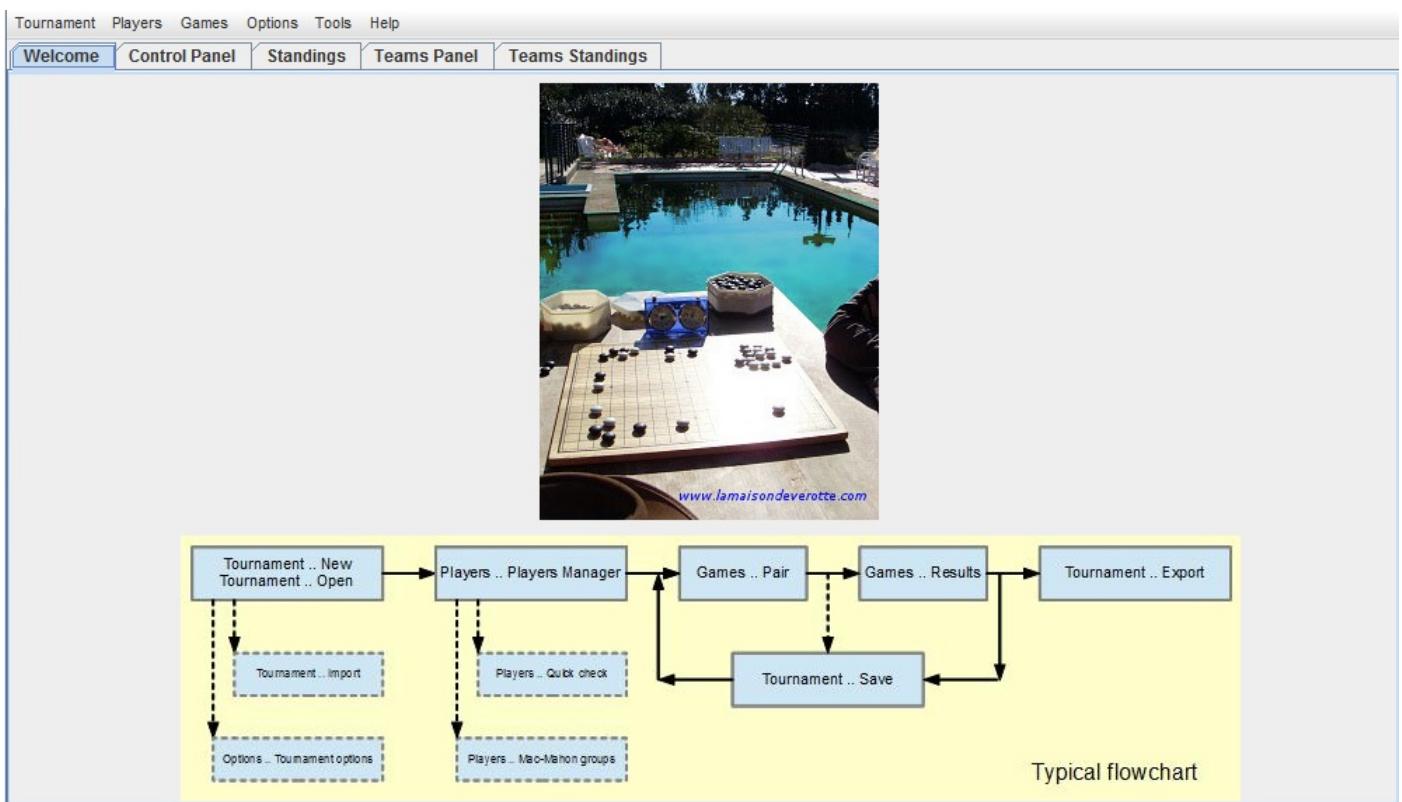


OpenGotha

User's guide



Luc Vannier. August 2013

Table of Contents

Starting OpenGotha	4
<hr/>	
Tournament menu	7
Create a new tournament	8
Import facilities	9
Export facilities	10
<hr/>	
Players menu	12
Players Manager frame	13
Players Quick check frame	16
Update ratings frame	17
Mac-Mahon groups frame	19
Teams Manager frame	20
<hr/>	
Games menu	23
Games Pair frame	24
Games Results frame	27
Games Round-robin frame	29
Teams Pairing frame	30
<hr/>	
Options menu	32
Tournament Options	33
General parameters	34
Handicap parameters	36
Placement parameters	38
Pairing parameters	41
Team Placement parameters	44
Display and Print parameters	45
Games Options	46
Preferences frame	48
<hr/>	
Tools menu	49
Discard rounds frame	50
<hr/>	
Appendices	51
Games encoding	52
Pairing algorithm	53
Pairing evaluation function	54
Compatibility issues	58
Vbar-separated format	60

Starting OpenGotha

OpenGotha is downloadable from <http://vannier.info/jeux/download/download.htm>. After unzipping, you get a set of files and directories, including the core file : opengotha.jar.

OpenGotha runs under any operating system (it has been tested under Microsoft Windows, Linux and Mac OS) with a Java Virtual Machine version 6 or newer.

If you do not have Java installed yet, get it from <http://www.java.com/en/download/index.jsp>

Depending on your operating system, you may start OpenGotha either by a double-click on opengotha.jar, or by a right click on opengotha.jar and "Open with Sun Java Runtime", or by issuing the following command from a Terminal window :

```
java -jar opengotha.jar
```

Running modes

OpenGotha can be run in a Stand-Alone mode, which is the usual mode for small tournaments, or in a Client/Server mode where several workstations work simultaneously on the same tournament. Client/Server mode is recommended for big tournaments.

Stand-alone running mode

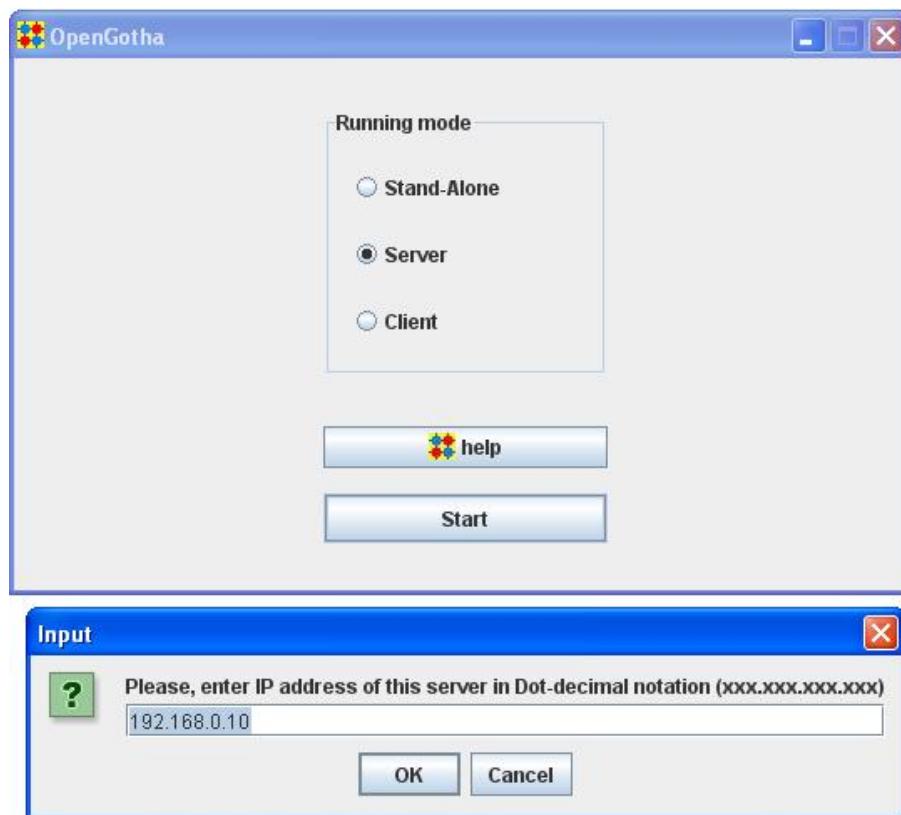
Click "Start"

Client/Server running mode

You can use Client/server mode if you have several workstations connected in a network. One unique workstation will be the server. The others will be clients.

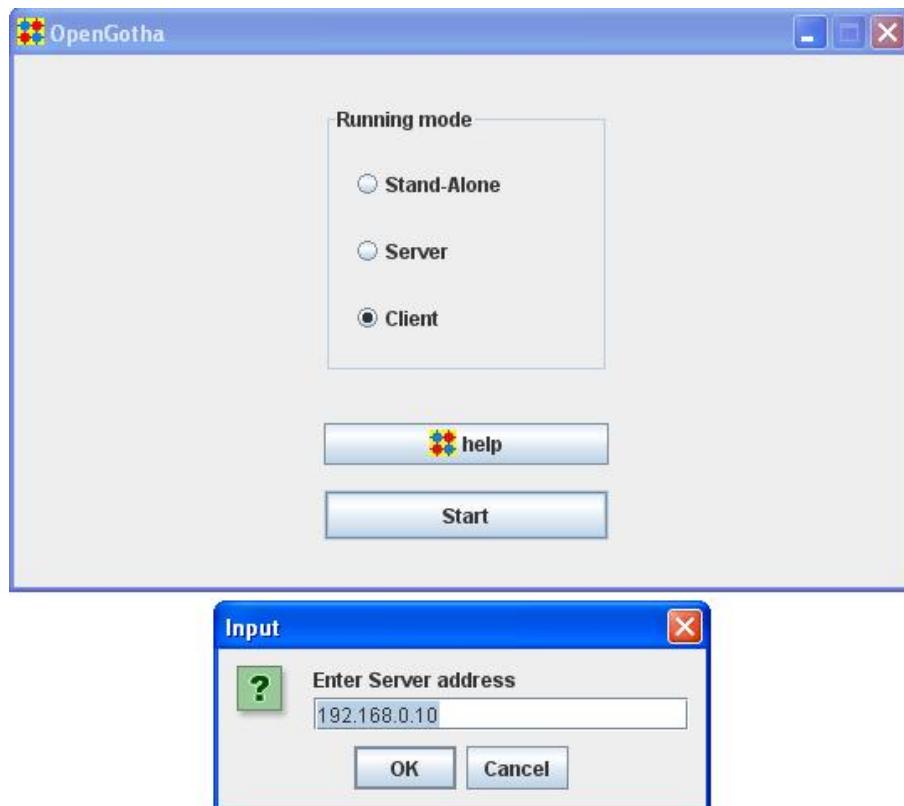
Many functions may be run from the server or from any client as well. But some others may be run from the server only. Server-specific functions are Open/Close/Save functions. Players management functions, Games functions and Options functions can be run equally and simultaneously by the server and the clients.

