SOFTWARE FOR THE SCOUTING AND ANALYSIS OF VOLLEYBALL MATCHES

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1  CHAPTER ONE

1.1  HANDBOOK STRUCTURE

This handbook is created to assist the user step by step through the different functions of the Data Volley 2007 software.

The handbook has been divided into three separate chapters:

CHAPTER ONE: SOFTWARE INTRODUCTION
Following a short paragraph on the changes in this new 2007 version, this section defines the logical program criteria: starting from the statistic survey, it describes the windows and the codes used by the software. It then describes the code composition and the personalization of the various functions.

CHAPTER TWO: DATA VOLLEY 2007 MENUS
This section covers all the menu functions one by one, with cross references in order to help the user to look for specific functions.

CHAPTER THREE: PRACTICAL SURVEY EXAMPLES
This final section will give some examples of the basic steps: preparation of the match files, creating teams, practical examples of scouting with different levels of difficulty.

Thank you for choosing the expertise and completeness of Data Volley 2007.
1.2 INSTALLATION

Data Volley 2007 can be installed by using the CD-ROM or by downloading it from the website through the internet.

1.2.1 From CD-ROM

Once inserted the CD-ROM in the cd reader, the program will start automatically in order to run the various functions supplied (demo, installation, handbook). Should the program not start automatically click and launch the GO.exe file with File Manager.

Once in the main window (Home page) click on the sport you are interested in, then click on Data Volley 2007 and on program installation.

You will be asked to confirm or modify the directory where the software will be installed.

C:\Data Project\Data Volley 2007 (we advise not to modify) and a reference in [Start] / Program / Data Project.

The first time you launch Data Volley 2007 you will be asked for the software license file associated with the hardware key, insert the CD path (folder “License file...”) containing the file and confirm. Alternatively you can copy the license file received by e-mail in the C:\Data Project\Data Volley 2007 folder.

1.2.2 From INTERNET

You can download the full program through the Data Project S.r.l. website www.dataproject.com. After selecting the language and the sport type from the homepage, click on Downloads (on the right hand side of the screen). Click on Program and then on Install to download the DataVolley2007_Setup.exe file. You have to insert your login and password previously received by email and click on logon to download.

When the download is complete run the DataVolley2007_Setup.exe file to carry out the complete installation of DATA VOLLEY 2007 in the directory C:\Data Project\DATA VOLLEY 2007.

Copy the software license file in the C:\Data Project\DATA VOLLEY 2007 folder.
1.3 UPDATING DATA VOLLEY 2007 FROM THE INTERNET

All Data Project S.r.l clients are authorised to download the software updates free of charge through the internet website www.dataproject.com.

Choose the language and the type of sport from the homepage and click on Downloads (on the left hand side of the screen). Click on UPDATE to download DataVolley2007_Upgrade.exe file. You will be asked for the login and password, previously received by e-mail when purchased the software. You can retrieve your login and password anytime by emailing Data Project’s customer service (info@dataproject.com).

Once you have completed the download, you have to launch the downloaded file in order to update your software: you will be asked to confirm the directory where you want to install the update (C:\Data Project\DATA VOLLEY 2007).

You can automatically check for new releases and updates by using the relative function in the program. Just click on “?” from the menu bar and select search upgrade on the web.

A confirmation window will appear: if you are connected to the internet and you activate the procedure, the program will automatically check for new updates and will proceed with its download if necessary.

When the download is complete, or when restarting the program, you will see the following window:

By confirming the selection you will run the automatic update.

We advise to run the above procedure frequently. DATA VOLLEY 2007 will advise you to check for updates every 15 days through a program message window.
MATERIALS PROVIDED

- Software: CD-ROM con DATA VOLLEY 2007
- License Software file: LIC_nnnnn_Data Volley 2007.xml (nnnnn is not the client number)
- Hardware: smartkey
- Documentation: this handbook
- USER ID e Password: to access your personal page and other program updates on the website www.dataproject.com
- Hardware Key

SMARTKEY is a small hardware key that must be connected to the USB slot on your computer. Each Key has an individual digital signature that is identified by the software in order to access and use the program. The program decides whether to continue or suspend all operations after verifying the digital signature and the codes on the key.

PLEASE NOTE: Connect the hardware Key to a USB slot before running Data Volley 2007

The hardware key does not interfere with any other application; it is only used when running the program and whilst using Data Volley 2007.

Should the hardware key be faulty or damaged, contact Data Project, arrange to return the key and you will be issued with a new one free of charge.

1.3.1 HARDWARE CONFIGURATION

Minimum requirements for the use of Data Volley 2007:

- laptop or desktop PC
- RAM 512 MB memory (we suggest 1 GB)
- You must have either Windows® XP or Windows® Vista.

For all programs that run in a Windows environment, a powerful processor (we suggest Intel Dual Core Duo) and more RAM (1 GB or more) allow the program to work better and faster.

The software and the hardware key have been tested on Mac computers with Intel Processor with a Windows partition; running Windows for Mac using either Parallels Workstation® or Boot Camp®.
1.4 STATISTICAL SCOUTING USING DATA VOLLEY 2007

The statistic data scouting through the Data Volley 2007 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).

Data Volley 2007 is structured in two main parts: the scouting and the analysing of data.

The next paragraphs will give a detailed description of the scouting structure of Data Volley 2007 to allow you to understand the way the software works in order to use it at its maximum potential.

The new version of Data Volley 2007 is used worldwide and this has guaranteed a simple, quick and user friendly approach to the scouting of statistical data allowing it to be used by experts and non. The software has been developed in a simple and uniform way.

Data Volley 2007 is not only for technical staff and coaches but it can be used by anyone interested in volleyball and interested in becoming a scout man an activity that has now become a popular in the volleyball world. The scout man can now be found in all games, regardless of the game level, and is considered a high focus figure for all the teams.

This handbook guarantees step by step instructions for novices and can also be used by those who want to deepen their knowledge of certain aspects or simply need to check certain procedures.

We suggest you go through the handbook whilst using the program in order to follow each part step by step, we know practise makes perfect so the more you practise the more familiar you will be with the program.

1.5 PERSONALIZATION

One of Data Volley 2007 main features is that you can totally personalise the program.

Upon installation the program is set with the default parameters that coincide with the general scouting standards used by FIPAV (Italian Volleyball Federation).

This allows you to start using the program immediately allowing you to modify and personalise the settings according to your needs once you are familiar with the program.

The default parameters can be found in the Tables and Tools menu. To modify these parameters refer to the relevant paragraph.

This handbook refers to all the default parameters and settings defined in the software for an easier understanding of the program.
1.6 SOFTWARE VERSIONS

Data Volley 2007 is available in different versions:

- **LITE** version: it is the basic version, generally used as a demo version and has limited analysis and scouting functions. For example you can only scout one team and the analysis phase is limited to Player, Skill and Rotation.

- **BASIC** version: the scouting phase is complete for both teams but you can only perform "standard-basic" analysis: for player, skill, rotation, zone and limited analysis for direction and attack combinations represented by graphs.

- **PROFESSIONAL** version: is the complete version that allows you to use all the advanced functions, create personalized analysis, spreadsheets, graphs used to describe the trajectory of the attack and much more.

- **MEDIA**: version: used for services to the Federation.

The following table lists the functions that can be found in each version.

<table>
<thead>
<tr>
<th>Function</th>
<th>PROFESSIONAL</th>
<th>BASIC</th>
<th>LITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scout both teams</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Time code creation for video sync</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Attack combinations</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td>Setter call</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td>Media player videos</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trajectory tracing using the mouse</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td><strong>SCOUTING</strong></td>
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<tr>
<td><strong>ANALYSIS</strong></td>
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<tr>
<td>Player analysis</td>
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<td>✔A</td>
<td>✔AS</td>
</tr>
<tr>
<td>Skill analysis</td>
<td>✔</td>
<td>✔A</td>
<td>✔AS</td>
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<tr>
<td>Rotation analysis</td>
<td>✔</td>
<td>✔A</td>
<td>✔AS</td>
</tr>
<tr>
<td>Zone analysis</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Direction analysis</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Score analysis</td>
<td>✔</td>
<td>✔</td>
<td>✔AS</td>
</tr>
<tr>
<td>Print match report</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td>Print Play by play</td>
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<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Action detail</td>
<td>✔</td>
<td>✔A</td>
<td>✔</td>
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<tr>
<td>Print sequence</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Combination analysis</td>
<td>✔</td>
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<tr>
<td>Spreadsheet</td>
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<td></td>
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<tr>
<td>Distribution sequence</td>
<td>✔</td>
<td></td>
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<tr>
<td>Setter call distribution</td>
<td>✔</td>
<td></td>
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<tr>
<td>Analysis using graphs</td>
<td>✔</td>
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<tr>
<td>Video Composition</td>
<td>✔</td>
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<tr>
<td>Print Composition</td>
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<tr>
<td>Effect analysis</td>
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<tr>
<td>Total analysis</td>
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<td>✔</td>
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<tr>
<td>Statistical match report</td>
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<td>Creation of Html roster</td>
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<tr>
<td>Client module for the bench</td>
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<td>On-line results</td>
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<tr>
<td><strong>GENERAL</strong></td>
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<tr>
<td>Print preview and print on pdf file</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>Evaluation window</td>
<td>✔</td>
<td>✔</td>
<td></td>
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<tr>
<td>Codes list</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Point effect window</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Analysis for both teams</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Export scout</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Password</td>
<td>✔</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Data sharing using DV Scoreboard*</td>
<td>✔</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Season organizing</td>
<td>✔</td>
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</tbody>
</table>
1.7 INTRODUCTION TO THE CHANGES IN DATA VOLLEY 2007

Data Volley 2007 version was developed to satisfy our client’s growing demands for the deeper study of the matches allowing him to perform an extraordinary specificity of analysis. For the clients that have been using the previous version of Data Volley 2007 here is a list of the main changes in the 2007 version that will be covered in further detail in this handbook.

1.7.1 GENERAL CHANGES

New logical organization of the Contents

The work interface has been simplified and reorganized to achieve a better understanding of the operations and to become user friendly.

In particular, when launching the program the last scouted match will not appear, instead a menu will appear on the right hand side of the screen enabling you to decide what to do.

From this screen you will be able to select various options:

- change Season (when you launch the program the Season that was used during the last visit will open automatically).
- Starting a New match
- Open a previously created match from the Match Database
- Modify the Team Database and the Tables (compound codes, attack combinations, setter calls, etc.) in the current Season.
On the bottom part of this window you will find “Show file names”, by choosing this option instead of the name of the matches in the current Season (team1-team2 - result), the names of the saved files will appear. This function can be useful when there are several matches for the same two teams. In this case it is easier to identify the matches by file name and not by name or match result, to avoid confusion.

One of the important changes in this version concerns the opening of a match previously stored in the database. When choosing a match from the database, the program will load the match but it won’t direct you automatically to the scouting section as it did in the previous version.

This window will appear when you open a match and the desired analyses can be performed using the relative menu.

In the left hand corner you will find two options relative to the active match:

- Modify scouting
- Close match

If you choose to modify the scout a window will open up with the information from the previously closed scout and you will be able to continue or amend the scouting.

This version also includes the charts with the information that has been used for the scouting. This helps the scout exchange with other users that don’t necessary use the same scouting parameters.

When opening a match the tables attached to the scout have to be checked to make sure they are compatible with the ones of the current Season. Should they not be compatible, a request will appear where you will be asked to keep the information, launch a converter or ignore the attached tables.

The file will be processed in analysis taking into consideration the selected tables. This will allow you to process another user’s file without having to adjust the parameters, if for example you are only interested in a few simple statistic analyses.
Improvements to the connections on the bench (Professional Version only)

It is possible to connect more than one client station at the same time allowing all to receive the information in real time from the scout-man without having to use the TRASM command. This innovation will allow you to use different client stations for journalists, television commentators, the bench and DV Scoreboard.

It will be possible to connect a client station to an assistant scout-man who will be able to integrate the information inserted by the main scout-man in real time (i.e. attack directions or the new codes regarding a setter call).

A Reader version is also available with limited analysis functions. This version does not require the use of a smart key.

Automatic update and automatic download

1.7.2 INTERFACE AMENDMENTS

Important amendments to the interface have helped create a quick and user friendly environment for the old and new users of the software.

Creation of a totally visual and user friendly interface

Several program functions have been changed in order to include, as an alternative to the old method, several windows where the user can interact directly by using the on screen buttons and the mouse.

- Inserting and displaying the Starting Line up in a set using a specific window. Using the mouse you can either drag and drop a player into the correct court position or you can double click on each player in the list without having to use the FORM command.

- We have added function buttons in the Scoreboard windows in order to use certain functions without having to refer to the command panel (Substitutions, Timeout, rotation + and -, setter in court, points + and -). For information regarding these functions please see the paragraph relating to Program windows.

This is the new window used to facilitate substitutions.

Automatic Caps Lock:

The typed digits will automatically appear in uppercase when necessary without having to use the Caps Lock key or the shift bar.

Improvements to the ‘undo’ and ‘end rally’ buttons

This function is now available as a BUTTON in the scouting window and allows you to cancel the last code entered in one simple click.

Another new feature is the function that allows you to retrieve (by cancelling the action using the undo button) the previous situation (where you will find the last code entered before clicking the end rally button) whilst positioned in the same scouting window in order to check and modify any errors that may occur.
Auto completion in the command window:
By typing the first few digits of a command in the Command Window field, the software will automatically complete the command for you.
By typing the command ‘C’ when closing a substitution, the software will suggest the player that previously left the court.

Window displaying the main scouting commands.
Next to the scouting window a separate window will appear called quick command where you will find the most frequent commands used during a scout.
This window allows you to choose the relevant command using this menu without having to use the command menu or the command window.

Improvement to the display of the information inside the codes list window
Due to the increase of the number of scout codes, the codes list window has been made more schematic and easier to consult. Code checks will therefore be easy to run.

Indication of the number of foreign players on the court.

1.7.3 SCOUT AMENDMENTS
We have had many requests from our expert users regarding the amendments to the scouting procedures. With the new Data Volley 2007 every action can be scouted to guarantee a subsequent detailed and in depth analysis.

Internationalization of the scout codes
All codes will now be in English to avoid problems with the translation of the scout codes.

Substantial increase in the scouting specificity
The new codification guarantees an extraordinary scouting specificity given by the new advanced and extended codes:
- insertion of Free Ball skills and Super and Quick ball types;
- Ball type L has been removed (backrow attack) because it is automatically generated by the position of the player on the court;
- Introduction of the possibility of scouting the advances characteristics (see below chart).

Numbering from 0 to 99
The number of the home or away players can go from 0 to 99. The code must now have a prefix relating to the team, * (home) or a (away), and you wont have to change the original number sequence contrary to the previous version where the away team numbers had to be increased by 50.
Introduction of the codification of the setter calls (Professional Version only)

It is possible to codify, in a specific window, the setter calls, outlining the movements of the middle blocker. It will be possible to study where exactly the setter will set the ball following a specific call out to the middle blocker and following the type of reception (according to the court position it is coming from). This kind of analysis will help to study the typical behaviour of each setter during different game situations in order to foresee the tactics of the opponent team. This type of code can be inserted by an assistant scout-man from a client work station.

