PC software manual
KES

Contents:

1. General information

The KES-PC Software is a Windows program and it is recommended to run
it in the following desktop or laptop computer (at least):

- Serial/USB - port
- Windows XP / Windows 7
- Minimum memory 2 GB

Attention! The Program needs Database program SQLEXPRESS 2008 to work properly.

2. How to install the KES software

First Install SQL Express 2008 R2 database with tools.

KES program uses Microsoft SQL Express database to store and organize collected data and information. To run KES program the SQL Express have to been installed to PC.

To find database setup files, visit at the Microsoft Web site:
http://www.microsoft.com/express/Database/
SQL Express check in the beginning of installation necessary add-ons. Before these are installed on the PC, the SQL Express install will not continue. Mainly of these can be found in the Windows Update site.

After that SQL Express installation, run the "setup.exe" and follow the instructions on your screen. Don't launch the program at the end of installation.
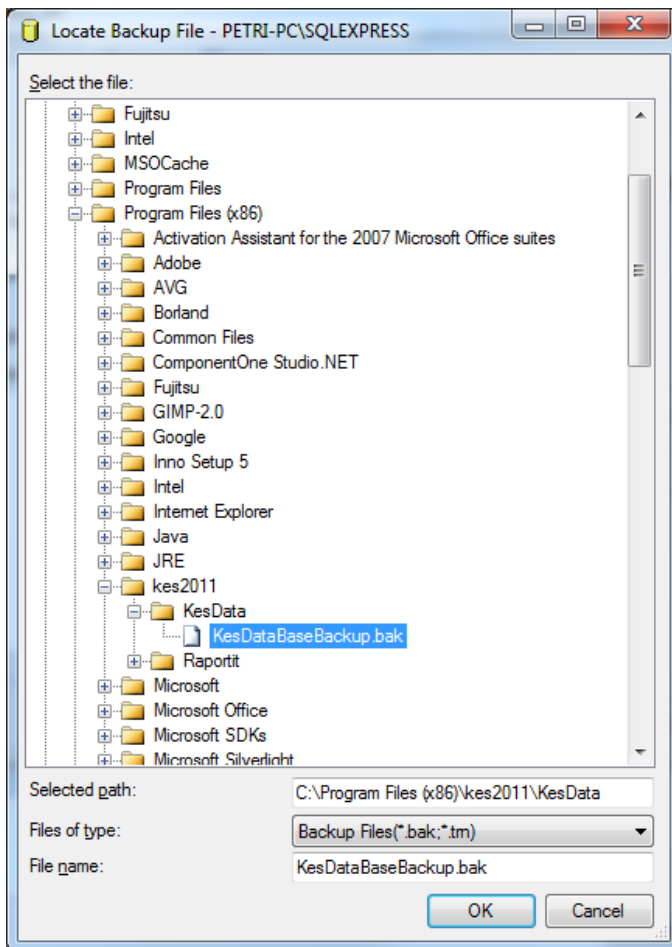
Before launching the KES program, restore the database from database backup file. Backup file can be found from directory "{install dir}/KedData".

Tools for restoring database found in SQL Server Management Studio.
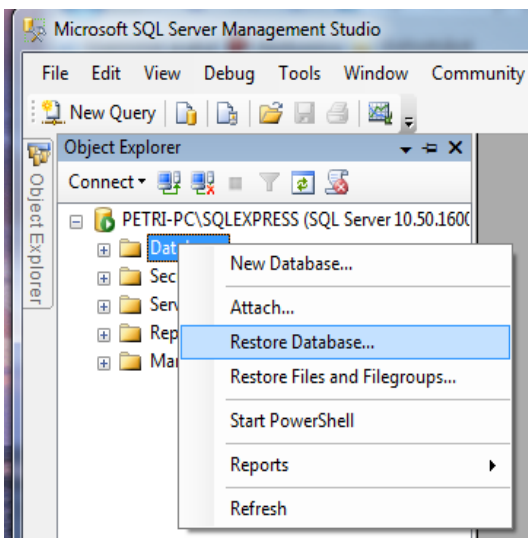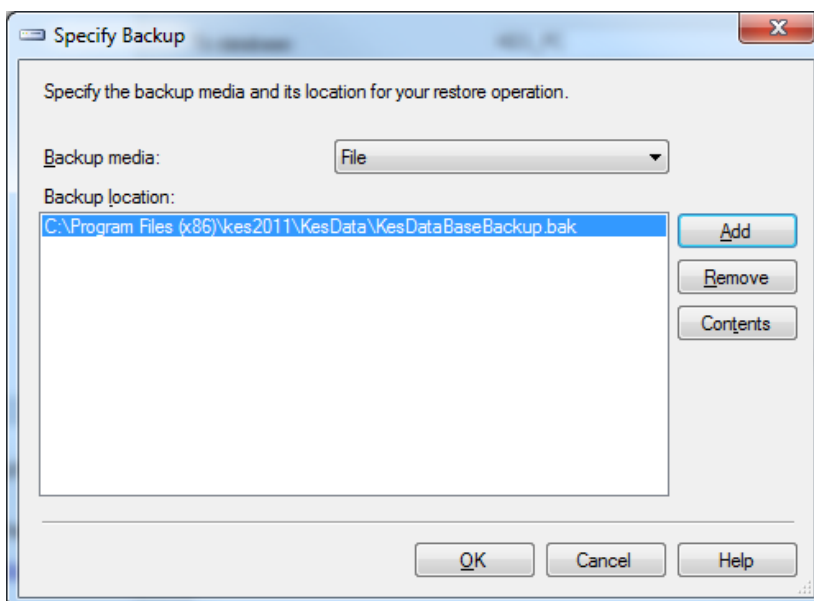

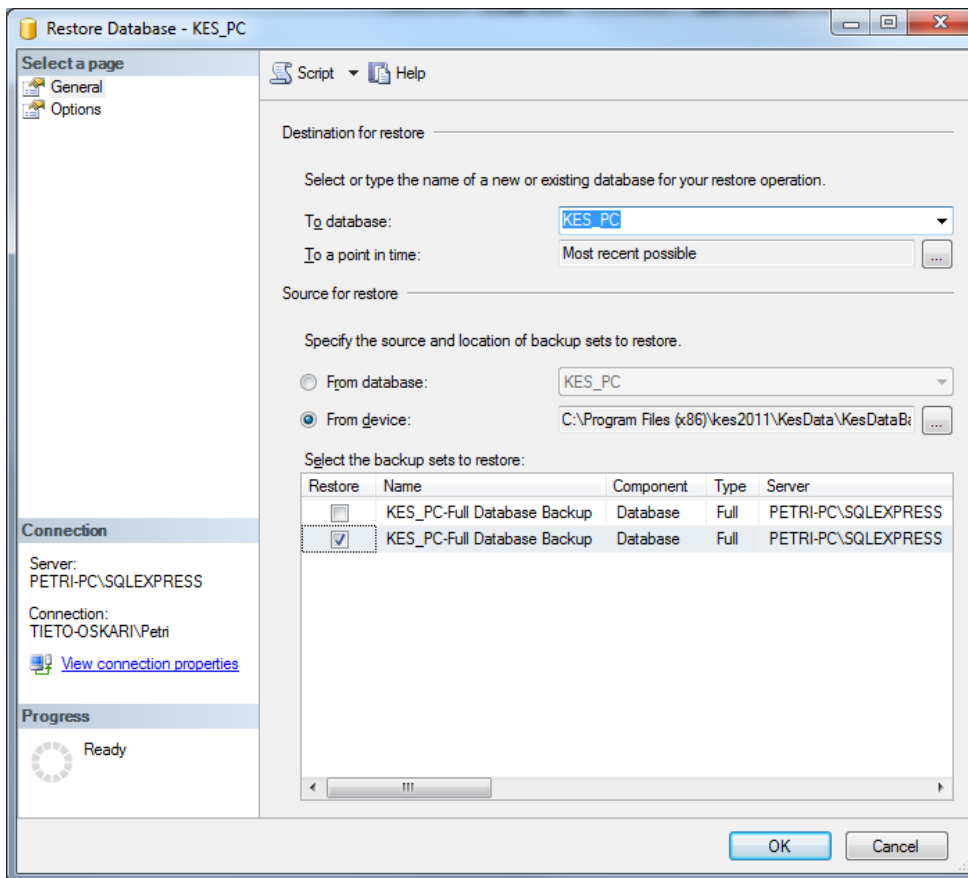Picture 1. Stating Restore Database function.

The setup program had been copied the database backup file to "{install dir}/\KesData".

Picture 2. Select the location of backup file.

Picture 3. Press OK to select the Backup Location.

Picture 4. Select the last one and start the restoring by pressing OK.

3. How to start the software

Attention! When the program is started at first time, the connection string to database must be creating.

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After the data base backup was restored successfully, the KES program can be started.

If the program is starting first time, the connection to the database has to setting up. Program opens dialog to configure the connection.

First the dialog ask type of database that will connected. The right selection is "Microsoft OLE DB Provider for SQL Server"

Then press Next button to continue.
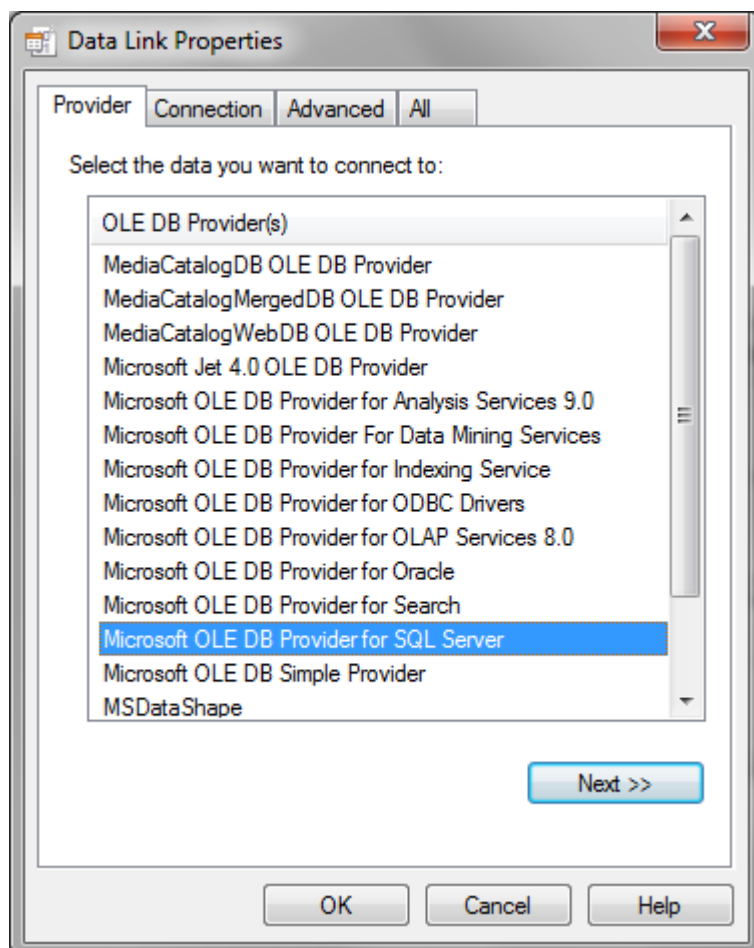
Picture 5. Selection of the database provider

Dialog change to next tap sheet, named "Connection"

In this tap sheet at the first selection the database server name will be specified. The name of the server can be checked from SQL Server Management Studio.