The server must be started first



A message box invites you to enter the server IP Address. Usually, the pre-written address is correct. But if your computer has several network interfaces, which may occur for instance when you have an Ethernet interface and a wireless network interface, then check the IP address and make sure to enter the address to which the clients will connect.

Then you can start the clients :



Replace the pre-written address by the actual server IP address..



From the dialog box, select the tournament you want to work on.

Tournament menu



Menu items list

New

This gives access to [Create a new tournament](#) dialog box

Import

This gives access to [Import facilities](#)

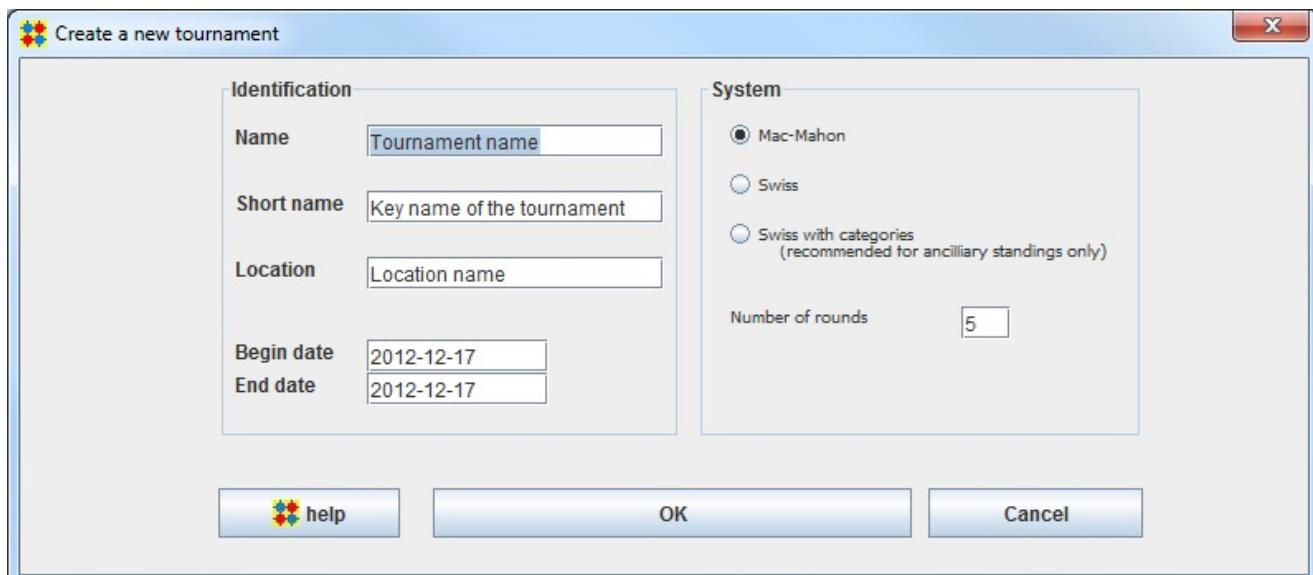
Export

This gives access to [Export facilities](#)

Build test tournaments

You can rapidly build dummy tournaments for test purpose.

Create a new tournament



System

Mac-Mahon

Mac-Mahon System's placement is based on [Mac-Mahon Score \(MMS\)](#).

Pairing is made between players with same MMS.

It is the most popular system and is recommended for nearly all kinds of tournaments.

In OpenGotha, by default, games in Mac-Mahon System may be played with handicap.

Swiss

Swiss System's placement is based on [Number Of Wins \(NBW\)](#)

Pairing is made between players with same NBW.

It can be considered as a Mac-Mahon system where all players start with 0 as common SMMS (Starting MMS).

In OpenGotha, by default, games in Swiss System are played without handicap.

Swiss with categories

Swiss with categories (Swisscat) system divides players in rank-based categories. Pairing is made internally in each category.

Even if you manage your tournament in Mac-Mahon system, Swisscat is interesting for ancillary placements, for example if you want to reward the best kyu players, the best 2-digit kyu players, etc.

Import facilities

Import players and games from h9 file

h9 file format is described in Tournament table format

Import players and games from Tou file

Tou file format is described in Le format TOU

Import players and games from Wallist file

Use this to import from Christoph Gerlach's MacMahon program

Import players from vBar-separated file

vBar-separated format is described in [vBar-separated format](#)

Warning

You must be aware that h9, Tou, Wallist and vBar-separated files contain less rich information than what OpenGotha manages. For instance, Top-group informations are absent.

Import tournament from XML file

Format is specified in Tournament DTD.

You can selectively import players and/or games and/or tournament parameters and/or Teams and team parameters.

Since OpenGotha V3.23, XML file is the standard format for OpenGotha files. Therefore, you can partially or totally import any previously saved tournament.

Export facilities

Export results for EGF rating-list

The generated file respects h9 format.

Spaces inside a player name or first name are replaced by " _ "

Total name + first name length is limited to 30

Character set is "ISO-8859-15".

Export results for FFG rating-list

The generated file respects Tou format.

Spaces inside a player name or first name are replaced by " _ "

Total name + first name length is limited to 25

Character set is "ISO-8859-15".

Export results for AGA rating-list

The generated file respects AGA standard ratings submission format.

For players without an AGA id, dummy AGA ids are generated in the "99xxx" range.

Character set is "ISO-8859-15".

Ready-To-Publish results in HTML format

The generated file contains all the results of all players. It is associated with a style sheet. A default style sheet is supplied. The user can supply his own style sheet.

Character encoding is "UTF-8".

Ready-To-Publish Teams list in HTML format

The generated file contains a list of teams and team members the results of all players. It is associated with a style sheet. A default style sheet is supplied. The user can supply his own style sheet.

Character encoding is "UTF-8".

Ready-To-Publish Team results in HTML format

The generated file contains Teams results. It is associated with a style sheet. A default style sheet is supplied. The user can supply his own style sheet.

Character encoding is "UTF-8".

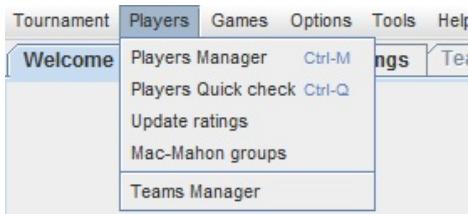
Players in csv format

The generated file contains the players data.

CSV format is a commonly used format. Most spreadsheets read it.

Character encoding is "UTF-8".

Players menu



Menu items list

Players Manager

This gives access to [Players Manager frame](#), from where you can register players, set and modify all players data.

Players Quick check

This gives access to [Players Quick check frame](#) where you have a quick access to some of the players data : rank, and registering status.

Update ratings

This gives access to [Update ratings frame](#) where you can have access to the EGF rating list and where you can update players ratings .