Scouting of the cones as landing zones of an attack (Professional Version only)

Previously the court was divided into nine zones in order to scout the landing zones of the attack, the new version allows you to scout using cones (diagonal, sharp diagonal, parallel and so on).

New window displaying the corresponding rotation

By clicking on each code in the codes list, a window will appear representing a court displaying the rotation corresponding to that particular action. This way it will be possible to trace beforehand, step by step, the trajectories (3 points) of serves and attacks, and the single trajectories of every action.
Integration of scout codes from a client station (Professional Version only)

Attack and serve trajectories, reception position, set position, number of receivers and so on can all be integrated, action by action can all be integrated, action by action, in a main scout program by an assistant positioned at a client station.
Window for changing scout codes after the event
We have developed several facilitations for the correct modification and integration of the codes scouted after the match. The insertion wizard is simple and intuitive and allows the codification of the exact coordinates of the main actions in the game court.

Addition of media player to view a video of the match (Professional Version only)
You can now open a video of the game directly in the Data Volley 2007 screen thanks to the addition of a media player. This will allow you to quickly access and view the video after the match in order to check or modify the scout, or alternatively scout a new match.

1.7.4 Changes to the analysis procedures
Following the increase of scouting operations, we have also increased the analysis operations. Additions to the analysis operations:
- The action filter rules are now 5;
- There are no restrictions on the various rotations (home - away) that can be analyzed;
- You can now choose the players to place on the court;
- We have introduced an analysis section for won set, lost set, point phase or Side out(change ball);
- You can now choose more than one element at the same time, combining one or more Player, Set and Rotation;
- Revision and improvement of many types of analysis, for example: in the reception analysis, the report for the server for every type of reception; in the Direction Analysis the set point can now be analyzed, etc..
Before printing, all types of analyses can be previewed and saved in a PDF format file.
**Improved Play by Play analysis**

In the play by play analysis the information is obtained straight away and we have added a graph showing the point difference between the two teams.

![Graph showing point difference between two teams](image)

**Organising an analysis**

The analysis can be organised by the number of the player, by the team position, by alphabetical order, etc.

**Improvements to the Worksheet (Professional Version only)**

We have applied the following changes to improve the spreadsheets in the program:

- introduced a user friendly interface for dealing with the cell properties and the statistical formulas;
- increased the analysis possibilities of the statistical functions overtaking the previous restrictions on the player rotation analysis;
- added the definition of a group of cells developed for the players of the team;
- easy input of the macros, team name, player, set, score and number of sets played by the player;
- improved the insertion and the definition of formula procedures;
- added a button that elaborated the spreadsheet directly in the Editing phase;
- increased the number of columns to 52;
- new formatting functions have been added such as Cell merge, Auto size, highlighting of values within a certain range, etc.;
- possibility of adding an image;
- Mathematical operations can be performed using the cells: addition, compute the average, standard deviation, etc.

**New analysis “Distribution of setter calls” (Professional Version only)**

This is the analysis given by the scouting of a setter call. It allows you to view different courts for each setter call you have chosen. A graph will show the movements of the middle blocker and the trajectories of the performed attacks.

**Possible changes to the combination codes (Professional Version only):**

We have added a function that allows you to change the combination codes. This function can be found in the tools menu. It is now possible to save the selected associations. Thanks to this new function you will have a file of associations for a team and return to them when necessary.

In the Client version we have added an analysis predisposition to elaborate a simplified statistic screen for the television commentator and the press.

PLEASE NOTE: All changes made in the new Data Volley 2007 version will be identified and highlighted by a box with a light blue background with a grey boarder throughout this manual for an easy consultation.
1.8 PROGRAM WINDOWS

The statistic scouting function in Data Volley 2007 is made up a series of program windows that will appear according to the required function.

1.8.1 ROTATION WINDOW or SCOREBOARD WINDOW

This window, generally positioned in the centre of the screen, displays all the information regarding the match that is being scouted. This window will appear once you have created a match, after you have inserted the players of the two teams, or when you decide to open a previously saved scouting.

The following information will always appear in this window:

- Roster for both teams: the number displayed next to the name of each player represents the court position among the initial sextet line up, in the last scouted set. The * symbol next to the name of the player indicates that this player has entered as a substitute during the current set. If a player does not enter a set, there will be no symbol or number next to his name.

- Line-up and rotations on the court: the two sextets are positioned on either side of the net, the two setters (one for each team) are highlighted by the contrasting coloured number, the Libero is highlighted in yellow and the ball possession is highlighted by the white ball positioned next to the serve zone.

- The score: above each roster you will find the current set score, the previous set score, the number of substitutions made (C) and the number of time outs(T) called.

The Rotation Window cannot be edited directly but has different function buttons to use.

The layout of this window can be changed:

- Click on \( \text{rotation button} \) to change the window orientation from horizontal to vertical, and back again. This is the vertical view of the scoreboard window.

- if you need to invert the position of the teams you can click on the icon \( \text{invert button} \) or \( \text{flip button} \) or type the command INV (see command menu paragraph)

- These icons \( \text{size button} \) or \( \text{maximize button} \) allow you to reduce or enlarge the size of the window, to either view or hide the list of players.
1.8.2 THE SCOUTING WINDOW
The scouting window is usually positioned horizontally on the bottom part of the screen. This is where you can insert codes for the action of each player during the match.
The window is basically an editable row where the data is typed into.
The entered code sequence is saved by pressing the [Enter] key.
Data Volley 2007 stores a copy of the last entered and saved code: should the computer crash or shut down accidentally you can continue from the last action saved without losing any work.
Should you have several program windows open, press the [Esc] key to return to the scouting window to continue entering data.
We have added a few functional buttons to the scouting window to avoid some typing combinations.

![Scouting window diagram]

End Rally left or high key     End Rally right or high key     Undo end of Rally     Enlarge or reduce font size

1.8.3 CODES LIST WINDOW
This vertical window is generally positioned on the right hand side of the screen and displays the codes that are typed into the Scouting window and are then confirmed by pressing the End Rally key. The codes that are transferred into this window are normalized (see detailed paragraph) and verified. The program checks the logical action sequence, for example if the player associated with the action is actually on the court and that the sequence between end rally and the player who performs the following serve is correct.
Press the [Page Up] key to access the Codes List window while you are in the scouting window should you need to make any changes.
Movements within this window can be made by using the [Page Up] and [Page Down] keys, the arrow keys or simply using the mouse. To amend a code, position the cursor on the desired code and press the [Enter] key.
For further details on inserting and modifying the codes list see the specific paragraph.

![Codes list window]

Functional buttons in the Codes List Window:
- **Update**: this button is used to update the statistical data should there have been any changes in the codes list.
- **Verify**: this button is pressed to launch a code verification to check for errors or incorrect sequences.
- **Search**: this button opens a search window where you can insert the “filter” to search for a certain type of action (e.g.: a certain player action, where a certain action has been made, etc.).
Press the [Esc] key if you want to return to the scouting window.
1.8.4 THE COMMAND WINDOW

Data Volley 2007 uses specific commands that can be found in the quick command window on the left hand side of the screen and in the Commands menu bar. They can also be typed into the Command Window in order to speed up the operations.

Press the [Esc] key to return to the Command window when in the scouting window.

PLEASE NOTE: When positioned on a menu or on another window (for example the codes list window) the [Esc] key takes you back to the Scouting window. If you are positioned in the Scouting window the [Esc] key will take you back to the Command Window.

See the specific paragraph for information on the codes used in the Command Window.

1.8.5 QUICK COMMAND WINDOW

A Quick Command Window has been added and is positioned on the left hand side of the scoreboard window. This window provides shortcuts to the main commands used during the scouting of a match.

- Opens the Match notes window (NOTES command)
- Opens the players list for the home and away team (LIST)
- Displays the starting home and away sextet (LINEUP)
- Prints the match report (REPORT)
- Opens a movie within Data Volley 2007
- Saves the scout
- Exits the scout (END)

The different windows are generally positioned on the screen as below:
Each window can then be positioned as required.

1.9 THE ICONS

These are the icons present in the program and their specifications:
1.10 DATA VOLLEY 2007 CODES

1.10.1 GENERAL CONSIDERATIONS
Data Volley 2007 transforms all the actions performed during a match into highly specific codes that describe, in detail, each player hit, in order to carry out detailed analysis for every technical and tactical aspect of the game. Data Volley 2007’s codes are made up of numbers, letters and symbols and the meaning of each character varies according to the position in which it is typed in order to describe each hit in a specific way that can’t be mistaken during an analysis to avoid errors.

In order to understand the code description we need to explain the code normalization procedure. We previously stated that the Data Volley 2007 codes have a certain meaning depending on the sequence they are in. This rigid construction is applied to the codes that have been reconstructed(normalized) by the program following what you typed into the Scouting window and then saved in the Codes List window in the standard format, to allow you to search and analyse in a quick and easy way.

During the course of this handbook you will see that thanks to the introduction of automatisms you don’t always have to follow the above rigid construction when entering a codes and characters.

1.10.2 CODE SYNTAX
Data Volley 2007 uses a more detailed standard codification procedure than in the previous version.

The main difference, especially if you have used the previous version, is the internationalization of the scout codes. All codes will now be in English to avoid problems in the translation in the different languages.

The new version will no longer require the use of the Caps Lock key, as the program will automatically change the characters where and when necessary.

1.10.3 SCOUT CODE SPECIFICATIONS
The scout codes are divided into three macro categories:

a) Main Code
b) Advanced Code
c) Extended Code

The main codes represent the basic information regarding each hit and can be made up of maximum 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:

<table>
<thead>
<tr>
<th>BASIC SKILL</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Serve</td>
</tr>
<tr>
<td>R</td>
<td>Reception</td>
</tr>
<tr>
<td>A</td>
<td>Attack</td>
</tr>
<tr>
<td>B</td>
<td>Block</td>
</tr>
<tr>
<td>D</td>
<td>Dig - Defence</td>
</tr>
<tr>
<td>E</td>
<td>sEt</td>
</tr>
<tr>
<td>F</td>
<td>Free ball</td>
</tr>
</tbody>
</table>

The **FREE BALL** skill has been added in this software version.
• **TYPE OF HIT (1 character)**
  This character defines and details the effects of the skills outlined in the previous table:

<table>
<thead>
<tr>
<th>TYPE OF HIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>H High</td>
</tr>
<tr>
<td>M Medium</td>
</tr>
<tr>
<td>Q Quick</td>
</tr>
<tr>
<td>T Tense</td>
</tr>
<tr>
<td>U sUpper</td>
</tr>
<tr>
<td>F Fast</td>
</tr>
<tr>
<td>O Other</td>
</tr>
</tbody>
</table>

With “0” for Other we indicate the balls that can’t be classified under the other ball types in the above list.

• **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.

<table>
<thead>
<tr>
<th>SERVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Error (net ball, out, foot foul)</td>
</tr>
<tr>
<td>/ Half point gained for your team (the reception of the opponent ends up in the net and a player of the first line can either spike or block)</td>
</tr>
<tr>
<td>- Negative (the opponent receives the ball # and can attack in any way)</td>
</tr>
<tr>
<td>! Decent (the opponent can’t attack with a combination, for example reception on the 3 meter line)</td>
</tr>
<tr>
<td>+ Positive (the opponent receives and has one chance of attack).</td>
</tr>
<tr>
<td># ACE - Direct Point (the opponent can’t receive or loses the ball)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECEPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Error (direct point for the opponent)</td>
</tr>
<tr>
<td>/ Half point for the opposition (the ball goes in the net and an opponent can either spike or block)</td>
</tr>
<tr>
<td>- Negative (you can only perform one mandatory attack)</td>
</tr>
<tr>
<td>! Not used during the reception (but associated to a particular type chosen by the user).</td>
</tr>
<tr>
<td>+ Positive (ball received within the 3 meter line, more than one attack can be performed but not all the combinations).</td>
</tr>
<tr>
<td># Perfect pass, either position and parabola (all attack combination can be set)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ATTACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Error (out, net ball, invasion)</td>
</tr>
<tr>
<td>/ Blocked attack (point goes to the opponent)</td>
</tr>
<tr>
<td>- Poor (easily dug by the opponent who can try and play the ball again)</td>
</tr>
<tr>
<td>! Blocked but recovered by the home team</td>
</tr>
<tr>
<td>+ Positive (opponent defended with difficulty and the home team can try and play the ball again)</td>
</tr>
<tr>
<td># Winning (direct point)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Error (hands out, net ball)</td>
</tr>
<tr>
<td>/ Invasion (point goes to the other team)</td>
</tr>
<tr>
<td>- Poor (the opponent can play the ball again)</td>
</tr>
<tr>
<td>+ Positive (the ball is touched and can be played again by the home team)</td>
</tr>
<tr>
<td># Winning (direct point)</td>
</tr>
</tbody>
</table>
The standard reception evaluation generally entails the analysis of various parameters:

- The ball’s landing point in relation to the net.
- The ball’s 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.
1.10.4 DEFAULT PARAMETER FOR SKILL, TYPE AND EVALUATION

During the scouting phase, Data Volley 2007 allows you to use strategies to speed up the operations as much as possible. The main strategy is the one that allows you to perform a default scouting by setting some automatic parameters.

It is possible to set:

- **Default skill**: if you don’t set a skill, the program will automatically insert the default value in the Codes list window during the code creation. The default skill will indicate the skill that is performed more frequently, (for example the attack during a block - AH, but you can modify this value as required). This setting is useful to speed up a simple scouting or to perform a detailed scouting in a simple and quick way. For example, if you want a technical/tactical scout of the hits performed by the setter, you can insert the set as a default skill and only insert the player number and the value related to the hit.

- **Default hit type** for each skill: the program sets a default type value for each skill. The default value is generally the most frequent hit, but the type of hit depends on the volleyball category. For example, in the men’s A league where the most frequent action is the jump serve, the serve and the reception skills will be set as type Q (quick in jump).

- **Default evaluation/effect**, for each skill: the program will set this value on positive. All default values can be modified as and when required. These default settings help the scout man to type less digits in the scouting window to save time.

Here are some scouting examples using default parameters:

- skill: attack (A); type: high (H); effect: +
  - If the attacker, player number 7 performs a high attack with a positive + effect value, press 7 and then the [Enter] key on your keyboard and the code will automatically appear as 07AH+.
  - If the attacker, player number 7, performs a high attack with a # effect value, the code will automatically appear as 07AH#.
  - If the attacker, player number 7, performs a quick attack with + effect value, by pressing the 7 and Q on your keyboard, the code will automatically appear as 07AQ+.

The advanced code must be maximum 3 entries (6 characters). This code allows you to enter additional information in order to have a more detailed analysis.

1.10.5 COMBINATIONS

Combinations are particular codes that enable specific skills to be scouted quicker and more accurately.

Attack and Set combinations can be defined in Data Volley 2007.

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 (for example C1, W2, etc.). The attack combination code must be previously defined and associated with a type of attack in the relative table.

The table for the attack combinations can be found in the menu File_Tables_attack combinations.

