FIBA Europe
Stats Suite User Manual

Version:	**3.2**
Date:	**October 6, 2011**
Author:	**Audrius Stonkus, FIBA Europe**
	Nick Marzoli, FIBA Europe

FIBA Europe
Widenmayerstr. 18
80538 Munich
Germany

Tel (49+89) 78 06 08 –0
Fax (49+89) 78 06 08 –59
Email: info@fibaeurope.com

1 INTRODUCTION 3

2 INSTALLATION 3

3 SETTING UP THE GAME BEFORE START 4

3.1 STARTING SCREEN 4
3.2 SETTING UP GAME IN ONLINE MODE 5
3.3 SETTING UP GAME IN OFFLINE MODE 5
3.4 EDITING GAME DETAILS AND ROSTERS 5

4 OPERATING DURING THE GAME 7

4.1 THE MAIN WINDOW 7
4.2 STARTING A GAME 8
4.3 OPERATING THE GAME CLOCK 10
4.4 ENTERING GAME ACTIONS 10
4.5 ENTERING ACTIONS DURING THE GAME 11

5 FINISHING GAME 17

6 EDITING ACTIONS, FIXING MISTAKES 17

7 VIDEO ANALYSIS 19

7.1 PURPOSE AND SETUP 19
7.2 ANALYSING VIDEO 20
7.3 OTHER FUNCTIONS 21

8 PRINT-OUTS 21

8.1 ROSTERS 21
8.2 OFFICIAL BOXSCORE 22
8.3 PLAY BY PLAY 23
8.4 SHOT CHART 23
8.5 LINE-UP EFFICIENCY 24
8.6 TEAM COMPARISON 25
8.7 SCORE DEVELOPMENT CHART 25
8.8 PLAYER EVALUATION REPORT 25

9 SOFTWARE CONFIGURATION 26

9.1 GAME PARAMETERS 26
9.2 PROGRAM PARAMETERS 26
9.3 REPORTS 27

10 TROUBLESHOOTING 28

10.1 UNRELIABLE INTERNET CONNECTION 28
10.2 ROSTER CHANGES 28
10.3 OTHER FREQUENTLY ASKED QUESTIONS 29

1 Introduction

FIBA Europe Stats Suite is official FIBA Europe is the official FIBA Europe software for scouting the basketball games and analyzing statistics.

Before installing the software on your computer, please make sure that the computer conforms to the following requirements:

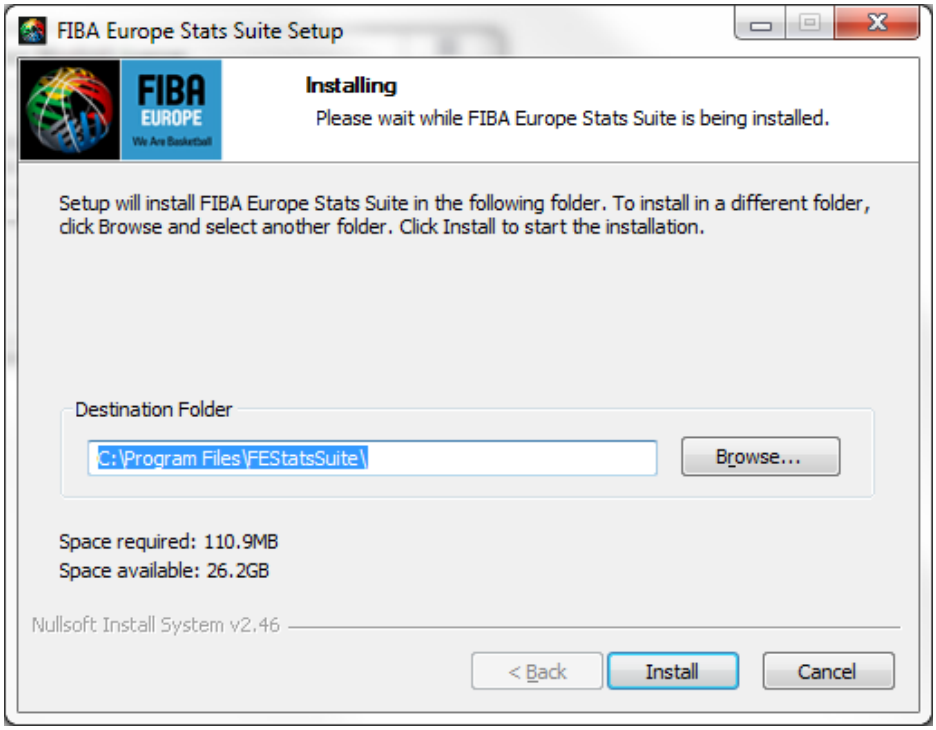
- Minimum 500Mhz CPU;
- Operating system: Microsoft Windows XP (SP2 or later), Windows Vista or Windows 7.
- Minimum 150 MB of free disk space;

If you are going to use Stats Suite to provide live statistics on the internet, please make sure that you have received your username and password from the competition organizer beforehand.

Working in online mode is a requirement for all official FIBA Europe competitions.

2 Installation

To start the installation, download and execute the file "festatssuite-setup.exe". The installation wizard will start, which will guide you through the setup process. Click "Agree", then "Next" to complete installation process.



Picture 1 - Installation

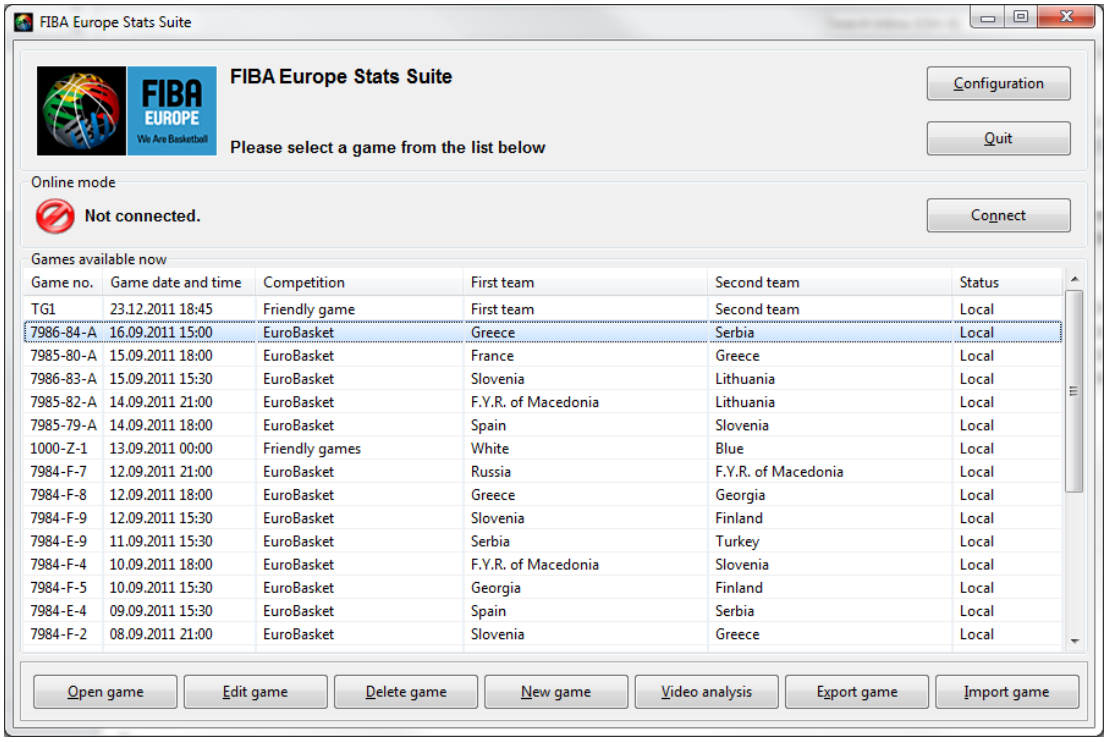
After installation, the program is immediately read for use.

Stats Suite checks for the new versions and updates automatically. When there is a new version of program released, Stats Suite will detect it and ask you to download and install the newest version. It is recommended to always upgrade to the newest version possible.

3 Setting up the game before start

3.1 Starting screen

After starting the application, you see the starting screen with the list of available games. From this list you can start the game you want to operate, as well as create new game, edit information of existing games, delete old games. The newest games are always on top.



Picture 2 - Starting screen of the program

The meaning of buttons in this screen:

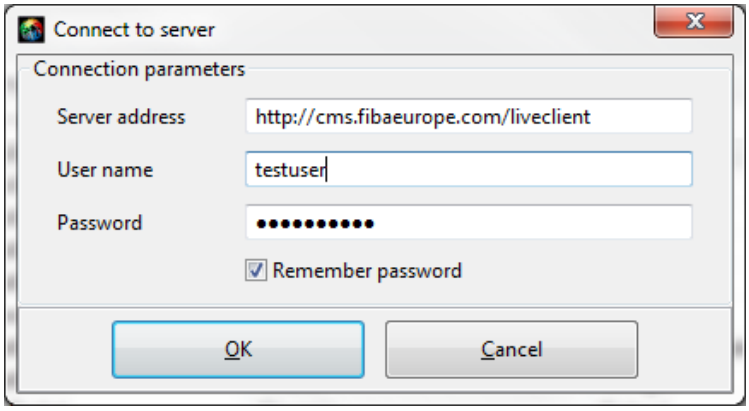
- Configuration – edit software configuration (see section 9 - Software configuration for details).
- Quit – close the program.
- Connect – start working in online mode (see below). If already working in online mode, this button changes to “Disconnect”, which returns back to offline mode.
- Open game – start operating on the game which is currently selected in the list. The same can be achieved by double-clicking the game in list.
- Edit game – change the details or rosters of selected game (see below).
- Delete game – remove selected game from list. Online games cannot be removed – you have to wait until the game is over.
- New game – creates new game. Can be used in offline mode only.
- Export game to file – saves selected game information to LOG file, which can be used to send game per email to another person, for example.
- Video analysis – finds and previews video events based on statistics data. See section “Video analysis” below for details.
- Import game to file – import game from LOG file, for example if game file was received per email.

3.2 Setting up game in online mode

When working in online mode, all entered actions are sent to FIBA Europe servers. As result, the game is visible in "live games" section of fibarurope.com and/or other websites which provide this function and all visitors of that website can follow the game in near real time.

Note: all official FIBA Europe games must be scouted in online mode.

To start game in online mode, click on the "Connect" button in the starting screen. A popup window appears:



Picture 3 - Connecting to server in online mode

In this window, you have to specify the server address (which is always http://cms.fibaeurope.com/liveclient/, unless told otherwise), your username and password. You will receive the username and password from the competition organizer before beginning of season or competition.

If you successfully connect to the server, all new games are automatically added to the list. You can start the game by just double-clicking on it.

Note that when you open the game in online mode for the first time, you must review and edit game details and rosters first. After that, game opens immediately. Game details and rosters still can be accessed at any later point, either from the starting screen by clicking "Edit" button, or by executing "Edit rosters and match info" command from main window.

3.3 Setting up game in offline mode

To set up new game in offline mode, you have to use the "New game" button. Then, the window for editing game information and rosters opens, where you have to enter all information about game and rosters of both teams by hand. Please see section "3.4 Editing game details and rosters" below for details.

