the possibility to directly enter the correct position of the setter in the court on the right.



13.6 Examples of worksheets

Example 1

1. Choosing the analysis

The preliminary operation to make a worksheet is to decision of **what kind of analysis you want to do**, and in which way to develop and display it. Let us assume to make a worksheet to display: **all the # receptions performed by the team detailed by player and all the # receptions leading to a quick attack (Q)**. This worksheet will give us the percentage of perfect receptions that the setter transforms to a quick attack.

2. Choosing the data labels

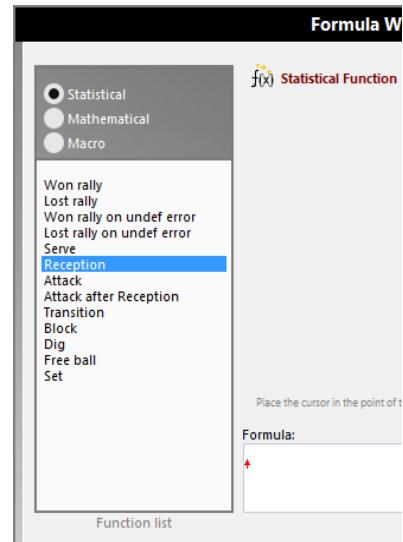
The second operation is to define the labels of the columns and the lines to be filled with data.

Move the cursor on the C2 cell and name the column "Player". Do the same, moving between cells through the arrows for cells D2, E2, F2, naming them respectively "tot # receptions", "# receptions leading to a Q attack", "% of # rec. leading to Q attack". To adjust the width of the cells to the related labels, select a line and click the "adapt cells" icon.

	A	B	C	D	E	F
1						
2		Player	Tot # receptions	# receptions leading to a Q attack	% of # rec. leading to Q attack	
3						
4						

3. "Tot # receptions" column wizard

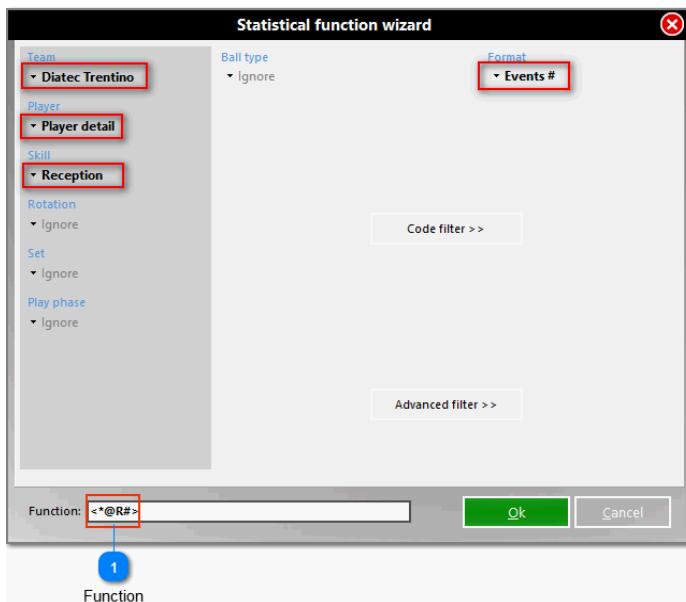
Move the cursor over the cell where the first numeric data will have to be, that is **D3**, the one immediately below the "tot # receptions" and use the wizard.



The program opens the window where you can choose which category of function you want to insert in the selected cell. In this case let us insert a statistical function, regarding the scout, so select the first line "**Statistical**".

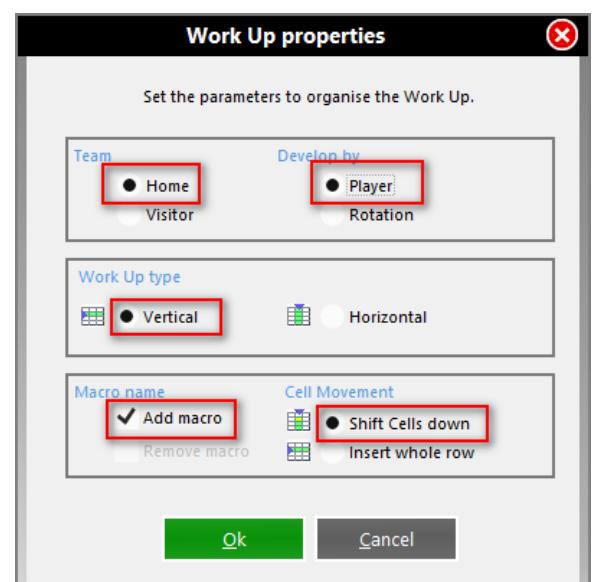
You will check the mathematical box when you will have to do calculations within the cells.

Then, below, choose which kind of statistics are you interested in: in this case "**Reception**" by double clicking it.



← Now the real statistical function wizard will appear. Set all the parameters related to those cells.

(1) Function: this field automatically fills while inserting the parameters in the window. The final string will correspond to the formula that the program will use to process the analysis. At the end, after pressing [OK], the program will open the **Work up properties** window. ↓



Develop by: player, because we are interested in the data of all the players, as we indicated in the C column, and not related to rotations

Work up type: vertical, because we chose to display the data in column

Macro name: this option allow to add to the process, the names of the players (in this case in the C column)

Cell movement: down

The worksheet will look like this. The dashed red bordered cells indicate where the analysis begins.

	A	B	C	D	E	F
1	=					
2		Player	Tot # receptions	# receptions leading to a Q attack	% of # rec. leading to Q attack	
3		Diatec	=<*\$R#>			
4						

4. Displaying the first analysis process

In order to display the analysis process, during this first part of the composition, and then at any moment, it is necessary to:

- Save the sheet, the first time through the **[Save as]** button, and after any change simply through **[Save]**.
- Click **[Process]**, the program will open the analysis window.

The first process of the worksheet will look like this:

Player	Tot # receptions	# receptions leading to a Q attack	% of # rec. leading to Q attack
Diatec	12		
1 Kaziy	4		
2 Sinti	0		
3 Birar	0		
4 Gian	0		
5 Juan	4		
9 Uchi	0		
10 Lan	0		
12 Dju	0		
13 Col	3		
14 Sto	0		
15 Chr	1		
16 Bar	0		
17 Bur	0		

By right clicking and choosing the Modify option, it is always possible to go back to the worksheet wizard, where you can make changes at your will.

5. "# Receptions leading to a Q attack" column wizard

Move the cursor over the E3 cell, below "# receptions leading to Q attack", and repeat the operation through the wizard.

The program will ask if you want to link the cell to the work up. Press **[Yes]** because you must do the same process for the players of the previous column.