The combinations in this table always relate to a particular Season. You can modify, add or remove attack combinations in this window.
By clicking on MODIFY or ADD 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;
    - 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;

**Few Examples:**

**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:

You have to choose the second arrow because the attacker is from the backrow;
Select Back as the target attacker is the opposite, positioned in zone 1;
The ball is positioned between zone 9 and 2 so the arrow will be positioned as shown;
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:

1. Select the front row arrow.
2. Back is selected because the target attacker is the opposite, positioned in zone 2.
3. The ball’s starting point will be traced in zone 3.

The attack combination can either:
- replace certain information in the main code to speed up typing (i.e. 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)
- 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)
The Set combinations are a new addition to Data Volley 2007 and they define the SETTER CALLS. A Setter Call is when the setter decides the position of the middle blocker during the reception phase. 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. It will be possible to work out where the setter sets the ball following a specific call to the middle blocker and depending on the type of reception (the type of effect and what court position it comes from). This type of analysis can scout the typical behaviour of each setter during the different match situations in order to predict the game tactics of the opponent.

The different setter call codes must be inserted in the relevant table before they can be used. This table can be found in File_table_setter calls.

This window also refers to the current Season and the setter calls can be added, modified or removed.

This button draws the movement

This button draws the Set area (position of the setter when performing a set)

In the modify or add set window you will have to define the zone of the set.

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.

During the normalization phase the program will assign the hit to the setter on the court and will associate it to a set code (E). If a set code is already present in an action, the setter call will be inserted in the present set; alternatively it will create a new setter call.

The setter call code can be associated to a set value (i.e. K1#) or to the zone where it was performed in (i.e. K12) or to both (i.e. K1#2)

If a value is not set, a default value will be associated to the set code.
The default values must be entered beforehand in the relevant table with the other default skill codes.

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 after the reception code.

When after a set an attack combination has been performed, the setter call code will also include the information relative to the target attacker (result of the attack combination performed).

When a combination is not performed after a set (i.e. because the set is negative and attack can’t be performed) the information relative to the target attacker can be added directly to the setter call code (i.e. K1B etc.).

For further information regarding the attack combinations and the target attacker see relative paragraph.

- **HIT STARTING ZONE (1 character)**
  
  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:

  ![](image)

  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 three back court zones (1,6,5);
  - For the reception you consider the court zones where the ball was served by the opponents (1,6,5);
  - 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:

- **1.10.6 CODING BY ZONES (1..9)**

  The court is divided into 9 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:
1.10.7 CODIFICATION USING CONES (1..9)
Divided as seen below, depending on the zone where the attack is performed:

- From zone 4/5
- From zone 2/1
- From the centre

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

- **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:

<table>
<thead>
<tr>
<th>ATTACK</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>Hard spike</td>
</tr>
<tr>
<td>P</td>
<td>Soft Spike - Top Spin</td>
</tr>
<tr>
<td>T</td>
<td>Tip</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BLOCK</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Assist</td>
</tr>
<tr>
<td>T</td>
<td>Attempt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECEPTION PASS</th>
<th>DIG DEFENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>On left</td>
</tr>
<tr>
<td>R</td>
<td>On right</td>
</tr>
<tr>
<td>W</td>
<td>Low</td>
</tr>
<tr>
<td>O</td>
<td>Overhand</td>
</tr>
<tr>
<td>M</td>
<td>Middleline</td>
</tr>
</tbody>
</table>
• 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:

<table>
<thead>
<tr>
<th>ATTACK</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No block</td>
</tr>
<tr>
<td>1</td>
<td>1 player block</td>
</tr>
<tr>
<td>2</td>
<td>2 players block</td>
</tr>
<tr>
<td>3</td>
<td>3 players block</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BLOCK</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No block</td>
</tr>
<tr>
<td>1</td>
<td>1 player block</td>
</tr>
<tr>
<td>2</td>
<td>2 players block</td>
</tr>
<tr>
<td>3</td>
<td>3 players block</td>
</tr>
<tr>
<td>4</td>
<td>Hole Block</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RECEPTION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Two players receiving, the player on left receives</td>
</tr>
<tr>
<td>2</td>
<td>Two players receiving, the player on right receives</td>
</tr>
<tr>
<td>3</td>
<td>Three players receiving, the player on left receives</td>
</tr>
<tr>
<td>4</td>
<td>Three players receiving, the player on center receives</td>
</tr>
<tr>
<td>5</td>
<td>Three players receiving, the player on light receives</td>
</tr>
<tr>
<td>6</td>
<td>Four players receiving, the player on left receives</td>
</tr>
<tr>
<td>7</td>
<td>Four players receiving, the player on center-left receives</td>
</tr>
<tr>
<td>8</td>
<td>Four players receiving, the player on center-right receives</td>
</tr>
<tr>
<td>9</td>
<td>Four players receiving, the player on right receives</td>
</tr>
</tbody>
</table>

• 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.

<table>
<thead>
<tr>
<th>ATTACK</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>POINT</td>
<td>CONTINUE</td>
</tr>
<tr>
<td>S</td>
<td>Block Out - Side</td>
</tr>
<tr>
<td>O</td>
<td>Block Out - Long</td>
</tr>
<tr>
<td>F</td>
<td>Block on floor</td>
</tr>
<tr>
<td>X</td>
<td>Direct on floor</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERRORS</td>
</tr>
<tr>
<td>S</td>
</tr>
<tr>
<td>O</td>
</tr>
<tr>
<td>F</td>
</tr>
<tr>
<td>X</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>I</td>
</tr>
<tr>
<td>P</td>
</tr>
<tr>
<td>Z</td>
</tr>
</tbody>
</table>
Customized characters:
Data Volley 2007 allows the user to add up to 5 customized characters in order to insert additional information if required. During the normalization phase, these customized codes will be added automatically in the custom character position.

### 1.11 CODE ENTRY IN THE SCOUTING WINDOW

The Scouting window is a single row window where the codes are typed into.
- The code, relative to each hit, must never be separated by a space.
  - i.e.: 5SH+16
- A space must be left between two codes relating to two separate hits.
  - i.e.: 5SH+16 a6AV#41A

By pressing the [Enter] key, the codes are normalized and then saved in the Codes list window. The new scout codes guarantee a specific codification for each hit.

It is not necessary to insert all the codes during a statistical scouting on a live match; you will be able to enter the detailed codes subsequently thanks to a simplified window and a video of the match that can be opened directly in the program.

We have added a simplified function for the expert users who prefer an instant input of the full code: once the main code is inserted, for example 17C3#6 (attack combination C3, player number 17 to zone 6) you can use the key combination [Ctrl + space] bar or Window’s PopUP menu or any associated key, and a window (see below) will appear with all the available codifications for the entered characters.

Here you can insert the type of attack, the numbers of players performing a block and the way the point was assigned.

The extended codes entered will be highlighted in red.

The setter call code is entered by adding the call code (i.e. K1) during the reception action. The program will automatically assign this code to the set and to the player on the court.
1.11.1 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 and not the [Enter] key.
There are two ways to confirm the End of the Rally:

- Using the keyboard keys previously assigned 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 new buttons added to the Data Volley 2007 version, positioned in the scouting window.

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. During service change it will assign the serve and will modify the rotation in the Scoreboard window.
Following the End Rally, the first digits of the serve code with the number of the player who will perform the serve, will be inserted in the Scouting (if set in General Options_automatic serve).

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 Ctrl key + A key
- Using the Undo (cancel) button, new addition to the Data Volley 2007 version, 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 window where the digits inserted before the end rally will appear. This will help the user should he need to modify the code.

CLOSING A SET
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 Notes window.
Apart from the score, 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.
1.11.2 COMPOUND CODIFICATION

Data Volley 2007 has designed compound codification based on the correlation that exists between two volleyball skills, for example the serve and the reception.

In the statistical scouting this correlation is even stronger as the value given to the hit depends on how the hit affects the rest of the game therefore on the value given to the next hit.

You can personalise the correlations between attack/block, attack/dig, serve and reception by selecting File_Tables_compound codes.

This table outlines the correlation between serve and reception:

<table>
<thead>
<tr>
<th>SERVE</th>
<th>RECEPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>=  Error</td>
<td>There is no reception</td>
</tr>
<tr>
<td>/ Half point, the opponent's reception</td>
<td>/ Half point, the ball goes over the net</td>
</tr>
<tr>
<td>goes over the net</td>
<td></td>
</tr>
<tr>
<td>- Negative, the opponent</td>
<td># Perfect position and trajectory</td>
</tr>
<tr>
<td>perfectly receives the ball</td>
<td></td>
</tr>
<tr>
<td>! Acceptable, the reception</td>
<td>+ Positive but not perfect (within the 3 meters)</td>
</tr>
<tr>
<td>is within 3 meter line</td>
<td></td>
</tr>
<tr>
<td>+ Positive, the opponent receives</td>
<td>- Acceptable, it doesn't allow to perform all attack</td>
</tr>
<tr>
<td>the ball out of the 3 meter line</td>
<td>combinations</td>
</tr>
<tr>
<td># Direct point</td>
<td>= Error</td>
</tr>
</tbody>
</table>

The default program defines the following correlations, depending on the values previously described:

So far we have described the scouting procedure for single codes useful for scouting for one team. The compound coding can only be used when scouting for both teams. The compound codification is also called dot coding because we use a ‘‘dot. ‘‘ to link two correlated skills.

Here are a few examples using dot coding:

a) **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
   - Using the dot coding and placing a ‘‘.’’ in the space between the two codes, we will have 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.

b) **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
1.11.3 SHORTCUT KEYS

Data Volley 2007 allows you to personalise 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.

The default parameters can be modified in the tools_keyboard remapping menu. 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
      =    ì
      -    ‘
      /    è
      +    +
      #    ù
  - Few suggestions: 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); add labels to the keys indicating the associated symbol/function.

- 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 - lft F7

The score can also be modified using the buttons inside the rotation window.

- Rotation changes
  - CODE    KEY
    Rot + lft F4
    Rot - lft F5
    Rot +rgt F8
    Rot - lft F9

Rotations can also be modified using the buttons in the rotation window.

You can add new shortcut keys by clicking on add in the keyboard remapping window.

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

- 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 (the application bar on the top is highlighted in blue). 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 (1.6.14)
Ctrl+R → allows you to look for a certain type of code in the Codes list window (see paragraph 1.5.3); there is also a button for this same function in the bottom part of the code list window.

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). The command TAB+shortcut key 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 down 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.

1.11.4 NORMALIZATION CODE

Normalization is the procedure used by the software to transform the entered codes into a standard code sequence, where the codes position is fundamental, recognised by the program, to carry out searches and analysis.

The normalization process begins automatically when the [Enter] key is pressed, or when pressing the end rally button, after entering a code in the scouting window and this code is transferred into the codes list window leaving the scouting window empty.

The compound codes are always normalized into two separate single codes with complementary effects on each other.

This window show how the codes are displayed in the codes list window.

Each code sequence is divided into 4 parts at the most that identify the code element (main, advance, extended, custom).

The main code must always be present, whereas the presence of the other codes is optional and represents a specification of each hit.

The values that relate to the starting zones and the landing zones of the ball are identified by a red arrow that goes from the first to the second one and that outlines the indicative direction.

The blue codes are the extended features of each hit

The codes with the yellow background represent the normalized form of the codes previously inserted by the user.

The codes with the orange background are the codes automatically inserted by the program.

Here is a list of the automatic codes entered by the program:

<table>
<thead>
<tr>
<th>AUTOMATIC CODES</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>*zn</td>
<td>These codes identify the position of the setter, (*) for the home team and (a) for the away team, n is the number that goes from 1 to 6 relative to the current rotation. By using these codes the program can always identify the position of the setter in order to perform the information updates and the analysis for each rotation.</td>
</tr>
<tr>
<td>azn</td>
<td></td>
</tr>
<tr>
<td>*p</td>
<td>Indicate the win of a point for the home or for the away team and allows you to check the score by looking at the codes list window.</td>
</tr>
<tr>
<td>ap</td>
<td></td>
</tr>
<tr>
<td>*P</td>
<td>This is the code that identifies the substitution of a setter. It is always important to define the setter on the court because the rotations are defined according to his position (az e *z).</td>
</tr>
<tr>
<td>aP</td>
<td></td>
</tr>
<tr>
<td>*C</td>
<td>Identifies a player substitution and are followed by the player number who leaves the game and the player number who enters in his place.</td>
</tr>
<tr>
<td>aC</td>
<td></td>
</tr>
<tr>
<td>Green code</td>
<td>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.</td>
</tr>
</tbody>
</table>

USERS OF THE PREVIOUS VERSION, PLEASE NOTE:

In Data Volley 2007 the away team player numbers do not have to be increased by 50 like in the previous version. We have added a new function in the new version where you identify a home or away player by adding a specific symbol ‘-away’ and ‘-home’, this system is also applied in the scouting phase. By doing this the player’s numbers don’t need modifying.
1.11.5 INSERT AND MODIFY SUBSEQUENT CODES

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.

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 covered in the setter call paragraph.

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 in this new version. This allows you to modify any incorrect information that may be noticed during the scout verification. This function has been modified due to the increase of the scout codes that need to be inserted during a function in the new version, if we consider that one hit can have 10-15 characters. The 2007 version allows you to insert additional information at a later date.

To allow you to insert information at a later date, we have added a movie player function to allow you to view a video of the match to check or add to the scout. The video can be played and watched inside the program.

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

We can select:

- Hit starting zone, landing zone and sub zone
- Type of attack (hard, top spin or tip)
- Number of players on a block
- As a special character you can only choose ‘‘block control’’, only alternative to a dig for an attack that does not allow an end rally.
Here is another example:

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)".

We have also added the court on the right hand side of this window where it is possible to draw the direction of the attack 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.

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.

The attack and the serve direction can be edited in the court window by drawing a precise trajectory (maximum three points) using the mouse.

Keep the Ctrl key pressed down to obtain the third point, which is the ball’s deviation point.

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 called UPDATE can be found:
- As a button on the bottom part of the window
- Using the shortcut Ctrl key
- In the command menu
- As a flashing window on the left hand side of the screen that will appear when changes have been made in the codes list window.

### 1.11.6 SCOUTING THE SETTER CALLS

The setter calls are very important as they represent a fundamental source for the game construction and distribution of the team in different situations.

Many coaches like to study the behaviour of the opposition team according to the setter calls, that is the effective play after a certain call relating to a middle blocker on reception at the beginning of a rally: for this reason the analyses relating to the way the game is distributed after a certain setter call (i.e. first row front) defining a BASE.

To run these types of analyses the setter calls must be scouted.

The codes and the definitions relating to a setter call must be entered in File_tables_setter calls that will then be used during a scouting.

The code that identifies each setter call must be formed by the letter K and then a number or a letter.

Here is an example of setter call codes.

The setter calls can be entered in a scouting in different ways:
- **Insertion during a scouting**

  A setter call can be entered in a scouting window during a reception rally, before an end rally: i.e. 2SQ1.65C# a6AT41# K1 E.R. rgt a 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.

  Another two characters can be associated to the setter call: the code relating to the set evaluation (i.e. K1#) or the code relating to the zone where the set is performed (K12), or both (K1#2). This operation is possible because the call generates, during the normalization phase, a set code associated to the setter in court at that time that is then associated to the call.

  The setter code can be modified at any time.

  If for example the K1 code is entered, the code will be normalized in the following way: 02ET+ K1C -38

  This code indicates that a set, with negative value, has been associated to the opponent setter number 13, with K1 call, performed in zone 2.