3.4 Editing game details and rosters

There are two ways to change game information and team rosters:

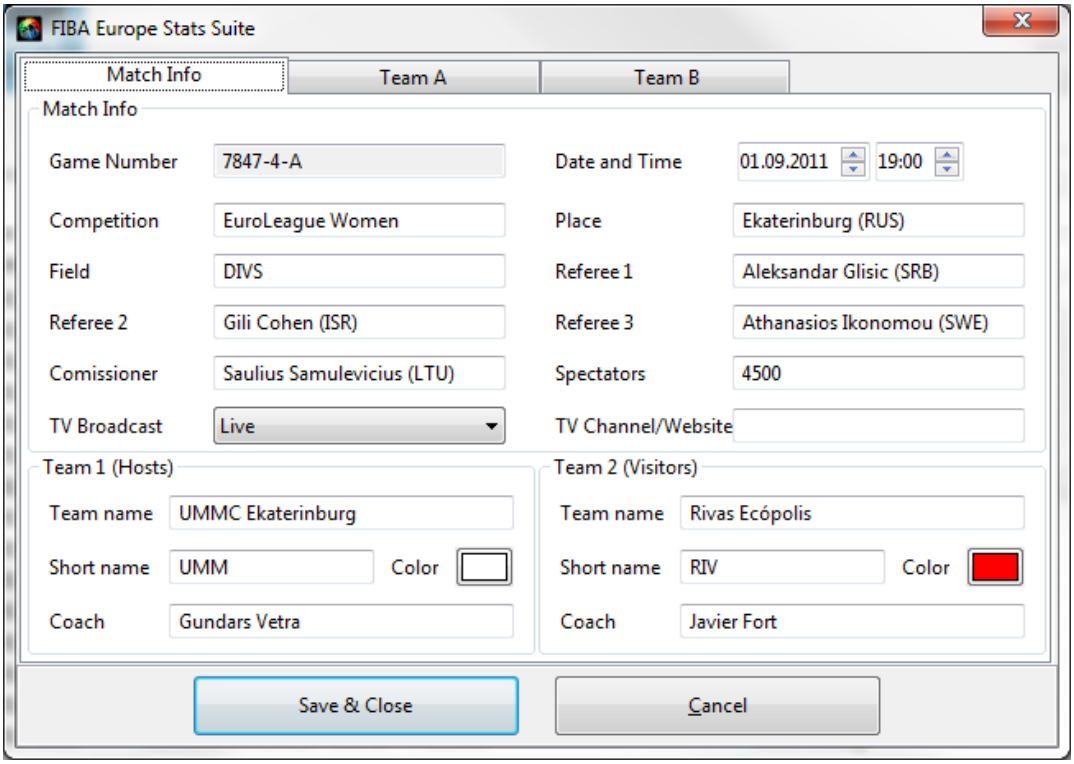
a) From the starting screen of the program, by clicking the "Edit game" button.

b) From the main screen, by selecting menu item "Game" – "Edit rosters and match information".

Additionally, you have to at least review game information when opening game in online mode for the very first time.

3.4.1 Editing game details

Editing game information is done in this window:



Picture 4 - Game information editing window

When working in online mode, most of this information is already pre-filled with information from the central database. In this case the only information you need to enter manually is:

- Number of spectators
- TV details
- Checking the short names of both teams – eventually you have to change the short names as they usually should not be more than 3-5 characters. Also, please make sure that the short names of the teams are descriptive enough (for example, the short name for team "BC Zagreb" should be something like "ZAG" instead of "BC").

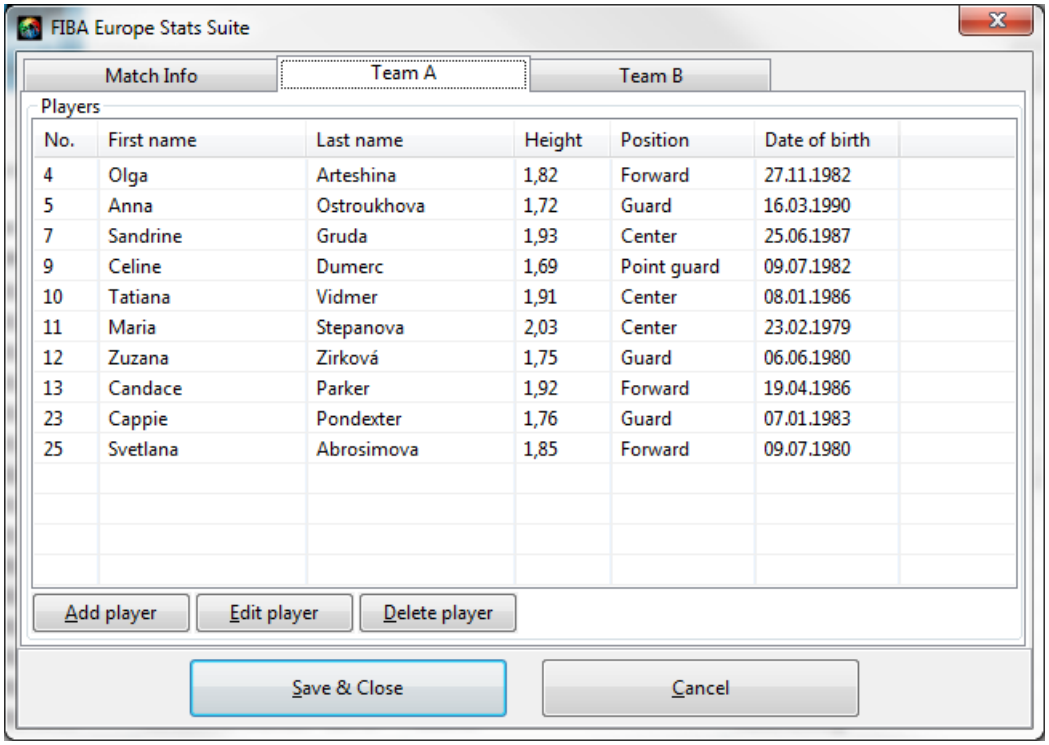
Sometimes it might be necessary to enter the names of referees as well.

It is also possible to enter the uniform colours, which can be done by clicking "Colour – Change". While entering this information is not mandatory, it can help the operators to distinguish the 2 teams in the user interface.

When creating new game in offline mode, all information has to be entered manually, including the game number (please make sure that the game number is correct and unique in this case!).

3.4.2 Editing team rosters

Team rosters can be edited in the same window as game details, in another tab (one tab per team):



Picture 5 - Editing team roster

Here you can perform following actions:

- Add player – add new player to roster. In offline mode, you can add any player you want; in online mode you must select the player from the list of available players.
- Edit player – change details of selected player.
- Delete player – removes the selected player from list.

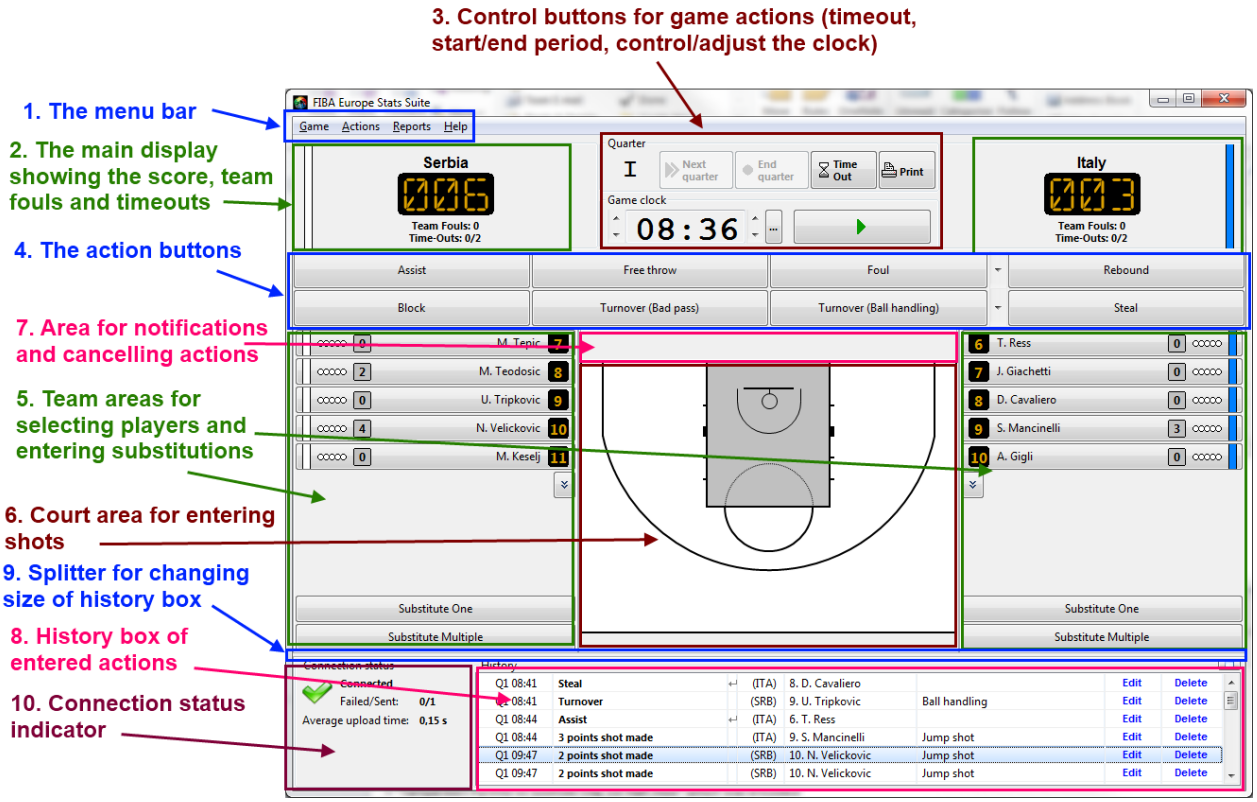
4 Operating during the game

4.1 The main window

The main window consists of the following 9 areas:

1	Menu bar	
2	Display	Team names, score and number of team fouls for both teams are shown
3	Game control buttons	Those buttons are used in order to ▸ Enter the beginning or end of a quarter ▸ Enter a timeout ▸ Start or stop the game clock ▸ Manually adjust the game clock
4	Action buttons	Those buttons are used in order to enter a certain action
5	Team area	The team areas show the 5 players of each team currently in the game and number of fouls for each player. The player buttons are used to select a player for an action. Furthermore, substitutions can be entered using the buttons “substitute one” and “substitute multiple”.
6	Court	The court used for entering shots
7	Message area	This are is used for prompts and notification messages of the program. When Stats Suite is suggesting follow-up action, the button to cancel the

		suggested action is shown here.
8	History	The history of all actions is shown in this area. Actions can be entered or deleted from here. Use the small history button ( ) of this area in order to open a separate history window, which allows a more extensive search for actions.
9	Size splitter	The size of history and court areas can be changed by moving this splitter up or down.
10	Connection status indicator	Shows the status of connection to server, when working in online mode.