The second selection is 'Use Windows NT Integrated security.

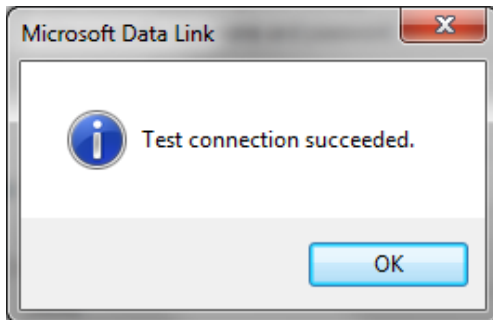The third selection is the name of the database on the server. The Database name is KES_PC.

After that the connection can be tested by clicking "Test Connection" button.
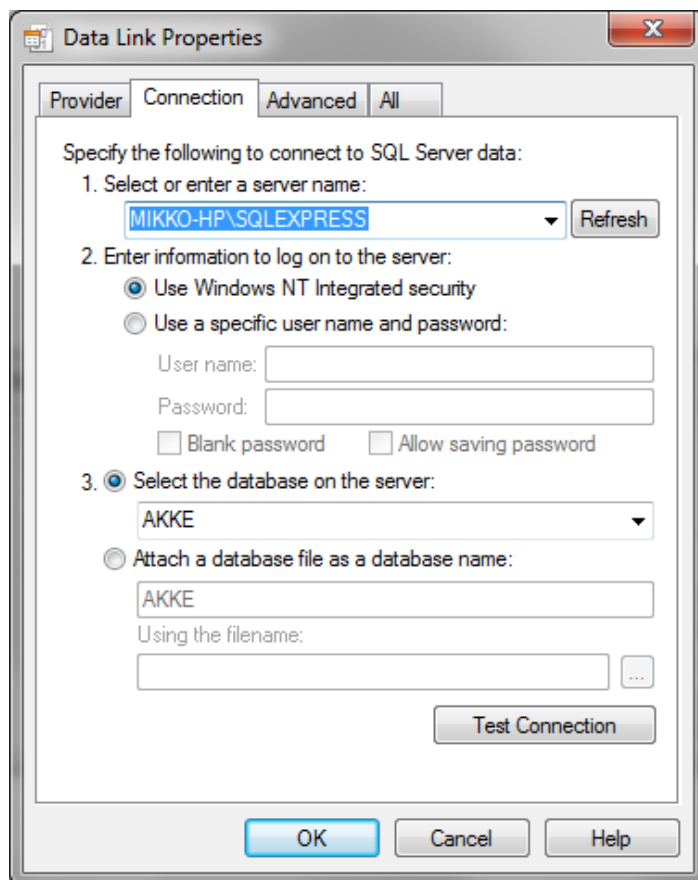
Picture 6. Define server name and database name.

If the connection is defined right, the program will open "Test connection succeeded" window.

Picture 7. Connection defined successfully.

After the database connection has been set up once, the program will start normally selection window, where the event can be create or open.


Picture 8. Start window.

Button "New" will opened "Create campetition" dialog. Button "Created" will opened list of created envents, and "Archive" button will opened disabled, old events list. Load file button opens dialog to select saved *.kes file. The file is saved configuration of created event.
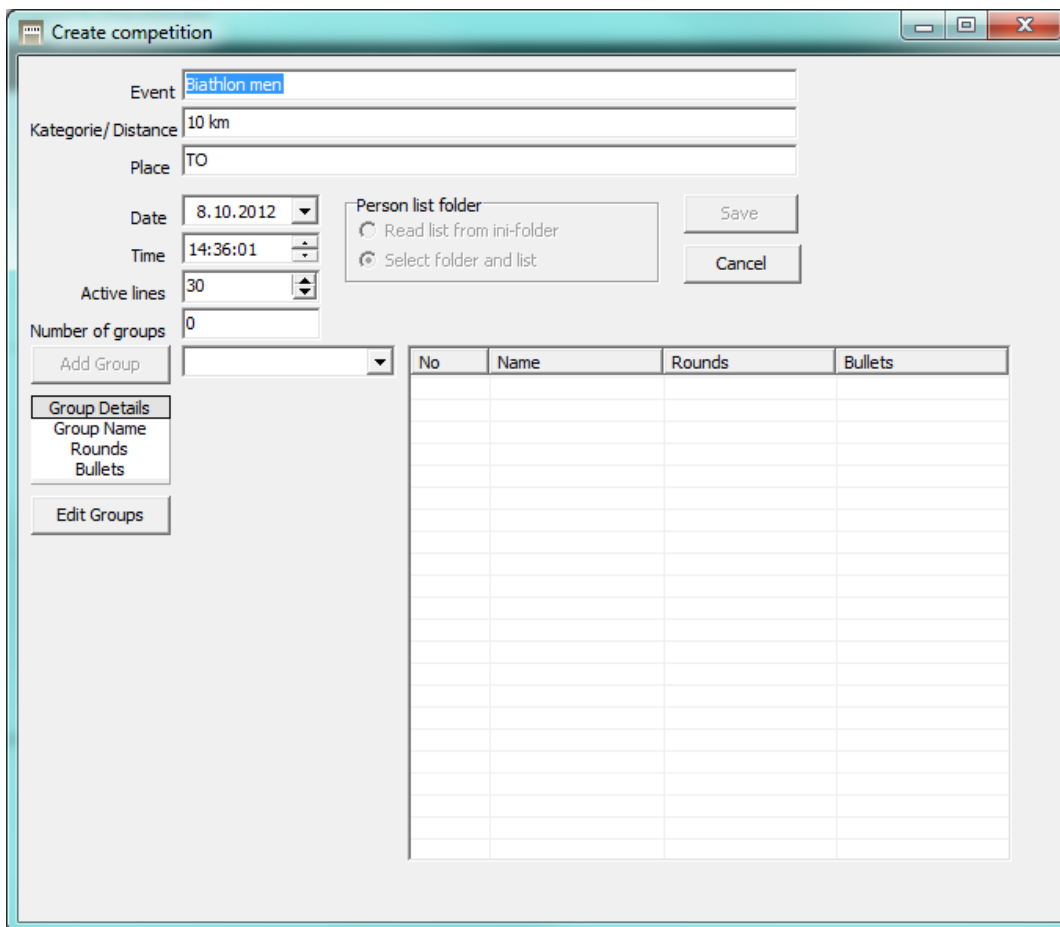
Picture 9. Window for greating new event.

The event have to own at least one group. The group added to by pressing "Add Group" button after selecting it from combobox.
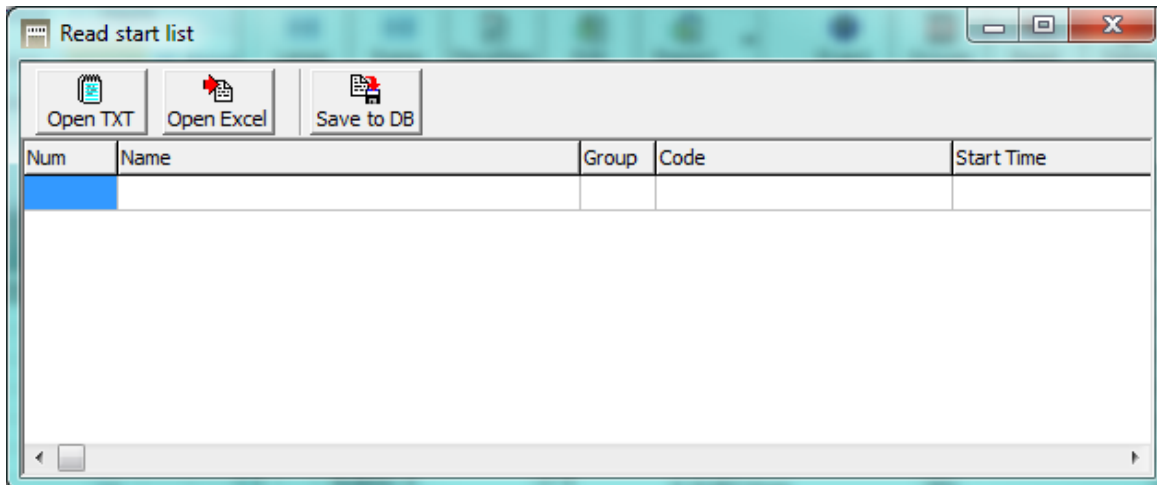
Picture 10. Window to read start list from *.txt file or exel file.

Peson list can be read from old program style *:txt file definet location or user selectable text or excel file.