The cell indicated by the cursor will be bordered by a dashed red line, to indicate that the cell is linked to the process. Into the first window you must set again "statistical" and "reception" as you did before. Instead, you must set the statistical function wizard as follow:

Formula Wizard

Statistical function wizard

Team: Diatec Trentino

Player: Team

Skill: Reception

Format: Events #

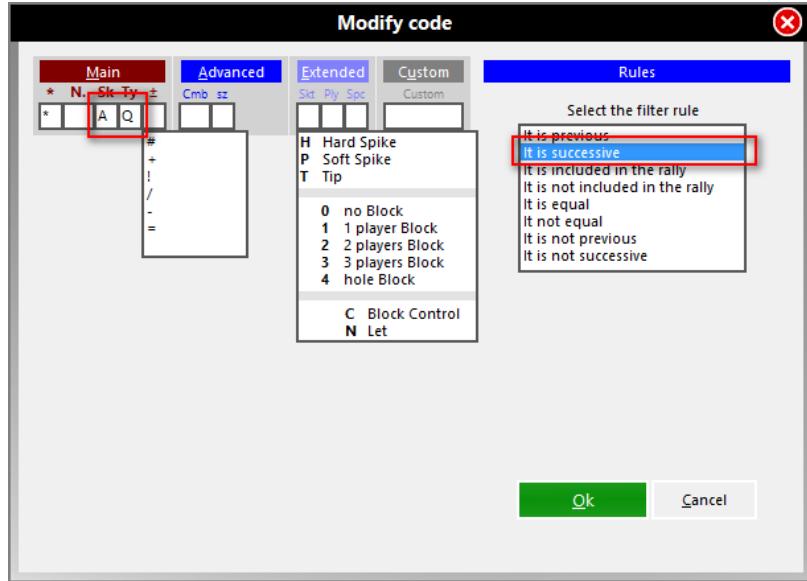
Code filter >> (highlighted with a blue circle labeled 1)

Code filter rules (open window):

N.	Sk	Ty	Cmb	SB	sz	ezez+	Skt	Ply	Spc	Custom	Rules

Add (highlighted with a blue circle labeled 2)

Fill the Modify Code window entering the code related to home team's Q attack as successive to the selected skill (# reception). **AQ is successive**.

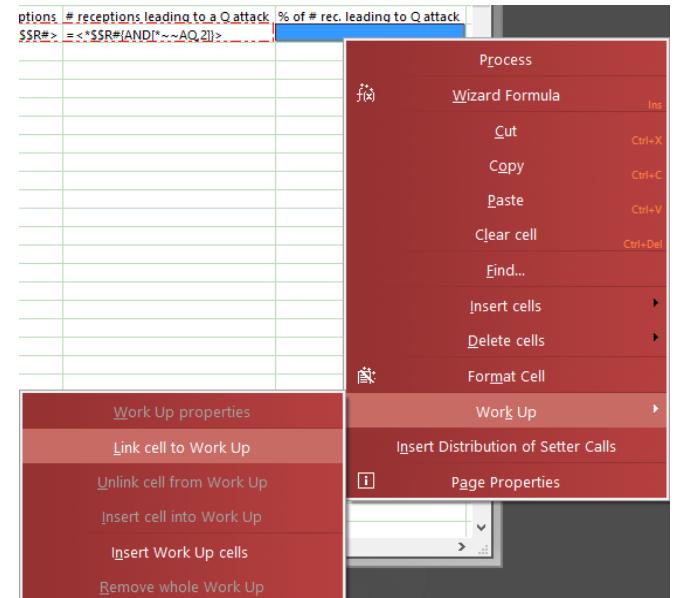


You must leave the other cells empty because other parameters do not affect this type of analysis. The worksheet window will look like this:

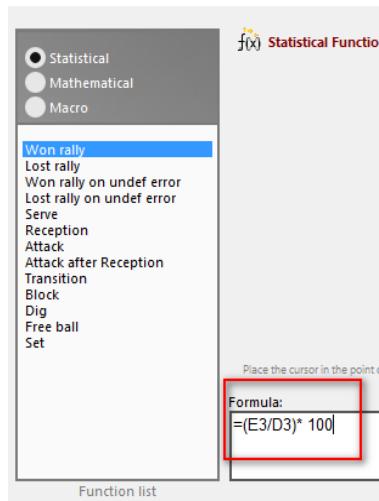
	A	B	C	D	E	F
1	=					
2		Player	Tot # receptions	# receptions leading to a Q attack	% of # rec. leading to Q attack	
3		Diatec	= <*\$SR#>	= <*\$SR#{AND{~AQ,2}}>		
4						

6. "% of # receptions leading to a Q attack" column wizard

You must now finish the process: move the cursor over the F3 cell, below "% of # receptions leading to a Q attack", then right click on the cell and do as follows:



Work up → Link cell to Work up: this command is necessary to develop the formula in the selected cell like the others previously inserted. That cell will be red borded by a dashed line, indicating the link to the work up;



Insert the formula for the calculation of the percentage (they work as in Excel, Lotus etc):
 $=E3/D3)* 100$

After saving and processing, you obtain the final analysis, where you can find the informations you needed: you can see, for example, 31,8% of the receptions performed by Italy lead to a quick attack.

By scrolling the list we can get the same information detailed by player.

Player	Tot # receptions	# receptions leading to a Q attack	% of # rec. leading to Q attack
Diatec	12	5	41.6667
1 Kazi	4	3	75
2 Sinti	0	0	---
3 Birar	0	0	---
4 Gian	0	0	---
5 Juan	4	0	0
9 Uchi	0	0	---
10 Lan	0	0	---
12 Dju	0	0	---
13 Col	3	2	66.6667
14 Sto	0	0	---
15 Chr	1	0	0
16 Bar	0	0	---
17 Bur	0	0	---

Example 2

1. Analysis Choice

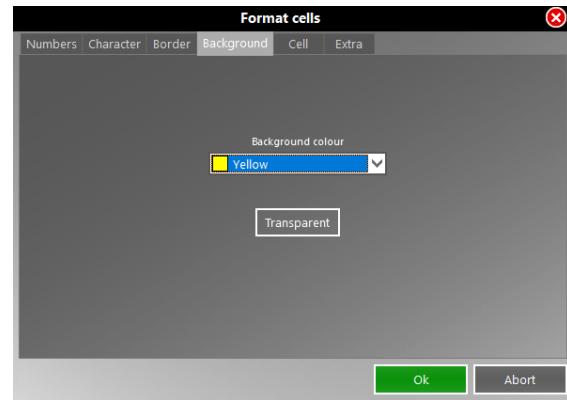
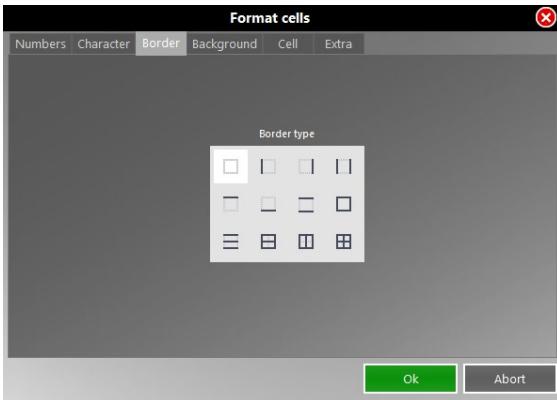
Let's create a spreadsheet that shows us, also with the help of a graph, the trend of points lost by the team as a whole in the different rotations, also divided between the point phase and the ball change phase.