Picture 6 -The main window of Stats Suite

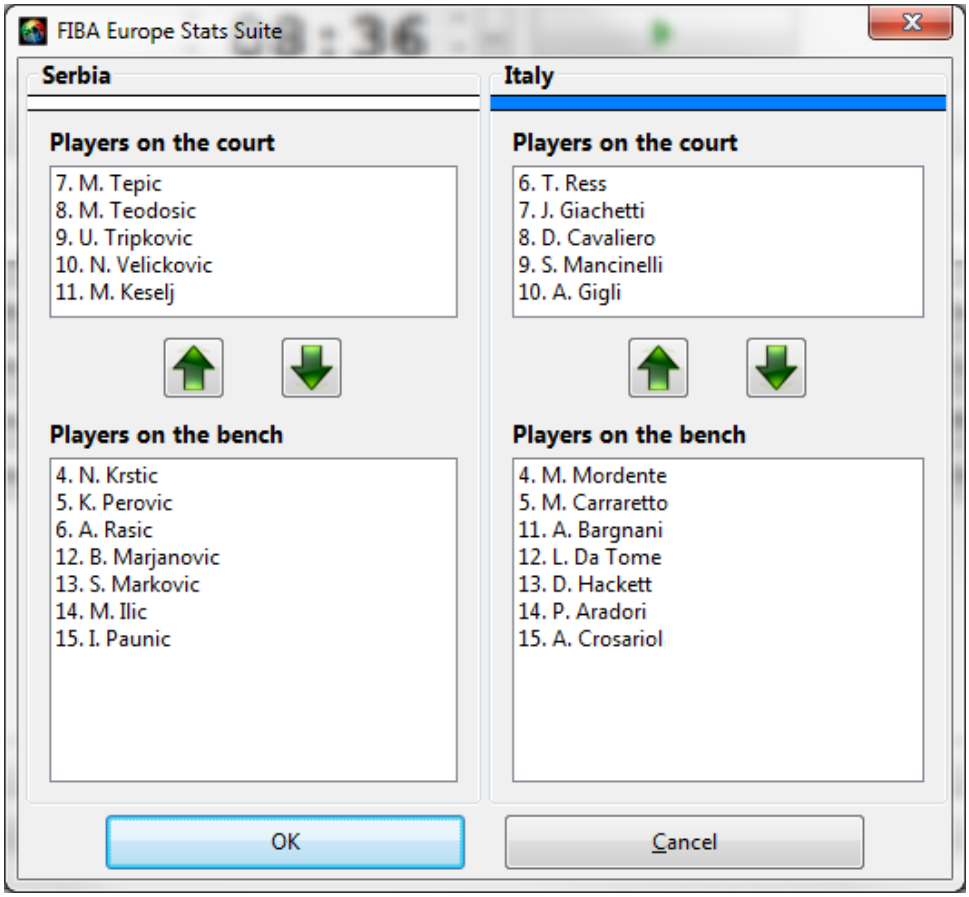
4.2 Starting a game

Before the start of the game, two things have to be done:

- Insert the starting 5 for both teams
- Click the button “Start Game”

4.2.1 Starting 5

In order to insert the starting five, click the button “Substitute Multiple” for one of the teams. You will get a new window showing the players of both teams:



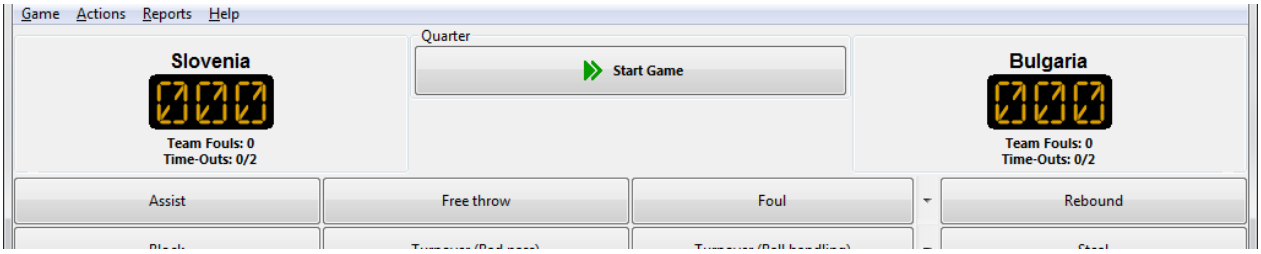
Picture 7 - Selecting starting 5

Select the 5 players starting the game for both teams and use the arrow button to put them into the game. Alternatively, you can double-click the players to move them in or out.

Note: you can select multiple players at once by holding the <CTRL> or <SHIFT> key while clicking on the players' names.

4.2.2 Starting the game

In order to be ready to operate the game, you have to click the "Start Game" button.



Picture 8 - Start game button

Note: As soon as "Start Game" is selected, an icon on the website will appear indicating this game will be live online. Therefore this has to be done approximately 5-10 minutes before tip-off. For all non-official games or if a live broadcast of the game is not available (for example because there is no Internet connection in the arena), it doesn't matter at which time this button is pressed.

4.3 Operating the game clock

The clock can be started, stopped and adjusted manually with the appropriate buttons.

Also, the "space" key on the keyboard might be used for stopping and starting the game clock.

Clock controls:

- Button with green arrow will start the game clock. Once clicked, the button will change its label to red square, indicating that the second click will stop the clock.
- Up and down arrows can be used to adjust minutes or seconds by adding/subtracting one minute or second, respectively.
- Button with three dots will open clock adjustment dialog, where it is possible to enter the rest time manually.

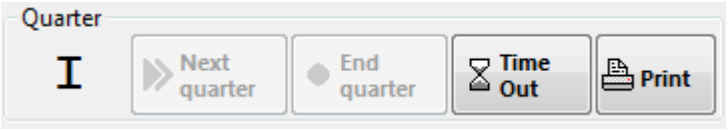
In certain situations, i.e. by entering an action the clock might start / stop automatically, for example:

- It will stop automatically after entering a foul or timeout.
- It will start automatically after a missed last free throw.

4.4 Entering game actions

The following types of game actions can be entered:

- Start quarter
- End quarter
- Timeout
- End of game



Picture 9 - Game action controls

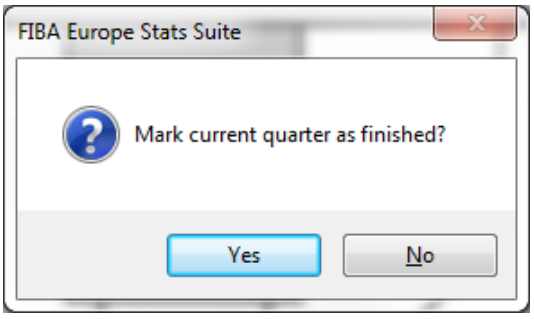
4.4.1 Start quarter

The button "Next quarter" should be used shortly before the new quarter starts. This button will only be available after the previous quarter has been marked as finished.

4.4.2 End quarter

The button "End quarter" has to be pressed at the end of each quarter. This button is only available if the clock shows 00:00.

Once the game clock for a quarter has expired, you will also notice a small pop-up window asking if you want to mark the current quarter as finished. Selecting "yes" has the same meaning as entering the end of the quarter manually.

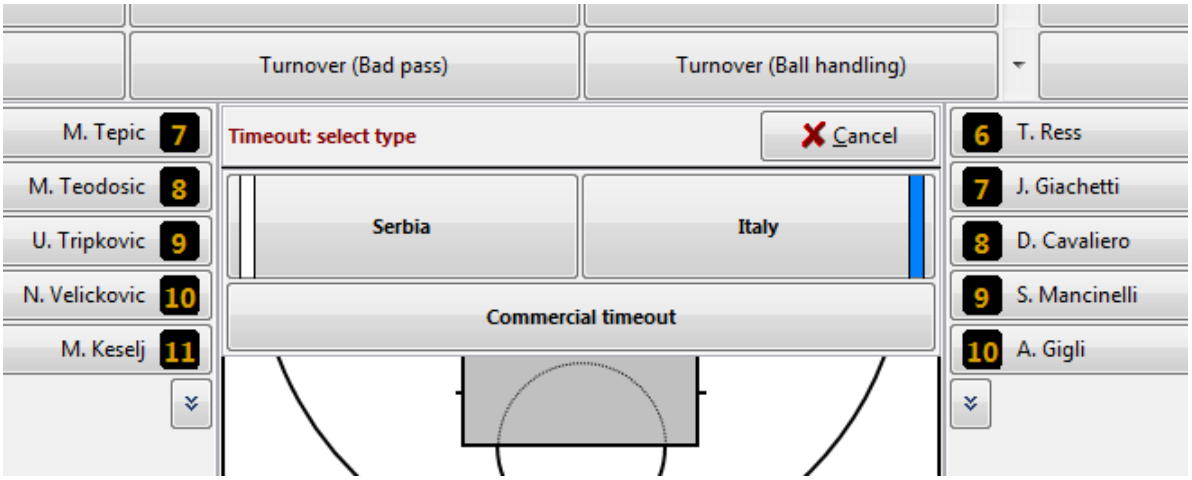


Picture 10 - End quarter popup

Be sure that there is no other action to be entered of the current quarter (for example a shot in the last second) before selecting "Yes". Otherwise select "No", enter the remaining action(s) and press "End quarter" manually afterwards.

4.4.3 Timeout

After clicking "Timeout", you have to select the team or "Commercial".



Picture 11 - Timeouts

4.5 Entering actions during the game

All player actions can either be entered by selecting a player first followed by selecting an action or the other way round. Team actions (i.e. team rebound, team turnover, bench or coach foul) can only be entered by selecting the action first, followed by selecting "Team Action" instead of a player.

For some kind of actions it will be necessary to make an additional selection afterwards, for example after selecting "Foul" you will also need to specify the type of the foul in the next step.

All actions can be cancelled by using the <ESC> key on the keyboard before they have finally been submitted (for example the wrong player has been selected but no action yet). Alternatively, you can click the button "Cancel", which appears on the screen after action is selected.

Note: It might be useful to have always one finger at or near the <ESC> key, which will allow you to immediately cancel the follow-up action if you don't want to enter it (for example FG without assist).

Also, the follow-up action can be cancelled by clicking the "Cancel" button which appears in the message area.

4.5.1 Assists

Usually, there is no need to enter Assists manually, as an assist is always suggested automatically after successful shot.

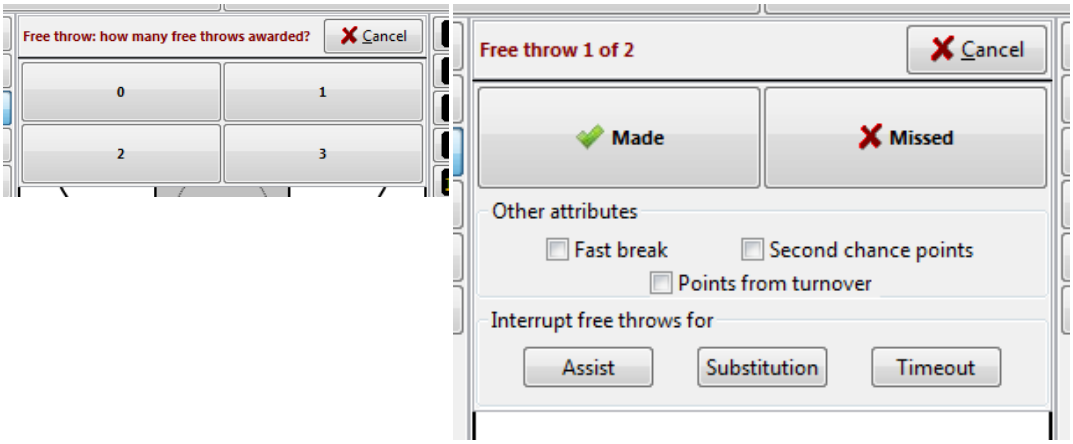
If you still want to enter an assist manually you can enter an assist by selecting first a player followed by "Assist" or the other way round.

4.5.2 Free Throws

Free Throws are available as a follow-up action after a shooting foul.

You are also able to enter Free Throws manually.

After selecting a player and the action "Free Throw" you have to specify the number of FT's and "Made" or "Missed" for each attempt.



Picture 12 - Entering free throws

For each free throw, you can also select additional attributes of the free throw – if the point resulted from a fast break, for example. See section about shots below for a more detailed description of additional attributes.

The buttons below allow the operator to enter an assist, substitution or timeout before or during the free throws. For example, if shooting foul occurred after a pass and short made the first free throw, use the "Assist" button to enter the assist for the passer. After that, the free throws will continue normally.