The KEC PC-program can use longer than tree marks Codes. The additional code can added to start list after semicolon. Example: *1 Shooter 1*   *0NAT 0:00;Finland*
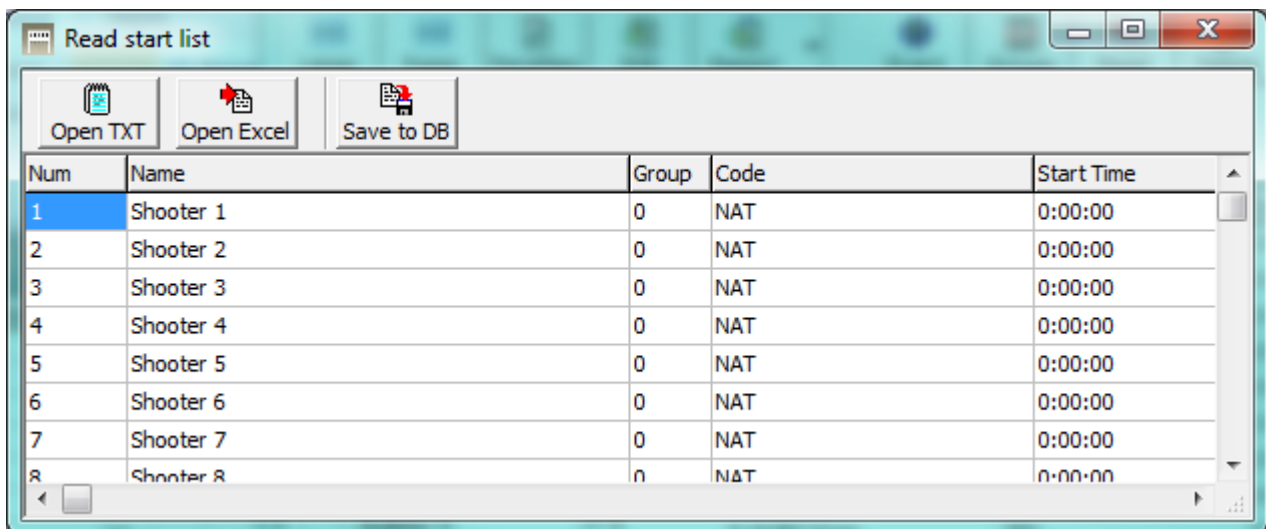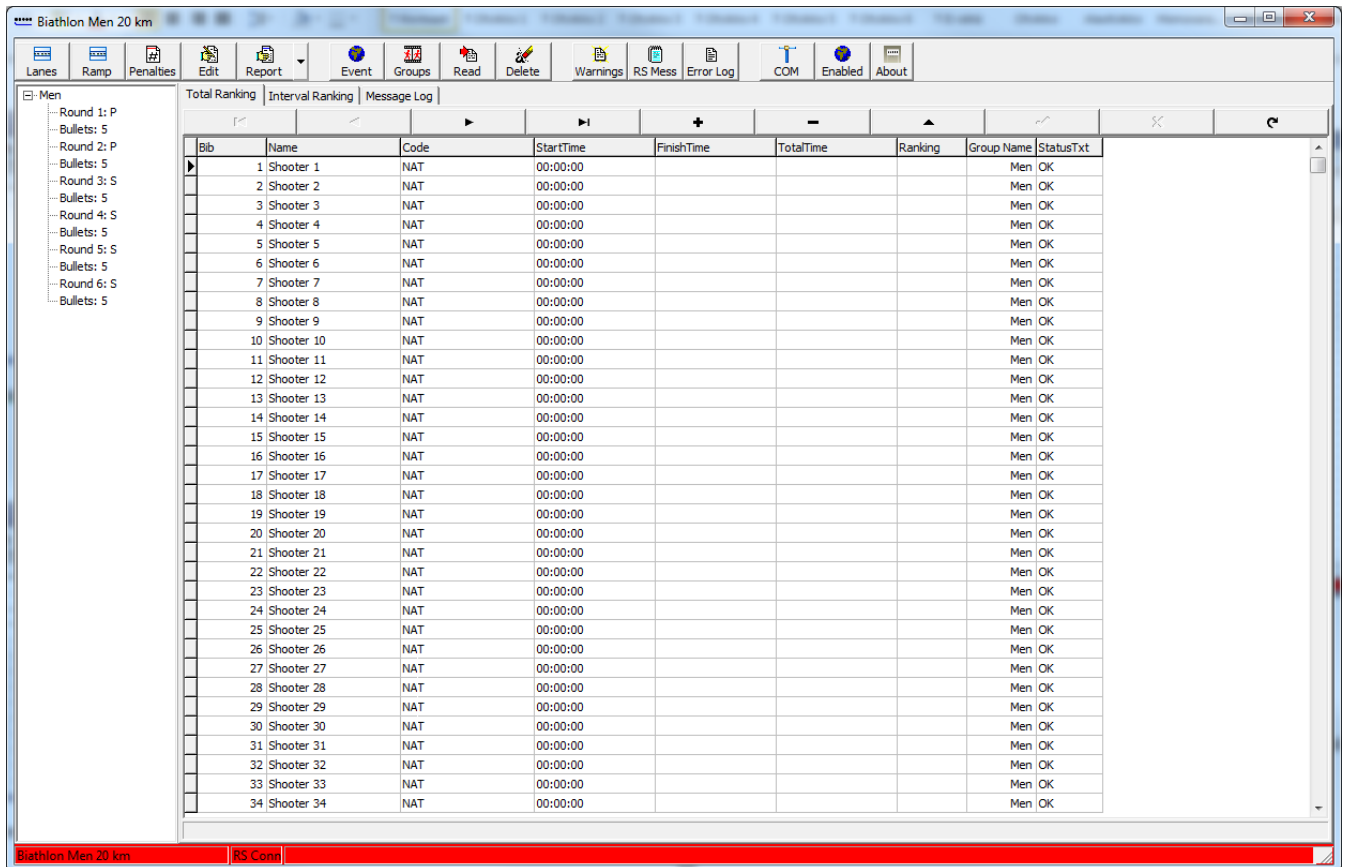

Picture 11. Peson list after reading from file.

Save the list to the competition Database by clicking "Save To DB" button and then programs opens the Main window.

KES PC software
User manual

Picture 12. Main window of the program.

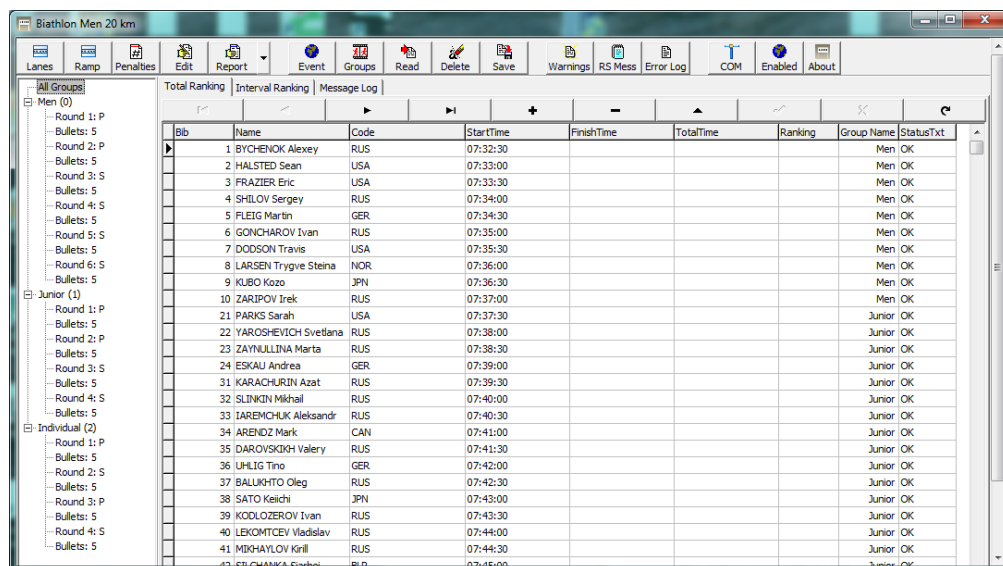In start window the "Created" button opens list of evets.

Picture 13. Select event window.

In that window, the active competition can be selected. Select the competition name and then push "Select" button.

The active competition will open. Competitors of first group can be seen in right part of window and group selection can be seen in left part of window.

Picture 14. Main page of competition

In main window it can be seen start list. Monitoring of shooting events can be done with "Lanes" and "Ramp" windows. These windows are used to follow the shooting at the lanes. There can be seen the whole shooting event in real time:

- Shooter arrives to the lane
- Shooter starts the shooting
- Shoot results
- Previous penalties
- Round number

Please see the chapter 9 for more detailed information.