Mac-Mahon groups

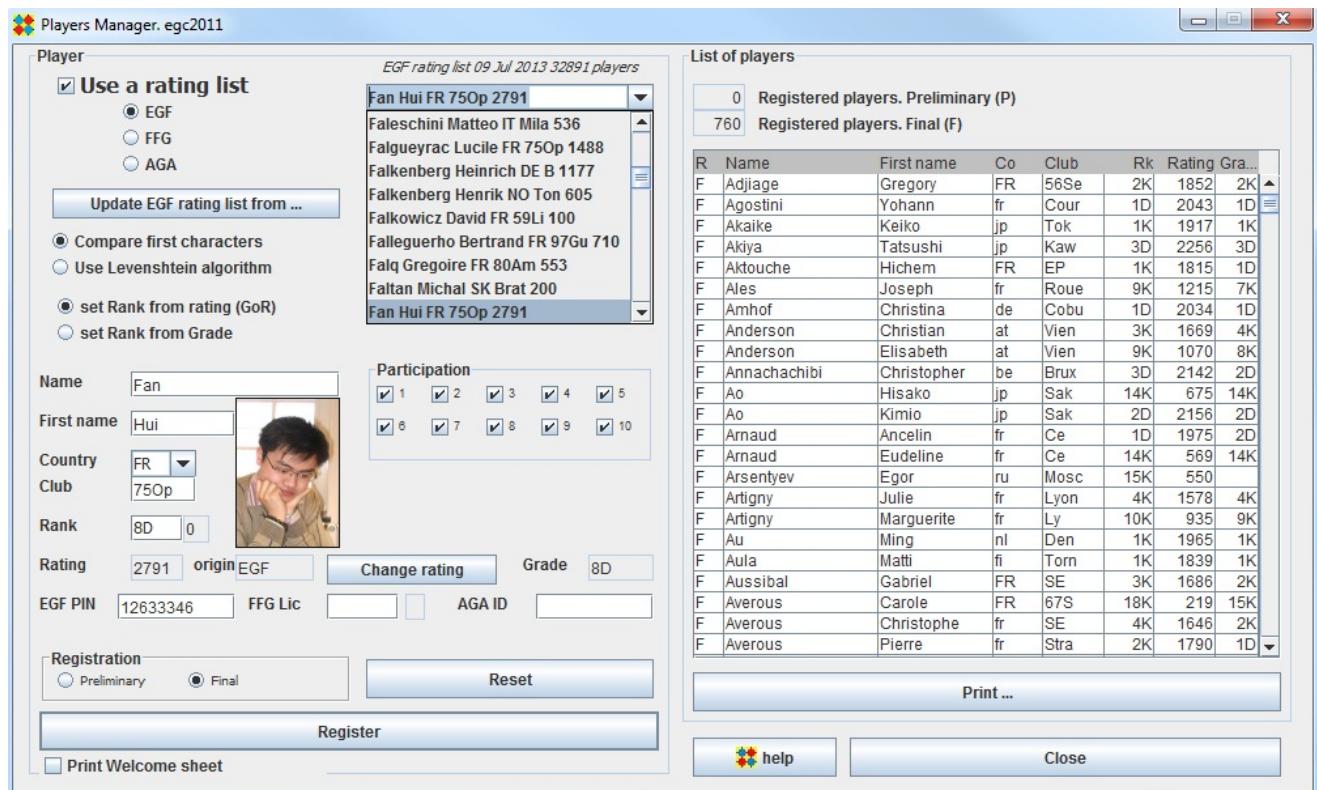
This gives access to [Mac-Mahon groups frame](#) where you can define Mac-Mahon top and super groups.

Teams Manager

This gives access to [Teams Manager frame](#) where you can define teams.

Players Manager frame

With the Players manager frame, you can register or unregister players, and modify players data. You normally use it to register players and print the players list at the beginning of the tournament. You also use it during the tournament, for instance to change participation or correct any data.



Rating Lists

OpenGotha incorporates EGF, FFG and AGA rating lists.

An instance of each of the rating lists is delivered with OpenGotha. You can download up-to-date rating lists by clicking the "Update XXX rating list from ..." button.

These rating lists enable fast and spelling-error-free access to known players. Type in the first letters of the player and known players with same first letters will show up. If you are not sure of first letters, then use Levenshtein algorithm. OpenGotha will do its best to find players with neighbour names.

A rank will be calculated from the rating as it appears in the rating list.

With EGF rating list,

a rating between 50 and 149 will give a 20K rank

a rating between 2050 and 2149 will give a 1D rank

a rating equal to or above 2850 a 9D rank

With FFG rating list,

a rating equal to or below -2901 will give a 30K rank

a rating between 0 and 99 will give a 1D rank

a rating equal to or above 800 will give a 9D rank

With AGA rating list,

a rating equal to or below -30.01 will give a 30K rank

a rating between -2.00 and -1.01 will give a 1K rank

a rating between 1.00 and 1.99 will give a 1D rank

a rating equal to or above 9.00 will give a 9D rank

With EGF rating list, you can select the set Rank from Grade radio button. Rank will then be defined from grade.

Register a player

You can enter (automatically by rating list or manually) players data. Define participation (by default, the player is assumed to participate in all rounds). Define Registration status (Preliminary or Final). Then Register by clicking Register or by typing Enter key. Players data will be editable during the whole tournament by selecting a player in the List of players, right click, "Modify player", or simply double-click.

Players names

OpenGotha supports all the character sets :

List of players						
		0 Registered players. Preliminary (P)				
		9 Registered players. Final (F)				
R	Name	First name	Co	Club	Rk	Rating
F	Poznań	Łódź	PL	Łódź	30K	-900
F	Vannier	Luc	FR	76Ro	1K	1969
F	Пётр	Петров	RU		1K	2000
F	Сидор	Сидоров	RU		1K	2000
F	על לברון	על	IL		5D	2550
F	عمراني	حاتم	MA	xxx	2D	2160
F	孔	杰	CN		9D	2900
F	山下	敬吾	JP		9D	2900
F	이	세돌	KR		9D	2900

Welcome sheet

The welcome sheet contains general information about the tournament and specific information about the player.

It may be given to each player after registration.

The Tournament organizer can customize the welcome sheet by editing it.

The welcome sheet is located in [OpenGotha Root Directory]/welcomesheet/welcomesheet.html. A template welcome sheet is supplied.

Edit general information with any text processor, keeping html syntax.

Insert the player-related tokens where desired.

Player-related tokens are :

<name>, <firstname>, <country>, <club>, <rank>, <rating>, <ratingorigin>, <participation>

At run time, the tokens will be replaced by the player actual information.

<rank> is the rank between 30K and 9D

<rating> is the rating as found in the rating list

<ratingorigin> is the name of the rating list : EGF, FFG or INI. If the rating has not been defined by a rating list, the rating is defined from the rank and rating origin is INI.

<participation> defines the participation of the player for each round.

Players Quick check frame

Players Quick check frame is typically used after registrations to quickly check and modify registering status and rank.

The screenshot shows a Windows application window titled "Players Quick check. egc2011". The left panel, titled "List of players", displays a table of player information. The table has columns: R, Name, First_name, Co, Club, Rk, and Rati... (Rating). The data includes names like Adjiage, Agostini, Akaike, Akiya, Aktouche, Ales, Amhof, Anderson, Anderson, Annachachibi, Ao, Ao, Arnaud, Arnaud, Arsentyev, Artigny, Artigny, Au, and Aula, along with their respective details. Above the table are two buttons: "0 Registered players. Preliminary (P)" and "760 Registered players. Final (F)". Below the table is a "Print ..." button. The right panel contains several buttons for modifying player status and ranks:

- "Remove all 'P' players"
- "Update ratings"
- Action on selected players**
- F: Set Registration status to Final
- P: Set Registration status to Preliminary
- +: Increase rank of selected players
- : Decrease rank of selected players
- : Set ranks according to ratings
- : Set ratings according to ranks
- : Modify ratings...

At the bottom of the right panel are "help" and "Quit this frame" buttons.

In the "List of players" panel, select the players you want to modify

Then use buttons in the right or keyboard shortcuts to modify registration status or rank

Update ratings

Update ratings frame is used to update ratings from EGF database.

The screenshot shows a Windows application window titled "Update ratings". The main area is divided into two sections: "List of players" (white background) and "EGF Rating List" (grey background). The "List of players" section contains a table with columns: Name, First name, Co, Club, Rk, Ori, Rt EGF ..., Pin. The "EGF Rating List" section contains a table with the same columns. A search bar at the top right says "update EGF rating list from ... EGF rating list 17 Dec 2012 31734 players". Buttons at the bottom include "For all players, update obsolete ratings (red) with EGF rating (blue)", "For selected players, update obsolete ratings (red) with EGF rating (blue)", "Print ...", "help", and "Quit this frame".

Name	First name	Co	Club	Rk	Ori	Rt EGF ...	Pin	EGF Rating List
Adjiaje	Gregory	FR	56Se	2K	EGF	1852	1884	10733085 Adjiaje Gregory FR 67Se 1884
Agostini	Yohann	fr	Cour	1D	EGF	2043	2105	10649056 Agostini Yohann FR 75Pa 2105
Akaike	Keiko	jp	Tok	1K	EGF	1917	1787	13750209 Akaike Keiko JP Toky 1787
Akiya	Tatsushi	jp	Kaw	3D	EGF	2256	2273	13098910 Akiya Tatsushi JP Yoko 2273
Aktouche	Hichem	FR	EP	1K	EGF	1815	1977	13437413 Aktouche Hichem FR 94EP 1977
Ales	Joseph	fr	Roue	9K	EGF	1215	1449	15033942 Ales Joseph FR 76Ro 1449
Amhof	Christina	de	Cobu	1D	EGF	2034	2072	14925790 Amhof Christina DE CO 2072
Anderson	Christian	at	Vien	3K	EGF	1669	1607	13650780 Anderson Christian AT Gote 1607
Anderson	Elisabeth	at	Vien	9K	EGF	1070	1281	13662781 Anderson Elisabeth AT Gote 1281
Annachachibi	Christopher	be	Brux	3D	EGF	2142	?????	--Click here to search for the player--
Ao	Hisako	jp	Sak	14K	EGF	675	575	12550483 Ao Hisako JP Sak 575
Ao	Kimio	jp	Sak	2D	EGF	2156	2141	12586420 Ao Kimio JP Sak 2141
Arnaud	Ancelin	fr	Ce	1D	EGF	1975	2101	13833193 Arnaud Ancelin FR 63Ce 2101
Arnaud	Eudeline	fr	Ce	14K	EGF	569	726	13837197 Arnaud Eudeline FR 63Ce 726
Arsentyev	Egor	ru	Mosc	15K	INI	550	?????	--Click here to search for the player--
Artigny	Julie	fr	Lyon	4K	EGF	1578	1618	12801426 Artigny Julie FR 69Ly 1618
Artigny	Marquerite	fr	Ly	10K	EGF	935	1278	14525610 Artigny Marquerite FR 69Ly 1278

The left part (white background) of the "List of players" panel shows the players list of the tournament.

The right part (grey background) shows the players as they are in the EGF rating list.

OpenGotha finds in the rating list the rated player corresponding to the tournament player. Search is first made by EGF Pin, and if the EGF Pin is not found, a search is made by name and first name.