  If the evaluation is not entered, the program will automatically assign the default set value, previously defined in Tools_scouting_options_default scouting.

  It is advised to enter the setter calls during a scouting if you are an expert scout man.

  Insertion from the codes list

  The command INS is used when you want to enter a setter call in the codes list when a scouting is closed (i.e. after an end rally or whilst viewing the match video) by positioning the cursor on the requested action.

  In order to use the cell automatism system for the creation of the set code, enter the code in the white cell in the window that appears in the video and press [Enter].

  If you want to enter the code using the wizard window (button on the bottom right) the codes must be entered manually in the correct position.
1.11.7 Performing a scouting from a client workstation

This is a new Data Volley 2007 function. The new version allows several client workstations to be connected to the same software in order to use and share the bench function, printing, connection to the DV Scoreboard and so on.

This additional feature enables data integration of the scout codes between one or more client workstations. For example, the second coach on the bench will be able to use a client workstation to directly insert additional information such as ball directions and/or setter calls, whereas before his role was to view the information regarding the scout that was sent to him by the scouts. Another possibility is to position an assistant next to a scout man to insert the specific information into the client workstation.

A wizard window can be used to insert or modify a code from the client workstation.

The information inserted by the main scout-man or by an assistant can be viewed immediately by the other workstations. The 2007 version no longer uses the TRASM command.

1.11.8 OPENING A VIDEO IN DATA VOLLEY 2007 (professional version only)

The code integration can also be carried out after a match. A scout man can add specific details to each code that he did not have time to enter during a live match. We have added a media movie player in order to check and integrate the scout by watching a video of the match directly in the Data Volley 2007 screen. This media player can only be found in the professional Data Volley 2007 and Data Volley 2007 versions.

The movie player can be used to either add information to the scout or to start a new scout from the beginning without having to use a television whilst working on a computer, to watch the video of the match.

Click on “open a video” in the quick command window, positioned on the left hand side of the rotation window, to open a video.

A window will then open asking you to choose one of the three listed options to search for the desired video:
- Open a movie from Data Video matches: the program will show you a list of all the data video projects present on the computer and on the associated hard drives, so you can open the correct video file.
- Open a movie from folder: you will have to select the path where the video is located.
- Open a movie from a DVD: The program will automatically look for a video in the DVD drive. This will also allow you to open a DVD video selecting a folder.

When a DVD is selected, a preview and all the related information (video duration, type, frame, size) will be displayed on the right hand side of the window.

By clicking on Forward, the video will appear inside the main Data Volley 2007 screen and you will be able to start working. You can use the buttons underneath the video (play, pause, etc.) and at the same time you can continue with the scouting or other operations.

When opening a video some shortcut keys are enabled:
- + → fast forward for 2 seconds
- - → rewind for two seconds
- Space bar → play/pause

PLEASE NOTE: by default, when a video is playing and the cursor is positioned on a code in the codes list window, if you click on the code, the video will locate and play the relative video action. Click on the icon in the codes list window to disable this function when opening a video.

By disabling this function you can modify a code without interrupting the video (this function can be useful if you are scouting from a video and you want to add to the scout during the pauses between each hit, for example by adding directions of the attack or a setter call without having to pause the video.

CODE VERIFICATION

By using the VERIFY button, 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 (i.e. unknown codes or inserted incorrectly) or logic sequence errors.

The program has a verification command that checks for un-correlation between different types of subsequent codes. The type of error identified will be displayed in a separate window complete with correction suggestions.

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.
1.12 THE PROGRAM COMMANDS

This paragraph covers the commands that can be entered in the command window, necessary to use the software at its full potential.

Most commands can be entered in this window but can also be found in the command menu when positioned on the scout and also as an icon or button in the quick command shortcut window found next to the scouting window.

Entering a command directly into the command window could be an easy and quick 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.

1.12.1 PRELIMINARY COMMANDS

All the information entered using these commands are necessary to obtain the fundamental information relative to the match you want to scout.

- **NOTE**: this command allows you to view the 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.

- **LINE UP**: 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.

1.12.2 OCCASIONAL COMMANDS

The following commands can be used when the match requires their use and not necessarily at the beginning of a scout.

- **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.

- **PNN/aPNN**: 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 (i.e. P5) is used for the home team and Ap followed by the number of the new setter (i.e. aP4), 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.

- **C/acC**: 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.

- **T/aT**: this command records the number of time-outs requested by the coach of each team.

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 increase by one in the Rotation window.

- **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.
• **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.

• **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.

• **STOP**: used for the video synchronization in the Data Volley 2007 Data Video System. 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.

• **TABE**: 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 TABE2. See paragraph 2.8.5 for further details.

The commands entered in the command window uses the auto fill function. By entering the first letter of the command, the software will suggest the full command with a brief description of what it means and of what should be entered next.

The auto fill function can also be used for player substitutions: when a substitution is closed the software will suggest the number of the player that previously left the game in place of the player you want to substitute.

### 1.12.3 MATCH NOTES

When opening a new match, or when using the NOTE command, this NOTE window will pop up where you can enter the preliminary match information:

select one or both teams, depending on the type of scouting, in the appropriate fields in pink and blue. The teams will need to be previously added in the Players Database.

The date, time, game data and the type or regulation used will have to also be entered in this window.

The information regarding the Set Situation will be updated automatically. Changes can be made manually.

### 1.12.4 PLAYERS LIST

The players list for both teams will be displayed when clicking on NEW match or by entering the LIST command. This window allows you to check the details of the players and amend them if necessary.

The home team will be shown first. The away team will be shown by selecting “away team” in the bottom part of the window.

This window allows you to: add new players, indicate if a player is not on the roster, indicate the nationality of the player, the role of the player, etc.

Always make sure the Libero ID is set in the appropriate column.
1.12.5 STARTING LINE-UP

When following the New Match procedures click on the button positioned in the middle of the scoreboard (or use the FORM command) to enter the initial line-up window for both teams. The window that will be displayed can be one of the following:

- This window will be displayed if the classic entering mode is selected. The initial line-up for both teams will have to be manually entered starting from zone one.

To access the Easy mode click on the button on the bottom of the classic mode window and vice versa.

- This window will appear if you choose the easy mode. There are several quick ways of entering the players in the cells:
  - Position the cursor on the players in the list and drag them in the court image in the chosen position, using the mouse. Drag the setter in the relevant cell.
  - Position the cursor on the players in the list and double click on a player to add them in the court image. The first selected player will be positioned in zone one and the volley ball inserting order will then follow. The yellow arrow will indicate the position where the player will go. Use the space bar when you are positioned on a player that has just been entered to indicate the setter and this will also enter the information in the relevant cell.
  - Position the cursor on the court and enter the players by typing the number of the players using the arrow keys to move from one zone to another.

The position of the player that has been positioned on the court will appear next to his name in the initial line up of the current set.

1.12.6 SUBSTITUTIONS AND TIME OUT

Click on the relative button, positioned under the team name in the rotation window to make a substitution during a set.

This window will be displayed:

Select a player from the list of the players on the court found on the right hand side and one from the list of the players on the bench, on the left hand side of the window. The corresponding two players numbers will appear in the white ‘‘substitutions’’ box found in the middle of the window.

In the event of a double substitution, select the other two players before pressing enter.

A time-out can be pointed out by clicking on the correspondent button in the rotation window. A time-out is necessary to reflect the course of the game but also to allow the program to create a correct tome-code in the event of a subsequent video synchronization.

1.12.7 CLOSING A SET AND A MATCH

Following the typing of the end rally of the team who has gained the last point, the program will automatically open a check window asking you to confirm the closing of the set. By pressing Yes, a second window will appear asking you to enter the duration of the set in minutes it will then be entered in the notes relative to the match.

The same procedure will be applied when closing a match.
CHAPTER TWO

2.1 INTRODUCTION

This chapter will cover all the menus that can be found in the tool bar in Data Volley 2007. This chapter will offer immediate and analytical solutions to the problems, relative to specific menu functions, that can arise using this program.

2.2 FILE MENU

The first menu that can be found in the tool bar is the FILE MENU. The file menu will be as shown when you access the program:

We will now cover all the entries found in this menu.

The entries found in the bottom part of this menu indicate the recent matches that have been opened. By selecting one of these files the relative match will be displayed in the main Data Volley 2007 screen.

2.2.1 SEASON (Professional version only)

The SEASON function enables you to organise, in a simple and accurate way, the different scouts, with the relative tables and defined parameters, for each season.

The season function is mainly used for:

- Saving and analysing the scout files divided by competitive year (by creating for example two seasons 2005-2006 and 2006-2007);
- Separating the scout files relative to two or more teams followed by the same coach (i.e. by creating two seasons: under 14M and CF league) that may require different and customized settings and scouting parameters.

It will be possible to organise a Seasons by selecting Season in the File Menu.

PLEASE NOTE: all operations regarding parameter settings are always made in the current season. All the parameters defined in the Tables (see paragraph 2.2.5) are relative to the current season. Different seasons can therefore have different parameter settings. The current season can always be found in the title of the active window.

When opening the program for the first time there will only be one season called My Season. This season will have the default parameters defined by the program.

The available functions for the season menu are:
2.2.2 CREATE A NEW SEASON

You can create a Season by clicking on NEW SEASON in the Season menu.

Or by clicking NEW in the window that will appear selecting ORGANISE SEASON.

Either way a window will appear where you will have to choose one of the following options:

- create a new Season with empty team files and default parameters. In this case the new season will have empty team files and default parameters that can be changed at any time.
- If you create a new season by importing teams and parameters from an existing season, a window will appear where you can select a Season from the list.

You will then have to assign a name to the Season.

1. OPENING AN EXISTING SEASON
Select Organize Season from the menu and click on OPEN to open an existing season. Alternatively you can select a season from the drop down season menu. The current Season is always indicated by the tick mark ✔.

2. RENAMING AN EXISTING SEASON.
You can rename a season by selecting Rename in the Organize Season window.

3. DELETING A SEASON
You can delete a Season by selecting Delete in the Organize Season window. The program will request a second confirmation before deleting the season.

4. IMPORTING A SEASON
By selecting Import Season from the drop down menu, it is possible to import a season, with the relative team scout files and parameters, from a previous software version by indicating the path where the old version is installed and by following the instructions.
2.2.3 NEW MATCH

By selecting New Match from the File Menu, the program will initiate the scouting phase for a new match in the current season. The Match notes window will be displayed automatically where you can insert the information regarding the match.

The notes window contains all the information relating to the match you want to scout. Many of the fields in this window are descriptive, therefore there are no restrictions to the information you enter. We suggest you follow organised criteria to allow an total analysis of several matches, to be easily consulted and managed. The program also provides drop down menus in order to speed up this process. The matches are usually scouted on the basis of the Indoor Rally Point Regulation.

At this point it is necessary to indicate if the match that will be scouted is a Beach Volley Match or if the match is being played using the old regulations.

The Set Situation window at the beginning of a game will be empty and will be completed automatically during the scout. The program will automatically enter the partial scores when they reach the eighth, sixteenth and twenty-first point and the final score will then be displayed at the end of the set. The program will automatically ask the scout man, at the end of each set, for the duration in minutes of each set that will then be inserted in this window.

The cell next to the number of the set indicates if each set is scouted in rally point system mode.

PLEASE NOTE: it is not necessary to enter all the information relating to the match, but in order to proceed to the scouting phase you have to enter one or both teams from the players list in the current season by clicking on home team and away team. You will have to enter at least one team in the Players list before you can start a new match.

Once the relevant information has been entered and the [OK] button has been pressed, the below Players list window will be displayed. This also allows you to check if the player lists for both teams are the same as the ones present in the roster.

Use the NOTE command to access this window during a scout.

On the bottom of the window you can choose to view the players list for the home or away team. If the scout is on both teams you will need to check both lists.
In this window you can:

- modify player details: select a player and enter the information in the relative fields on the right hand side of the window and then press the Apply button.
- add a new player: press the ADD button and enter the relative information in this new window:
  By clicking the Add button the player will be added to the list. The details of the player will be stored in the players list and will be present even when the current scout is closed.
- indicate if a player is not on the roster: select one or more players and click on NOT ON ROSTER, the player will be removed from the list associated to the current game, but not from the main players list.

There are 5 cells next to each player to indicate the different sets. These cells will be empty whilst initializing a match. The program will automatically enter the below information during a scout:

- the number associated to the zone on the court where the player is positioned at the beginning of the game if part of the initial sextet;
- a star if a player substitutes a player of the initial sextet;
- the cell remains empty if the player does not play during the set;

You can view the initial line up or the substitutions in each set at any time, even during an analysis (using the LIST command)

If the players lists have been checked, click on Ok and the below screen will appear with the rotation window (without the line up on the court), the scouting window, the codes list window (empty) and the quick command window.

The name of the teams will be entered with the relative players lists, the home team will be positioned on the left hand side of the screen and the away team on the right hand side.

At this point the scouting can begin.

### 2.2.4 OPENING A MATCH

By selecting Open Match from the File Menu the Match Database window will appear with the list of the matches previously saved in the current Season.

#### Opening an existing match

Select a match from the list and click on OPEN to view the relative match you want to perform a general and advanced analysis on.

The situation in the above image shows an open match that can be analysed without opening the scout.

PLEASE NOTE: when you open an existing match you can perform analysis without changing the inserted information.

You can modify the information by selecting one of the following options:

- Select Modify scout, from the scouting menu, after you have opened a match.
- Select Modify scout directly in the match database window.
- Select Modify scout from the Active match menu

To open a saved match instead of following the procedures described so far, select the match you want to open directly in the match database positioned on the right hand side of the main window under the starting commands, that will appear when launching the program.
When you open a match that has been scouted using different parameters (attack combination window, table called setters table, zone or cone attack trajectories,) the following window will be displayed:

You can choose to both convert the file and adjust it to the parameters that are being used (it is a guided and almost completely automated procedure) or leave it in its original format in which case some functions will be limited. Details on the functions of these tables will be covered in future paragraphs.

**New**

By clicking NEW in the Match database a new scout will open. For details on how to initiate a new scout see previous paragraph.

**Import**

By clicking on the Import button in the match files from DVMobile or DVMobile 2.

In order to import the matches, the handheld device must be connected to the computer. You then need to follow the instructions that appear on the screen. The important matches will be saved in the current season.

**Delete**

This button will delete the selected match. The program will always ask you to confirm your choice before processing the request.
Exporting a match
By clicking on the Export button you can copy the scout file in another folder on the computer defining the desired location or by selecting the option to export the file on a DV Mobile or DV Mobile 2.

2.2.5 TEAMS
By selecting the Teams option from the File drop down menu, the Team Database will open in which you can manage all the teams in the current Season.
The current season can always be found in the first line of the window.
The Team Database will be empty when you open the program for the first time.
PLEASE NOTE: you need to add at least one team in the Team Database before you can perform any kind of scouting.
Possible options found in this window:

2.2.6 INSERT A NEW TEAM
By clicking on the New button this window will be displayed. The name of the team and the code are made up of five chosen characters (i.e. RUS for Russia) that must be different for each team.