Tool button: **Lanes** opens "Lanes" view.
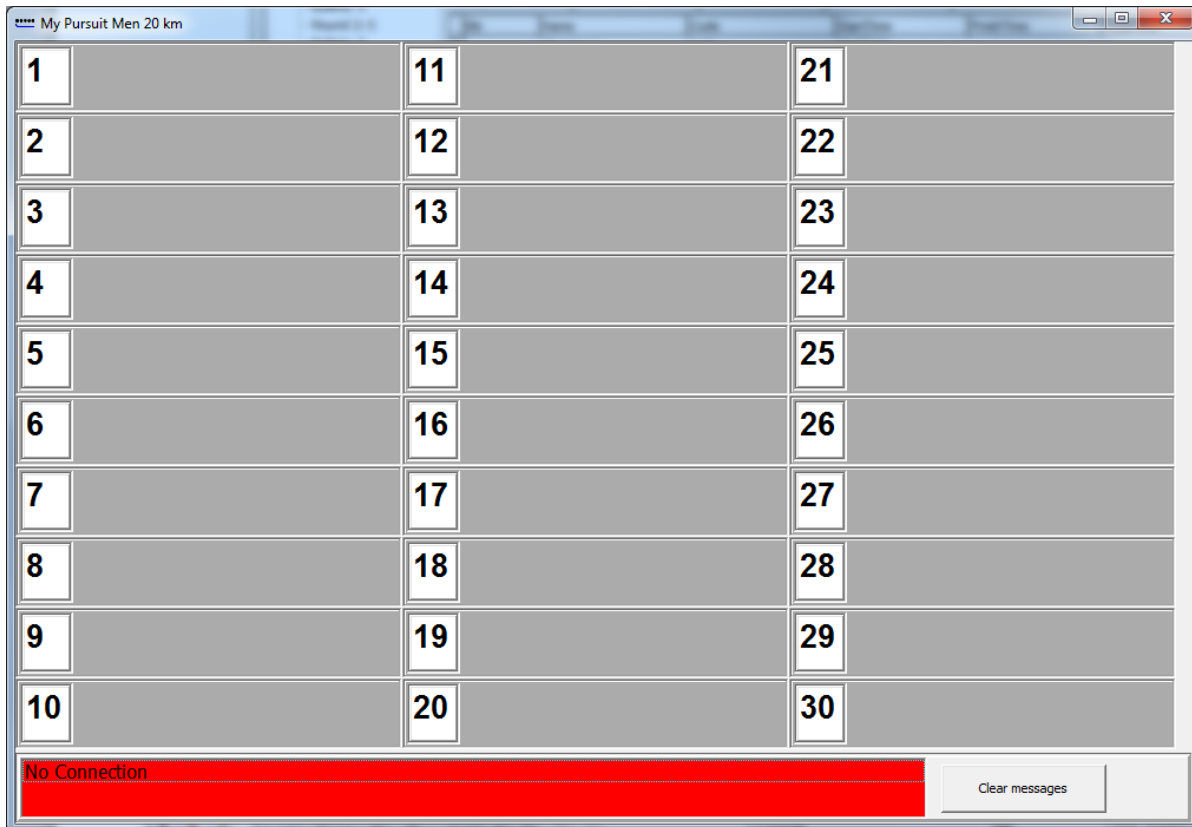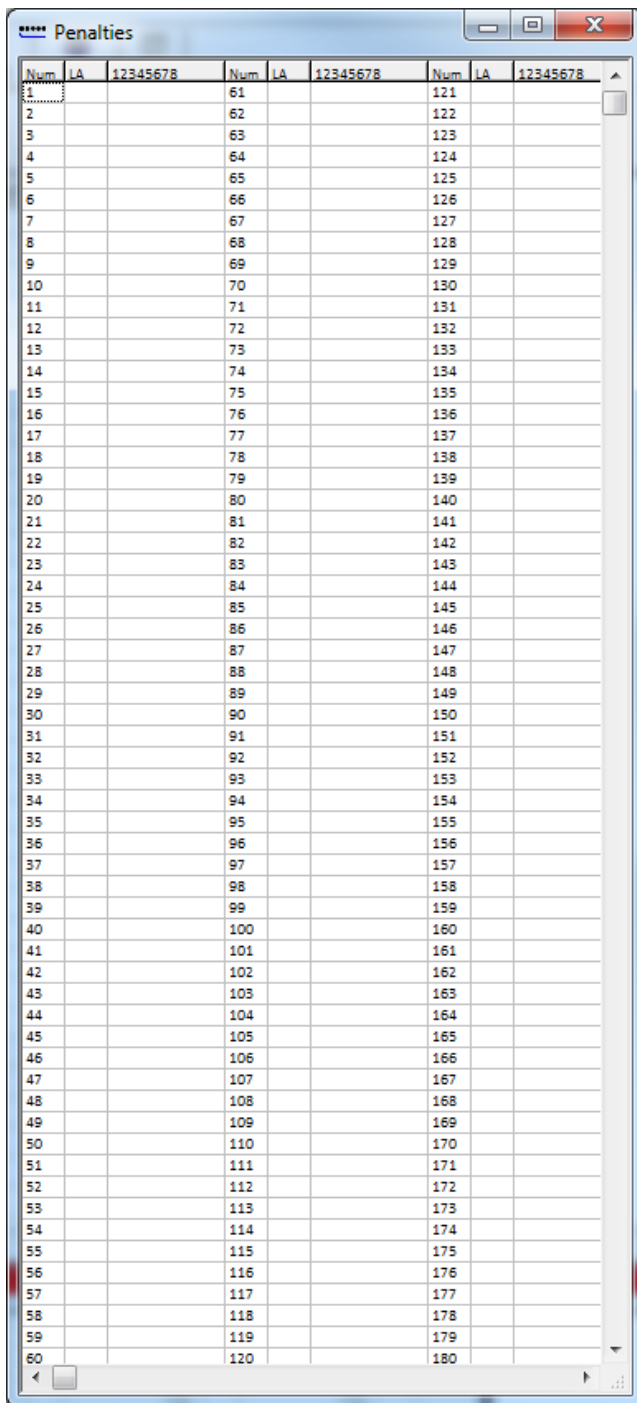
Picture 15. The active lines can be seen in "Lanes" window.

Tool button: [Ramp] opens targets view to monitoring shooting event without person names.

With "Lane" and "Ramp" window opens the "Penalties" window. It can be opened separately with tool button: [Penalties]. See the chapter 9.1 for more detailed information.

Picture 16. Penalties window.

Tool button: Edit

KES PC software
User manual

This button opens editing window. There can be filtered competitions data to find out miss records in data. Please see the chapter 10 for more information.
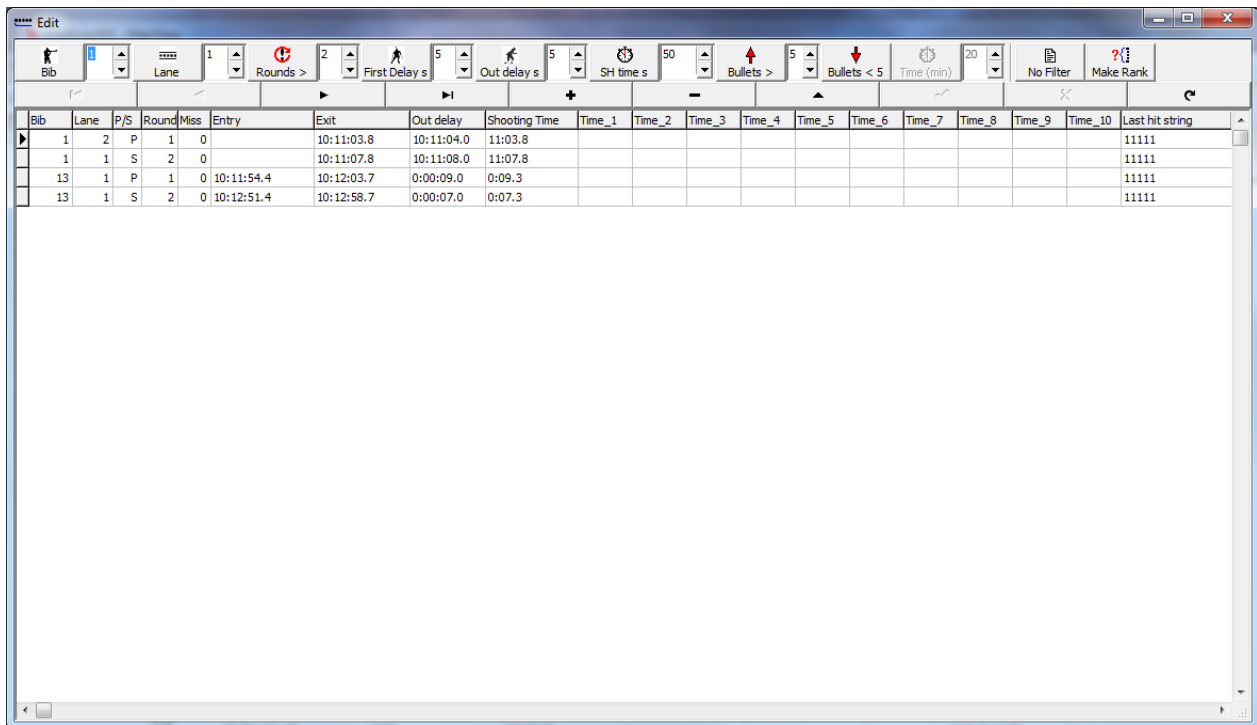
Picture 17. Edit records window.

Tool button:
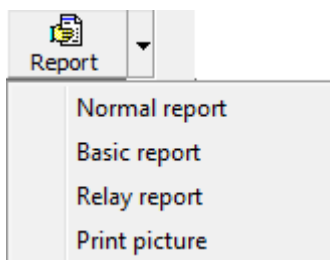
Picture 18. report options

Normal report shows Shooting times and run times.
Basic report shows only shooting times.
Relay report shows times for eight shots.
Print picture options make possible to change the lower banner picture.

Tool button:

Event tool button opens the list of created competitions. In the list window all competitions can be edited by user. It is recommended restarting the program if the active competition was edited.