If a player is found, it is shown.

If no player is found, a red "?????" is displayed in EGF Rt column.

Accessing the rating list

By clicking in the "EGF Rating list" column, you get access to the rating list.

Type in the first letters of the player and known players with same first letters will show up. To navigate in the rating list use Arrow and Escape keys.

To make actual update, use Enter key

Updating the rating of players

You can also update several players ratings by selecting one or several lines and click the "For selected players, ..." button

And, to update all the players at once, click the "For all players, ..." button.

Mac-Mahon groups frame

Use this frame to set the Mac-Mahon bar and to define which player will be a member of Top/super groups

A guide to Setting MacMahon groups is in : <http://www.eurogofed.org/gotour/rules.htm>

Bar (Top Group)				
72 players				
Name	First na...	Rk	Corr	Rating
Bahadur	Tahirba...	6D	0	2600
Zhang	Yanqi	6D	0	2600
Kim	Dal Soo	6D	0	2550
Shinjo	Mamoru	6D	0	2550
Suerlin	Weiyiing	5D	0	2518
Kravec	Andrii	5D	0	2511
Groenen	Geert	5D	0	2510
Danek	Vladimir	5D	0	2506
Zhurakovskiy	Bogdan	5D	0	2494
Savolainen	Javieral...	5D	0	2493
Sankin	Timur	5D	0	2492
Manojlovic	Lazar	5D	0	2485
Serban	Mihai V...	5D	0	2478
Maeda	Norikazu	5D	0	2462
Yoshihara	Kazuo	5D	0	2456

Bar + 1 (Super Group)				
30 players				
Name	First na...	Rk	Corr	Rating
Shikshin	Ilja	7D	1	2744
Taranu	Catalin	7D	1	2730
Dinershteyn	Alexandr	7D	1	2721
Shikshina	Svetlana	7D	1	2690
Pop	Cristian	7D	1	2670
Kachanovskiy	Artem	7D	1	2663
Jeon	Sang Y...	7D	1	2650
Mero	Csaba	6D	1	2649
Burzo	Gheorg...	6D	1	2624
Balogh	Pal	6D	1	2617
Silt	Ondrej	6D	1	2594
Tormanen	Antti	6D	1	2592
Kai	Naoyuki	6D	1	2581
Mitic	Dusan	6D	1	2576
Deharre	Thomas	6D	1	2574

Bar - 1				
68 players				
Name	First na...	Rk	Corr	Rating
Sawada	Susumu	3D	0	2430
Knauf	Torsten	3D	0	2357
Oikawa	Michiyo...	3D	0	2345
Urabe	Yoshim...	3D	0	2337
Takamiya	Hiroshi	3D	0	2307
Egea	Antonio	3D	0	2306
Goetzfried	Andreas	3D	0	2305
Ikeda	Katsu	3D	0	2297
Tel	Michiel	3D	0	2296

Mac-Mahon bar				
4D				
<input type="button" value="Reset All SMMS according to rank"/>				

<input type="button" value="help"/>	<input type="button" value="Quit this frame"/>
-------------------------------------	--

Players whose rank equals the Mac-Mahon bar are initially placed into the Top Group and shown in the *Bar (Top Group)* panel.

Players whose rank equals the Mac-Mahon bar - 1 are initially shown in the *Bar - 1* panel.

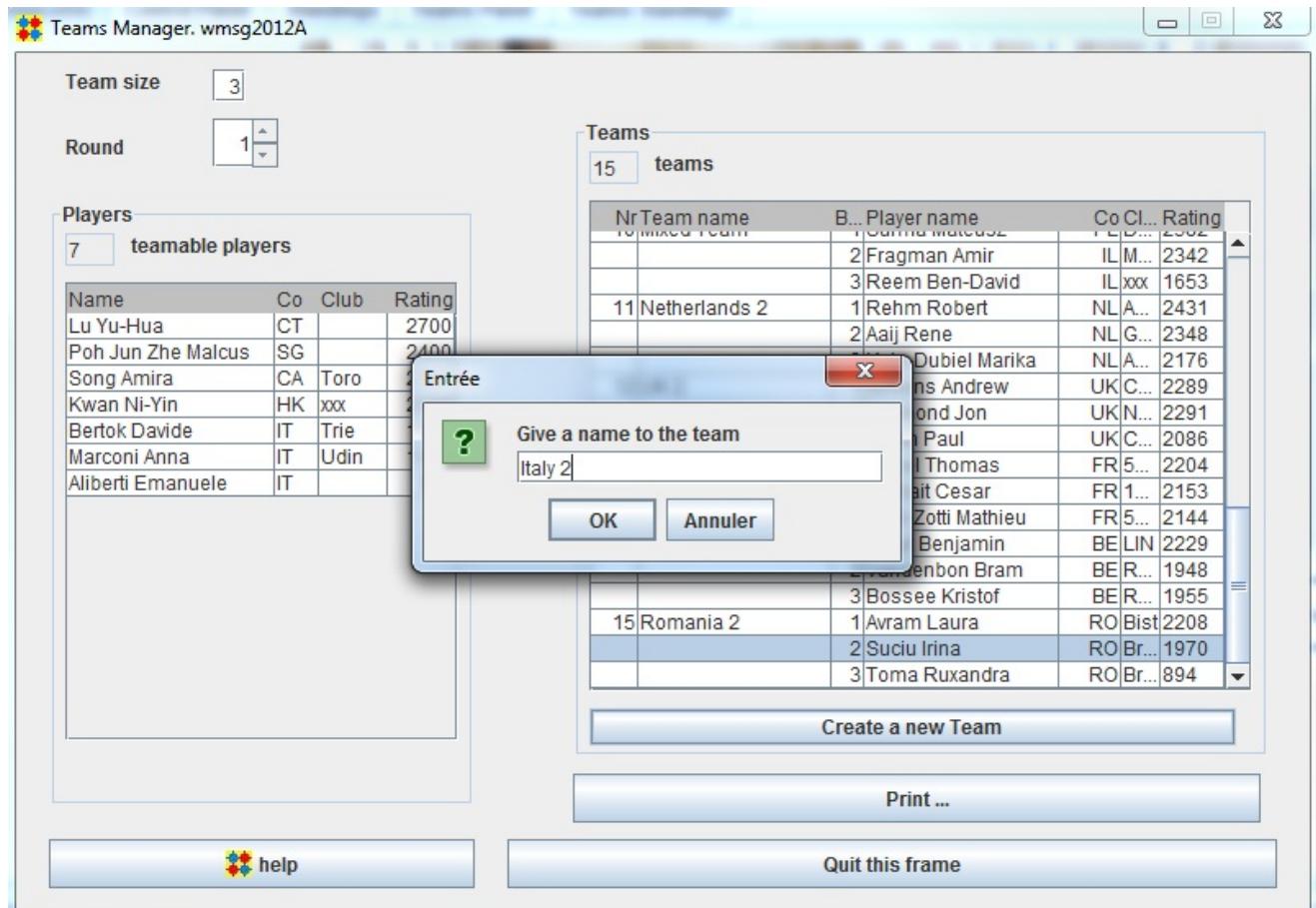
You can then move players from one group to another one by using arrow buttons.

Teams Manager frame

With the Teams manager frame, you can create teams, affect players to teams and edit teams.

Create a new team

Click the "Create a new Team" button, choose a name for the team and click OK



Assign players to teams

Select a player from Players panel, then Drag and drop it to the desired board of the desired team

The screenshot shows the 'Teams Manager' application window. On the left, the 'Players' panel displays a list of 6 teamable players with columns for Name, Co, Club, and Rating. In the center, a large table lists 16 teams, each with a number (Nr), team name, and a list of 3 players. The table includes columns for Player name, Co, Club, and Rating. At the bottom of the window are buttons for 'Create a new Team', 'Print ...', and 'Quit this frame'.

Nr	Team name	B...	Player name	Co	Cl...	Rating
1	NETHERLANDS 2		Aaij Rene	NL	G...	2431
2			Kuin-Dubiel Marika	NL	A...	2176
12	UK 2		Simons Andrew	UK	C...	2289
2			Diamond Jon	UK	N...	2291
3			Smith Paul	UK	C...	2086
13	France 2		Danel Thomas	FR	5...	2204
1			Lextrait Cesar	FR	1...	2153
3			Delli-Zotti Mathieu	FR	5...	2144
14	Belgium		Gigot Benjamin	BE	LIN	2229
2			Vandenbon Bram	BE	R...	1948
3			Bosseel Kristof	BE	R...	1955
15	Romania 2		Avram Laura	RO	Bist	2208
2			Suciu Irina	RO	Br...	1970
3			Toma Ruxandra	RO	Br...	894
16	Italy 2		Bertok Davide	IT	Trie	1258
2						
3						

Assignment is made for all other rounds if no other player has been assigned yet.

You also can assign different players for different rounds. You just have to select current round (top left spinner) and assign the player by drag and drop.

Edit teams

Right-click in the Teams panel and choose a menu item

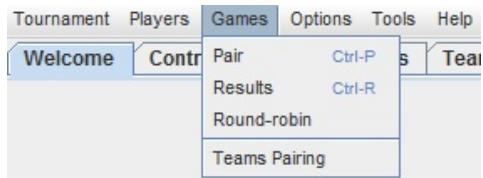
The screenshot shows the 'Teams Manager' application window. On the left, there's a panel for 'Players' showing 4 teamable players with their names, clubs, and ratings. In the center, a table lists 16 teams. The 'Japan 2' team is selected, highlighted with a blue border. A context menu is open over this team, listing various options such as 'Remove Japan 2', 'Unteam board 2 of Japan 2 for round 1', and 'Reorder members of Japan 2 by rating for round 1'. The menu also includes options for other teams like 'Chinese Taipei 2', 'USA 1', and 'Macau'. At the bottom of the menu, there are options for 'Create a new team', 'Print', and 'Quit this form'.