4.5.3 Rebounds

Also rebounds are available as follow-up actions after a missed Field Goal Attempt or after a missed last Free Throw. If rebounds are entered as a follow-up action Stats Suite will automatically determine the type of rebound (offensive or defensive).

For rebounds that are entered manually, the operator has to enter either "Offensive" or "Defensive" in a second step after selecting the player and "Rebound".

Picture 13 - Entering rebound

Team rebounds can be entered by clicking "Team Action" instead of a player (if entered as a follow up action) or manually by clicking "Rebound", "Team Action" and type of rebound (offensive, defensive).

Picture 14 - Team action button

4.5.4 Fouls

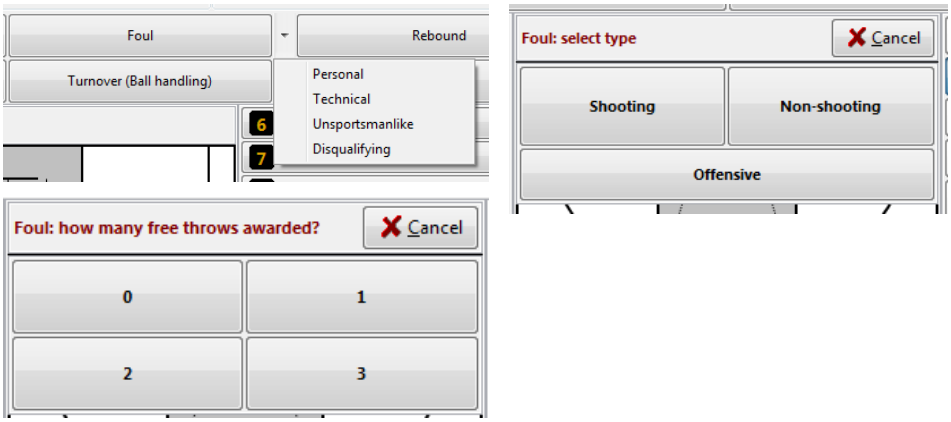
After selecting a player and “Foul” the operator has to enter some further information in a second and third step. By default, the “Foul” button registers a personal foul. For other foul types (unsportsmanlike, technical, disqualifying) use the little drop down arrow next to the “Foul” button (see picture).

Then, the player from opposite team who provoked the foul has to be selected from the popup window. In case nobody from the defending team is responsible for provoking this foul (for example, the technical foul), you can just click the “Cancel” button in this window or hit “Escape” key on keyboard.

In the third step the operator has to further specify the foul:

- Shooting (the game will be continued with Free Throws)
- Non-shooting (no Free Throws)
- Offensive (in this case the software will automatically also enter a turnover for the player)

This selection is only available for personal fouls; all other kinds of fouls will always be treated like shooting fouls (i.e. the game will be continued with Free Throws).



Picture 15 – Entering foul

In case of a shooting foul the system will suggest to the player who has been fouled as a player who makes the free throws. In case this is not correct (for example, the player was injured and had to be substituted), the operator has to cancel the free throws and enter them again manually.

After a player has fouled out (or received a disqualifying foul) Stats Suite will automatically suggest a substitution.

4.5.5 Blocks

Blocks are usually entered directly together with a shot, as a follow-up action.

It is also possible to enter Blocks manually by selecting the player and “Block”

4.5.6 Turnovers

There are three different action buttons for turnovers available:

- Turnover (Bad pass)
- Turnover (Ball handling)
- Turnover (All other types) – available by clicking the drop down arrow next to turnover buttons (see picture).

The reason for having three separate buttons is that together with the turnover also the kind of turnover has to be entered.

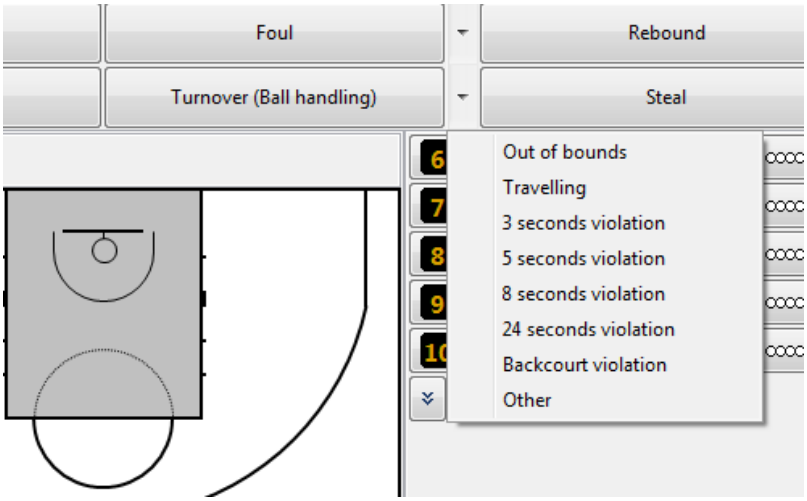
As bad pass and ball handling turnovers usually happen without interruption of the game and followed immediately by other actions it is necessary to enter them without being required to enter additional information in a second step.

After all other turnovers the game will be stopped and therefore an additional click should be no problem for the operator.

With follow-ups enabled, Stats Suite will suggest a steal as the next action after a turnover (bad pass or ball handling). As all other kinds of turnovers never have a corresponding steal, the system will not suggest a steal.

The available kinds of turnovers are:

- Out of bounds
- Travelling
- Bad pass
- Ball handling
- 3''
- 5''
- 8''
- 24''
- Backcourt violation
- Offensive Foul
- Other



Picture 16 - Turnover types

4.5.7 Steals

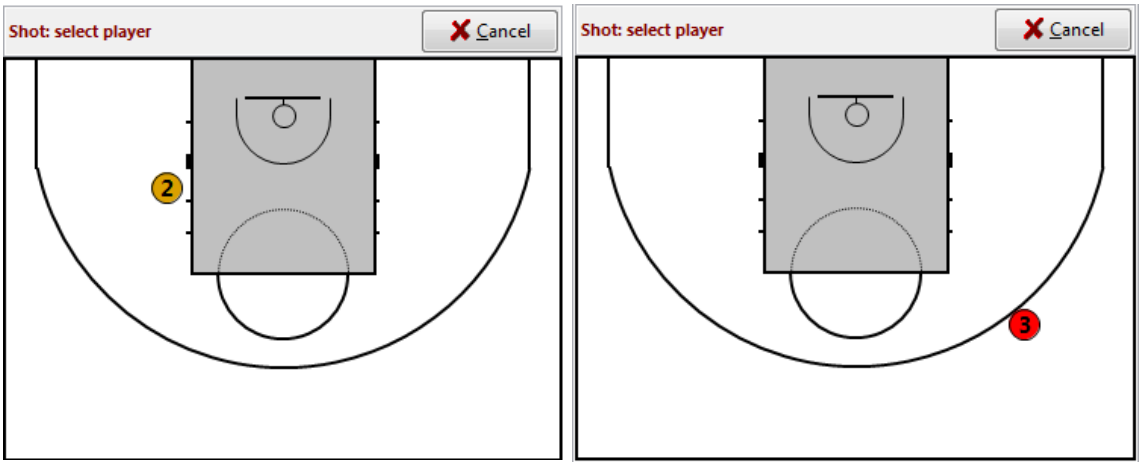
Steals can be entered as follow-up actions after a certain kind of turnover or manually by selecting a player and "Steal".

4.5.8 Shots

Shots are entered by selecting the position on the court from which the shot was made followed by selecting the player (or the other way round).

As it is only possible to change the position on the court by selecting a different one (without cancelling the action) it might be more convenient to select first the position and the player afterwards.

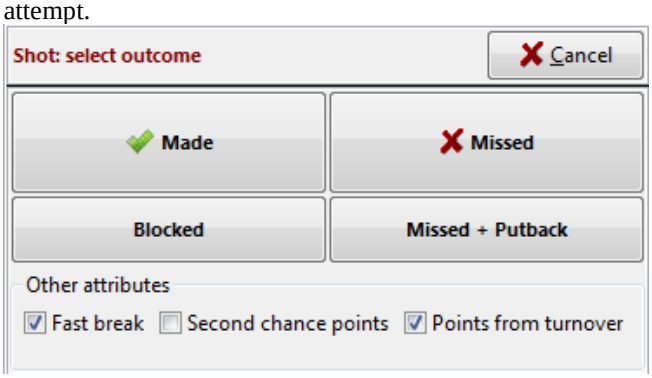
An icon on the court will indicate if the position was a 2 or 3 pts attempt.



Picture 17 – Entering shot

After selecting the position and the player the result of the shot has to be entered:

- Made
- Missed
- Blocked (a defensive player has blocked the shot = missed)
- Missed + Putback – missed shot which will be immediately followed by offensive rebound and putback attempt.



Picture 18 - Shot types

If operator selects "Missed + putback", the software will ask for player. The selected player will be automatically assigned an offensive rebound and another shot attempt.

On the bottom there are checkboxes to enter additional attributes of a shot:

- Fast break – whether shot was made as result of fast attack.
- Second chance – whether shot was result of offensive rebound.
- Points from turnover – whether shot was made as result of opponent's turnover.

The software usually selects the attribute checkboxes correctly by default, by analysing the previous actions. However, sometimes they need to be adjusted manually. The Stats Suite uses following rules to determine if shot has any additional attributes:

- Shot is a fast break when it followed the missed shot, free throw or turnover of opponent by no more than 8 seconds (configurable in configuration section). Additionally, there must be no other actions indicating interruption of game (timeouts, fouls, substitutions) in between.
- Shot is second chance when it follows an offensive rebound by the same team by no more than 24 seconds. Also, there must be no actions indicating possession (shot, rebound, steal, turnover etc.) by opponent team in between.
- Shot is counted as points from turnover when the last action by opponent team was a turnover and no more than 24 seconds elapsed in between. Also, there must be no other shot attempts by either team in between.

After entering made, missed or blocked, for shots within the paint area also the type of shot has to be entered. The following options are available:

- Jump shot
- Lay-up
- Dunk
- Tip-in
- Alley-oop
- Driving lay-up
- Hook shot
- Putback

Picture 19 - Shot types

Shots outside the paint are always automatically of the type "Jump shot".

Depending on the result of the shot the following follow-up actions are available:

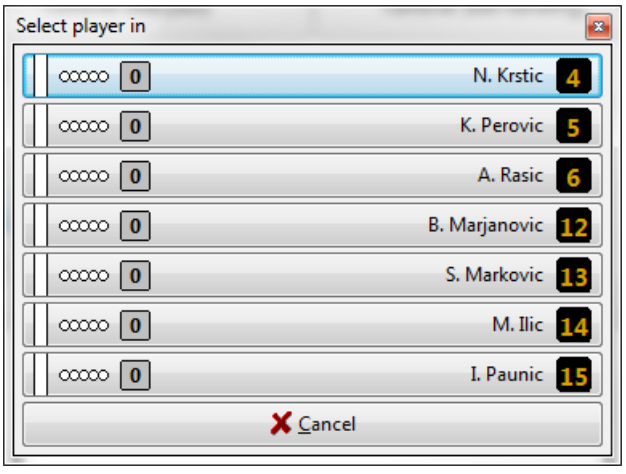
- Rebound after missed shot
- Assist after successful shot
- Block after blocked shot, followed by rebound

4.5.9 Substitutions

Substitutions can be made in two different ways:

- Substitute one player
- Substitute multiple players at once

If you only need to substitute one player you can enter this like any other action, i.e. by selecting "substitute one" followed by the player leaving the game and selecting the bench player entering the game from the list.