2. Choice of column "labels"

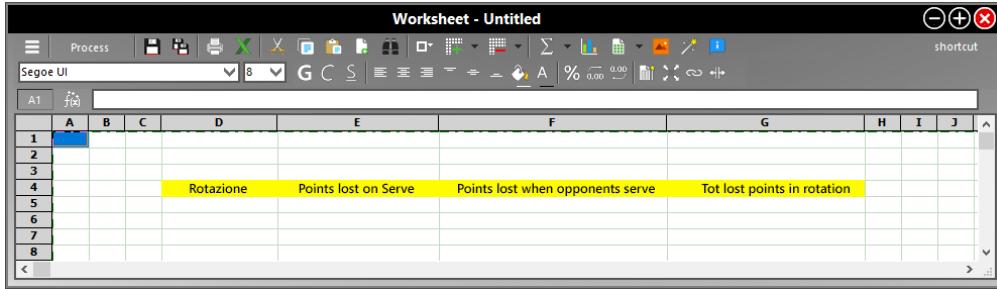
Position yourself in box D3 and type "Rotation", Enter. Move with the directional arrows to cells E3, F3, G3 and type respectively: "Points lost when we beat", "Points lost when opponents beat", "Total points lost in rotation".

Select the 4 cells with the mouse and click on the "adapt cells" icon. With the 4 cells selected, right-click and choose "Format Cell".

A window opens in which you can select various parameters. In our example we select a border type and background color.

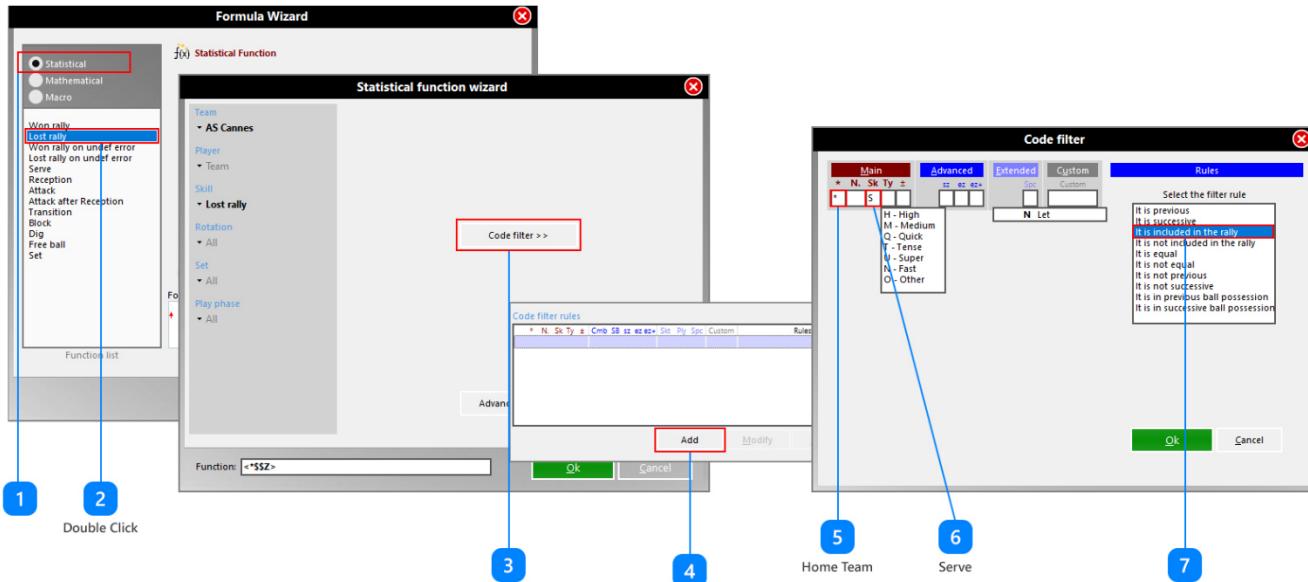


It is achieved in this way:

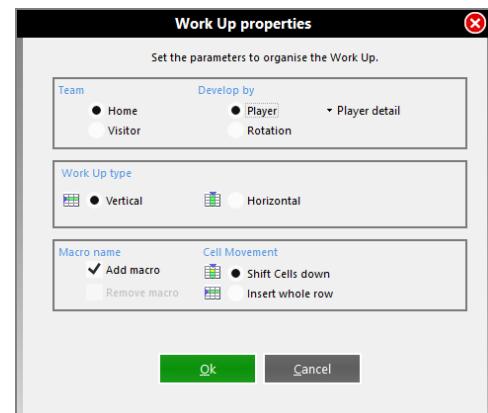


3. Analysis Composition

Position yourself in box E4, click on Formula composition and fill in the windows as follows:



After clicking [Ok], always position yourself on cell E4, right-click, click on **Work Up** → **Insert Cell Development** and select the development for Vertical Rotations