Nr	Team name	B...	Player name	Co	Cl...	Rating
1	Chinese Taipei 2	1	Lo Sheng-Chieh	CT		2700
2	USA 1	2	Hsu Hao-Hung	CT		2700
3		3	Tsai Cheng-Wei	CT		2700
4		1	Burrall Matthew	US	xxx	2603
5		2	Zhuang Vincent	US	P...	2572
6		3	Shen Cherry	US		2600
3	Japan 2	1	Noguchi Kohichi	JP		2600
		2	Hara Hidataka	JP		2600
		3	Suzu			
4	Canada	1	Yu Ji			
		2	Shal			
		3	Huan			
5	Singapore	1	Tan J			
		2	Zhan			
		3	Kwa			
6	Macau	1	Lou V			
		2	Wong			
		3	Chen			

Right-clicked menu items (underlined):

- Remove Japan 2
- Unteam board 2 of Japan 2 for round 1
- Unteam board 2 of Japan 2 for all rounds
- Unteam Japan 2 for round 1
- Unteam Japan 2 for all rounds
- Unteam all teams for round 1
- Unteam all teams for all rounds
- Rename Japan 2
- Reorder members of Japan 2 by rating for round 1
- Reorder members of Japan 2 by rating for all rounds
- Reorder members of all teams by rating for round 1
- Reorder members of all teams by rating for all rounds
- Renumber teams according to mean rating
- Change number of Japan 2

Games menu



Menu items list

Pair

This gives access to [Games Pair frame](#) where you can make pairing

Results

This gives access to [Games Results frame](#) where you enter results

Round-robin

This gives access to [Round-robin frame](#) where you can manually define pairing and results for small tournaments.

Teams Pairing

This gives access to [Teams Pairing frame](#) where you can manually pair teams.

Games Pair frame

Pairable players

Name	Rk	Sco	Co	Club
Bahadur Tahirbayov	6D	33	az	Baku
Groenen Geert	5D	33	nl	DHaa
Sankin Timur	5D	33	ru	Stp
Drean-Guenaizia ...	4D	33	fr	Co
Kyung Kwang-Soo	4D	33	KR	
Wolff Armel-David	4D	33	ch	Gen
Castellano Miguel...	2D	31	es	Madr
Cluzeau Aurelien	2D	31	fr	An
Arnaud Ancelin	1D	30	fr	Ce
Chaine Marie-Claire	1D	30	fr	Lyon
Chamot Pierre-Alain	1D	30	de	Kol
de_Groot Ger	1D	30	nl	Rijs
Takechi Harumi	1D	30	jp	Kawa
Wilken Volker	1D	30	de	Hamb
Guille-Escuret Ch...	2K	28	fr	OB
Iizaka Kazuo	2K	28	jp	Hasu

Not pairable players

Name	Rk	Sco	Co	Club
Jouffroy Florent	16K	14	FR	69Ly
Butler Simon	1K	29	UK	Read
Olivaux Samuel	5K	25	FR	75AI
Diez Maria	9K	21	ES	MAD
Hruskova Jana	9K	21	CZ	T Ost
Bisca Mihai	4D	33	RO	Tims

Games

Table	White	Black	Hd
1	Mitic Dusan	Shikshin Ilja	0
2	Blomback Fredrik	Taranu Catalin	0
3	Dinershteyn Alexandr	Teuber Benjamin	0
4	Shikshina Svetlana	Bohatskyi Dmytro	0
5	Jabarin Ali	Pop Cristian	0
6	Kim Youngsam	Kachanovskyi Artem	0
7	Mastumura Naoki	Jeon Sang Youn	0
8	Mero Csaba	Simara Jan	0
9	Mezhov Oleg	Balogh Pal	0
10	Surin Dmitriy	Burzo Gheorghe Cornel	0
11	Silt Ondrej	Lin Viktor	0
12	Tormanen Antti	Lisy Pavol	0
13	Kai Naoyuki	Colmez Pierre	0
14	Debarre Thomas	Mitic Nikola	0

Bye player: No bye player

Pairing report... Print... Quit this frame

All players appear in this frame.

Players declared as not participating in the current round are in the "not pairable players" list

Players already paired appear in the Games list

The bye player, if exists, appear below the Games List. Only one player can be bye player for a given round.

Remaining players appear in "pairable players" list.

Automatic pairing

Click on Pair button.

If the number of players is uneven, you will be asked to choose a bye player or to let OpenGotha choose it.

Pairing process will empty the "pairable players" list and fill the Games list.

Manual pairing

Select players

To select one player, just click on this player. To select 2 or more players, use Shift+click, Ctrl+Click and/or Ctrl+Shift+Click

You can pair a couple of players by selecting them in the pairable players list and click on Pair Button

You can pair a set of players in a semi-automatic way by selecting desired players and click on Pair Button

As a help for manual pairing, when a unique player is selected, a list of previous games of that player is displayed.

Unpairing

You can unpair all games or some games by selecting games and click on Unpair Button.

Modify a game

You can modify colour/handicap of a given game by selecting that game, right-click and choose "Exchange Colours" or "Modify handicap".

Change table numbers

Table numbers are chosen by OpenGotha according to availability.

You can renumber them according to MMS order by right click and choose "Renumber table by MMS"

You can change a given table number by selecting that game, right click, choose "Change table number", then enter a new number. If necessary, OpenGotha will automatically renumber the game previously assigned to the target table.

In some tournaments, you may happen to use different rooms with table numbers starting from a number other than 1. For instance, the available tables will be tables 25-48, tables 156-234, etc. To do that, select a table, right click, choose "Shift tables" and a new table number for the selected game. Following table numbers will be shifted as well. However, table numbering should remain inside 1 to 600 limits.

Pairing report

Pairing report will give you informations about what might be a concern for the organizer :

- Paired players who had not shown up in previous round
- Pairs with a non zero MMS difference
- Pairs with a big handicap
- Intra-club and intra-country pairs
- Unbalanced Drawn up/down players

- White/Black unbalanced players

Pairing report

Paired players who had not shown up in previous round

Pairs with a MMS difference greater than 0

Pairs with a handicap greater than 1

Intra-club pairs

Intra-country pairs

Unbalanced MMS draw up/down players

White/Black unbalance greater than 1

Generate report

Round 2

Number of paired players who had not shown up in previous round : 0

Number of pairs with a MMS difference greater than 0 : 2
Table 4 : MMSdiff=1 Balogh Pal(34) - Bivas Paul(33)
Table 7 : MMSdiff=1 Berben Tobias(33) - Akiya Tatsushi(32)

Number of pairs with a handicap greater than 1 : 0

Number of intra-club pairs : 0

Number of intra-country pairs : 1
Table 6 : country = FR Clergue Olivier - Bayle Virgile

Number of players with an unbalanced MMS draw up/down : 4
Balogh Pal 6D balance = -1 0DU 1DD
Bohatskyi Dmytro 6D balance = -1 0DU 1DD
Bivas Paul 4D balance = +1 1DU 0DD
Akiya Tatsushi 3D balance = +1 1DU 0DD

Number of players with White/Black unbalance greater than 1 : 2
Bivas Paul 4D 0W 2B
Bayle Virgile 3D 0W 2B

Quit

Games Results frame

Games .. Results. wmsg2012A

Table		Hd	Result
1	Chung Wai Yi	Lo Sheng-Chieh	0 0-1
2	Hsu Hao-Hung	Lee Lok Yi	0 1-0
3	Yeun Lok Yan	Tsai Cheng-Wei	0 0-1
4	Surma Mateusz	Burrall Matthew	0 1-0
5	Zhuang Vincent	Fragman Amir	0 1-0
6	Reem Ben-David	Shen Cherry	0 1-0
7	Rehm Robert	Noguchi Kohichi	0 0-1
8	Hara Hidetaka	Aaij Rene	0 1-0
9	Kuin-Dubiel Marika	Suzuki Kaichi	0 0-1
10	Yu Jin	Simons Andrew	0 1-0
11	Diamond Jon	Sha Irene	0 0-1
12	Huang Andrew	Smith Paul	0 1-0
13	Tan Jia-Cheng	Danel Thomas	0 1-0
14	Lextrait Cesar	Zhang Xiang	0 0-1
15	Kwa Jie-Hui	Delli-Zotti Mathieu	0 0-1
16	Gigot Benjamin	Lou Wan-Kao	0 0-1
17	Wong Ngai Lon	Vandenbon Bram	0 1-0
18	Bossee Kristof	Cheong Meng Hou	0 0-1
19	Lin Viktor	Avram Laura	0 1-0

Click on winner's name
To cancel a result, click on table number
For special results, click on result
Right click on result to toggle Normal/By default

Print...

help Quit this frame

For usual results, just click on the winner. Winner is coloured in red, loser in blue, equal result in purple.