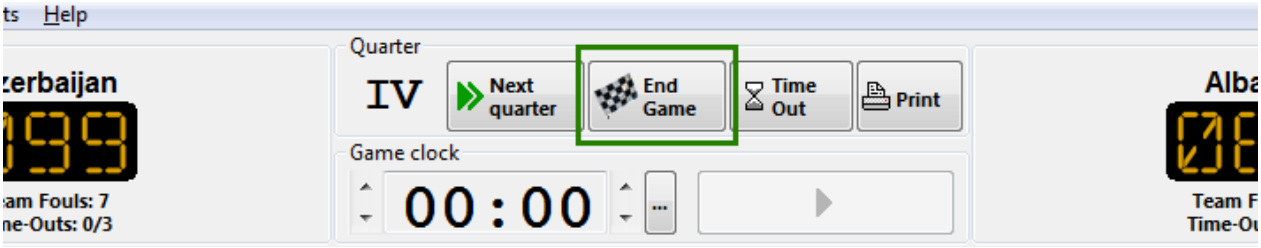


Picture 20 - Substituting one player

To substitute many players at once, please use the "Substitute multiple" button, as described in section "4.2.1 Starting 5".

5 Finishing game

After you ended the fourth quarter (or any overtime) the button “End of game” will appear in the main Stats Suite window:



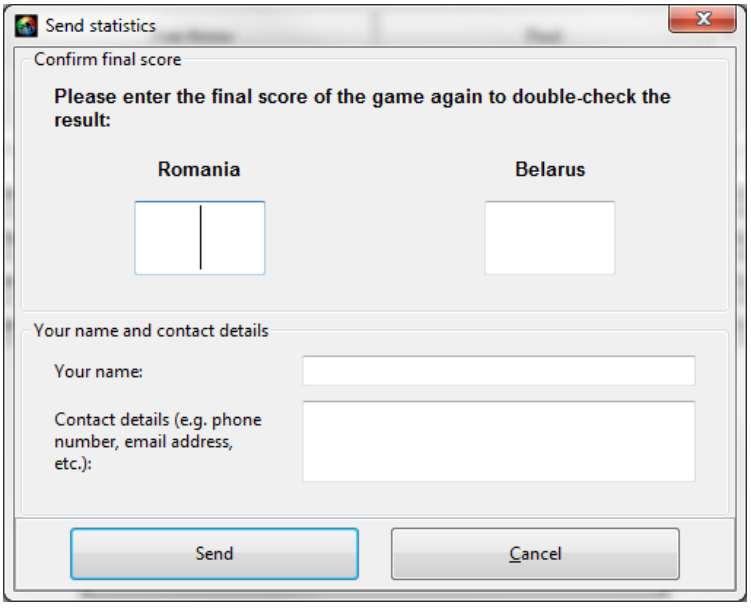
Picture 21 - End of game button

If all actions are entered and checked, you have to click this button to close the game.

Note: it is very important not to forget to enter end of game, especially when working in online mode.

If you are working in online mode, after clicking “End of game” Stat Suite will ask if the game result and statistics should be sent to FIBA Europe. Please answer “Yes”, unless you want to fix some mistakes in the statistics first. If you answered “No”, you can send the statistics later by selecting menu command “Game – Upload statistics”.

Before sending game result and statistics to FIBA Europe, Stats Suite will ask you to confirm the final score of game, in order to avoid any mistakes:



Picture 22 - Sending game result and statistics

Here you have to enter the final score of the game, which will be used to double-check that the score is indeed correct before officially publishing the information about the game on the website.

Additionally, you have to enter either your name **OR** your contact details (e.g. your email address or phone number), so the responsible FIBA Europe employees would know whom to contact if there would be any questions regarding the game result or statistics.

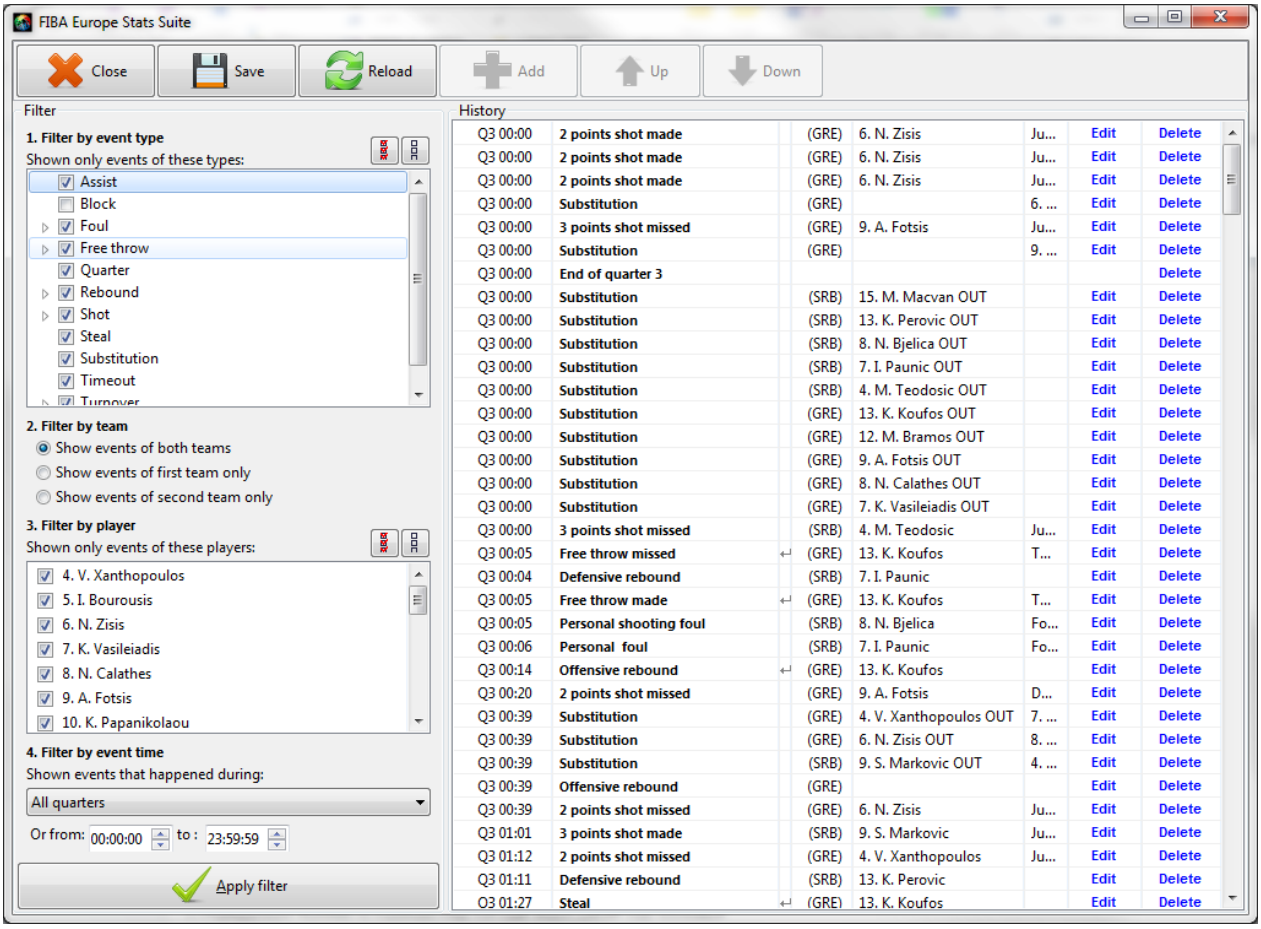
6 Editing actions, fixing mistakes

If you want to delete the action enter by mistake, you should find this action in the “History” list on the bottom of the main window and click the “Delete” link next to it.

To delete the last entered action you can use the keyboard shortcut “Control + Z”.

The “Edit” link next to action allows changing the action parameters (i.e. changing the player who committed the foul, changing the type of foul or turnover, etc.).

For a game with many actions, it can be difficult to find the wanted action in the list. It is recommended to open full history window then, which can be achieved either via menu item “Game – Actions” or by clicking the small button with arrow next to history list. Then, the big history window opens where searching for actions is much easier:



Picture 23 Action history window

Here, it is possible to search for actions by applying filters:

- By action type (some actions can be expanded for finer control, for example for shot it is possible to select only made/missed shots and/or 2/3point shots).
- By team
- By player
- By time

It is also possible to use any combination of those for filters – for example if you only select “Shot -> Other attributes -> Fast break” as action type, “13 – S. Gruda” as the player and “Q3” as the time only the shots of player Gruda which were fast breaks in the third quarter are shown.

Note: New settings only take effect after you have clicked “Apply filter”.

Like in main window, use the links “Delete” and “Edit” to remove or change actions. Note, that unlike in the main window, changes are not saved automatically: you have to click the “Save” button after you are finished with your changes.

The “Reload” button discards any changes that have been made and restores the action list into the initial state, as it was between editing.

It is also possible to insert any forgotten action at the specific position – for this the operator needs to select one action at the correct point in the action list and use the “Add” button – after selecting action type and filling in the action attributes the new action will be inserted **after** the selected action in the list.

The buttons with up and down arrows are used to move actions up and down in regard to other actions in the action list. Note that the actions cannot be moved from one quarter to another – if this is needed, the operator has to delete actions from one quarter and insert them into another quarter again as described above.

7 Video analysis

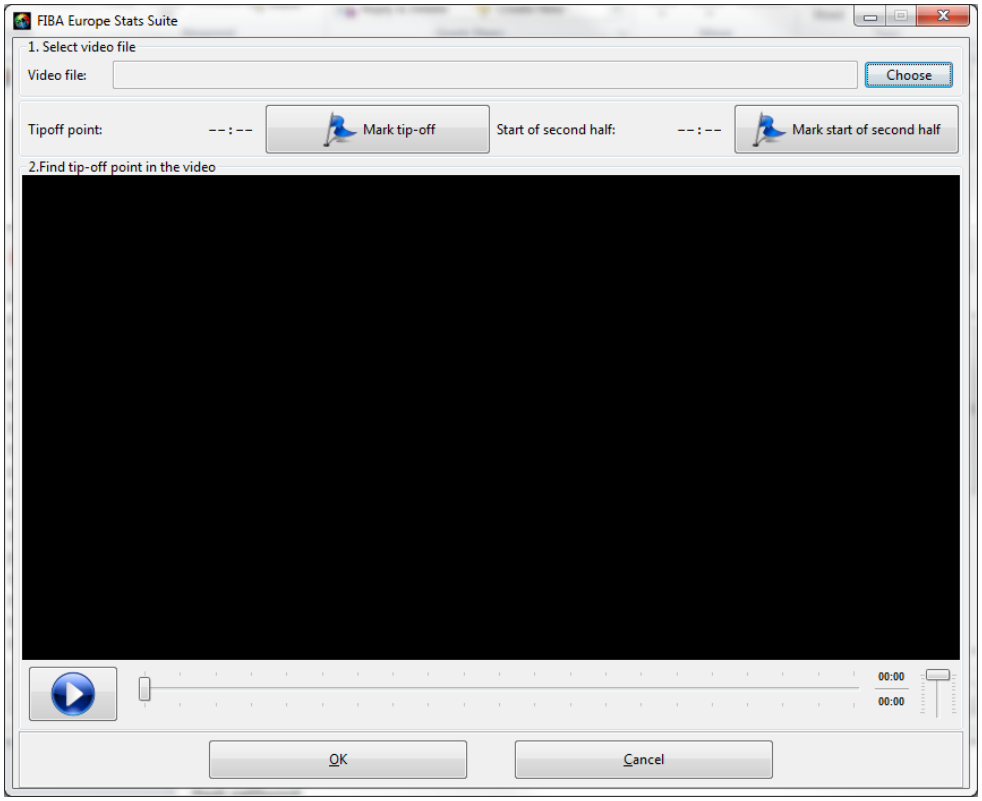
7.1 Purpose and setup

The video analysis section of Stats Suite lets you attach the video file to the game and preview any scouted action as video clip.