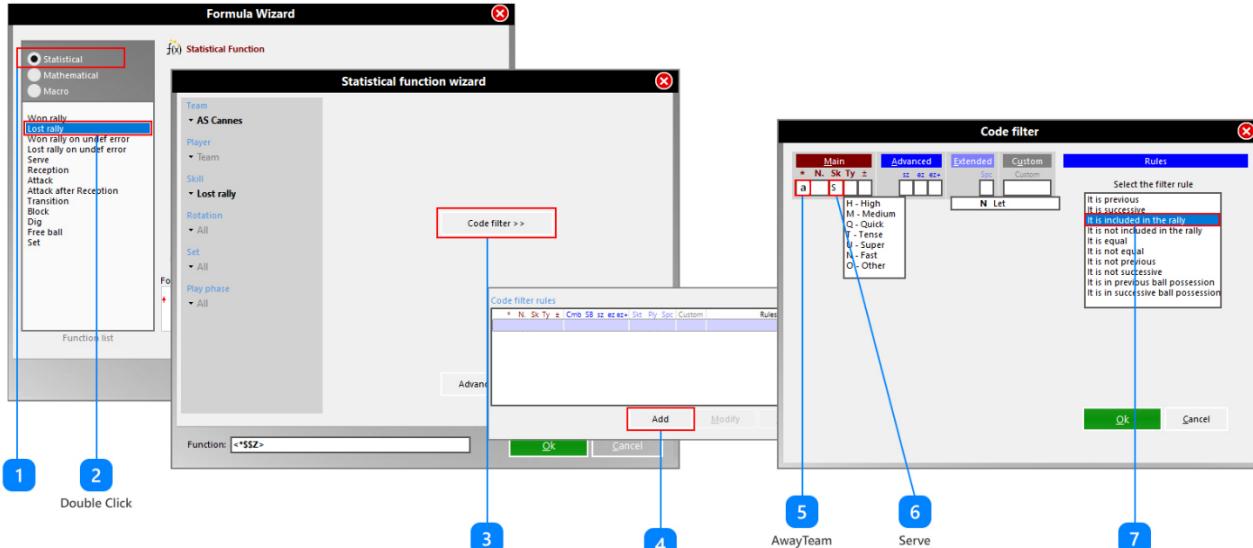


Now position yourself in cell F4, select the wizard icon

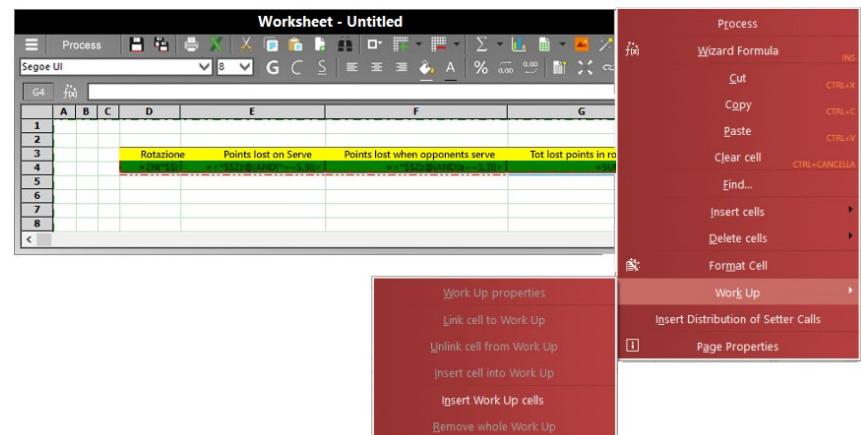
The program will ask if you want to link the cell to the previous development and you will have to click on Yes, since we want to carry out the same development as the previous column.



Repeat the same operations as before changing only the team (now insert external).



Position yourself in cell G4
Right mouse button: **Work Up → Hook development cell**: this command is necessary to ensure that the formula we insert into that cell develops in the same way as those with statistical data previously inserted. The selected cell will be surrounded by the red dotted line indicating that it has been snapped to development

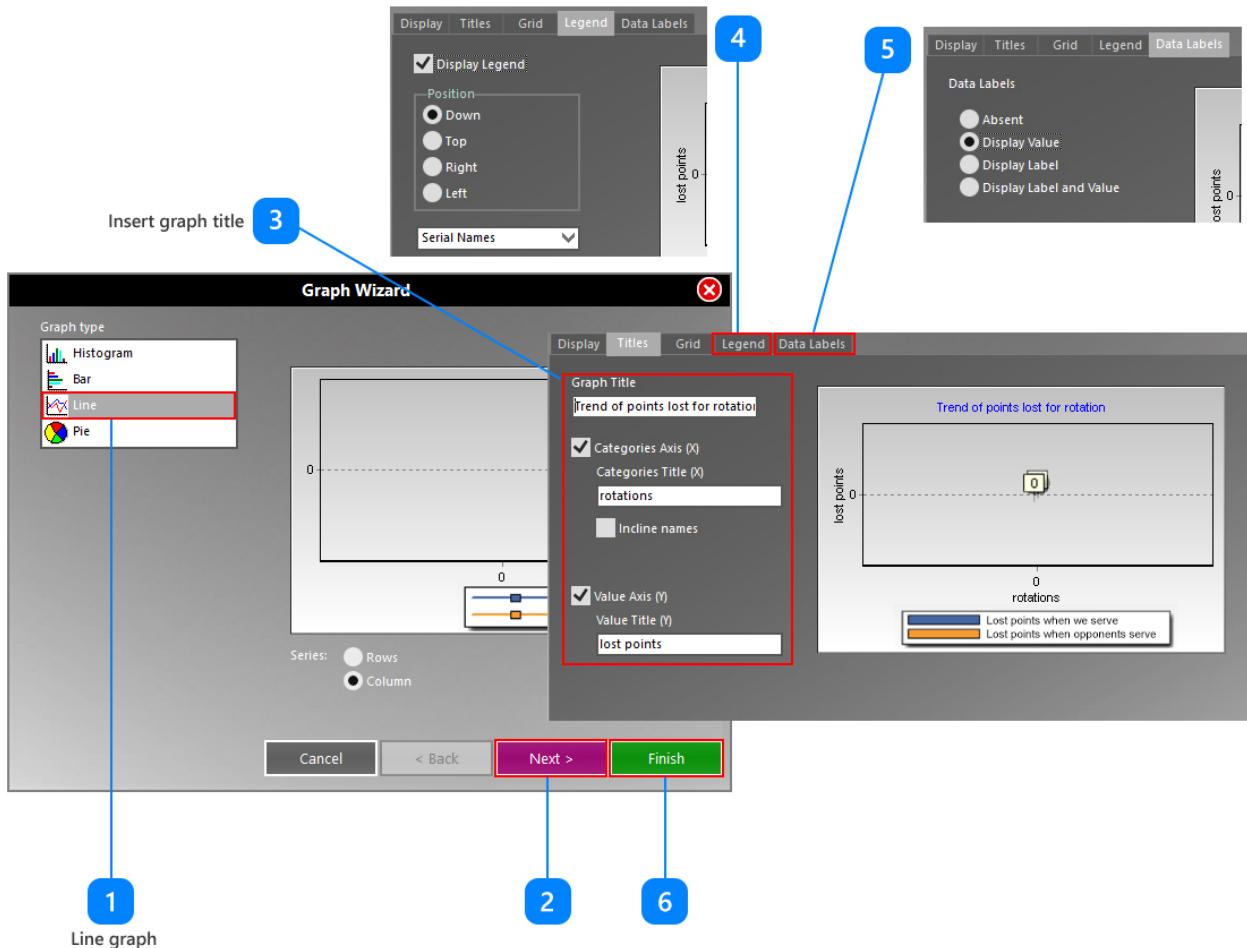


Select cells E4, F4, G4 with the mouse and click on the summation icon Σ
Select cells D4, E4, F4, G4: Right mouse button: **Format Cell → Tab Border** (all borders) and **Background (green)**. The sheet will look like this:

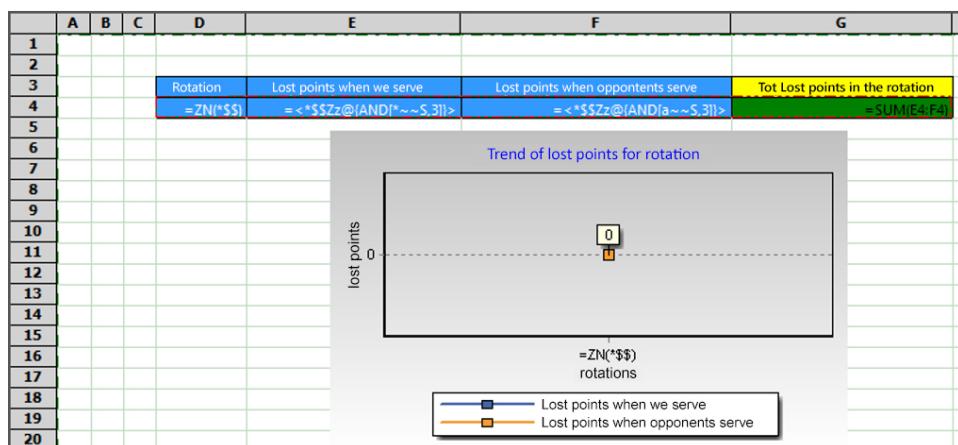
A	B	C	D	E	F	G	H	I	J
1									
2									
3									
4	Rotazione	Points lost on Serve	Points lost when opponents serve	Tot lost points in rotation					
5	=D4*(E4+F4+G4)	=M\$5*\$D\$4*(AND(\$B\$4<=\$B\$5))	=M\$5*\$F\$4*(AND(\$B\$4>=\$B\$5))	=M\$5*\$G\$4					
6									
7									
8									

4. Insertion of the graph

Select the boxes D3, D4, E3, E4, F3, F4 with the mouse and click on the icon. The Chart Wizard window will appear:

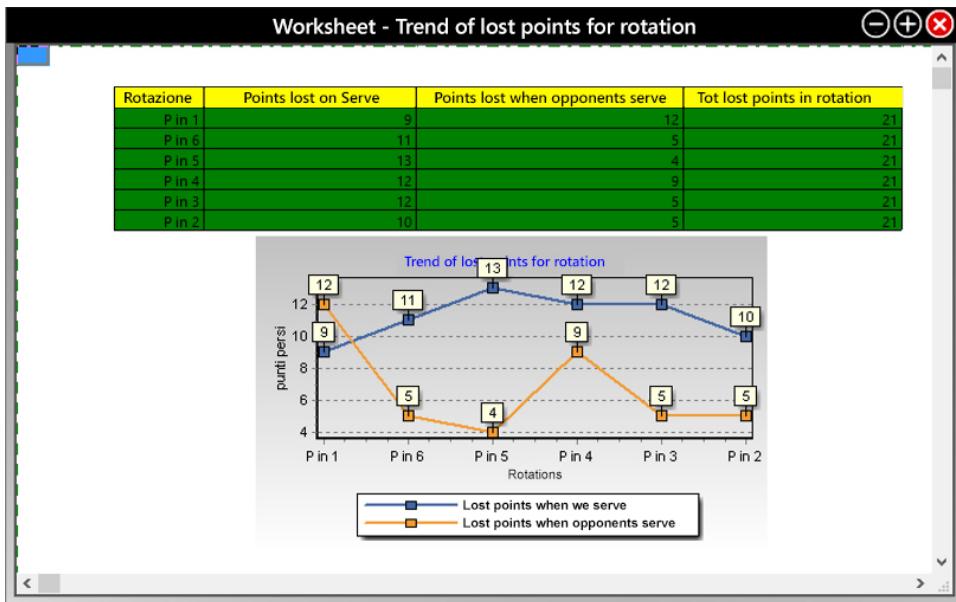


The sheet now looks like this:



5. Analysis visualization

Save the spreadsheet and click on [Elaborate]



Example 3

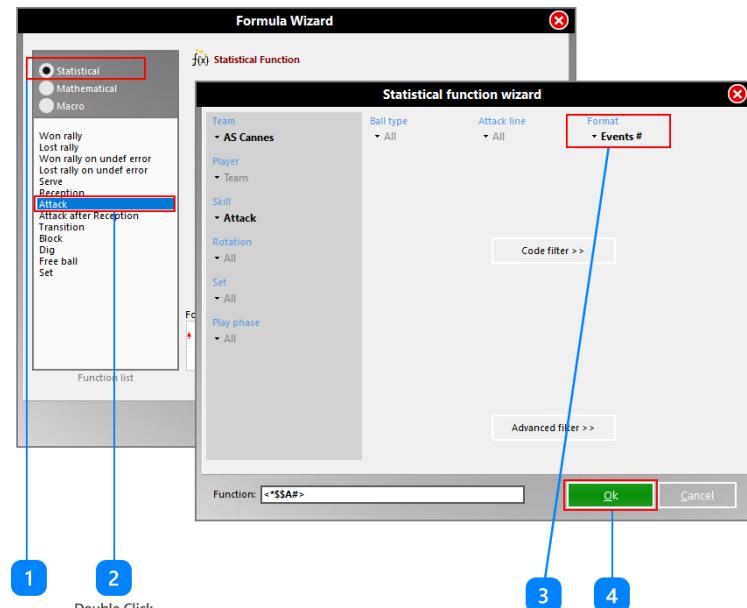
1. Analysis Choice

This example shows us how to use cell references and build complex formulas. For this purpose we represent the % of attacks # of each player compared to the total attacks # of the team.

2. Columns "labels" choice

To define a value label, position yourself in cell A1 and type "Total attacks # of the team". In cell A6 write "Attacks # of players compared to Total attacks # of the team"

3. Analysis composition



Select cell B1 and choose Compose Formula.

Functions: Statistics

Double click on the "Attack" item

Format: Shots #

Press OK to confirm.

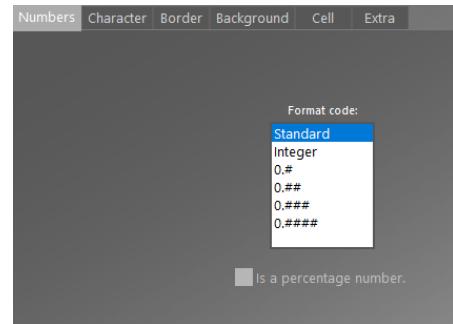
A	B	C
1	Tot team attacks #	=<*\$A#>
2		
3		
4	USA	
5		
6	Players Attacks # related to teams attacks total #	
7		

In cell B1 we indicated the value of the team's winning attacks.