For special results, click on results. The list of possible results is given in Games Encoding

Games Results for Team Tournaments

Select the "Team presentation" checkbox : The presentation will be displayed, match by match

Games .. Results. wmsg2012A

Round 1

Team presentation

Search for a player

Search/Next

Games

Table

Table		Hd	Result
1---	Hong Kong 2	Chinese Taipei 2	0-2
1	Chung Wai Yi(w)	Lo Sheng-Chieh(b)	0 0-1
2	Lee Lok Yi(b)	Hsu Hao-Hung(w)	0 0-1
3	Yeun Lok Yan(w)	Tsai Cheng-Wei(b)	0 0-1
4---	Mixed Team	USA 1	2-0
4	Surma Mateusz(w)	Burrall Matthew(b)	0 1-0
5	Fragman Amir(b)	Zhuang Vincent(w)	0 0-1
6	Reem Ben-David(w)	Shen Cherry(b)	0 1-0
7---	Netherlands 2	Japan 2	0-2
7	Rehm Robert(w)	Noguchi Kohichi(b)	0 0-1
8	Aaij Rene(b)	Hara Hidetaka(w)	0 0-1
9	Kuin-Dubiel Marika(w)	Suzuki Kaichi(b)	0 0-1
10---	Canada	UK 2	2-0
10	Yu Jin(w)	Simons Andrew(b)	0 1-0
11	Sha Irene(b)	Diamond Jon(w)	0 1-0
12	Huang Andrew(w)	Smith Paul(b)	0 1-0
13---	Singapore	France 2	2-0
13	Tan Jia-Cheng(w)	Danel Thomas(b)	0 1-0
14	Zhang Xian(h)	I extrait Cesar(w)	0 1-0

Click on winner's name
 To cancel a result, click on table number
 For special results, click on result
 Right click on result to toggle Normal/By default

Print...

help

Quit this frame

Games Round-robin frame

Games .. Round-robin. test_Round-robin

Player name	Rk	Nr	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
FAN Hui	8D	1	[red]	+Aw3	?w3	-Aw5	-Aw5	+Aw5														
IMAMURA Toru	4D	2	+/b3	[red]	+/b0	-/b0	+/w0				+Aw3											
MIZESSYN François	4D	3	?b3	-Aw0	[red]		+Aw0															
FELDMANN Denis	3D	4	+/b5	+Aw0	[red]	-/b0	-Aw1					+/b0										
ALLARD Jean	2D	5	+/b5	-/b0	-/b0	-Aw0	[red]	-Aw0														
COQUELET Laurent	2D	6	-/b5			+/b1	+/b0	[red]	-Aw0													
CORNUEJOLS Domin...	1D	7						[red]	+/b0	=/b0	-Aw0											
HONORÉ Jean-Christ...	1K	8					+/b0	=/b0	[red]		+/b0											
LEFEUVE Mathieu	1K	9		-/b3				+/b0	[red]			+/b0										
SAINT-PAUL Noël	1K	10							-/b0	[red]												
DELSOL David	2K	11						-/b0		[red]												
PAYRAT Julien	2K	12			-Aw0					[red]		+Aw0										
GASCHIGNARD Jean...	3K	13									[red]											
LACAM Mathieu	3K	14								-/b0	[red]											
ANGELI Julien	4K	15									[red]											
ARNAUD Ancelin	4K	16										[red]										
Beltran Arnaud	29K	17											[red]									

Number of rounds

Help

Set or change result / Select game	Left click	Increase handicap	+
Change color	Right click	Decrease handicap	-
		Delete game	Del

 help Quit this frame

The Games Round-robin frame is usable only for small tournaments (20 players max).

Manual pairing and results entering can all be done in a single frame.

You don't have to worry about round numbers. OpenGotha will internally manage that for you, so that export functions will work exactly as if you had followed the usual complete process.

If you need to enter by default results, use Games Results Frame

Teams Pairing frame

With the Teams pairing frame, you can manually pair teams.

Pair 2 teams

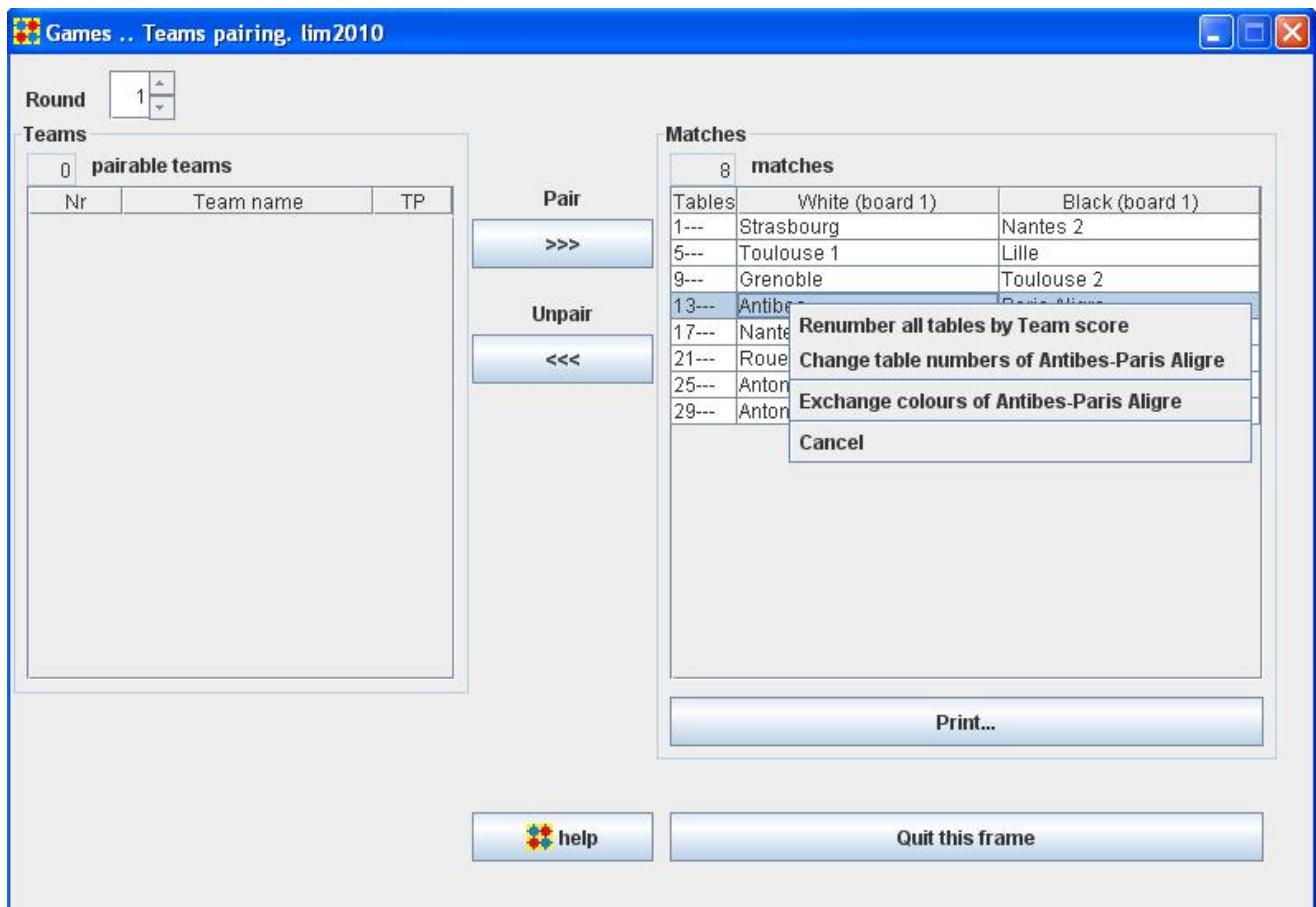
Select the teams and click the "Pair" button.

Nr	Team name	TP
2	Toulouse 1	
3	Grenoble	
4	Paris Aligre	
5	Nantes 1	
6	Rouen	
7	Lille	
8	Lyon 1	
9	Lyon 2	
10	GRAUG	
11	Antony 2	
12	Antony 1	
13	Antibes	
15	Toulouse 2	
16	Rennes	

Tables	White (board 1)	Black (board 1)
1---	Nantes 2	Strasbourg

Each player of each board of one team is paired with the player of the corresponding board of the other team.

Modify one or several matches



To renumber all tables, right-click in the Matches panel and choose the "Renumber all tables by Team score" menu item.

To change table numbers of a given match, right-click on the match in the Matches panel and choose the "Change table numbers of ..." menu item.

To change colours of all games of a given match, right-click on the match in the Matches panel and choose the "Change table numbers of ..." menu item.

Other modifications

To modify individual games, use the [Games Pair frame](#)

Options menu



Menu items list

Tournament Options

This gives access to [Tournament Options frame](#).

Games Options

This gives access to [Games Options frame](#).

Preferences

This gives access to [Preferences frame](#).

Tournament Options

[General parameters](#)

[Handicap parameters](#)

[Placement parameters](#)

[Pairing parameters](#)

[Team Placement parameters](#)

[Display and Print parameters](#)

General parameters

Tournament parameters. egc2011

General Handicap Placement Pairing Team placement

Mac-Mahon system

Identification

Full Name	GC 2011 Main Tournament
Short name	egc2011
Location	Talence
Director	
Begin date	2011-07-24
End date	2011-07-24
Number of rounds	10

Change or Reset Tournament system

Mac-Mahon

Mac-Mahon Bar	4D
Mac-Mahon Floor	20K

Special Results

NBW for Absent player	<input checked="" type="radio"/> 0	<input type="radio"/> ½	<input type="radio"/> 1
MMS for Absent player	<input type="radio"/> 0	<input checked="" type="radio"/> ½	<input type="radio"/> 1
NBW for Bye player	<input type="radio"/> 0	<input type="radio"/> ½	<input checked="" type="radio"/> 1
MMS for Bye player	<input type="radio"/> 0	<input type="radio"/> ½	<input checked="" type="radio"/> 1

Round down NBW and MMS scores

Print ...

help

Quit this frame

Identification

Number of rounds

It can be set between 1 and 20.