To use video analysis, you must have a video file of complete game on your computer. The video file must be continuous and not be cut (with the exception of halftime – the halftime might be missing from the video file).

To start with video analysis, select the game from the list on the main Stats Suite window and click “Video Analysis” button on the bottom.

The first step is to select the video file and find the tip-off point (the initial jump ball) point in the video. This is done in this dialog:



Picture 24 - Selecting tip-off point in video

The following steps need to be done:

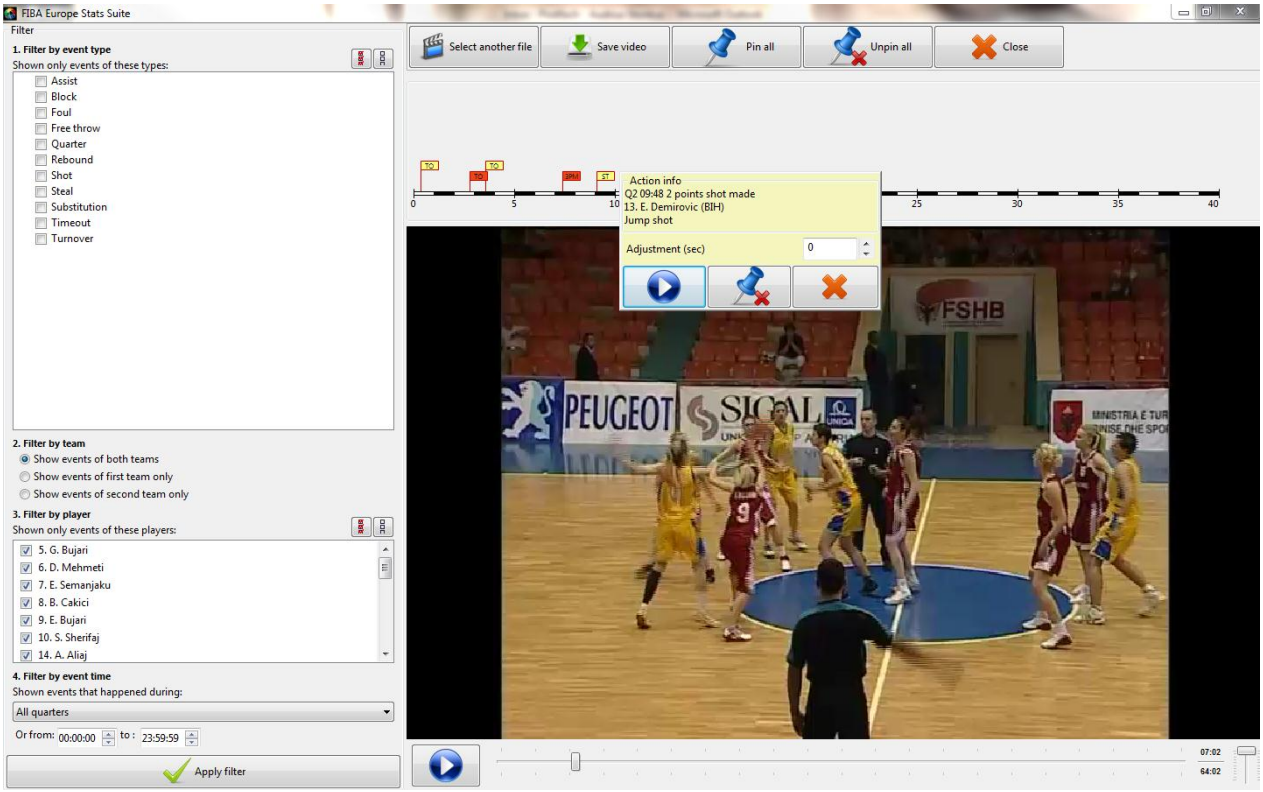
a. Click on ”Choose” and select a video file which contains the video of this game.

b. When video starts playing, wait until the tip-off point to come (or find this point by using a slider) and click “Mark tip-off”.

c. If the halftime is missing from the video, repeat the same for the second half – find the beginning of second half in the video and click “Mark start of second half” there.

7.2 Analysing video

After selecting the tip-off, the main video analysis window opens:



Picture 25 - Video analysis window

Here, you can filter actions by type/player/team/time (the same principles apply as in the history window, as described above) and preview the video clip for each of them.

After selecting the appropriate filtering criteria and clicking “Apply filter”, the selected actions appear in the timeline as little flags. The flag colour indicates the team (either by shirt colour or white for first team/black for second team) while text on a flag indicates action type.

After clicking the selected flag the popup window comes up, where the detailed information about the action is available, together with some action buttons:

- Play – preview video clip of the action
- Pin/unpin – pinned actions are added to the permanent selection and remain in the timeline even if filter is taken out or the window is closed or reopened. It is useful if you want to select some different actions for later analysis or export. Pinned actions look differently on the timeline – the frame of their flags is red instead of black. Unpin button removes the actions from selection.
- Close – closes popup without pinning action or playing video clip.

Sometimes, the software cannot find the exact spot where the action’s video clip has to start and starts to play video clip bit too early or too late (for example, if the operator entered the action with too much delay). In such case, it is possible to adjust video clip starting point by entering positive or negative number of seconds in the “adjustment” field of the popup. For example, if the video clip starts playing too late and you see only aftermath of the action in question, you can enter “-5” in the adjustment to

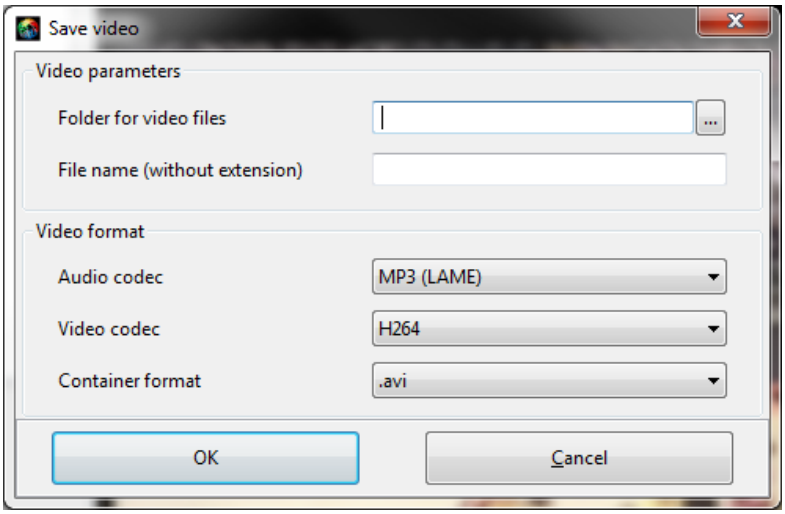
move the beginning of the clip 5 seconds towards the beginning. For pinned actions, the adjustment is saved permanently.

The duration of video clip in preview can be controlled in the configuration section, see section 9.2 Program parameters.

7.3 Other functions

Other functions available in the video analysis window are:

- Select another video file – returns to the tip-off selection window where it is possible to choose different file for the game or set up another tip-off point.
- Pin all – adds all actions which are currently on the timeline to the permanent selection.
- Unpin all – removes all actions from the permanent selection.
- Save video – export all video clips of the actions currently on the timeline to the video files. In the window which opens you need to specify the folder where the video clips need to be saved and the format and encoding of the video file.



Picture 26 - Video export window

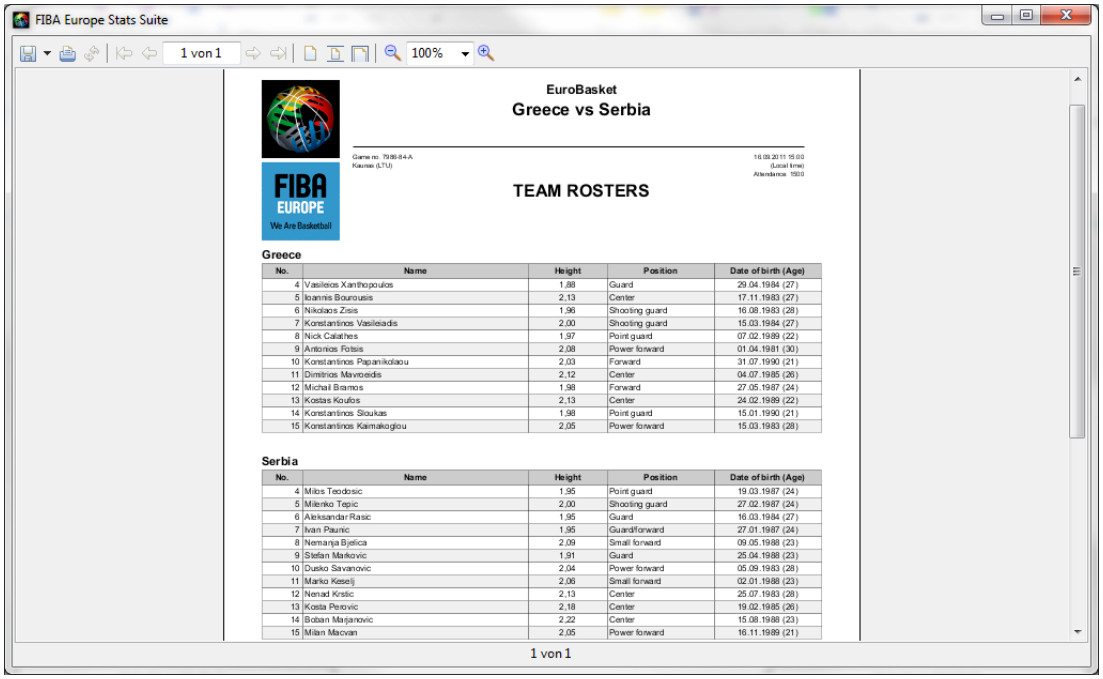
8 Print-outs

In Stats Suite a big variety of print-outs are available, which are accessible from the top menu under "Reports".

For all print-outs it is both possible to send them directly to a printer attached to the computer or network and to create and save them as PDF, HTML, Rich Text or Excel files (to export report in any format use the button on top of the report window).

8.1 Rosters

This report lists all players registered for game in both teams and their information.