In B4 we will insert the players' winning attacks. In this cell you will need to re-enter the parameters for the winning shots # as we did for cell B1. At this point it will be necessary to make a manual modification: by clicking in this cell we will add the symbol "/" followed by B1 to the existing string.

A	B
1	Tot team attacks #
2	(<*\$A#>)
3	
4	USA
5	
6	Players Attacks # related to teams attacks total #

By clicking in cell B4 you can assign the cell format and establish whether it is a percentage number.
Right-click in cell B4 and select Format Cell. From the Numbers Tab select a decimal number and select "is a percentage number". Press [OK] to confirm and continue.

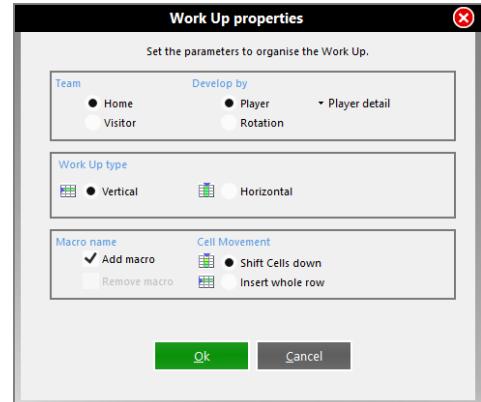


4. Define players development

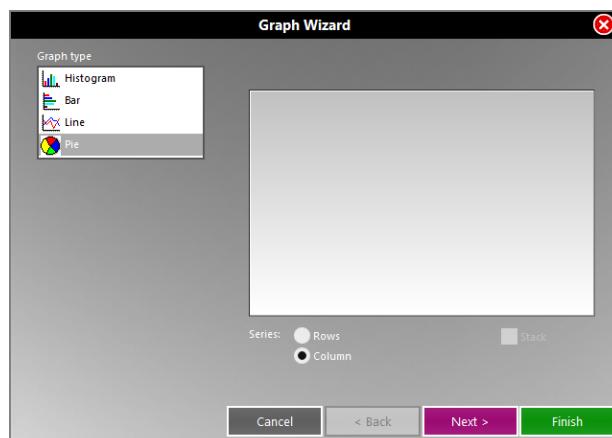
Always position yourself on cell B4, right-click, click on the Development item → Insert Cell Development and select the development for Vertical Players and Add Macros.

The spreadsheet will look like this:

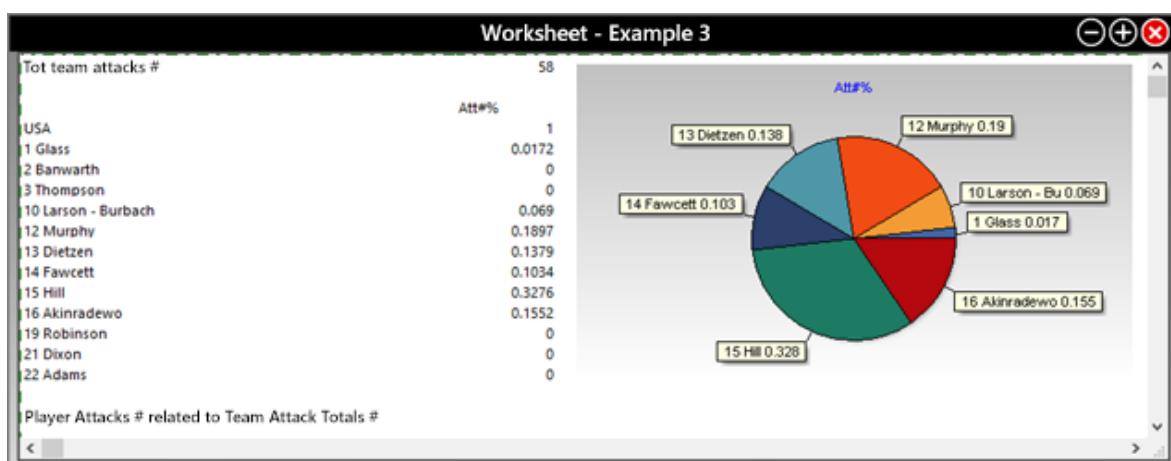
USA	Att#% =< a\$A#>/B1
-----	------------------------------



Select cells A3, B3, A4 and B4 with the mouse and press the icon The Chart Definition Wizard window will appear and in this case we select the pie chart.



Position the graph where you prefer and finally save and click on [Process]



5. Lock a cell with the \$ symbol

Another way to write the function present in cell B4 without using the cell reference is as follows:

Select B4 cell and choose

Place the cursor where you want to insert a function or make changes in the formula.

In this case, position yourself after "/" and delete B1

After confirming, the spreadsheet will be as follows:

B4		=<a\$\$A#>/<a\$\$A#>
1	A	Tot Team Attacks #
2	B	=<a\$\$A#>
3		Atte%
4	A	=<a\$\$A#>/<a\$\$A#>
5	B	
6	A	Player Attacks # related to Team Attack Totals #

To block the value of the function, and therefore to prevent it from being developed for the players of the team, simply manually insert the '\$' symbol in front of the second function as shown in the figure. In this case cell B1 will not be considered.

=<a\$\$A#>/<\$a\$\$A#>

13.7 Examples of DV4 network (France National Team)

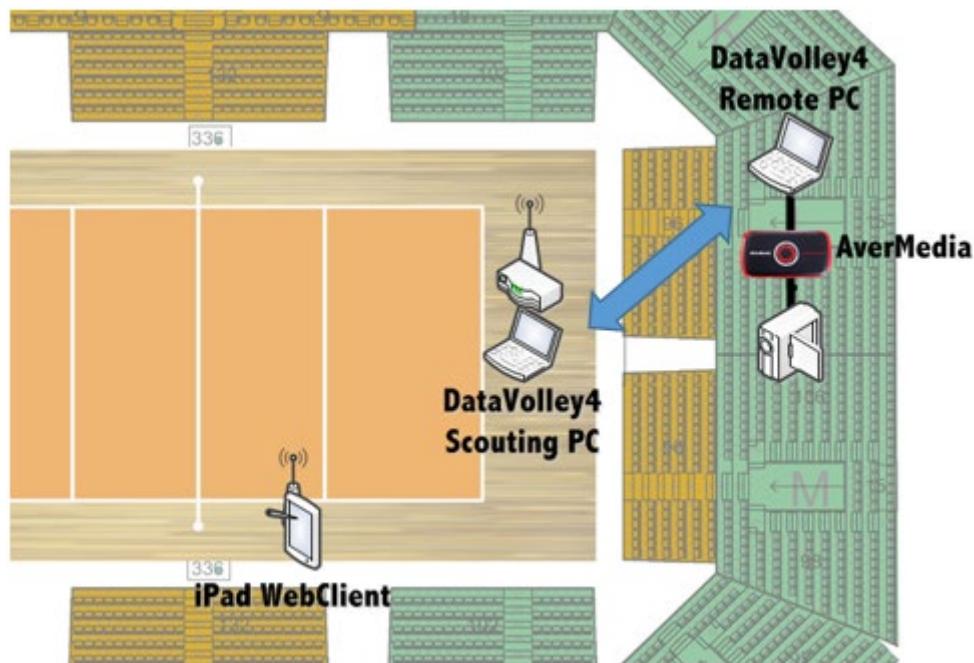
Purpose

The aim of this document is to share the knowledge about network topology for DataVolley4.