It can be increased at any moment.

It can be decreased at any moment too, provided that no game has been defined for abandonned rounds.

Special results

An absent player for a given round is a player who has been declared as not participating in that round.

A bye player for a given round is a player who has been defined as bye in the pairing process. Not more than one player can be bye for a given round.

The NBW and MMS scores for absent and bye player for a given round will be computed according to what you define in this frame.

When, as a result of bye or absence, the score is not integer, a rounding down is made if the "Round down NBW and MMS scores" checkbox is selected. Otherwise, no rounding is made.

NB : Points got by a draw result are not rounded.

NB : For pairing, players with a non-integer score are grouped with players with an integer score just below, whatever the "Round down NBW and MMS scores" choice might be.

Mac-Mahon

Mac-Mahon Bar defines the SMMS (Starting Mac-Mahon Score) for players above the bar.
Super-bars can also be defined in big tournaments.

Mac-Mahon Floor defines the SMMS (Starting Mac-Mahon Score) for players below the bar.

Bar can be set between 10K and 9D

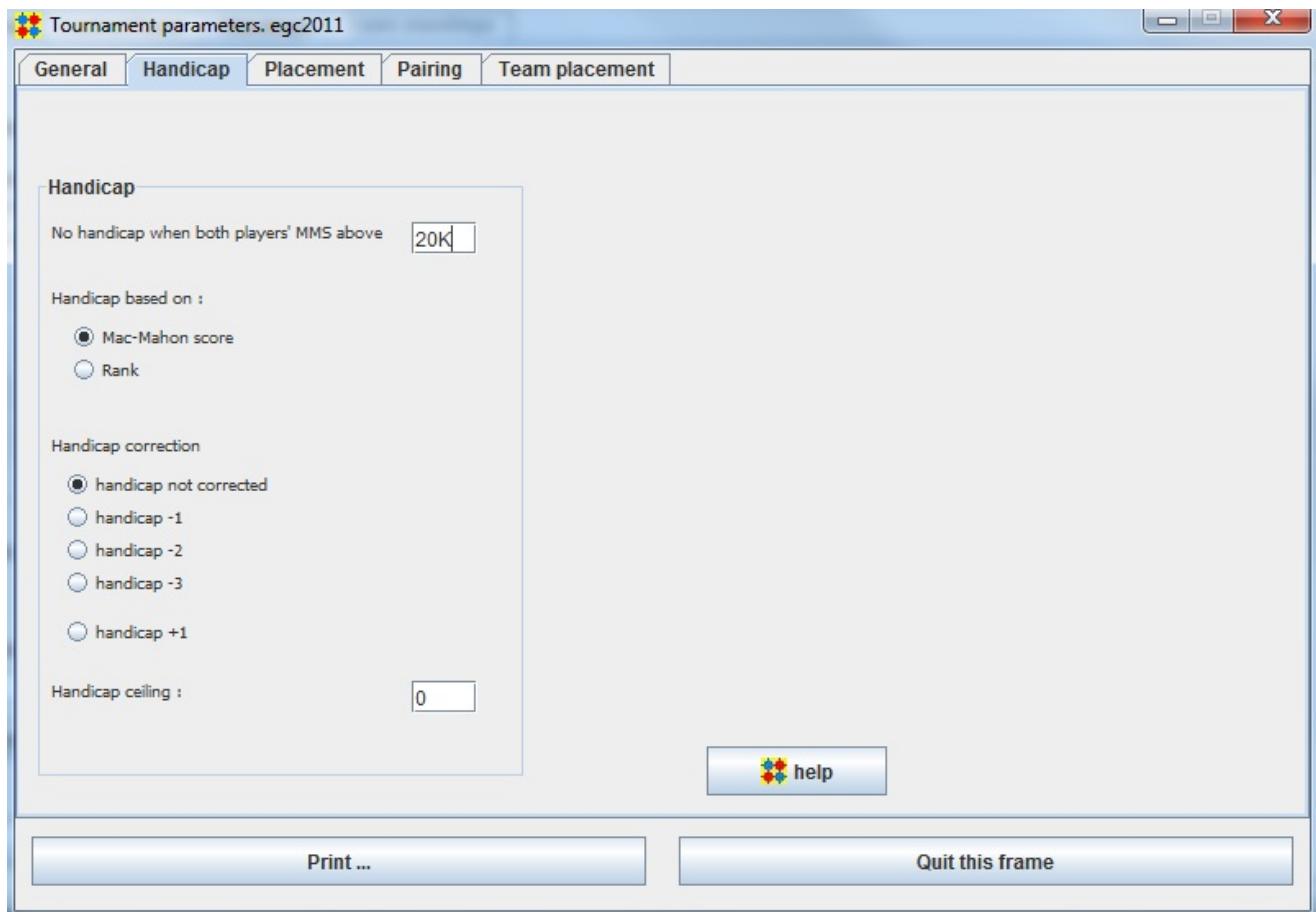
Floor can be set between 20K and 1D

Bar must be higher or equal to Floor

Change or Reset Tournament system

This button gives access to a dialog box where you can choose one of the three [tournament systems](#) or reset tournament parameters to their default values

Handicap parameters



No handicap when both for players' MMS above

Players with a current MMS equal or above the corresponding specified rank.

If a player is above and his opponent is below, the handicap will be computed as if the MMS of the stronger player was the MMS corresponding to the specified rank.

Handicap based on

If you choose Mac-Mahon score, the handicap will be computed according to the current MMS. If you choose Rank, the handicap will be computed according to the rank, independently of previous results.

Handicap correction

After previous computations, handicap will be decreased by 0, 1, 2 or 3 stones or increased by 1 stone.

Handicap ceiling

Handicap is then limited to this value. Handicap ceiling is between 0 and 9.

Placement parameters

- NBW

Number Of Wins.

- MMS

Mac-Mahon Score

At the beginning of the tournament, each player is given a starting Mac-Mahon score (SMMS) which is usually based upon his ranking. For instance, a 1 dan player starts with 30 points, a 20 kyu player starts with 10 points. After each round the MMS of each player is increased by 1 for a win, 1/2 for a draw, 0 for a loss.

When a player is absent or bye, he is given points according to values defined in special results panel of [General parameters](#). Default values are 1/2 point for absence and 1 point for bye.

But if the sum of such points is not integer, it is rounded down to the closest integer.

- Rank

As defined at registration. Value is between 30K and 9D.

- Rating

As defined in the reference rating list. Value is between -2950 and 850. When EGF rating list is used, Rating = GoR -2050

- CUSSW

Cumulative Sum of Scores (NBW).

CUSSW after round r is the sum of NBW as computed after round 1 + NBW as computed after round 2 + ... + NBW as computed after round r

- CUSSM

Cumulative Sum of Scores (MMS).

CUSSM after round r is the sum of MMS as computed after round 1 + MMS as computed after round 2 + ... + MMS as computed after round r

- SOSW, SOSM

Sum Of Opponents scores. SOSW is based on NBW. SOSM is based on MMS.

If the player does not participate in a round, the opponent's score is replaced by the starting score of the player himself.

In handicap games, the opponent's MMS is corrected according to the handicap before addition to the SOSM

- SOSW-1, SOSW-2, SOSM-1, SOSM-2

Same as SOSW and SOSM but after elimination of 1 or 2 worst opponents scores

- SODOSSW, SODOSSM

Sum Of Defeated Opponents scores.

- SOSOSW, SOSOSM

Sum of Opponents' SOS

- EXT, EXR

Exploits Tentes, Exploits Reussis. The idea is to take in account the *difficulty* of the game. A game is assumed to be difficult for a player if the actual handicap (AH) was, for that player, more difficult than Natural Handicap (NH)

- o if $AH < NH$, then coef = 0 (easy game)
- o if $AH = NH$, then coef = 1 (normal game)
- o if $AH = NH + 1$ then coef = 2 (difficult game)
- o if $AH \geq NH + 2$ then coef = 3 (very difficult game)

ET is the sum of opponents scores, with coef as a weight factor

ER is the sum of defeated opponents scores, with coef as a weight factor

- DC

Direct Confrontation. This performs a special sort of players having the same score for higher priority parameters than DC, so that a player is above the ones he has defeated. DC numeric value has no meaning by itself, it is set to enforce rank given by following algorithm:

- This applies to a group of players equal according to higher priority parameters, looking only at results of games played against each other.
- It detects and removes cycles of victories, by putting players forming a cycle in a single "node" sharing all victories and defeats against other players of the group.
- Considering all players with no victory against the group, take the one (or the ones, there can be ties) with the lowest score for parameters after DC. Rank this player last.
- Remove ranked player from the group and iterate previous step.

- SDC

Simplified Direct Confrontation. Considering players having the same score for higher priority parameters than SDC:

- if they all have played against each others, SDC value for a player is the number of victory amongs its peers.
- if they haven't, SDC value is 0 for all of them.