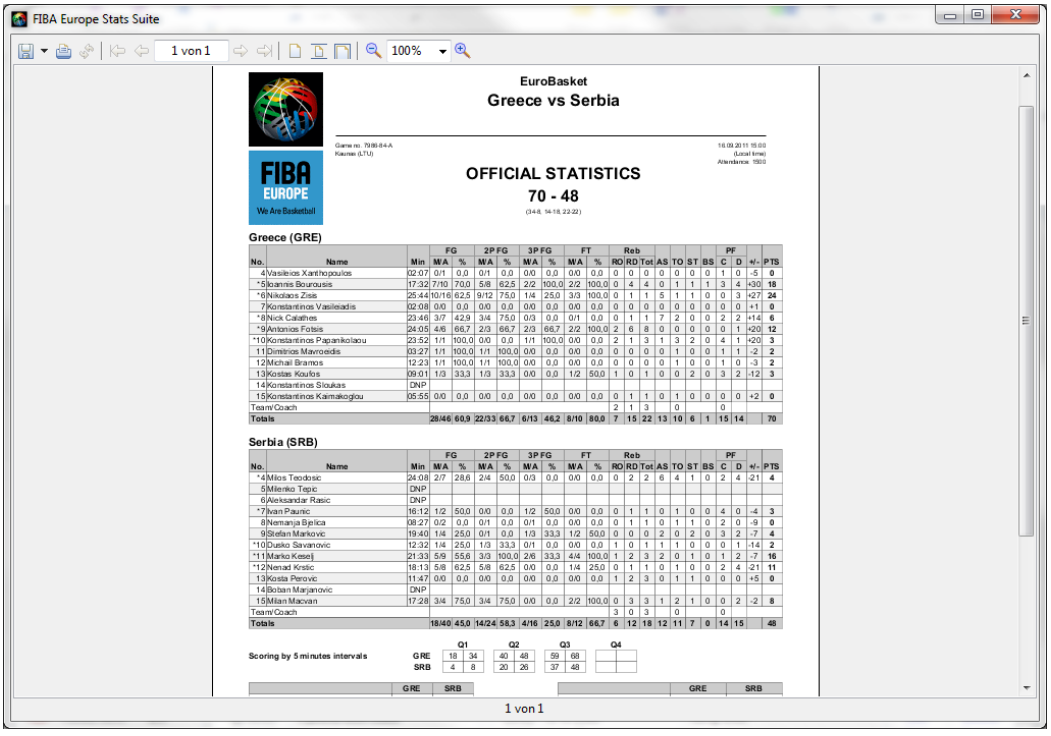


Picture 27 – Rosters

The rosters report is usually printed and distributed before game.

8.2 Official boxscore

This is the official statistics sheet for FIBA Europe games.



Picture 28 - Official Boxscore

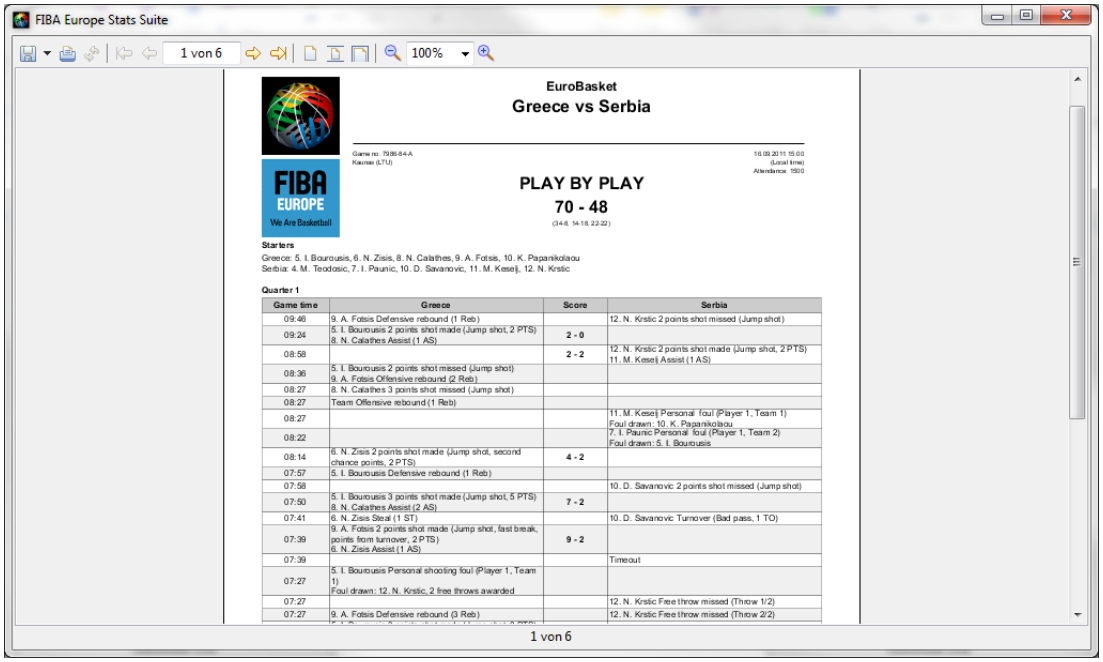
There are two ways to print the boxscore report:

- By clicking the “Print” button in main window of Stats Suite (next to “Time Out” button). This will send the full boxscore report immediately to the printer.

- By selecting the menu item “Reports – Boxscore”. Then, the window will appear where you can select which statistics to include in the report:
    - Print complete boxscore
    - Or: print boxscore of one quarter only
    - Or: print boxscore including only statistics from selected time interval. For example, if you select time interval from 00:00 to 20:00, statistics from first two quarters will be included into boxscore report.

8.3 Play by play

A complete list of all actions of the game.



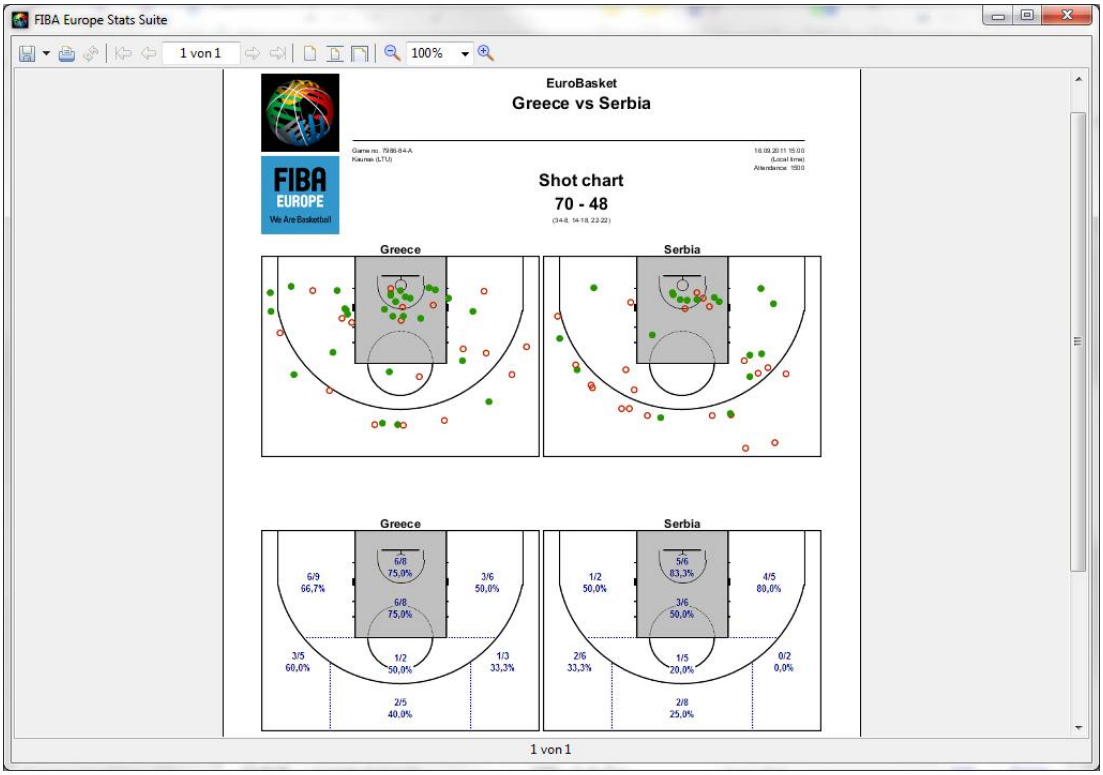
Picture 29 - Play by play

8.4 Shot Chart

A shot chart is a graphical representation of all shots during the came, i.e. made shots are shown with a filled green icon, and missed shots with a red empty circle.

Additionally, the shooting percentage from each of the following court areas is displayed separately:

- Under the basket
- Paint area
- 2Pt shot from the left wing
- 2Pt shots from the right wing
- 2Pt shots from the front outside the paint
- 3Pts shot from left side
- 3Pts shot from right side
- 3Pts shot from front



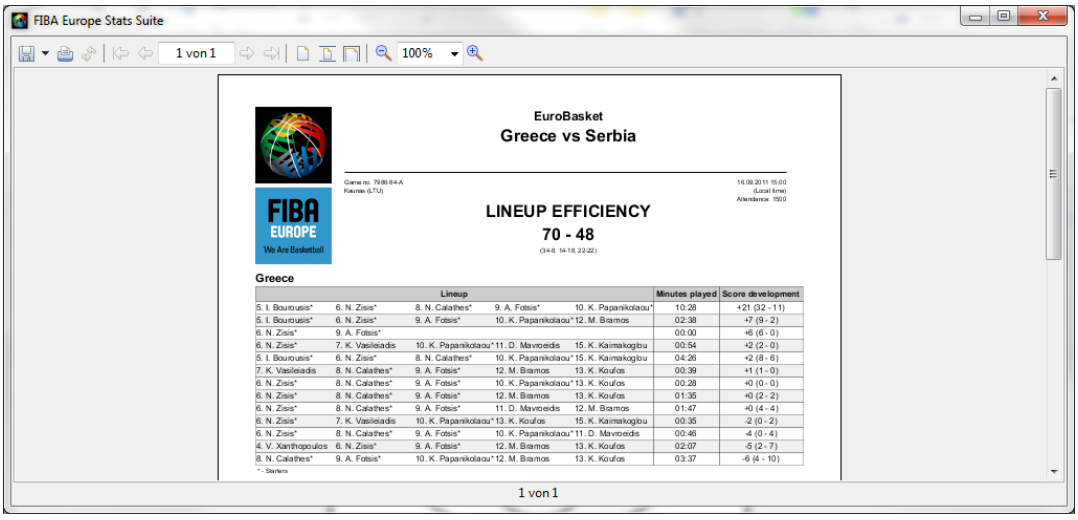
Picture 30 - Shot chart

As with Boxscore, it is possible to select only shots from certain time interval into the shot chart report. The following options are available:

- All shots
- Or: shot from one quarter only
- Or: shots only from selected time interval. For example, if you select time interval from 00:00 to 20:00, shots from first two quarters will be included into shot chart report.