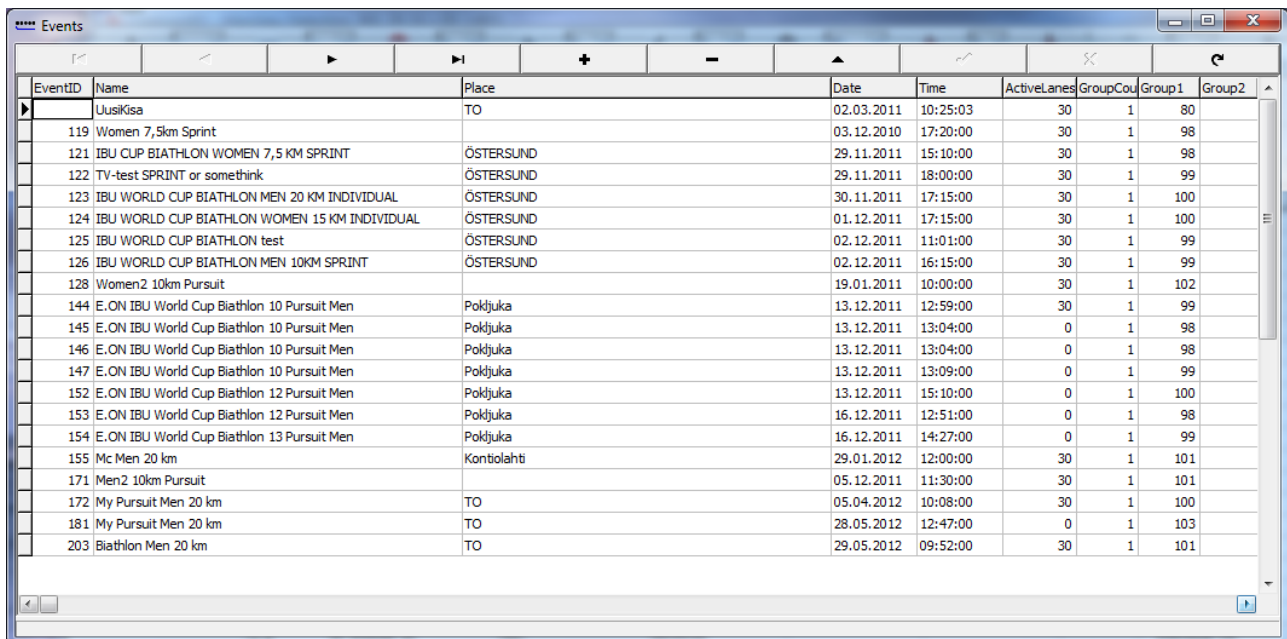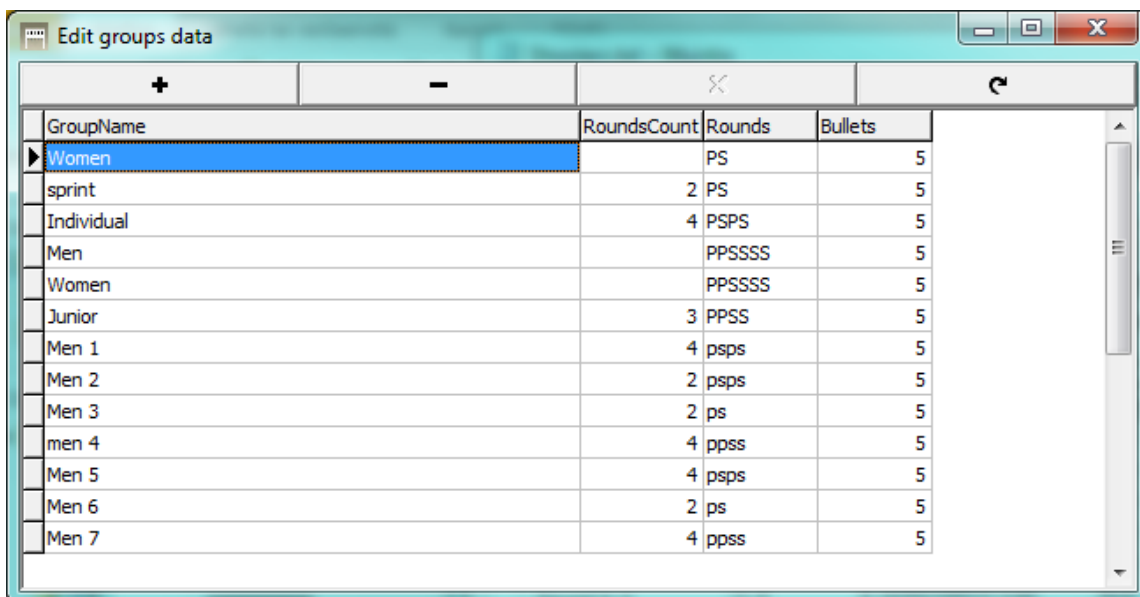| EventID	Name	Place	Date	Time	ActiveLanes	GroupCou	Group1	Group2
	UusiKisa	TO	02.03.2011	10:25:03	30	1	80	
119	Women 7,5km Sprint		03.12.2010	17:20:00	30	1	98	
121	IBU CUP BIATHLON WOMEN 7,5 KM SPRINT	ÖSTERSUND	29.11.2011	15:10:00	30	1	98	
122	TV-test SPRINT or somethink	ÖSTERSUND	29.11.2011	18:00:00	30	1	99	
123	IBU WORLD CUP BIATHLON MEN 20 KM INDIVIDUAL	ÖSTERSUND	30.11.2011	17:15:00	30	1	100	
124	IBU WORLD CUP BIATHLON WOMEN 15 KM INDIVIDUAL	ÖSTERSUND	01.12.2011	17:15:00	30	1	100	
125	IBU WORLD CUP BIATHLON test	ÖSTERSUND	02.12.2011	11:01:00	30	1	99	
126	IBU WORLD CUP BIATHLON MEN 10KM SPRINT	ÖSTERSUND	02.12.2011	16:15:00	30	1	99	
128	Women2 10km Pursuit		19.01.2011	10:00:00	30	1	102	
144	E.ON IBU World Cup Biathlon 10 Pursuit Men	Pokljuka	13.12.2011	12:59:00	30	1	99	
145	E.ON IBU World Cup Biathlon 10 Pursuit Men	Pokljuka	13.12.2011	13:04:00	0	1	98	
146	E.ON IBU World Cup Biathlon 10 Pursuit Men	Pokljuka	13.12.2011	13:04:00	0	1	98	
147	E.ON IBU World Cup Biathlon 10 Pursuit Men	Pokljuka	13.12.2011	13:09:00	0	1	99	
152	E.ON IBU World Cup Biathlon 12 Pursuit Men	Pokljuka	13.12.2011	15:10:00	0	1	100	
153	E.ON IBU World Cup Biathlon 12 Pursuit Men	Pokljuka	16.12.2011	12:51:00	0	1	98	
154	E.ON IBU World Cup Biathlon 13 Pursuit Men	Pokljuka	16.12.2011	14:27:00	0	1	99	
155	Mc Men 20 km	Kontiolahti	29.01.2012	12:00:00	30	1	101	
171	Men2 10km Pursuit		05.12.2011	11:30:00	30	1	101	
172	My Pursuit Men 20 km	TO	05.04.2012	10:08:00	30	1	100	
181	My Pursuit Men 20 km	TO	28.05.2012	12:47:00	0	1	103	
203	Biathlon Men 20 km	TO	29.05.2012	09:52:00	30	1	101	

Picture 19. Competition list of created events.

Groups button: Groups opens group edit window.

GroupName	RoundsCount	Rounds	Bullets
Women		PS	5
sprint	2	PS	5
Individual	4	PSPS	5
Men		PPSSS	5
Women		PPSSS	5
Junior	3	PPSS	5
Men 1	4	psps	5
Men 2	2	psps	5
Men 3	2	ps	5
men 4	4	ppss	5
Men 5	4	psps	5
Men 6	2	ps	5
Men 7	4	ppss	5

Picture 20. Edit all groups window.
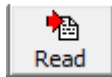
Tool button: Read

Opens window to read start/person list from *.txt or excel file.

Tool button: Delete

Button enables to delete recorded data and name list from current event.
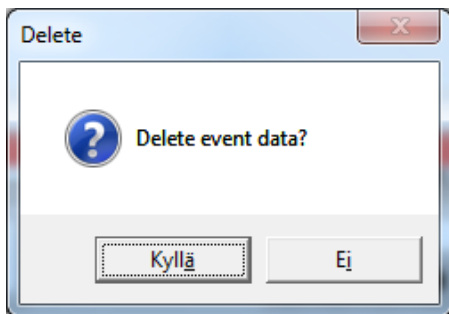
Picture 21. delete event data dialog.
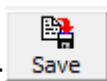
Tool button: Save

The data of the event can be saved to *.kes file. The file for example can be used to create duplicate event to another computer.

Tool button: Warnings

This button opens a warnings log. The warnings log automatically saved to "{install dir}/logData" directory when programs closed.

Tool button: RS Mess

This button opens message log. The message log automatically saved to "{install dir}/logData" directory when programs closed.
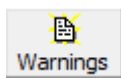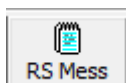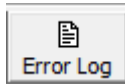
Tool button:

This button opens error log. The error log automatically saved to "{install dir}/logData" directory when programs closed.

Tool button: opens com port and baud rate settings.
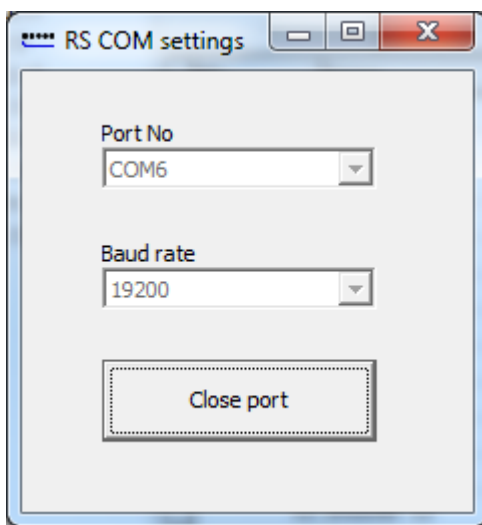
Picture 22. Communication port and baud rate settings.

If these settings remaining same, the user need to confiure them only once. The programs remember previous setting, and try to use them again.

4. How the software finished

The software can be closed only in main window close button. Before the program were closet user must accept the closing event.

Picture 23. Exit program dialog.

5. How the competitions configured

5.1. Using initialize file: COMP.INI

You can configure the competitions by editing the software's Initializing file. The file is located in the following path:

{Install dir}\KesData\Comp.ini

The file can be edited for example in the Notepad or Word Pad editor.

For example we have the following competitions,

Day 1, Biathlon Competition 1999:

- March 27th 1999, at 12 aclock
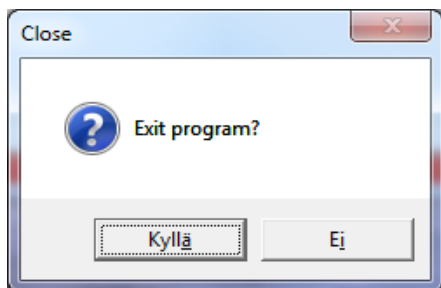- 1 group: Men 12,5km
- 3 rounds
- 1st round Prone, 2nd round Stand and 3rd round Prone
- 5 shots per round (no spare bullets)
- Shooter's names are found in floppy disk. Filename is MEN125.TXT

Day 2, Biathlon Competition 1999:

- March 28th 1999, at 11 a clock
- 2 groups: Men and Women
- Group 1: 3 rounds
- Group 2: 2 rounds
- Group 1: 1st round Prone, 2nd round Stand and 3rd Prone
- Group2: 1st round Stand and 2nd round Prone
- Group 1 & 2: 8 Shots per round (3 spare bullets)
- Shooter's names are found in the hard disk. File name is SHOOTERS.TXT

Here is the file layout:

```
--------------------------------
Competition=Biathlon Competition Day 1
Date=19990327
Time=1200

Group=Men
Rounds=PSP
Shots=5

CompList=a:\men125.txt
--------------------------------

Competition=Biathlon Competition Day 2
```

```
Date=19990328
Time=1100

Group=Men
Rounds=PSP
Shots=8

Group=Men
Rounds=SP
Shots=8

CompList=c:\shooters.txt
------------------------------------
```

So, each competition is defined between the "dash" lines as follows,

Item	Description
Competition=	The name of the competition
Date=	Starting date of the competition: YYYYMMDD Y = year M = month D = day
Time=	Starting time of the competition: HHMM H = hour M = minutes
Group=	Group name.
Round=	Number and type of the rounds for this group P=Prone S=Stand for example: PSP means 3 rounds (Prone, Stand, Prone)
Shots=	Number of shots per round
CompList=	File name where the shooter's names are defined in the normal file path format (more info at *5.2*).