It is not possible to enter two teams with the same code.
By clicking on the [OK] button an empty Players team window will appear for the new team.
The name of the coach and of his assistant is entered in the two fields on the top part of the window.
Follow these steps to enter information for every player:

- A new row will appear for the player by clicking the add button.
- Insert the information relative to each player in the relevant field (use the direction arrows to move between fields):
  - N. → player number
  - Id → this field is only used to indicate the Libero, with the letter L, and the captain, with the letter C.
  - Code → we advise to use the first three letters of the player’s surname followed by the first three letters of the name separated by the ‘-’ symbol (i.e. for player Andrea Giani the code could be GIA-AND) or alternatively use the membership number of the player. It is important to enter the codes of the players correctly to avoid errors during the scouting or analysis of more that one match as the code of the player guarantees a correct update. The player code is also important when a player uses different team numbers in different matches.
  - Family name
  - First Name
  - Nickname
  - Hgt. → height
  - For. → used if the player is foreign
  - T. → this field is used if the player has been transferred

Select a player to be removed and click on the Delete button.
Click on the PRINT button to print the complete players list.

Open an existing team
Double click (or click on the Open button) on the team name to display the associated players list. Refer to the previous paragraph to modify the players list.

Duplicate an existing team
The Duplicate function is used when you want to create a new team starting from an existing one (i.e. when more that one player is present in more that one team/league).
Select a team and click on the Clone button. A window will open asking you to insert the code of the duplicated team that will have to be different to the original code.
The program will duplicate the players list creating a new team.

Importing and exporting teams
These functions are used to export and import teams from a previous software version or from a mobile device (DV Mobile or DV Mobile 2). Click on Import or Export found in the teams database and select the path where you can find or where you want to move the team and follow the on screen instructions.

Delete a team
Select the team you want to remove and click the DELETE button.
2.2.7 TABLES
The tables menu allows you to define certain fundamental parameters for the scouting and analysis phase. When the program is opened for the first time the parameters are set on the default values that can be manually modified as and when required.

2.2.7.1 Weight for custom evaluation
You can associate a specific "weight" to the effect of each skill. The weight value goes from -5 to 10 (from the most negative to positive). The program uses these values to calculate the index, which is a value that appears in the analysis tables for each skill. Tick the Hide Index in analysis option, on the bottom left hand corner of the window if it is not needed in the analysis.

The use of this table allows you to adapt the evaluation system, for the performance of each skill, to your technical point of view or to your personal representation scale (i.e. in USA the values range between 0 and 4).

The index value is calculated using the values entered in the table as shown:
\[ \text{Index} = \frac{(c \times p) + (c- \times \text{weight}) + (c/ \times p/) + (c! \times p!) + (c# \times p#)}{\text{total number of hits performed}} \times \text{factor} \]

We will discuss the two Parameter columns positioned on the right hand side of the figure:

- % min → defines the lowest percentage of hits performed individually in respect to the total number of hits by the team, in order to assign an index value. For example: if 10% is set for digs and the total number of digs performed by the team is 100, each player must have performed at least 10 digs before he can be assigned an index value.
- 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.
- You can represent the evaluation as a decimal number or in a percentage format.

2.2.7.2 Efficiency
The efficiency value is another evaluation index value used in the Volleyball world and in Data Volley 2007.

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.

\[ \frac{(c#) - (c=)}{\text{Total number of hits}} \]

We have chosen to use 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.
- For attack, block and set you consider the percentage ratio between the positive and the negative hits (Efficiency).

Refer to the scouting paragraph for defining positive and negative hits.

Check the Hide Efficiency in analysis option in the bottom left hand corner of the window if it is not needed in the analysis.
2.2.7.3 Effects of the points
This window allows you to define the effects that determine the awarding or the loss of points for the different skills.
If you are using Data Volley 2007 for the first time we suggest you use the default values.
These are the values that are used by the software:
- To verify the information. For example to check if the rotation is correct (i.e. after a serve #, winning effect, the same player will have to return to the serve zone without a change of rotation).
- To create an evaluation group (winning, losing, and intermediate) for example the assigning of the colours in the graphical analysis of the attack directions.

2.2.7.4 Compound codes
In this window you can modify the correspondence of the compound code effects in the scouting phase for each skill.
The combinations defined in this table are always relative to a certain Season.
We suggest you use the default values until you are familiar with the program.

2.2.7.5 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)
Using the relative buttons, it is possible to:
- modify
- add
- delete
- the attack combinations.
When adding or deleting an attack combination the following window will appear:

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

- **CODE**: the code to use for the attack combination during a scout (i.e. Q1)
- **DESCRIPTION**: a brief description of the combination.
- **TYPE OF BALL**: type of ball that corresponds to that combination (i.e. quick). This value will be entered automatically in the correct position of the normalized code during the insertion of the attack combination.
- **TARGET ATTACKER**: the position of the target attacker on the court (i.e. front, back, centre, etc). For further details refer to the attack combination paragraph found in charter one.
- **NOTES**: additional details of the hit can be added if necessary.

**STARTING ZONE**: must be indicated in the court by choosing the colour, the arrow orientation from the tree 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.

When identifying a cone, the below pictures, which will be covered later on in this handbook, will be followed:

The above images outline the cone zones according to the served setter, 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 centre 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.

You can only scout by cones if you use attack combinations.
2.3 SETTER CALLS

This window allows you to set up and define the Setter Calls. A setter call, during a reception, 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 he 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.

It is possible to Add, Modify or Delete a setter call using the relevant buttons.

The following window will appear:

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

- **CODE**: the code we want to use for the scouting of that call. The first letter must always be “K” (i.e. K1).
- **DESCRIPTION**: a brief description of the movement of the middle blocker.
- **NOTES**: additional notes can be added if necessary.

For **Middle blocker movement** or **SETTING ZONE** you will need to choose a colour and trace the movement of the middle blocker on the court for that particular call or indicate the area that defines the setting zone.

2.3.1 CLOSE A MATCH

Closing a match allows you to exit the current match and return to the main program window. The program will ask you to confirm if you want to exit the game if any changes have been applied.

2.3.2 OPEN VIDEO STREAMING

This function allows you to view a video of the match broadcasted live by a Data Video 2007 work station, with a variable delay.

This will allow the coach or the scout man to watch, with a small delay the last game action, while on the bench or during data scouting, whilst the match is being recorded on a PC that has the Data Volley 2007 software installed and that has activated the streaming function.

2.3.3 PRINTER SETUP

Data Volley 2007 works with any printer installed on the computer.

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 defined printer without requesting confirmation.
2.4 COMMAND MENU

The entries that appear in the drop down Command menu represent all the operations that can be made in the program. The menu will be disabled if you are in a situation where you can't use the commands.

This menu will change according to the active window displayed.

The following commands will outline the main commands in the menu.

2.4.1 COMMAND MENU IN TEAM DATABASE

If the team database is displayed the command menu will appear as shown.

The entries are the same that appear in the same window as buttons: open, new, clone, delete, import, export, exit.

2.4.2 COMMAND MENU IN ANALYSIS

If the analysis window is displayed the command menu will appear as shown.

The menu entries are:

- modify: allows you to return to the analysis composition window to modify the type of analysis.
- Print preview: to view the current analysis preview before printing
- print: prints the current analysis directly on the default printer
- print as PDF file: the current analysis is saved as a PDF file before it is printed
- export: saves the current analysis as an excel file
- save
- save as
- close

2.4.3 COMMAND MENU IN SCOUTING

The command menu during a scouting is very important and has the following entries:

PLEASE NOTE: the commands present in this menu during a scouting can be directly inserted in the Command window by entering the corresponding codes that will appear in brackets.

When positioned in the rotation window, press the [Esc] key to enable the command window. This will allow you to use the keyboard only, without having to use the mouse to select the command from the menu list.

MATCH NOTES (NOTES):

This command will directly take you to the notes window where all the match information is kept. This command can also be found in the Quick command window next to the scoreboard.

PLAYERS/ATHLETES LIST (LIST):

This command is used to view the player list window for both teams. This list can be modified as previously described. Thanks to this command you can always view the initial line-up by checking in the cells next to the player name, the position occupied at the beginning of each set. This command can also be found in the Quick command window.
INITIAL ROTATION (LINE UP):
This command is used to enter the initial line up.
Enter the initial line up for both teams at the beginning of each set using this command or by clicking on the button positioned in the centre of the scouting window when starting a new match.
The first set will be displayed in the player window set1 that will be empty. Enter the line up for both teams, and indicate the two setters, by either dragging the players in the court picture or by double clicking on the players that need to be positioned on the court (starting from zone 1 and following the normal volleyball rotation system 1-2-3-4-5-6).

In the previous version the initial line-up was entered using the classic mode (you can access this mode using the relative button) using the old window and by typing the numbers and moving between the cells using the arrow keys.
This command can also be found in the Quick command window.

COURT INVERSION (INV)
This command is used to invert the position of the teams on the court. This command is used to position 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. This command is also 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 teams on the court.
This is the INV command icon or present in the Rotation Window.

COURT ROTATION (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 court in the best way, regardless of his position on the actual 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.
This is the ROT command icon present in the Rotation Window.
HIDE PLAYER
This command is used to minimize and maximize the Scoreboard Window by hiding the player lists. This command icon can be found in the Rotation/Scoreboard window.

UPDATE CODES (UPDATE):
This command is used to update the statistical data that has been modified during a scout. This command is used, in particular, in the Codes list window. This command is also found as a button in the bottom part of the Codes List window.

VERIFY CODES (VER):
This command runs a verification procedure on the information entered in the Codes list Window. This command can also be found as a button in the bottom part of the Codes list window.

SEARCH CODE
This command runs a search for certain codes entered in the Codes list window through certain filters (see paragraph relating to Program windows).

MATCH REPORT (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. This window will appear when the function is selected in the Command menu where you can choose any of the following:

- choose the set for the match report you want to print (one or all)
- match report language (English or Italian)
- print preview
- print
- print as PDF file
- create HTML file (you will be asked to specify the patch where you want to save the file).

This command can also be found in the Quick Command window.
PAUSE/STOP SCOUTING (STOP)

This command is used for the video synchronization in the Data Volley 2007 Data Video System. 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 due to the error in the creation of the time code.

CLOSE SCOUTING (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 & symbol must be kept as the first character.

SAVE

SAVE AS

These commands are standard Windows commands in order to save the current project.

COMMAND WINDOW

By clicking this item, it is possible to access to the Command Window through which it is possible to type manually the commands available in the scouting phase.
2.5 SCOUTING MENU

2.5.1 MODIFY SCOUT
The Modify Scout function is only available when an existing match is open (using the Open entry in the File menu or using the relative icon). By clicking on this function the scout for this match will be displayed and can be modified. We suggest you open the scout when you want to modify the entered information (for example to add information or correct wrong information previously entered during a live scouting whilst watching the match video). To run all type of analyses, we suggest you keep the match open and not the scouting to avoid modifying correct data accidentally.

2.5.2 EXPORT SCOUT
This entry is used to export and save the current scout in one of the following formats:
- Data Volley 2007 2 format: you will have to specify the path where you want to save the scout and it must be saved in a format compatible with the previous software version (i.e. you can transfer the scout, using a USB key, to another computer that has Data Volley 2007 2).
- DV Mobile or DV Mobile 2 format: make sure the computer that uses Data Volley 2007 is connected to the mobile device that uses one of these two versions created for Mobile/Pocket PC. The program will export the scout on the mobile device and the match will be available in the match Database of DV Mobile/DV Mobile 2.

2.6 TOOLS MENU

2.6.1 KEYBOARD REMAPPING
This function is used to adapt the keyboard to your needs. You can create key shortcuts to associate a keyboard key to a certain command or scout code.
This window will be displayed when clicking on this function: the present functions are defined by the program and they need to be set before you can start scouting. In particular, you will need to define the following commands:
- Result values/evaluation
- End of rally
- Variations to the score and to the rotation
The program will set some default shortcut keys that can be modified by selecting the shortcut you want to modify and by clicking on Modify.
By clicking on the Modify button the following window will appear where you can enter the new shortcut key for the selected command.
The key combination shortcut Ctrl+key or Alt+key, can only be set for End of Rally rtg and End of Rally lft.
The scout codes can only be associated with one key at a time.

Keyboard remapping suggestions:
- The keys that represent values (=, -, /, +, #) and the (*) a symbols used to indicate a home or away team should be positioned on the right hand side of the keyboard (on the left side if you are left-handed).
- Do not use the same key for more than one command
- Keep the original key association if possible (i.e. do not change the + position)
- Try and associate a key function as near as possible as its original position. (i.e. associate the ’’i’’ to the ’’=’’ as they are near to each other on the keyboard).
Try and position the negative and positive values close to each other, ideally the positive values next to each other on a row above the negative values.

Ideally the end rally left and end rally right should be positioned on either side of the space bar (left on the left of the bar and right on the right side).

Use Ctrl + key or Alt + key or the function keys for score and rotation update (ex. F1 rotation + left, F12 rotation + right and so on).

We suggest you use the default association keys and change them when you are more familiar with the program.

The ADD button is used to add custom key shortcuts once you are familiar with the program. Examples of shortcuts to add:

- Define one key to correspond to the players that go from player 9 onwards
- Define particular attack combinations
- Define combinations such as Ctrl+key or Alt+key that will correspond to a complete scout code that is frequently present during a scout, particularly present in your own team.

### 2.6.2 GENERAL OPTIONS

#### 2.6.2.1 MATCH REPORT

This window allows you to define the options for printing a match report.

You can choose whether you want to include the points for rotation and/or the attack percentage.

You can select the width of the page margin and if you want to print the grey background on the header.

You can choose to either print an evaluation by number or by symbol.
2.6.2.2 INTERNET

This window is used to publish the match reports on the Internet, for example on the team website where the score can be updated live.

You will have to define the FTP parameters in this window relative to the web site.

The following parameters must always be defined:
- Host name/address: the website’s FTP address;
- User ID/password: username and password to access the FTP website;
- Remote path: of the FTP website where you want to save the html file containing the information;
- Path/Source html file name: you need to indicate the path of the file that contains the information you want to withdraw and add to the website. This path file must have the key words recognised by Data Volley 2007 that can then be replaced by different information such as team name, set, score and so on. These key words must be present to avoid information being displayed incorrectly on the website.
Data Volley 2007 defines C:\Data Project\Data Volley 2007\data\source_score.html as the default path/source file that can be replaced or modified at any time if for example you want it to follow the graphics of your website.