8.5 Line-up Efficiency

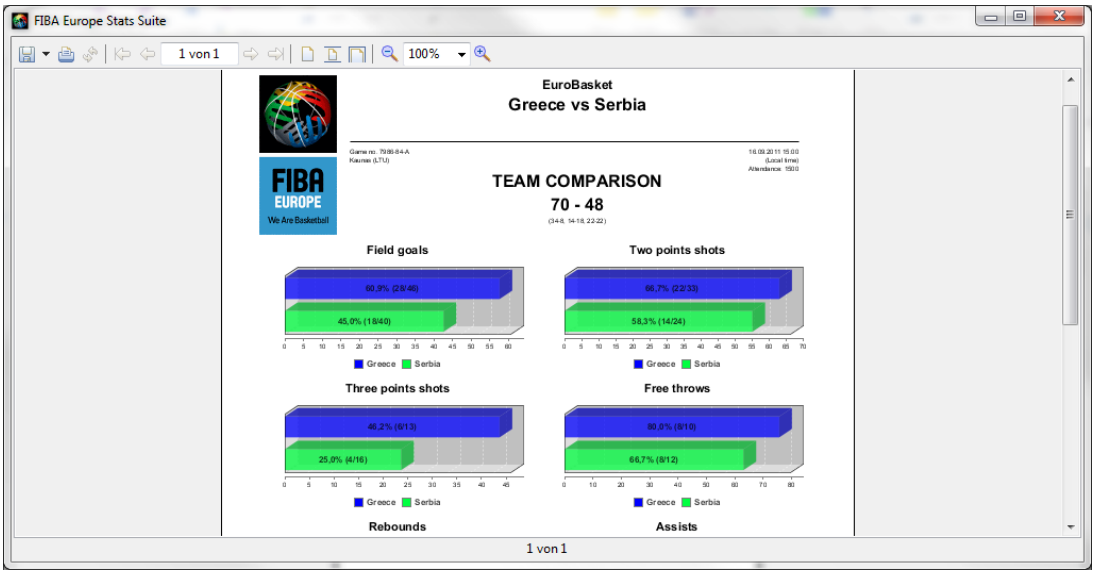
This report is showing the different line-ups used by a team and time played and efficiency (+/- team's net points) for each of them:



Picture 31 – Line-up efficiency

8.6 Team Comparison

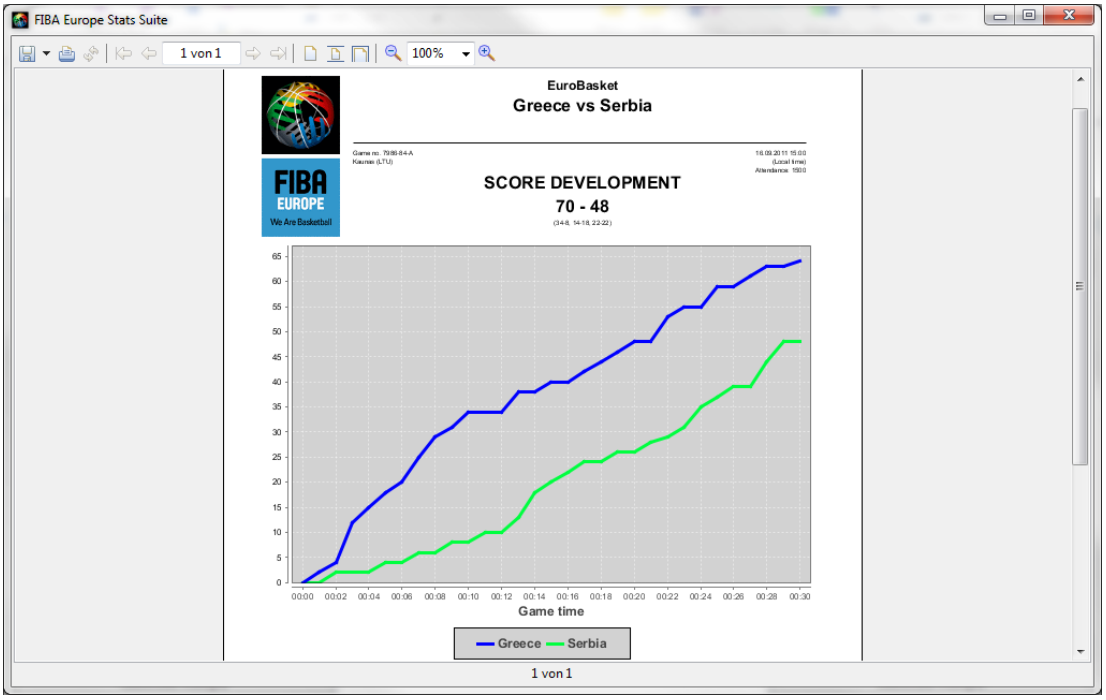
With this report it is possible to visualise and compare the numbers of both teams in all statistical categories.



Picture 32 - Team comparison

8.7 Score development chart

This report is showing the development of the score during the game in a graphical way.



Picture 33 - Score development

8.8 Player evaluation report

This report is shows following details for each player who played in the game:

- Full his/her statistics

- Evaluation indicator, i.e. team's net points while the player was on the field
- Shot chart of all shot made by player
- Timeline with all player's actions

9 Software configuration

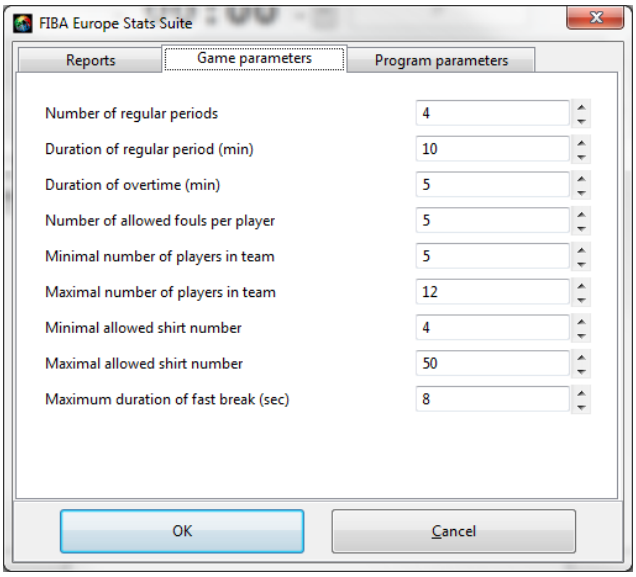
Here you can adjust certain aspects of the Stats Suite software to better suit your needs. Please use either the button "Configuration" on the initial screen, or the menu item "Game – configuration" in the main window to get into configuration section.

The configuration window consists of three parts:

9.1 Game parameters

Under the tab "Game Parameters" the following settings can be adjusted:

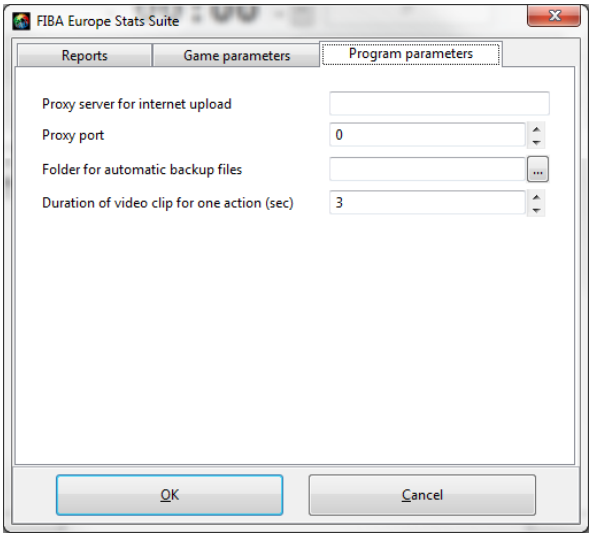
- Number of periods (default: 4)
- Maximum number of fouls for player (default: 5)
- Duration of regular period (default: 10 minutes)
- Duration of overtime (default: 5 minutes)
- Minimal number of players in team (default: 5)
- Maximal number of players in team (default: 12)
- Minimal allowed shirt number (default: 4)
- Maximal allowed shirt number (default: 50)
- Maximum duration of fast break (default: 8 seconds)



Picture 34 - Game parameters configuration

9.2 Program parameters

Usually those settings should not be changed unless certain situations require changes. In any case the operator of the software must have sufficient knowledge of computer networks and should know what he is doing before changing anything here.



Picture 35 - Network configuration

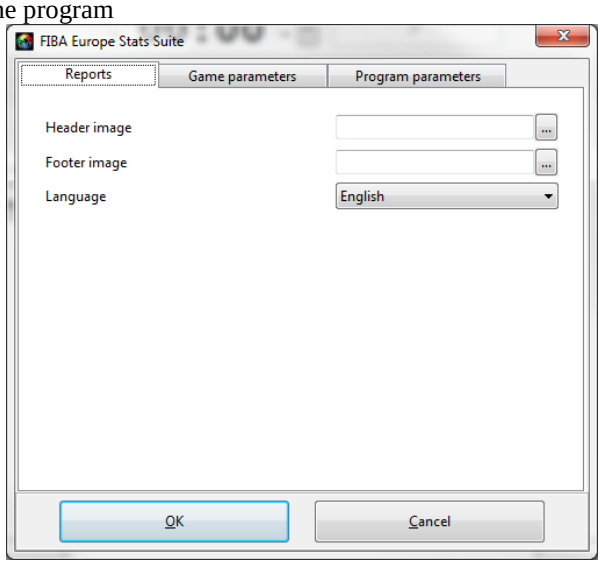
The settings that can be changed here include:

- Proxy port/server for internet upload – if proxy server is used for internet connection.
- Duration of video clip for one action – default duration of video playback when viewing actions in video analysis section.
- The setting "Automatically write backup files to this folder" is usually used in order to work together with TV graphics application. If this setting is enabled (i.e. valid folder entered here), the program will automatically write a XML file into this folder every time new action is entered. The name of the exported file is "<GameNumber>.log", where the "<GameNumber>" is the number of game from the game properties editing window.

9.3 Reports

There are three settings available:

- Header image
- Footer image
- Language of the program



Picture 36 - Reports configuration

With header and footer image it is possible to select graphics that are shown at the top and bottom of all print-outs except the official game boxscore. You might find this useful for example for printing your club / federation and/or sponsors' logos. The specifications for those graphics are:

- Header graphic (width: 113 pixels, height: 232 pixels)
- Footer graphic (width: 700 pixels, height: 82 pixels)

10 Troubleshooting

This section lists the typical problems the users encounter when using the Stats Suite and how to solve them.

10.1 Unreliable internet connection

When working in online mode, it is important to know what to do if the internet connection goes down. Three scenarios are available:

1. **Internet connection is not available before the game.**
   This means that it is not possible to download the game and initial rosters from the server. In this case, please use the "New game" button to create a game and enter the rosters manually. It is important to give the game **the same number** as the game online. If game number is the same, the game will be automatically converted to online game when internet connection appears again – the operator needs just to close the game, connect to the server and open the game again.
2. **Internet connection goes down during the game and appears again.**
   In this case, no action is necessary. Operator will see connection status in the bottom left corner of main window. Once internet connection is restored, all actions will be uploaded automatically.
3. **Internet connection goes down during the game and doesn't appear again.**
   In this case, it is not possible to send the confirmation of final score to the competition organizer. In that case, the operator has to use the "Export game" command to save the game to file and send that file to the competition organizer by other means (Email, USB stick, etc.).

When working in the online mode over a very unreliable internet connection, sometimes the play-byplay in the live scores on the internet might become corrupted (the same line shown multiple times, some lines missing). In such case, it is recommended to execute the command "Reset live stats on the internet" from the "Game" menu when the opportunity arises (during timeouts and between periods, for example).

10.2 Roster changes

Sometimes the problems arise with the last-minute roster changes:

1. **For online game, the player is missing from the roster.**
   This sometimes happens, if the player was added at the last moment and competition organizer didn't have enough time to update the database. To work around this problem, the operator has to:
   a. Open the game in the online mode.
   b. Close the game and disconnect from the server.
   c. Edit game in offline mode and add the missing player (you can add any player when working offline).
   d. Connect to the server again and open game in online mode.
2. **Operator picked a wrong player by mistake and already assigned some actions to him.**
   In such case, the software will not let to delete the wrong player because he has some actions already. To work around this, operator has to do the following:

a. Add the correct player to the roster

b. In the history window, find all actions of the wrong player and assign them to the correct player by editing each of them.

c. Remove the wrong player from the roster.

10.3 Other frequently asked questions

1. **Software will not let add players with certain shirt numbers to the roster.**
   Solution: go into the "Configuration" section and change maximal and minimal allowed shirt numbers as required.

2. **Software will not allow entering certain types of turnovers or fouls.**
   Solution: additional types of turnovers and fouls are available by clicking the down arrow next to turnover or foul button.

3. **After the game, some players have wrong number of minutes played in the boxscore.**
   Solution: it means mistakes were made when editing substitution actions. Go to the history window and check if the substitutions for these players are correct, for example if there were 6 players on court at any point.