Attention! To activate the changes in the **comp.ini** file you must restart the software.

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5.2. Shooter's names file

The shooters for the competition are defined in the shooter's names file. It is an **ASCII** file located in the hard or floppy disk. There is **an example file** located in the following file path:

C:\KES\EServer\kes.txt

Here is the file layout:

```
 1 T Clemens              0GBR
 2 J Teela                0USA
 3 J Maric                0SLO
 4 R Neuner               0AUT
 5 I Tagscherer           0HUN
 6 R Lysenko              0UKR
 7 G Rupertus             0CAN
 8 K Topor                0POL
 9 L Barila               0LTU
10 S Sekiya               1JPN
11 J Nakums               1LAT
12 M Nilsson              1SWE
13 Z Vitek                1CZE
14 I Tobreluts            1EST
15 D Bjørndalen           1NOR
16 D Gieck                1USA
17 W Kozub                1POL
```

The information is represented in 1 name / line basis. The one line consist of 4-6 fields (Start time and additional code are optional data):

- **Number** (column 1, lenght 3). **Range: 1..999**
- **Name** (column 5, lenght 21)
- **Group number** (column 27, lenght 2). **Range 0..19**
- **Country code** (column 29, length 3)
- **Start time**(column 33, length 4-6)
- **Additional code** (column >30, starts with ; and length 1-16)

Attention! Be sure that the fields are starting exactly at the right position.

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To edit this file start the **Notepad** text editor found in the Window's **Start/Programs/Accessories** menu and open the file for editing.

If other than ascii character encoding is needed in shooters list, it has to be use 8-bit character encoding. For example with a Cyrillic alphabet it has to use KOI8-R, Windows-1251 or other 8-bit character encodings.

To be able to use the Cyrillic alphabet by Kes-program (Win7):
Choose:
-> Control Panel
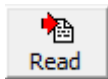-> Clock, Language, and Regional Options

-> Region and Language
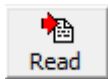Select the tab "Management"

See "Non-Unicode programs", click on
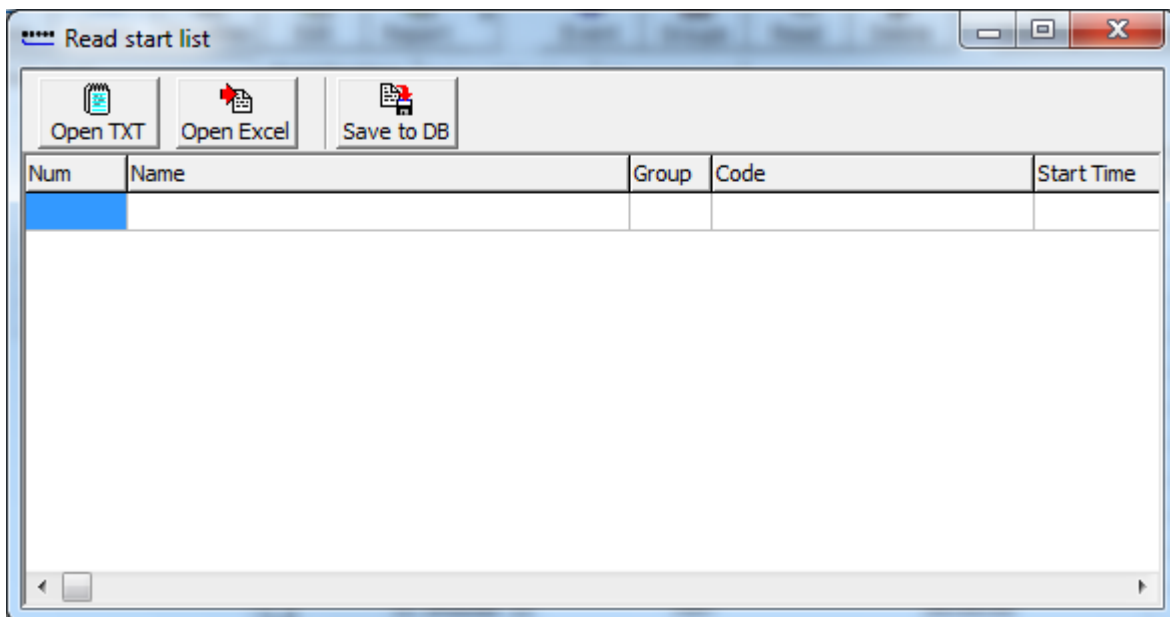"Change the system language"
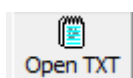
-> Select "Russia"
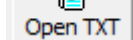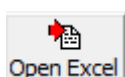
Reboot the machine.

5.3. Re open shooters list

Select tool button [Read] from tool bar of the main window to open procedure for reading person list from excel worksheet.

Picture 24. Read start list window.

Tool button: [Open TXT] opens file open dialog for choosing *.txt file to open.

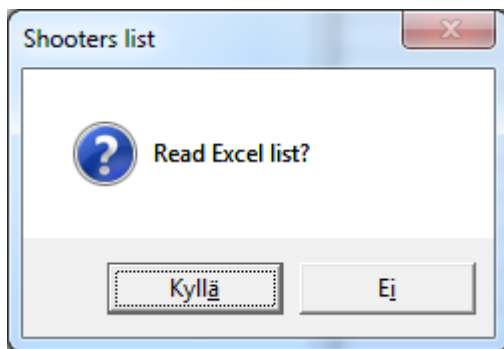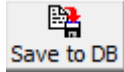Tool button: [Open Excel] opens same dialog but it is specified to open excel file.

After the file was chosen, the program opens the excel window and message box.

With message box user can accept the reading of the shooters list from selected excel file.
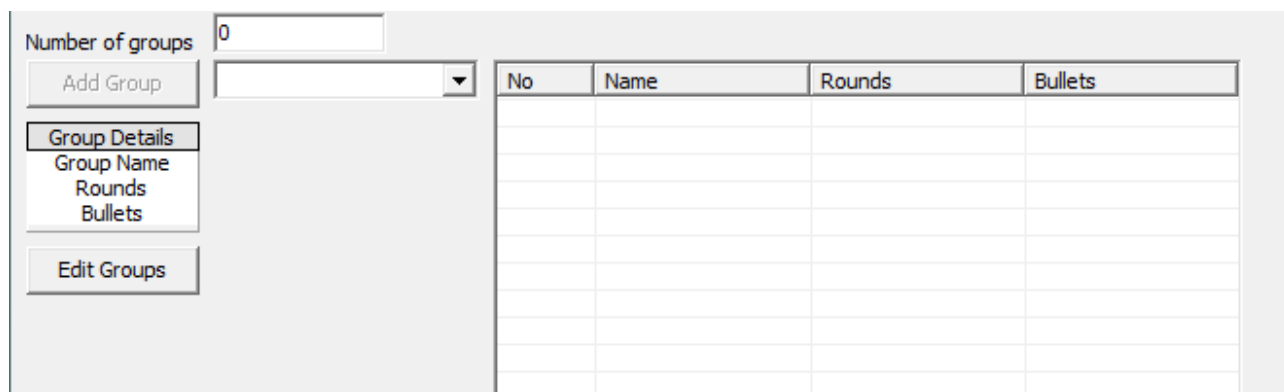

Picture 25.

After the shooters list was read to the program, the list can be checked. If there are no

error in the list, it can be saved by pushing the tool button [Save to DB]. Then the programs opens the main window.

6. How to start the competition

The program shows and records only one event data at once. The user can create the event right before start or earlier. Earlier created event can be chosen from event list which are opened from the programs start window with "Creted" button.

New competition can be created by choosing "New" button in start window. The Events data will be defined in "Create Competition" window.

At least on group have to add to competition. User can select already defined group or open "Edit Group" window (picture 20) to create new group/groups to choose. Groups can be chosen from combo box and the by pressing "Add Group" it added to the event.

Picture 26. Add Groups

After the events data were saved, the start list will be read. The program opens the "Read start list" window (picture 10). Start list can be *.txt file or exel file.

When start list are saved to data base, the program opens main window and it is ready to record new data.

If there are any training data on the competition, it could be deleted by clicking the tool button [Delete] and confirm it in Yes/No dialog. Anyhow it is recommended that the new competition will be started without any training data.
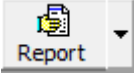
7. How to end the competition

There is no any special action to end the competition.

By pressing the tool button down the com port will be disabled. If the program will shut down with com port disabled, current event automatically moved to the archive event list.
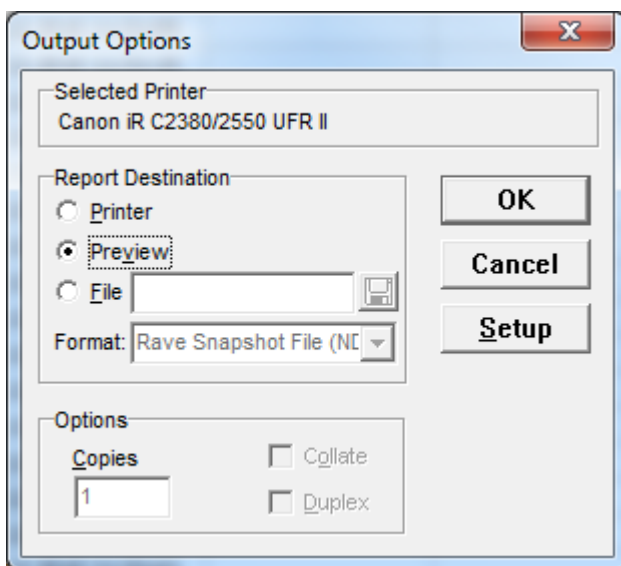
8. How to generate the result report to the printer or PDF file

By clicking tool button user can open basic report preview. Other reports options are seen by opening the drop dawn menu.
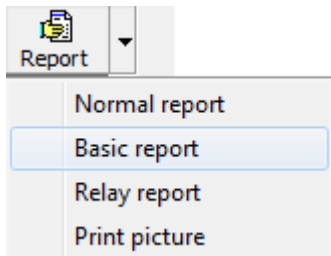
Picture 27. report options

After choosing the right report options the program ask output options. It is possible to preview, print or generate PDF file from report.