The path/source file must contain the following key words:

<table>
<thead>
<tr>
<th>Keyword</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCOMP</td>
<td>Displays the name of the match</td>
</tr>
<tr>
<td>PSITE</td>
<td>Displays the place, date and time of the match</td>
</tr>
<tr>
<td>PCODA</td>
<td>Displays the home team code</td>
</tr>
<tr>
<td>PCODB</td>
<td>Displays the away team code</td>
</tr>
<tr>
<td>PSQH</td>
<td>Displays the name of the home team</td>
</tr>
<tr>
<td>PSQV</td>
<td>Displays the name of the away team</td>
</tr>
<tr>
<td>PFINA</td>
<td>Displays the home team final score</td>
</tr>
<tr>
<td>PFINB</td>
<td>Displays the away team final score</td>
</tr>
<tr>
<td>DURTOT</td>
<td>Displays the total length of the match</td>
</tr>
<tr>
<td>PSET1A (2A, etc.)</td>
<td>Displays the home team score at the end of the 1st set (2nd set, etc.)</td>
</tr>
<tr>
<td>PSET1B (2B, etc.)</td>
<td>Displays the away team score at the end of the 1st set (2nd set, etc.)</td>
</tr>
<tr>
<td>PTOTA</td>
<td>Displays the home team total score</td>
</tr>
<tr>
<td>PTOTB</td>
<td>Displays the away team total score</td>
</tr>
<tr>
<td>DURSET1 (2, etc.)</td>
<td>Displays the length in minutes of the 1st set (2nd set, etc.)</td>
</tr>
<tr>
<td>PLINK</td>
<td>Displays the wording “Elaborated with Data Volley 2007”</td>
</tr>
<tr>
<td>PTIME</td>
<td>Displays the time of the score update</td>
</tr>
</tbody>
</table>

The default path file will be displayed as follows:

\[
\begin{array}{c|c|c|c|c|c|c|c|c}
\text{PCOMP} & \text{PSITE} & \text{Set 1} & \text{Set 2} & \text{Set 3} & \text{Set 4} & \text{Set 5} \\
\hline
(\text{PCODA}) & \text{PSQH} & \text{PFINA} & \text{PSET1A} & \text{PSET2A} & \text{PSET3A} & \text{PSET4A} & \text{PSET5A} & \text{PTOTA} \\
(\text{PCODB}) & \text{PSQV} & \text{PFINB} & \text{PSET1B} & \text{PSET2B} & \text{PSET3B} & \text{PSET4B} & \text{PSET5B} & \text{PTOTB} \\
\text{PLINK} & \text{DURSET1} & \text{DURSET2} & \text{DURSET3} & \text{DURSET4} & \text{DURSET5} & \text{DURTOT} \\
\end{array}
\]

By using this path file the scores will be displayed in the website, more or less as shown:

<table>
<thead>
<tr>
<th>Mondiali Quarti di finale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cordova 06/10/2002, Ore 18:30:00</td>
</tr>
</tbody>
</table>

\[
\begin{array}{c|c|c|c|c|c|c|c|c}
\text{ITALIA} & \text{2} & 23 & 23 & 25 & 26 & 13 & 122 \\
\text{BRASILE} & \text{3} & 25 & 25 & 23 & 26 & 15 & 114 \\
\hline
\text{Elaborato con Data Volley} \\
\end{array}
\]

This grid can be modified and personalized in the path file by changing the key word’s disposition.

### 2.6.2.3 ANALYSIS EFFECT COLOUR

Data Volley 2007 allows you to use different colours to recognise the different type of hits in the graph analysis. You can choose between two types of visualization:

- Different colours: a different colour will be associated to each value.
- Group colours: different colours will be associated to a group of values (positive, negative and intermediate).
ORGANISE A LIST

You can choose to organize the players list by:
- Shirt number
- Name
- Position

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

COURT

You can choose to view the court, in the graph analysis, in white colour to keep to view the exact image that will then be printed.

ATTACK DISTRIBUTION

The option “show the attack zone according to the Target attacker (distribution)” is an additional feature in the 2007 version and constitutes an alternative way of representing the starting zones of the attacks in respect to the previous versions.

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 centre 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.

2.6.2.4 DATA VOLLEY 2007 CLIENT (professional version only)

This window allows you to decide, by ticking the relevant box, whether to send data to Data Volley 2007 or not.

Data Volley 2007 allows you to connect different client workstations to the main scout man workstation. You will have to enter a password in the relevant field to regulate the access to the data from the client workstation.

By entering the personal password you will be able to define the analysis you want to share with the client workstations selecting them in the relevant window by clicking on Configure analysis to share.

Using the Add analysis and delete analysis button you can define the analysis you want to share. These analyses will then be imported from the client workstation at the start of the connection.
This is the path of the shared folder: C:\DataProject\DV-Share. This folder is shared automatically by the program in read only mode. This function is limited by the levels of protection of your operation system and by the user that is logged on. If the folder sharing is not automatically set on read only, we suggest you do it manually. See the windows guide on how to share a folder in read only mode.

The TRASM command will no longer be used to send and receive information from the client workstations.

In order to have analysis or scouting assistance on other client workstations, you will have to run the complete Data Volley 2007 setup on the computers connected to the main scout-man computer. Every update on the main computer will have to be performed on all the computers that are connected.

You will have to launch the program to run the client program without having to enter a second password. The client program can be installed in a different language to the one used by the main scout-man.

### 2.6.2.5 GENERAL

In this window you will have to select how to display the name of the player:

- Family name or nickname
- Family name and name

### 2.6.2.6 REPRODUCITON

This window allows you to indicate the computer screen (internal or external if present) where you want to view the video streaming.

### 2.6.3 SCOUTING OPTIONS

#### 2.6.3.1 DEFAULT SCOUTING

It is possible to change the scouting values that Data Volley 2007 sets as default or automatic in this window. The program allows you to define:

- The default skill: is the skill that is used more often. The program will set the attack as the default skill.
- Type of hits and relative default effects: for each skill you can define a default effect and ball type (the most frequent ball type is usually High Ball (H) and the result value is usually (+))

Thanks to these settings you will be able to speed up the scouting phase (then 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.
2.6.3.2 GENERAL SCOUTING

DATA VERIFICATION

By selecting the Opponent scouting option you will allow the program to scout both teams in order to optimize the verification of certain scouting sequences (after a correct serve there will be a reception of the opponent team).

NORMALIZATION

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.

SUBSTITUTIONS

Tick this option if, during a player substitution, you want the program to suggest the substitution in the previous sets. You can directly modify any information as and when required.

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 serve in the scouting window, after pressing the End Rally key.

These are the possible three options:

- No (do not select this option as the code will not be displayed in the scouting window after an End Rally)
- Player number + serve code (it will activate the insertion of the number of the player that will perform the serve and the serve code -S-)
- Player number only (it will only activate the insertion of the number of the player that will perform the serve. We suggest you use this option if you use Data Video when you synchronize the images in the video with the Data Volley 2007 scouting. Due to the program normalizing the codes depending on the time it takes to type the key associated with the skill (i.e. the serve is synchronized when the S key is pressed), 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.

MODIFY CODE

This option allows you to simplify the code modification phase during the scouting of a match by positioning the cursor directly at the end of the code or in correspondence to the score (to help the evaluation variation of the hit in the next phase). You can always modify any field where the scout code can be entered.

2.6.3.3 ADVANCE SCOUTING (Professional version only)

AUTOMATIC LINE UP

By clicking on this option, Data Volley 2007 will be able to create the initial line up for each set even if it was not entered at the start of the scouting through the FORM command or through the relative icon.

The program will register, after every ball change, the number of the player that performs the serve, entered in the scouting window, in order to complete the dull sextet after six rotations.

This function is used for example when it is not possible to have the sextet line up before the start of the match and you need to start the scout or if you don't have enough time to enter the line up.

If you can able this function you can choose between two further options relating to the insertion:

- a message will ask you for the number of the player that performs the serve after a ball change
- the number of the player that performs the serve after a ball change is entered automatically

**EXTENSIONS**
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. This menu will be activated by clicking the Control and Space bar keys at the same time or using the Windows popup menu or by associating a personalized shortcut key in this window.

**VIDEO**
You can personalise the shortcut key that allows you to align a code with the relative video position whilst watching the video.

### 2.6.3.4 REGULATIONS
The parameters relating to the type of regulation to use for the scouting of the matches needs to be defined in this section.

In the Players section you can enter:
- The number of players in the line up (for events that require a line up of more than 12 players)
- The number of players in the roster
- The maximum number of substitutions for each set
- In the Score section you can enter:
  - The number of sets that can be played
  - The score at the end of the 4 sets
  - The final score at the end of the potential tie-break or fifth set
- If you have the additional BEACH module, you will need to check the settings in the Beach Volley section depending on the type of match, either 2 or 4 players.

### 2.6.4 ORGANISE ANALYSIS
This function allows you to view the previously stored analysis and make changes if necessary. By clicking on Organise analysis a window will be displayed with a list of the analysis types provided by Data Volley 2007.

By clicking on a category in the left hand side of the window you will see all the analysis stored in that folder.

You can Modify, Rename or Delete a saved analysis using the buttons positioned on the bottom of the window.

### 2.6.5 MODIFY ATTACK COMBINATIONS AND CALLS
The new Data Volley 2007 allows you to use the scouting data analysis system at its best.

Unfortunately this causes some problems when opening the statistic files, in Data Volley 2007 format, but scouted by other
users: the attack combination and the setter call tables could be different, etc. Data Volley 2007 allows you to rearrange the file according to your own tables by checking them automatically when the file is opened. The following window will appear where you will be able to:

- Save the file with the attached tables in case you want to analysis certain statistic aspects that don’t involve and are different to the scouting system
- Convert the file transforming the codes with a simple function, depending to your tables; the converted file can then be used in analysis on an annual basis.
- open the file without converting it and ignoring the tables; this option when you want to manually convert each code present in the file in the scouting module.

By choosing to convert the file or by clicking on the modify attack combinations and code entry found in the tools menu, the following window will appear where you can either define or confirm the file to convert.

The program will automatically associate the codes that are identical to the ones in the local table and also in the table of the file to convert, that will be different of course.

The codes that can’t be associated automatically will have to be linked manually:

- select the combination in the list on the left (the one from the file to convert)
- Select the corresponding attack combination in the local list. (on the right); the program will automatically suggest the one that is nearer to the relative code
- click on the LINK icon in the middle of the screen to confirm the association (click on this icon to cancel the association).

When all the code associations have been made we suggest you save this conversion structure in order to use it again when you receive another file from the same user.

Click on the save icon specifying a name to associate to the structure.

To retrieve the structure click on the folder icon.

By clicking on the NET button you will be able to associate/convert the setter calls following the above procedure.

Once associated/converted all the attack combinations and the setter calls you can start the file elaboration. You can modify or overwrite the file or create a new one without modifying the original file.

If the file has been scouted using a different type of codification for the trajectory of the hits (zones or cones), the file can be converted, if required, according to your personal methods.
2.7 INTERNET MENU (PROFESSIONAL VERSION ONLY)

2.7.1 ONLINE RESULTS
This function controls the connection between the program and the website where you want to show the live results. The website must be previously defined using the relative parameters in Tools_General Options_Internet. Once connected, the match score will be updated, after an end rally, on the previously designated html page.

<table>
<thead>
<tr>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>On line score</td>
</tr>
<tr>
<td>Open a web window in Data Volley</td>
</tr>
</tbody>
</table>

2.7.2 OPEN A WEB PAGE IN DATA VOLLEY 2007
This function allows you to open a web page whilst you are in Data Volley 2007.
It has been designed to view the page where the online score is updated to allow the scout man to check that everything is running smoothly and the updates information is correct. This window can be used to view other internet pages that are required during a match.
2.8 WINDOW MENU

This menu is used to organize the windows on the screen. The windows that are open on the screen will be listed in the bottom part of this menu and the active window will be indicated by a tick mark.

2.8.1 ARRANGE SCREEN

It is used to arrange the screen according to the default position.

HIDE OR CLOSE ALL ANALYSIS

This function closes all the analysis windows displayed on the screen.

MINIMIZE ALL/REDUCE ALL

This function allows you to minimize all the analysis windows opened.

MAXIMIZE ALL/RESTORE ALL

This function allows you to restore all the analysis windows previously minimized to an icon.

2.9 ANALYSIS MENU: GENERAL ANALYSIS

The three analysis menus (general, advanced and total) allow you to elaborate, create and print in a quick and simple way the statistic windows of the active match.

The great number of options in these menus exemplifies the program potential for the study and the analysis of the home or away team.

The analyses available in Data Volley 2007 have been updated and improved substantially: the number of analyses are greater to adapt to the amplified scouting possibilities; the analysis window is straightforward for the understanding and compilation; the statistic tables are more detailed and can easily be adapted to your needs.

The most common analyses in Data Volley 2007 can be found in the General menu. These analyses relate to the elements most commonly scouted and studied in the match.

By selecting any entry in the menu, the ANALYSIS WINDOW will appear where you can select the parameters relating to the way you want to display the match.

Here is an example of the four sections found in an analysis window:
General selections: here you can select the main parameters for an analysis. In particular you will have to define:

- The teams or team to analyse
- The player or players to analyse

Data Volley 2007 allows you to view the analysis by team, by player or by the details of all the players or of certain players selected by clicking in the space next to the name of the player.

- the skill to analyse

Data Volley 2007 allows you to select more than one skill at the same time to analyse.

- The rotation to analyse

You can choose one or more rotations at the same time.

- The set or set s to analyse

You can choose one or more set. In addition you can also choose between Won set and lost set.

- game/play phase

You can choose one or more phases.

Skill detail selection:
In this section you can define the parameters relating to a set skill.

You need to choose the type of ball:
For the attack skill for example, you can set certain parameters like the position where the hit is performed.

By clicking on the filter button a window will open where you can define the criteria of the analysis.

By clicking on the button a window will open where you can define a rule to follow when deciding the codes to use for the analysis.

These filter rules are used especially when you want to view an event analysis verified in certain specific situations.

Here is a list of the filter rules:

- It is previous: the code is entered before the current code skill. For example, if you want to view the attacks in the first zone (above mentioned skill) after the reception of the Libero (you will have to add the number of the libero and the reception skill -R-). Please note: for “previous” we intend the code that is positioned before the relative code skill in the codes list window.

- It is successive: the code is entered immediately after the skill code. For example if you want to view the receptions that follow the attacks from zone 2. The reception will be the current skill and will be entered as -S-.
and starting zone -2-. Please note: for “successive” we intend the code entered after the skill code 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.
- 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).

In the analysis window you can select up to five rally filter rules at the same time. You can always add, modify or delete these rules using the relative buttons.

Advanced filter selection:

In this third section you can define additional filters for the code to enter in the analysis.

By clicking the advanced filter button the following window will appear:

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).

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.

In the analysis window 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 on the Save button and choose a name for the analysis.

This new analysis will be saved in the analysis folder group of the same category (i.e. player analysis).

All the saved analyses will be displayed and can be modified through the Organize analysis window.

The saved analyses will be listed in the sub menus of the general analysis menu, as shows in this example:

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 used for the analyses that are used more often especially during a match or between sets to supply information to the bench as it offers a direct and immediate way of accessing the desired options.
2.9.1 STATISTICS ORDER BY PLAYER - SKILL - ROTATION

The three different type of analyses will now be outlined to define what kind of information you can obtain by each one of them and which type of analysis needs to be used to obtain the desired information.

These three types of analyses are very similar to one another:

**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** - analysis by skill foresees the following order:
- skill/player/players (team)/rotation

**Analysis by rotation** - analysis by rotation:
- Rotation/player (team)/skill

The difference between these three analyses is the order in which the information can be shown. 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 File_ tables_weight for custom evaluation and the Data Volley 2007 efficiency according to the parameters indicated in File_ tables_efficiency.

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 skills for Millar and Priddy
- analysis by skill: details of the skills and details of all the players
In this table the skills appear in the first column and the details of each player appear in the second column. This kind of table is helpful when you need to compare the individual performances of each player in each skill. You can always increase or reduce the statistic specificity by entering one or more code filters.