In this document you will find the different configuration and stuff used by **France National Team** during the summer 2015.

DataVolley4 and Network

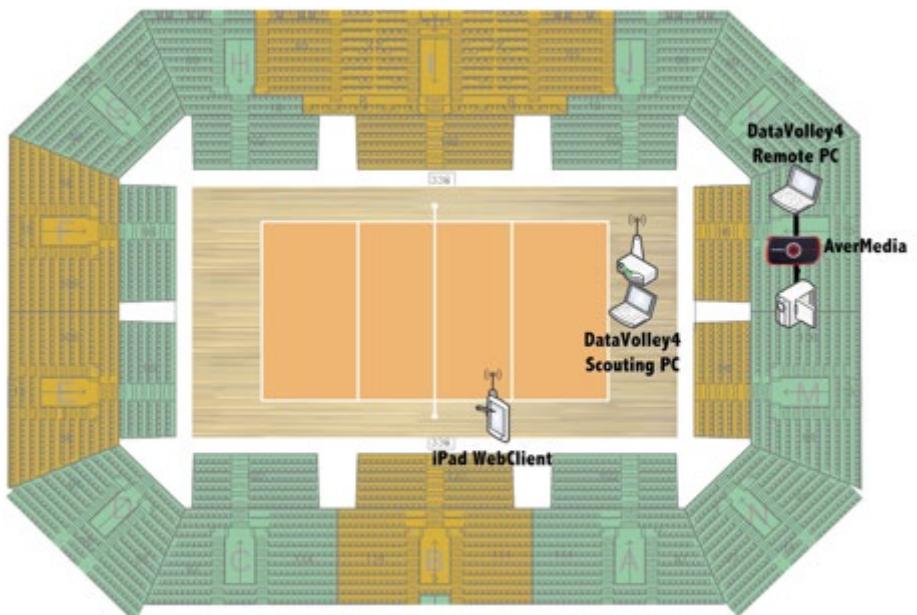
Today with DataVolley4 you can provide from the video area streaming and replay with a remote computer. With this solution in many halls, you can get the view from a high point into your streaming and replay. The problem is that in big venue, moreover when it's not your venue, it's hard to put a cable to have a full wired network.



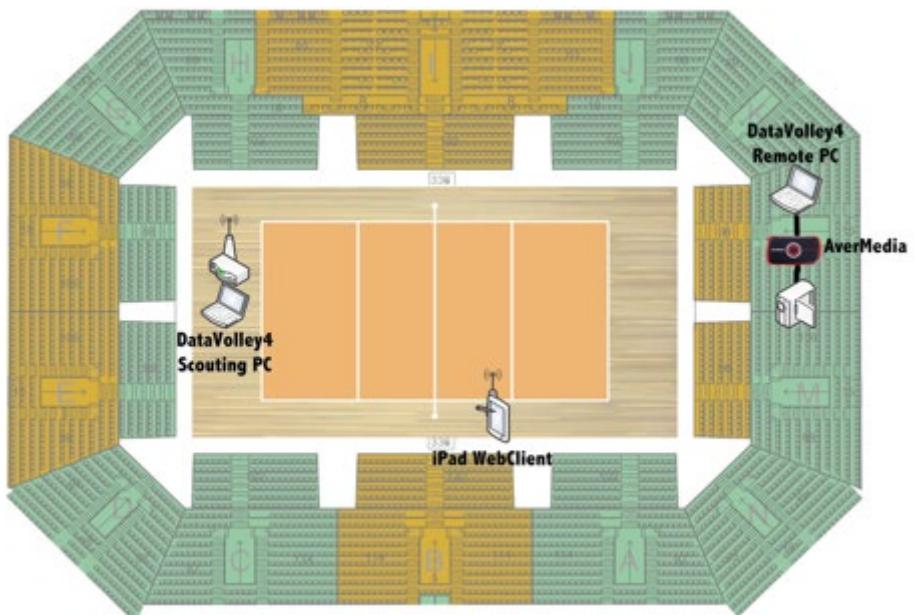
Hall configuration

During a game, there are 2 different configurations possible.

1 - Scoutman's table is close to the video area.



2 - Scoutman's table is far from the video area with the court between the table and the camera.