Picture 28. report output options window.

If there are shooters that did not start or did not finished they could remove from report by setting status from person list to DNF or DNS.

Reports pages do not support other than latin character encoding. To get Cyrillic character encoding support there is *.rav files named with "_cyrillic" in "/Kes/Raportit" folder. Rename original *.rav file with "_latin" extension and rename these Cyrillic files as original *.rav file name.

Picture 29. Change the shooter status.

9. Monitoring shooting events

Lane's window is used to monitor the shooting events. User can see the actions of shooting event in real time:

- Shooter arrives to the lane (line number background is yellow)
- Shooter starts the shooting (bib number and shooter name is shown)
- Shoot misses
- Round number
- Previous misses
- Shooters leave from shooting line (line and name background is black)
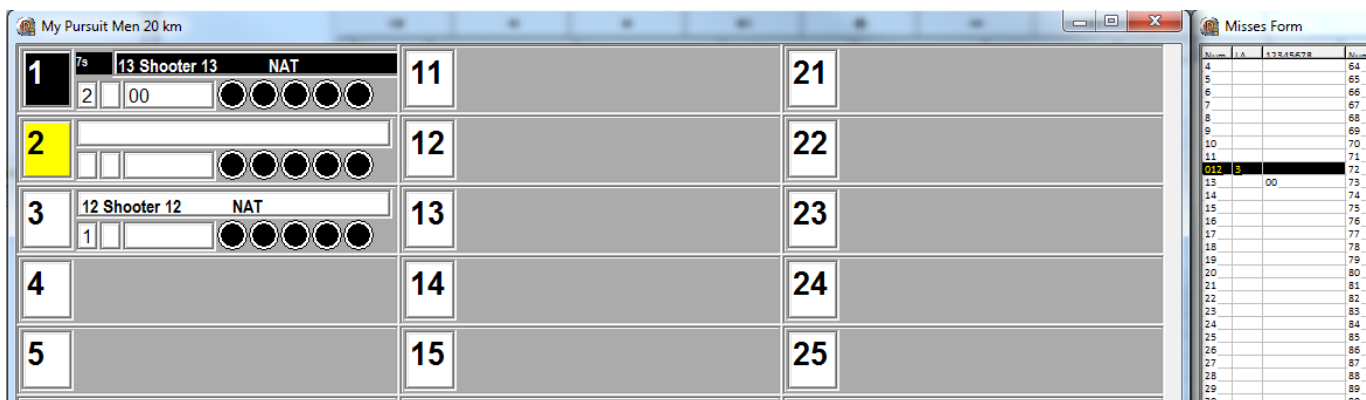
Picture 30. Lane view.

The colors and their means are as follows,

Yellow: Shooter just entered the lane
White: Shooter is shooting
Black: Shooting is done and shooter is leaving/left the place.
Red: Red lane number means possible problems with the shooter information
                  (C key pressed at the lane keyboard).
Blinking Red: There is some warning in that lane.

The lane information is represented as follows,
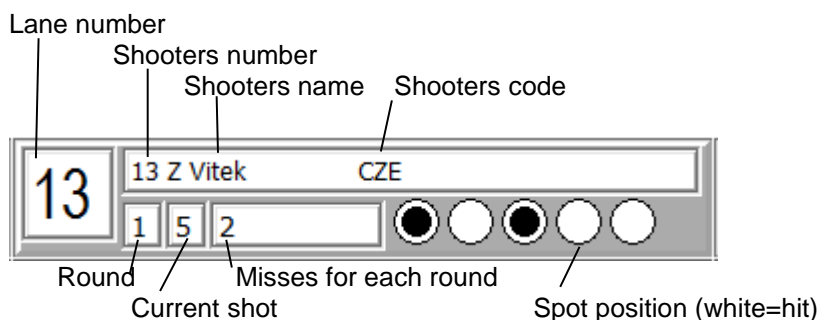
Picture 31. In this example the shooter is shooting the 1st round. The misses for the current round are two and five bullets have been shot.
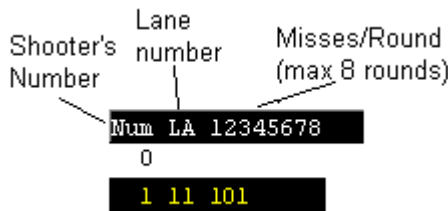
For example:

Shooter is shooting his 3ʳᵈ round (he is shooting the 4ᵗʰ shot) and he has missed 3 spots on 1ˢᵗ round, 2 spots on the 2ⁿᵈ round and zero on the 3ʳᵈ round.

3 4 320

9.1. Shooter's penalties window

In this window you can see shooter's penalties' information recorded by the system.

Shooters penalties' information is represented as follows,

Picture 32. Penalties window

The white text on the black background means currently active lane. The lane

Number is shown only when the lane is active.

In the above example we have shooter 1 shooting on the lane number 11 and he has shot 1 miss on the 1st round, no misses on the 2nd round and 1 miss on the 3rd round.

9.2. Recorded data from one Lane or on bib number

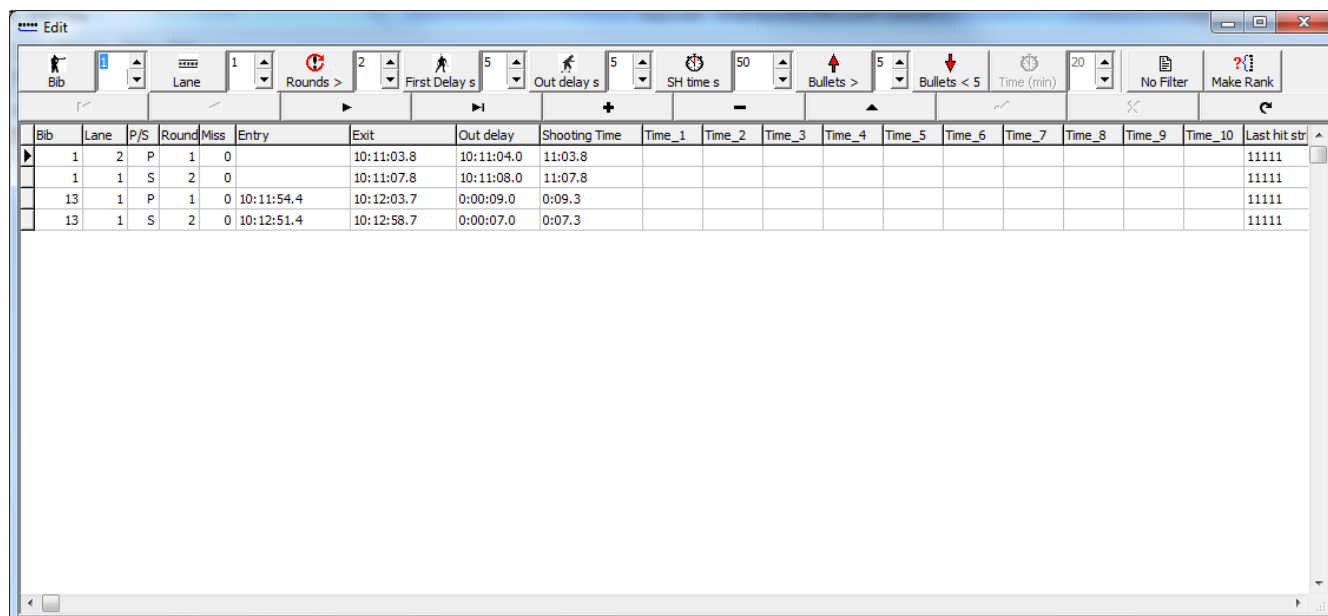In "Lane" window the double clicking the lane panel opens all shooting events from current line.

In "Penalties" window the double clicking the bib number opens all shooting events of that bib.

10.   Prepare shooters data to report

Tool button **Edit** opens edit window. That window shows all recorded shooting events.

Bib	Lane	P/S	Round	Miss	Entry	Exit	Out delay	Shooting Time	Time_1	Time_2	Time_3	Time_4	Time_5	Time_6	Time_7	Time_8	Time_9	Time_10	Last hit str
1	2	P	1	0		10:11:03.8	10:11:04.0	11:03.8											11111
1	1	S	2	0		10:11:07.8	10:11:08.0	11:07.8											11111
13	1	P	1	0	10:11:54.4	10:12:03.7	0:00:09.0	0:09.3											11111
13	1	S	2	0	10:12:51.4	10:12:58.7	0:00:07.0	0:07.3											11111

Print 33. Edit window.
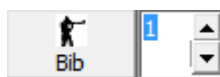
Clicking tool button **Bib 1** user selects to shown only one bib number events.
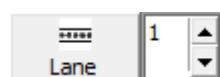
Clicking tool button **Lane 1** user selects to shown only one line shooting events.

Clicking tool button **Rounds > 2** user can select to shown all shooting event where round count is greater than selected.

Clicking tool button **First Delay s 5** user selects shooting events, where the first shooting time is lower than selected number.

Clicking tool button **Out delay s 5** user can start the program calculating the time between last shot and leave button pressed. And then programs shows shooting events where the calculated time is greater than selected time (seconds).

Clicking tool button [Out delay s | 5] user can start the program calculating the time between last shot and leave button pressed. And then programs shows shooting events where the calculated time is greater than selected time (seconds).
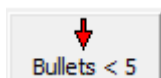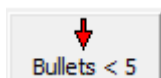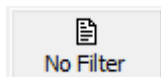
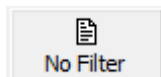Clicking tool button [SH time | 50] user selects to shown shooting events that lasting longer than selected time (seconds).
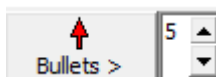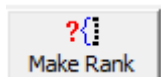
Clicking tool button [Bullets > | 5] user selects shooting events, where bullets count is greater than selected number.

Clicking tool button [Bullets < 5] user selects shooting events, where bullets count are lower than five.

Clicking tool button [No Filter] user disables all filters.

Clicking tool button [Make Rank] user starts calculation of ranking.