For example: if you want to compare an attack on poor reception for all the players of the home team in the second set.

- Analysis by rotation: reception of the team, details of all the rotations

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 3 and rotation 6 25% efficiency, rotation 5 with 29% 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 straightaway using the parameters required in the analysis window.

2.9.2 ZONE CHARTS

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 a new 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 on Ok to confirm and go back to the previous screen where you can continue to elaborate the data.

The program will highlight the given values for each zone. The names of the players that performed the skill will appear in each zone with the total number of performed hits.

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.

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 using the tools_general_options_analysis menu. This option is an additional feature to Data Volley 2007 and is an alternative way of representing the starting zones of the attacks. If this option is not selected the analysis by zone will represent the hits performed from that zone on the court regardless of the player that performed the hit. For example: if player in zone 2 performs an attack combination that has a centre cross, therefore attacks from zone 3, this type of hit is counted with the hits performed by the middle blocker in zone 3, in a global analysis with the relevant percentages).

If this option is selected, a 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.

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.

### 2.9.3 DIRECTION CHART

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

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.

The parameters for the analysis by direction can be chosen as requested.

The direction chart window will be different from the standard one.

On the left hand side you can see an orange box “show a field for each attack combination or starting zone”.

- If this box is not selected, the trajectories of the hits relative to the selected choices will be displayed in one court;
- If this box is ticked, every attack combination or starting zone will have a separate court where the relative trajectories will be displayed.

**For example:** if you want to view all the hits performed by home team player number 1. You will have to select the skill in the analysis window: attack and player number 1. The orange box MUST NOT is ticked. The result of this selection will be the following:

The trajectories of the attacks of the selected player are displayed in one court. The different effect values are divided by colour (black for #, green for + and so on).

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 tools_general_options_analysis_symbol colours.

**Second 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 reached 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 centre, P pipe), the number of hits and their percentage compared to the total number of hits, the different attack combination run ups with the relevant colours and the direction previously arranged in the relevant 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)
- At the end of the court, the total scores (in absolute value and percentage) of the attacks Hard (H), Soft (P), Tip (T) are carried out.

This icon can be found in the tool bar of both windows that is displayed when you click on the process button in the direction chart. This icon allows you to access the same menu that appears if you position the mouse cursor in the window and right click.

Most functions in this menu are straightforward.
The pg UP and pg down functions allow you to go from one rotation to another: 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.

The Settings function in this menu access a graphic and functional settings window, applied in an interactive way, that allow you to represent and study the requested attacks in a professional, specific and personal way.

This window is divided into 2 sections (3 when possible):
- Orientation
- You can rotate the court by 90° at a time, or directly invert the court representations
- Directions
- You can set the colours to assign to the directions: default colour, black and white, depending on the attack combination colours. You can also highlight the players with more hits, show the effect of the hits, maximize the court to the size of the screen, not show attack that don’t have a landing point. You can also filter the attacks by Hard, Soft e Tip
- Display cones
- Allows you to modify the graph using cones of the attack or serve trajectories. 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 colour or only delimit them to improve the performance during the printing phase.
• If the attack trajectories are scouted using a cone codification it will be possible to represent the same search 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 the different scouting/display systems, defined by different technical objectives, choose the direction of the attack (the cones represented in the paragraph file_tables_attack combinations) 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.

2.9.4 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.

The points on break point of the two teams are displayed in the first column highlighted in yellow (serve/ace, attack, block, opponent error, opponent error in attack).
The last two columns represent:

- the number of serves performed and the percentage of the performed point in the next rally compared to the total number of serves.
- the number of the performed receptions and the percentage of point made in the next rally compared to the total number of receptions.

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.
2.9.5 MATCH REPORT

This function allows you to view and print the match report. A match report is a summary of the analysis that provides the fundamental match statistics for both teams divided by player. This function can be found in the General analysis menu and when selected it will open the following window where you will have to decide:

- if you want to print a match report for the full match or for one or more sets;
- if you want a print preview;
- print directly on the defined printer;
- save the match report as a PDF file;
- create a tabellino in formato html.

**VOTE**: originates from a global average that considers the values on the single skills (if sufficient numbers of skills are performed). The vote provides a tool to compare the different teams and the single players on the basis of the values on the single skills.

**BP BreakPoint**: points gains when the home team was in serve (the old side out system points).

**W - L won-lost**: difference between points gained and points lost.

**POINTS AND STATS PER SET**: you can value the way the points are assigned and compare the team stats in the different sets.

**POINTS PER RECEIPTION**: team rotations are identified by the position of the setter. This section indicates the positive or negative value on the score of every reception.

**RECEPTION**: it is considered perfect (Prf%) 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).

**ATTACK ON POSITIVE RECEIPTION**: You can value the distribution ability of the setter (attack stats on a positive reception).

**ATTACK ON NEGATIVE RECEIPTION**: You can value the attack ability of the team on an obligated high ball (attack stats on negative reception without a first line possibility).
2.9.6 PLAY BY PLAY

By selecting this function you can view the performance in a set or in a match, play by play (action by action). This window will be displayed were you can choose the play by play options.

The play by play analysis will be displayed as follows:

The match performance will be displayed action by action.

These are the different entries found in the analysis:

- the green numbers on the far right and on the far left of the sheet indicate the position of the setter of the respective team during the action (rgt or lft)
- the words in black represent the actions that lead to the assigning of the point (attack, serve, positive block and so on).
- The words in red represent the negative actions that lead to the loss of the point (reception, attack, wrong serve...).
- The words in green define the actions won following an error of the opponent team
- The ball symbol on the left or on the right of the centre line represents the serve possession of the respective team positioned on the left or on the right.
- This symbol 3 represents the winning of a tie break (point on your own serve).
- The coloured rectangles on the left and right of the centre line each represent an advantage point of the team compared to the opponent team. For example: two rectangular symbols on the left mean that the team on the left has two advantage points compared to the team on the right. A BLUE rectangular means that the last point was won by the home team, a RED one means that the last point was won by the away team.
2.9.7 ACTION DETAILS

This function allows you to create a list (sequence) of analysis that will be sent in the set order, to the printer.

You can add, rename or delete a sequence using the buttons on the right. The buttons positioned on the bottom of the window allow you to add, remove or rearrange the position of the analysis in the list.

An analysis must be previously saved before it can be added to a print sequence.

By clicking on the add analysis button this window will appear where you can select the analysis you want to print.

Click on the print button to launch continue.
2.10 ADVANCED ANALYSIS

2.10.1 COMBINATIONS CHART (Professional version only)

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:

The chart is divided into three 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 1 combination was performed 10 times, 6 times by player number 5; the M4 combination was performed 4 times, twice by player number 5 and twice by player number 13 and so on). The efficiency and the missed ball (ball on floor) percentage will be indicated next to these numbers.

2.10.2 WORKSHEET (Professional version only)

The spreadsheet function is found in the advanced analysis menu and allows you to manage the scouted statistic information in a simple and customized way. The spreadsheet will allows 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 spreadsheets 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 spreadsheet.

To access the wizard formula window, position the cursor on the desired cell and choose one of the following:

- Right click on the mouse and select formula wizard from the displayed menu.
- Click on the wizard formula icon on the tool bar.
- Click on the command menu and select formula wizard.

The following examples will outline the spreadsheet functions:
The spreadsheet is displayed as shows (it will be completely empty until you start entering information):

**EXAMPLE 1**

1) Choosing the type of analysis
First of all you need to choose the type of analysis you want to perform and how you want to view and develop the spreadsheet.
For example, you want to create a spreadsheet to display: all the receptions performed by the team itemized by player and all the receptions # that lead to a quick attack. This spreadsheet will carry out the percentage of the perfect receptions that lead to a quick attack.

2) Choosing the column label
You need to assign labels to the rows and columns where the data will be entered. Position the cursor on the C2 cell and enter "player" in the formula field and press Enter. Enter the following information in the subsequent cells (D2, E2, F2): "tot receptions #", "receptions # that lead to attack Q", "% reception # that lead to attack Q".
Select the column 2 and click on the "auto size cell" icon to adapt the cells to the entered wording.

3) Wizard formula for the "total receptions #" column
Position the cursor in the cell below the "total reception #" cell, D3 in our example, where you want to enter the first number. Select the "wizard formula" by clicking on the icon. the following window will appear:
In this window you can choose the type of function you want to enter in the selected cell (D3). In this case, select the "statistical" function, relative to the scout.
Select "mathematical" function when you need to enter mathematical calculations in the cells.
In the bottom part of the window on the left hand side, you have to select the type of statistics you require: in this example, double click on "reception".
After double clicking on the skill, the complete wizard formula window will be displayed where you can define the parameters needed for the creation of the cells.
Team: Itas
Player: details of the player
Skill: reception
Format: hits #

This function field will automatically be filled in as the information is selected in the other fields. The code sequence that will appear will be the final formula that will allow the analysis to be created.

Click on OK in the function window and in the formula window ant the “Work up proprieties” window will appear, where you will have to select:

Team: home
Develop by: player (because you want the values relating to all the players, and not to the rotations, as indicated in the column C)
Work up type: vertical (as the values are being viewed by column)
Macro name: this option allows you to enter the names of all the players (in the column C in our example).

The spreadsheet will now be displayed as below:

the dashed red line will indicate the area where the analysis developed will start.

4) Display the first analysis development
To display the analysis development, you will always have to:
- Save the spreadsheet using save as the first time and using Save after every amendment after that.
- Click on the Process button on the top of the spreadsheet that will open the following analysis development window:

Right click on in the window and select Modify from the drop down menu to be redirected to the initial worksheet where you can continue with the creation of the analysis.
5) Wizard formula for the “receptions # that lead to a Q attack” column

Position the cursor on the E3 cell, below the “receptions # that lead to a Q attack” cell, and run the wizard formula procedure again. The program will ask you if you want to link the cell to the previous work up, click on Yes because you want to run the same work up for the players of the previous column. The E3 cell will then be outlined by a red dashed line to indicate that it has been linked to the previous group of cells. After pressing Yes to confirm the link, the formula wizard window will open again, select statistical in the function category box and select reception again.

In this window you will have to:

- Keep the previously set parameters
  - skill: reception
  - Format: hits #
- Click on: Code filter to set the requested filter rules (reception # followed by attack Q) and complete the window as shown:

Basically you need to enter the code relating to the Q attack of the home team performed after the selected skill (reception #)
- * AQ is successive

The other parameters are not required for this type of analysis and need to remain blank.

The spreadsheet will now appear as below:

![Spreadsheet showing linked cells and filter rules](image)

6) Composition of the “percentage” column

This is the last phase of the analysis creation phase: right click and select Modify, position the cursor on the F3 cell below the “%reception # that lead to attack Q” label and continue as follows:

- right click: Work Up □ Link work up cell: this command is necessary to make sure that the formula we enter in this cell is processed in the same way as the ones with the statistical data previously entered. A red DASHED line will outline the cell that has been linked to the Work up;
- enter the formula for the calculation of the percentage (they are entered like in any
other worksheet Excel, Lotus, etc.): = (E3/D3) * 100

Save and process the spreadsheet to obtain the final analysis prospect where you can find look for the information requested:

for example, you can see that, by team, 40% of the receptions with an associated # effect have led to a quick attack. By scrolling down the column you can see the same kind of information relative to each player.
EXAMPLE 2
1) Choosing the type of analysis
This example will show you, with the use of a graph, the performance that led to the negative points of a team in the different rotations, subdivided by the point phase and the change ball phase.

2) choosing the column label
Position the cursor in D3 cell, type "rotation" and press enter. Using the arrow keys enter "Lost points when we serve" in cell E3, "Lost point when the opponent serves" in cell F3 and "total of lost points in the rotation" in cell G3.

Select the 4 cells and click on the "auto-adapt" icon to adapt the size of the cells to the labels. Whilst the cells are still selected, right click and select the "format cell" option and choose the desired formats.

In this example, choose the type of boarder and the colour to apply to the cells:

the cells will be displayed as shown:

3) Analysis composition
Position the cursor in the E4 cell and click on wizard formula and complete the displayed windows as shown:
- Statistics : negative actions
- Code filter: when the *S code (home team serve) is present in the action.
While positioned in E4 cell, right click and select Work up, insert work up cells from the drop down menu.

In the Work up window select rotation, and vertical type.

While positioned in F4 cell click on the wizard formula icon, select link cells and complete the windows that appear as shown:

- Statistics: negative actions
- Code filter: when the aS code (away team serve) is present in the action.

Position the cursor in the G4 cell:

- right click, work up, link work up cells:

Select E4, F4, G4 cells and click on the sum icon.

Select D4, E4, F4, G4 cells and add boarder and green colour too the cells.

The spreadsheet will be displayed as shown.
4) Inserting a graph
Select these cells D3, D4, E3, E4, F3, F4 and click on the insert graph icon.
The graph wizard window will appear, select the following:
- graph type: line;
- click on [next] (on the bottom right )
- Graph Title: title of the graph: points lost per rotation; category title (); rotations; category title (Y); lost points
- Legend: tick the Display legend box
- Data label: tick the Display value box
The spreadsheet will be displayed as follows:

5) Display the analysis
Click on the Save As icon and then on the Process button.
The analysis will be displayed as follows:
2.10.3 COMMAND MENU
When positioned in a spreadsheet window the command menu will appear as follows:

- Process: elaborates the entered functions and displays the work up
- Access: to the wizard formula window
- Modify cells: (cut, copy, paste, link, release, adapt...)
- Format cells: removes the format of the selected cells
- Links or releases the cells to the work up.

2.10.4 ICONS
These are the icons found in the spreadsheet window:

First line:
- Processes the inserted functions and displays the work up once saved
- Access the command menu for the relative worksheet
The icons on the second row relate to the document style and the file formatting:

You can add notes, define the format of the sheet and choose a key shortcut to access the worksheet directly using the TAB + shortcut key.

### 2.10.5 FUNCTION CATEGORIES

There are three function categories in the formula wizard window:

#### STATISTICAL

The statistical function is selected if you are referring to data scouted during the match.

Select Statistical and Double click on the requested action/skill to open the statistical function wizard window.

The codified formula will appear in the box on the bottom of the screen following your requests. It is also possible to create the formula by adding analysis with mathematical symbols (i.e. negative home team serves divided by negative away team serves).

#### MATHEMATICAL

The mathematical functions allow you to enter the mathematical results of a mathematical function in one or more cells.

It is very easy to use this formula. When selecting mathematical a function list will appear, double click on the selected function and follow the guided steps.

The sum option has been chosen in this example: you will have to choose the information you want to enter in the formula (from the first cell to the last cell), if the formula is applied to information in separate cells. If you want to apply the formula to the elements of a Work up you only need to indicate the interested cell present in the work up.
MACRO
Select macro if you want to insert information relating to the matches, updated automatically by the program, in the spreadsheets.

You can choose to view by:
- The name of the home or away team
- The name of a player, indicated by the number on his shirt
- The number of sets played by each player
- Score for each set, that can also be used in technical/statistical formulas
- A label that indicates a certain set (i.e., set 1)

2.10.6 DISTRIBUTION ANALYSIS (Professional version only)

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.