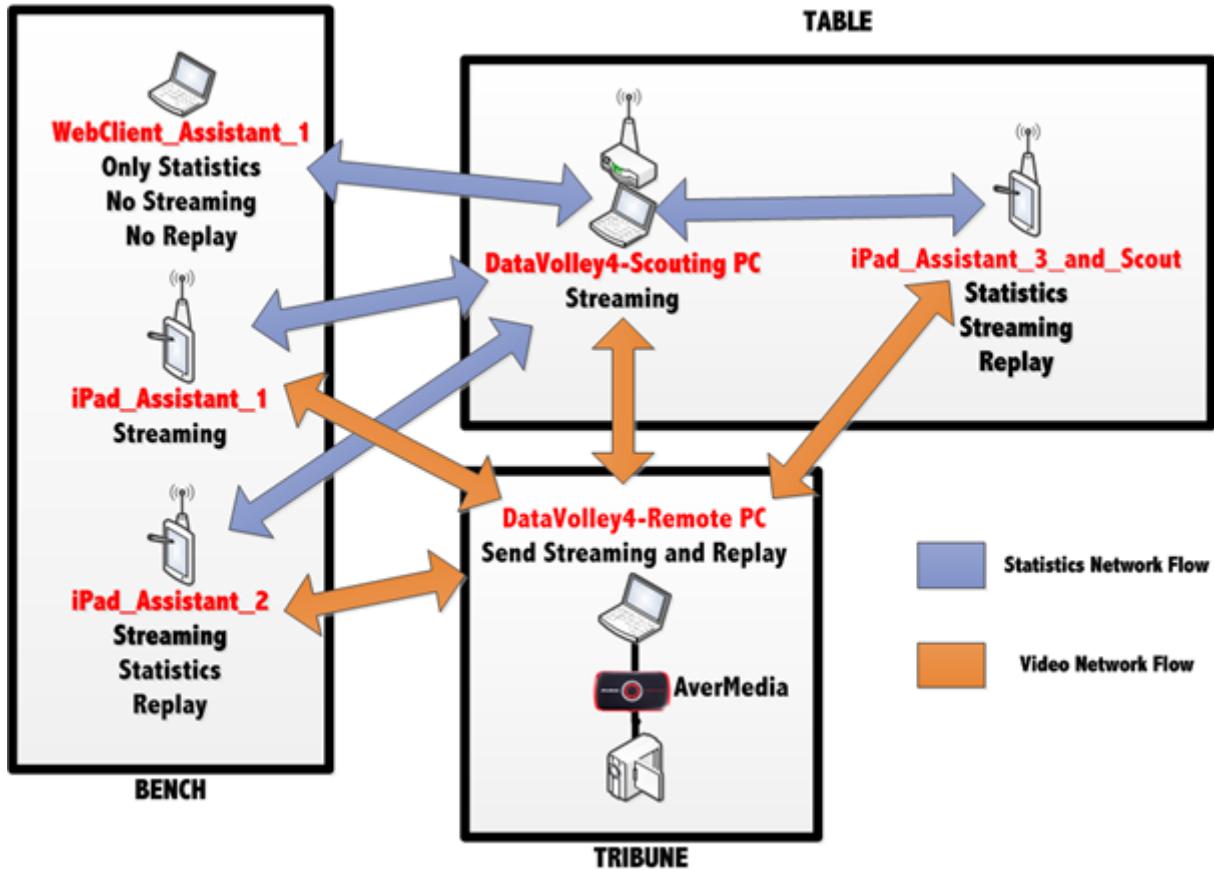


Network flow

With Scouting and Remote PC, there is a lot of network flow that will be on the network.

The following diagram will show all flow used with DV4 by France National Team

TABLE



Solution adopted by Thomas Bortolossi, Scoutman of France National Team

Many network problems can be during match (lost connection, freeze, lags ...) The following solution was used during European Championship from France National Team and it was working good. It's an evolution of the architecture used during World League after a lot of crashes and freezes of the streaming and replay.

WiFi Network for the bench

- Router WiFi 5Ghz
- 2 PoE Access point WiFi 5Ghz

He only use 5Ghz bandwidth network, because mobile phones and a lot of other devices are using 2.4 Ghz bandwidth, to avoid to be jammed by all those devices

The router is on the scoutman's table to provide the strongest signal to the bench.

The scouting computer is wire connected to the router but tablet need to be connected by WiFi.

France National Team Hardware Configuration



- Asus router AC1750 - RT-AC66U

- TP-LINK CPE510 Access point

This antenna allows you to do a Point-to-Point connection until 15 kilometers.

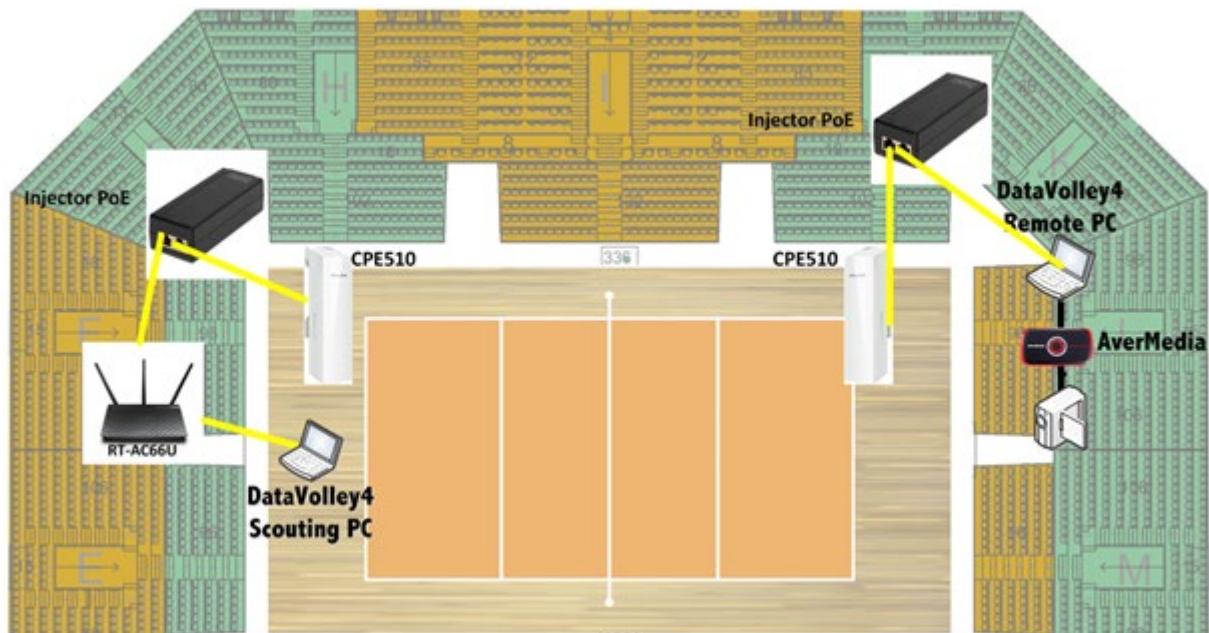
The advantage of CPE510 is that the signal is focus and you can direct on the other antenna.



Setting up CPE510 into the network

To bring the power, CPE510 is using a Power over Ethernet injector.

With CPE510, the network topology look like following schema. In yellow are the ethernet cable.



14 Warranty

WARRANTY RESTRICTIONS

Genius Sports Italy S.r.l. guarantees:

- for a period of 12 months from the date of purchase, the correct functioning of the software according to the functions outlined in the handbook and in the leaflets accompanying the product; .

Genius Sports Italy S.r.l. is not responsible for loss, damaged or a non correct use of the software.

Genius Sports Italy S.r.l. will not be liable for any direct or in direct damages caused by the use of the software products.

CONSUMER PROTECTION

In the event of problems related to the software, the responsibility and the solutions will be at the discretion of Genius Sports Italy S.r.l.:

- The repair or replacement of the software

The warranty becomes void when the software problems are caused by accidents, incorrect use or misapplication of the product.

PROCEDURE TO FOLLOW

During the warranty validity, please contact our technical support department on +39 051 307060 or send us an email <mailto:volleysupport@geniussports.com> in the event of performance problems of the program.

Genius Sports Italy S.r.l. will endeavour to examine the problem and update the company website <https://www.dataproject.com> with the modified software procedures.

ADDITIONAL WARRANTY SERVICE

The client, during the warranty validity (12 months), can download all relative updates for the purchased software version from the Genius Sports Italy S.r.l. website www.dataproject.com.