Use the mouse right button's pop up menu

6337	4	Edit shooting round	10
6338	4	New shooting round	10
6339	4		10

to edit the selected shooting round.
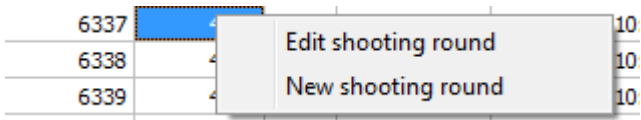
Picture 34. Edit shooting event.

Here you can change anything recorded by the system.

To save the changes close the form and press [OK] button to "Save Data" question. If the "No" button is pressed the form closed but the data will not save and pressing cancel button can be resumed to round data window.

When the data have been corrected and redy to report, the program must calculate the rankings. Before that all filters have to be removed, by pressing [No Filter] tool button.

Then with tool button [Make Rank] the calculation can started.

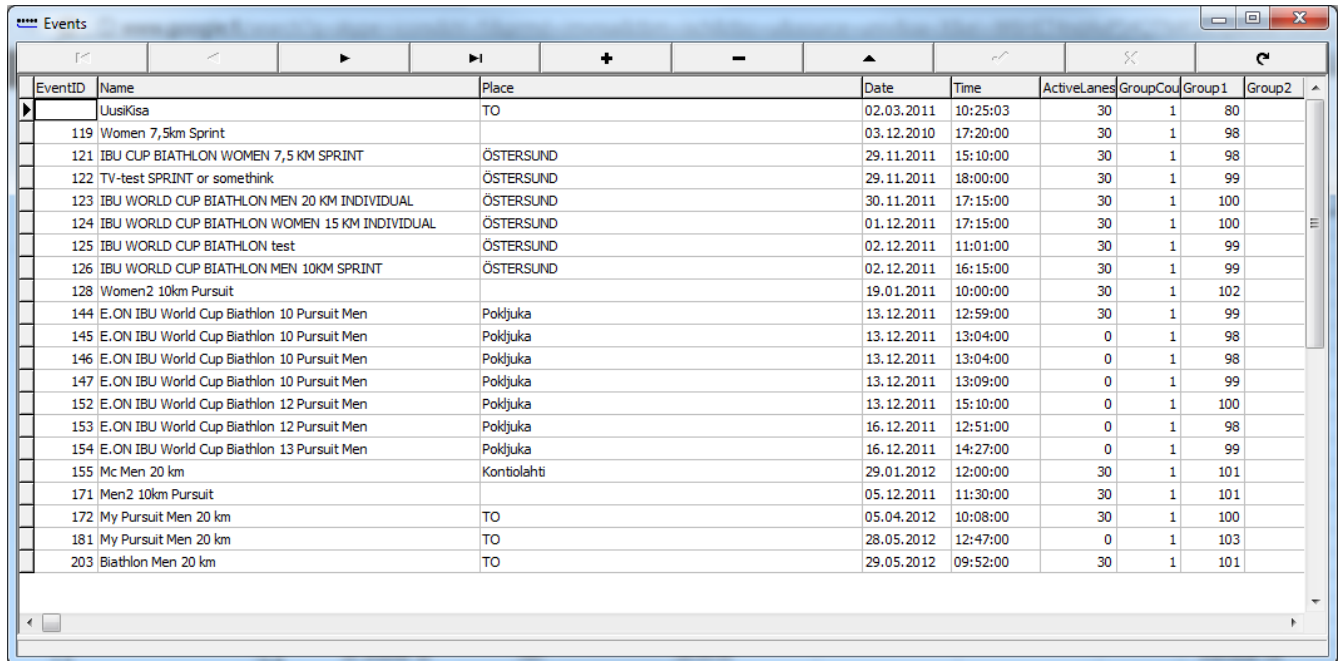# 11.   Editing created events data

11.1.   Edit event data

Tool button [Event] opens envent data window. There the evens data can be edited.
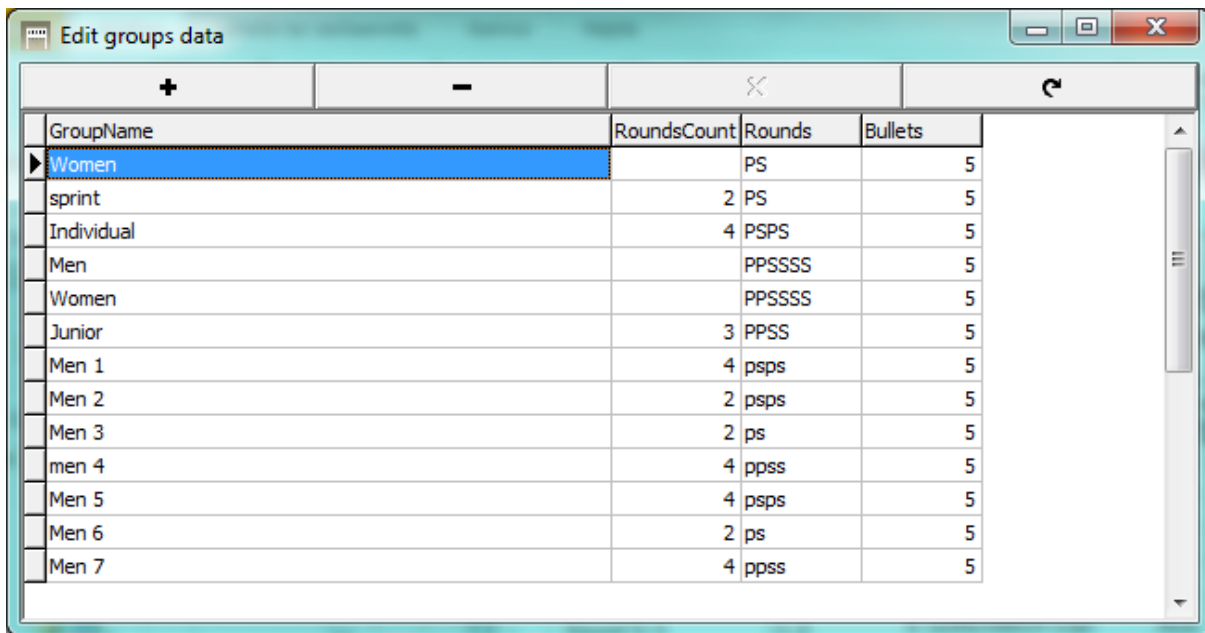

EventID	Name	Place	Date	Time	ActiveLanes	GroupCou	Group1	Group2
	UusiKisa	TO	02.03.2011	10:25:03	30	1	80	
119	Women 7,5km Sprint		03.12.2010	17:20:00	30	1	98	
121	IBU CUP BIATHLON WOMEN 7,5 KM SPRINT	ÖSTERSUND	29.11.2011	15:10:00	30	1	98	
122	TV-test SPRINT or somethink	ÖSTERSUND	29.11.2011	18:00:00	30	1	99	
123	IBU WORLD CUP BIATHLON MEN 20 KM INDIVIDUAL	ÖSTERSUND	30.11.2011	17:15:00	30	1	100	
124	IBU WORLD CUP BIATHLON WOMEN 15 KM INDIVIDUAL	ÖSTERSUND	01.12.2011	17:15:00	30	1	100	
125	IBU WORLD CUP BIATHLON test	ÖSTERSUND	02.12.2011	11:01:00	30	1	99	
126	IBU WORLD CUP BIATHLON MEN 10KM SPRINT	ÖSTERSUND	02.12.2011	16:15:00	30	1	99	
128	Women2 10km Pursuit		19.01.2011	10:00:00	30	1	102	
144	E.ON IBU World Cup Biathlon 10 Pursuit Men	Pokljuka	13.12.2011	12:59:00	30	1	99	
145	E.ON IBU World Cup Biathlon 10 Pursuit Men	Pokljuka	13.12.2011	13:04:00	0	1	98	
146	E.ON IBU World Cup Biathlon 10 Pursuit Men	Pokljuka	13.12.2011	13:04:00	0	1	98	
147	E.ON IBU World Cup Biathlon 10 Pursuit Men	Pokljuka	13.12.2011	13:09:00	0	1	99	
152	E.ON IBU World Cup Biathlon 12 Pursuit Men	Pokljuka	13.12.2011	15:10:00	0	1	100	
153	E.ON IBU World Cup Biathlon 12 Pursuit Men	Pokljuka	16.12.2011	12:51:00	0	1	98	
154	E.ON IBU World Cup Biathlon 13 Pursuit Men	Pokljuka	16.12.2011	14:27:00	0	1	99	
155	Mc Men 20 km	Kontiolahti	29.01.2012	12:00:00	30	1	101	
171	Men2 10km Pursuit		05.12.2011	11:30:00	30	1	101	
172	My Pursuit Men 20 km	TO	05.04.2012	10:08:00	30	1	100	
181	My Pursuit Men 20 km	TO	28.05.2012	12:47:00	0	1	103	
203	Biathlon Men 20 km	TO	29.05.2012	09:52:00	30	1	101	

Picture 35. Events window.

11.2.   Edit groups data

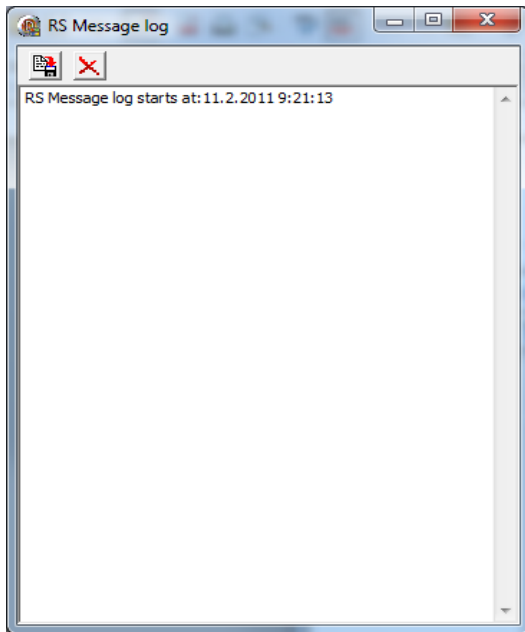Tool button [Groups] opens groups window, where the data of the used groups can be edited.

Picture 36. Groups window.

12. Log windows

In the program there are different log windows. Data in these widows will be saved, when programs shut down. These files can be found in {Install dir}\LogData*.txt. It is recommended to check that directory and delete all unnecessary files.

Picture 37. RS Mess-log window.