That 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:

- There are 6 columns that correspond to the 6 positions of the setter
- Number of hits performed in each zone and relative to the percentage of the missed hits (ball on floor)
- Number of the player that performed the hit and relative evaluation with symbol and colour
- Starting zone and relative evaluation, given by the colour of the ball (red=negative, green=neutral, black: missed hit ball on floor
- Score at the time of the hit
- Description of the hit

If you decide to view one rotation at a time (by choosing a specific rotation instead of detail of rotations), you will be able to use the Pg Up and Pg down shortcut keys to go, from the current analysis window, to the next rotation:

rotation 1:
- page up: go to rotation 2
- page down: go to rotation 6
2.10.7 DISTRIBUTION OF SETTER CALL (Professional version only)

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 allows you to customise the desired parameters.

The setter call window is slightly different to the standard window. There is an orange section on the left hand side of the screen, divided into two boxes, where you can:

- select the setter call to indicate one or more calls (or all) that you want to represent
- if you want to represent all the selected calls in a single court, if you want to select a court for every call or if you want to select both options at the same time.

For 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);

the result will be the following:

In the first box, with the red header, you will find all the calls with the respective run ups 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 are 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).

This icon positioned on the toolbar allows you to access the same menu that is displayed if you press the right button on the mouse.

Some of the functions found in this menu are straightforward.

The Settings function found in this menu is used to set graphical and functional settings that allow you, if applied in an interactive way, to represent and study the requested attacks in a professional, specific and personal way.

This window allows you to define:

- **Orientation**: it is possible to directly change the courts side

- **Other options**: you can choose to display the run ups of the middle blocker or/and whether you want to line up the calls or not, as shown in the below example.
The setter calls in the different rotations are displayed in the below example:

![Setter calls distribution](image)

2.10.8 PRINT COMPOSITION (Professional version only)

This function can be found in the Advanced Analysis menu and allows you to create a customized print sheet containing the different types of analysis in a chosen order. This function can only be used when the scouting is closed and when the analysis windows are closed.

By selecting this function, the program will open a blank page, indicating the area limited by the margins of the paper that will be used to print, where you can insert the requested analysis using menu commands and icons.

These are the functions that can be performed using the below icons (these functions are available in the command menu)

1 - Insert new analysis: this icon allows you to create a new analysis and insert it in the print composition page. You will have to define the type of the analysis you want to perform (by player, skill, rotation, etc.) and select the options you require in the analysis window that will appear;
2 - Insert an existing analysis: this icon allows you to insert a previously saved analysis in the print composition page. The inserted analysis windows can be repositioned, enlarged or reduced as required;
3 - Insert text: to enter text in the page, click on the icon and then position the cursor where you want to add the text box;
4 - edit/modify text: click on this icon to modify the inserted text, the colour, the format, etc.;
5 - delete text;
6 - print preview;
7 - print;
8 - print/save as PDF file;
9 - save: to save the created page and save any changes that have been made to an existing page;
10 - save as: saves a new page associating a name to the file;
11 - close the print composition.

2.10.9 SCREEN COMPOSITION (Professional version only)

This function allows you to save the analysis tables in a specific disposition on the computer screen to retrieve it immediately when required.
A screen composition can be helpful when, for example, you have different analysis open at the same time, zone chart, player analysis, direction chart and a spreadsheet and you display them in a certain way on the screen; next time you need to open these analysis they will be displayed in the same way on your screen.
To make changes to the composition, right click and select the relative options from the drop down menu that will appear.

2.10.10 LAST HITS (Professional version only)

This analysis allows you to display the effects/results of the last four hits for each skill performed by each individual player.

The Last Hits window will be divided into six columns, one for the list of players and five columns one for each skill.
The effects for each skill for each player are divided into three types for an immediate reference:
- Black square \(\square\) positive/winning hit
- Green triangle \(\triangle\) intermediate hit that allow the game to continue
- Red circle \(\bullet\) negative hit that leads to a loss of a point

You can choose if you want to assign a colour for each hit (red =, black /, etc.) or if you want to assign a group colour for different hits (red is used for = and /, green for - ! +).
2.11 TOTAL ANALYSIS

This type of analysis allows you to analyse more than one match at the same time, played by the same team.

2.11.1 MATCH SELECTION

You can choose the teams you want to analyse by selecting Match selection in the Total analysis menu. The total analysis window will appear with the list of the matches saved in the current Season:

The matches to analyse are selected by pressing the Select Total button on the bottom of the screen.

This window will appear when a match is selected:

Select the team you want to analyse in this window (the total must relate to the teams played by the same team). You can now continue with the analysis using the normal consultation commands found in the general analysis and advanced analysis menus.

PLEASE NOTE: this window MUST NOT BE CLOSED when you perform a total analysis and must remain open throughout the analysis procedure. When the total analysis is active the menu names will change and the “total” wording will appear next to general analysis and advanced analysis.
3 CHAPTER THREE

3.1 WHAT TO DO BEFORE INITIATING A SCOUT

You will need to perform a few preliminary operations before you can start a statistic scout. First of all you need to enter at least one or two teams in the team database, depending on whether you are scouting one or both teams.

To enter a team you need to:

File / teams / New
- Enter the code (3 characters) and the name of the team:
- enter the name of the head coach and of the assistant in the top right hand corner of the players list window;
- Enter the name of the players and the relative details one by one using the ADD button to enter a new player row. The mandatory fields are: number, code, surname and name. For the Libero player enter ‘L’ in the Id column (If you enter Libero in the role of the player the program will automatically insert L in the Id box). If you want the program to run a check on the number of foreign players on the court you need to tick the FOR box for the foreign player.

The next step is to identify the keys that are associated to a specific function that will be used during the scouting:

**tools_keyboard remapping**

We advise you to not modify the shortcut keys until you are familiar with the functions. We suggest you memorize the default keys first, especially the ones relating to the hit effect values.

Another suggestion would be to add labels to your keyboard with the relative symbol/function to identify the keys straight away during a scouting.

Subsequently you will have to set some scouting options, or alternatively check for the active options if you do not want to modify the default ones.

**Tools - Scouting options - Default scouting**

Check the default values for skill/type/evaluation set by the program are: attack as default skill, type High (H) for all skills and positive effect +.

We advise you to not modify the default parameters until you are familiar with the program.

**Tools - Scouting options - General scouting**

- Tick on opponent scouting if you want to scout both teams
- (in the below examples, the first one will scout one team only therefore this box will not be ticked, in the other examples it will be ticked as they will scout both teams).
- You need to set the parameter relating to the automatic serve: the following examples will outline each option.
3.2 PREPARING A NEW MATCH

- When selecting New Match, the match notes window will appear where you can enter the initial information regarding the match. Select one or two teams according to the type of scout you want, in the blue (home) and pink fields (away/opponent). Make sure the teams have already been entered in the team database. You will also have to enter the date, time, competition type and type of regulation to use.

- By following the guided procedures the team database will be displayed for both teams where you can make sure that the entered information is correct and modify it if necessary. Click on the button in the centre of the scoreboard window, or run FORM command, to enter the initial line up at the start of the set for both teams.

- By clicking on Ok you will return to the scouting window, the teams will now be displayed in the scoreboard window and the automatic codes relating to the number of the setter and the rotation position of both teams will appear in the codes list window.

- The teams will have to be positioned on the court according to the position of the scout-man (if the scout-man is on the shorter part of the court the court will have to be viewed vertically, if he is positioned on the longest part of the court the court will be viewed horizontally).

- Our example shows the scout-man positioned behind the bench (on the longest part) and Italy team will be positioned on the left and Russia team on the right side of the court.

- The scoreboard will be displayed as shown:

- The white ball next to zone 1 of the home team indicates whose turn it is to serve. If the serve is assigned to the away team, click on the clear ball in the opposite court side or alternatively insert the command aS in the scouting window.

- The scouting can now begin.
3.3 SCOUTING EXAMPLE - LEVEL 1 -

SCOUTED TEAM:
- HOME TEAM ONLY (to the left)

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).

Select NO in the Automatic serve section found in Tools_scouting options_general scouting to scout one team only. The scoreboard window indicates the initial line up in this rotation.

<table>
<thead>
<tr>
<th>RALLY DESCRIPTION</th>
<th>CODE IN THE SCOUTING WINDOW</th>
<th>NORMALIZED CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
<td>8R# 4+ 14# end rally left</td>
<td>*08RAH#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*04AH+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*14AH#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*p01:00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(SCORE)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*z6 (new rotation)</td>
</tr>
<tr>
<td>n. 6 serves an ace.</td>
<td>6S# end rally left</td>
<td>*06SH#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*p02:00</td>
</tr>
<tr>
<td>n. 6 serves; perfect reception by the opponent and a positive/winning attack is performed.</td>
<td>6S- end rally right</td>
<td>*06SH-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ap 02:01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>az4</td>
</tr>
<tr>
<td>Opponent serves, n.8 receives, the opponent blocks and scores a direct point.</td>
<td>8R/ end rally right</td>
<td>*08RH/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ap 02:02</td>
</tr>
<tr>
<td>Opponent serves positive reception by n.6, n.4 performs a negative attack, the opponent rebuilds and n.4 performs a winning block.</td>
<td>6R+ 4- 4B# end rally left</td>
<td>*06RH+</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*04AH-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*04BH#</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*p03:02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*z5</td>
</tr>
</tbody>
</table>
3.4 SCOUTING EXAMPLE - LEVEL 2

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).

Select Player number+serve code or only player number in the Automatic serve section found in Tools_scouting options_general scouting to scout both teams.

The scoreboard window indicates the initial line up in this rotation.

We suggest you choose 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.

<table>
<thead>
<tr>
<th>RALLY DESCRIPTION</th>
<th>CODE IN THE SCOUTING WINDOW</th>
<th>NORMALIZED CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opponent n.4 jump serves and n.8 performs a perfect reception; n.4 performs a</td>
<td>a4SQ. 8# 4Q+ a3 - 14T#</td>
<td>a04SQ- *08RAQ# *04AQ+ a03AH-</td>
</tr>
<tr>
<td>quick positive attack but does not touch the floor; opponent n.3 hits back with</td>
<td>End rally left</td>
<td>*14AT# *p01:00 (score) *z6 (new</td>
</tr>
<tr>
<td>a high ball that does not touch the floor; n.14 performs a positive/winning tense</td>
<td></td>
<td>rotation)</td>
</tr>
<tr>
<td>attack</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n.6 jump serves an ace on the Libero.</td>
<td>6SQ.8=</td>
<td>*06SQ# a08RQ= *p02:00</td>
</tr>
<tr>
<td>N.6 high serves, the opponent libero player performs a perfect reception;</td>
<td>6SQ.8# a5ST#</td>
<td>*06SQ- a08RQ# a05ST# ap 02:01</td>
</tr>
<tr>
<td>Opponent n.5 performs a positive/winning tense attack.</td>
<td>End rally right</td>
<td>az4</td>
</tr>
<tr>
<td>Opponent n.5 serves feet on the floor, n.8 receives from the net; Opponent</td>
<td>A5S.8/ a3H#</td>
<td>a05SH/ *08RH/ a03SH# ap 02:02</td>
</tr>
<tr>
<td>n.3 closes with a direct point</td>
<td>End rally right</td>
<td></td>
</tr>
<tr>
<td>Opponent n.5 serves feet on floor, n.6 performs a positive reception but not</td>
<td>a5S. 6+ 4Q- a3Q.4#</td>
<td>a05SH! *06RH+ *04AQ- A03AQ/</td>
</tr>
<tr>
<td>perfect; n.4 attacks a quick ball with negative effect; Opponent n.3 returns</td>
<td>End rally left</td>
<td>*04BQ# *p03:02 *z5</td>
</tr>
<tr>
<td>a quick ball, n.4 performs a winning block.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.5 SCOUTING EXAMPLE - LEVEL 3

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).

The shown table represents the attack combinations previously set and customized in menu_tables_attack combinations. These combinations will be used for this example.

<table>
<thead>
<tr>
<th>RALLY DESCRIPTION</th>
<th>CODE IN THE SCOUTING WINDOW</th>
<th>NORMALIZED CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td>a4SQ1.8#6 4C1+5 a3G4-1 14W4#5</td>
<td>end rally left</td>
</tr>
<tr>
<td>N.6 jump serves an ace from zone 6 on the libero in zone 6.</td>
<td>6SQ6.8=6</td>
<td>end rally left</td>
</tr>
<tr>
<td>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</td>
<td>6SQ6.8#6 a5W2#5</td>
<td>end rally right</td>
</tr>
<tr>
<td>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</td>
<td>A5S5.8/6 a3H#31</td>
<td>End rally right</td>
</tr>
<tr>
<td>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</td>
<td>a5S5.6+5 4C2-5 a3C1.4#</td>
<td>end rally left</td>
</tr>
</tbody>
</table>
3.6 SCOUTING EXAMPLE - LEVEL 4

MODIFYING PREVIOUSLY INSERTED DATA
Considering the amount of information that can be scouted by Data Volley 2007 we advise you to not enter all the information relative to a hit, directly in the scout box in the scouting window. Data Volley 2007 has developed a function for quick and intuitive data entering procedure, allowing the scout-man to 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.

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.4 high 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 the one on his left.

Opponent n.4 high 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 the one on his left.

The sub zone (B) is entered in the serve code. Alternatively the trajectory of the point can be traced in the court and the program will automatically enter B in the cell relating to the sub zone.

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.

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. 4 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.

The sub zone A and the two extended codes have been entered that define the specific type of attack and the number of players performing a block.
Opponent n. 3 hits back with a high ball from zone 4 towards zone 1, sub zone B, but does not hit the floor.

The attack is a hard hit against a two player block.

The relative sub zone, type of hit (H) and number of players performing a block (2) have been entered.

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.
4 WARRANTY

4.1.1 WARRANTY RESTRICTIONS

Data Project S.r.l. guarantees:

• for a period of 90 days from the date of purchase, the correct functioning of the CD ROM provided containing the software;
• for a period of 24 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;

Data Project S.r.l. is not responsible for loss, damaged or a non correct use of the software.

Data Project S.r.l. will not be liable for any direct or in direct damages caused by the use of the software products.

4.1.2 Consumer protection

In the event of problems related to the software, the responsibility and the sole solutions will be at the discretion of Data Project S.r.l.:

• The repair or replacement of the software;
• The refund of the total amount, providing that the products are returned intact, functioning and with the supplied components (smart key, handbook, etc.).

The warranty becomes void when the software problems are caused by accidents, incorrect use or misapplication of the product.

4.1.3 Procedures to follow

During the warranty validity, please contact our technical support department on 0039 089 6307845 or send us an email info@dataproject.com, tech@dataproject.com in the event of performance problems of the program.

Our customer service lines are open, from 9,30 to 1:00 pm and from 3:00 pm to 6pm, Monday to Friday, except public holidays.

The technical support service is limited to the use of the software procedures and whenever possible a direct problem solving consultation.

Should our customer service department not be able to solve the problems, please send a written request directly to Data Project S.r.l., detailing the error the steps that led to it, and when possible, a copy of the file archive that caused the problem; Data Project S.r.l. will endeavour to examine the problem and update the company website www.dataproject.com with the modified software procedures.

4.1.4 ADDITIONAL WARRANTY SERVICE

The client, during the warranty validity, can download all relative updates for the purchased software version from the Data Project S.r.l. website www.dataproject.com