- STS

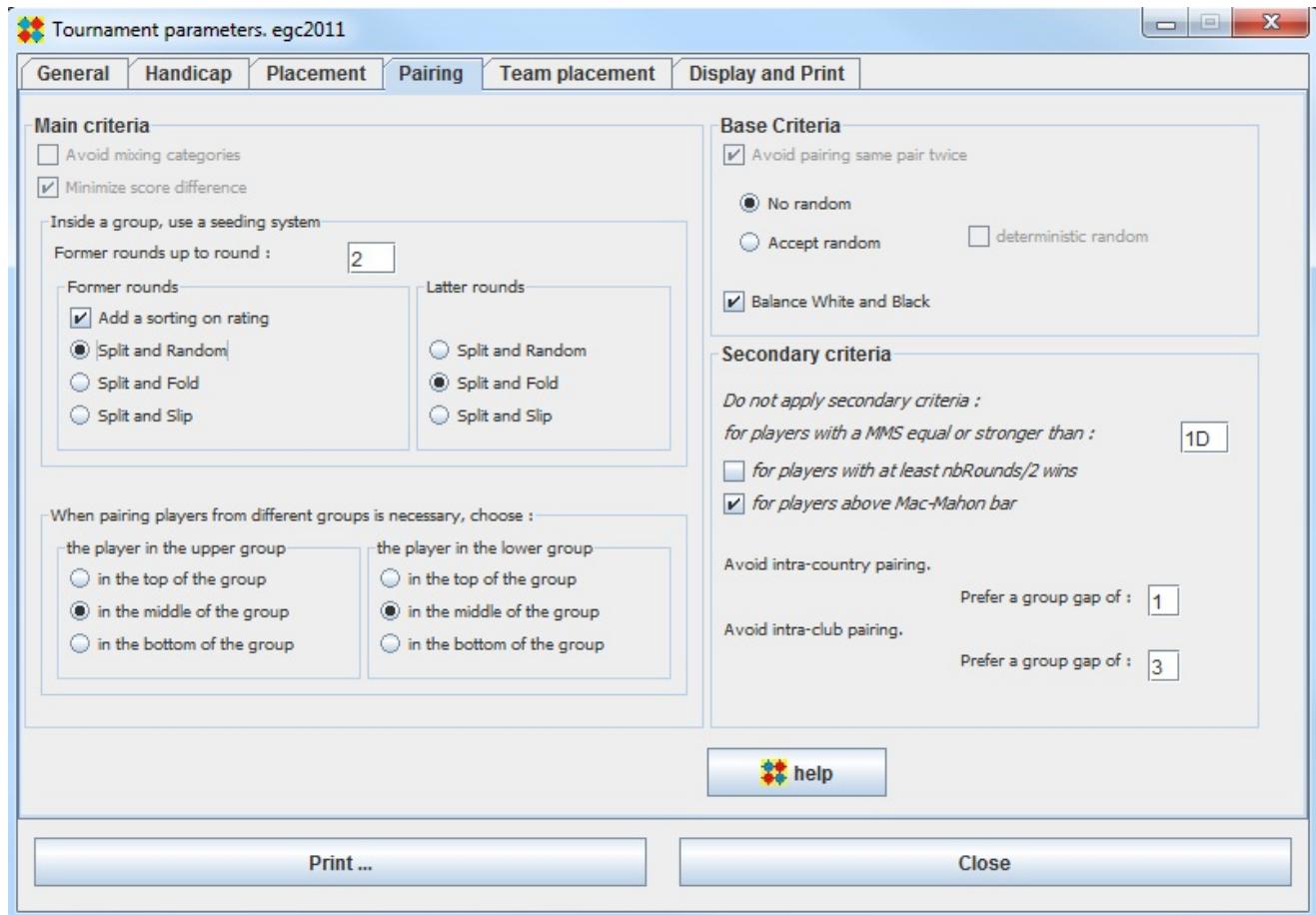
STrasbourg Score. Used ONLY for a tournament, where the players of the top group play in a single elimination bracket to decide the champion, while other players play a classic Mac-Mahon tournament.

- When a player of the top group looses a game, he joins the classic Mac-Mahon tournament. The losers of semi-finals play a match for the 3rd place.
- STS is equal to [MMS](#) for all players, except for the 4 players of the top group reaching the semi-finals:
 - o at each round, STS is increased according to MMS rules.
 - o but a win in quarter or semi-finals gives a bonus of 2 STS points.
- STS used as first placement criterion aims at ranking players (Standings tab -> use temporary set) according to the elimination bracket results.

- The pairing of the players in the elimination bracket has to be done manually. For a tournament with n rounds, the number of players in the Mac-Mahon top group, who enter the elimination bracket, must be set to 2^n .
- SOSTS
Sum Of Opponents' STS

Pairing parameters

Pairing parameters refer to a subset of pairing criteria as described in [Pairing evaluation function](#).



Main criteria

A "group" is a set of players with same score for main placement criterion (MMS or NBW).

Avoid mixing categories

Relevant in "Swiss with categories" only. When selected, the pairing will prefer intra-category pairing.

Minimize score difference

Always selected. Pairing prefers to pair players with equal or neighboring main score, MMS or NBW.

Seeding system

Inside a group, players are ordered according to their placement. Each player of the higher half of the group will be paired with a player of the lower half.

"Split and Fold" will prefer pairs on the "1 - n, 2 - n-1, ..." scheme

"Split and Slip" will prefer pairs on the "1 - n/2+1, 2 - n/2+2, ..." scheme

"Split and Random" will make random choice.

You can choose a different system for former rounds and latter rounds.

And, for former rounds, you can add a sorting on rating. This is the recommended mode if you want to avoid a game between two best players in the former rounds.

When pairing players from different groups ...

Difficulties or impossibility to make intra-group pairing (due to uneven size of a group, for instance) may occur.

When this occurs, OpenGotha will choose one player in the group and this player will be paired with a player of a stronger or weaker group.

OpenGotha will try to do not draw-up or draw-down a player twice in the same direction. It will also try to compensate a previous draw-up by a draw-down and vice versa.

It will also prefer to chose drawn-up and drawn-down players according to your choice, in the top, middle or bottom of the group.

Base criteria

Avoid pairing same pair twice

Always selected

Random

OpenGotha can introduce a part of random in pairing. If you choose to accept random, you will have to choose between :

- Deterministic random. Two successive pairings will give exactly the same pairing
- Non-Deterministic random. Two successive pairings may give different pairings

Balance White and Black

Tends to give the same number of games with white and black for a given player.

Secondary criteria

Secondary criteria are "Minimize handicap" criterion and geographical criteria. Secondary criteria are, by default, applied. But you can exclude these criteria for some defined players :

- Players above a certain rank
- Players with a good performance in previous games.

For instance, in a 10 rounds tournament, if you select this option, then players having at least 5 wins in their previous games will not be concerned by these secondary criteria.

- Players above Mac-Mahon bar

Minimize handicap

This criterion is already taken in account in Mac-Mahon system because intra-group pairing will not lead to handicaps.

It may be more relevant in Swisscat system.

Details in [Pairing evaluation function](#).

Avoid intra-country pairing and Avoid intra-club pairing

This determines what you accept to do to avoid intra pairing.

For instance, in a Mac-Mahon tournament, if you choose 3 as group gap, which is the default value for intra-club pairing, then OpenGotha will prefer to pair a given player with an other player coming from an other club even if their MMS difference is up to 3 points rather than to pair him with a player coming from the same club with same MMS value.

Team Placement parameters

- TEAMP

Team points.

2 points are given to the team having more than (number of boards)/2 board wins

1 point is given to a team having (number of boards)/2 board wins

2 points are given to the team having less than (number of board)/2 board wins

- SOST

Sum Of Opponents scores.

The Opponents scores are the team points.

- BDW

Board wins.

Number of individual board wins

- BDxW

Board wins on x upper boards

Number of individual board wins. Only the boards from 1 to x are taken in account.

- MNR

Mean rating.

Mean of ratings of the team members at first round

Display and Print parameters

Games format

Defines the way game results are displayed, printed and exported.

Columns in Standings

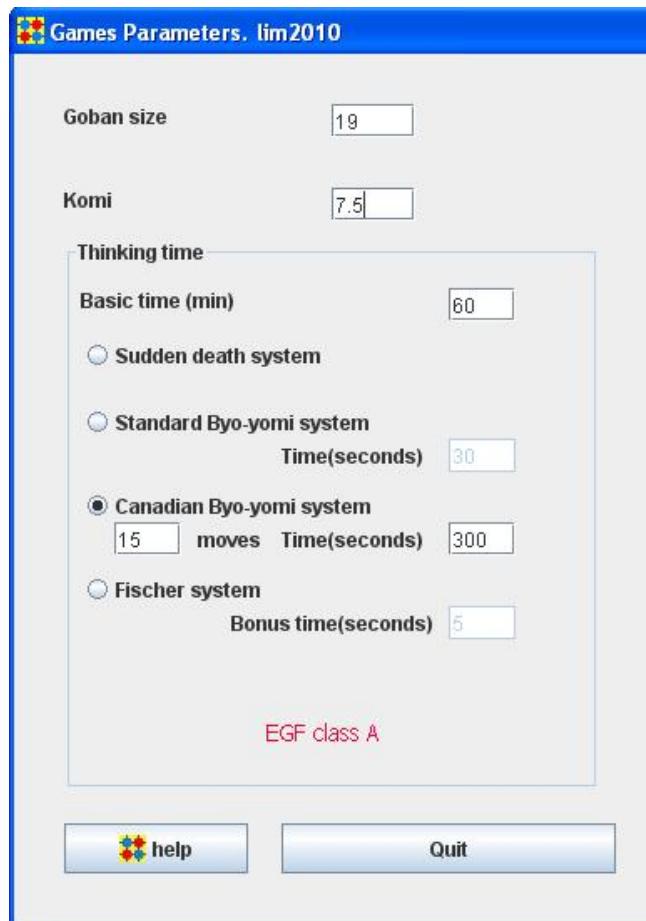
Defines whether Num and Pl are displayed/printed/exported in Standings.

Matches List. also display individual games

Defines whether Individual Games are printed or not in Matches list

Games Options

The informations in this frame are useful to export results for rating lists



You can choose between 4 time systems.

- Sudden death
Basic time and no additional time
- Standard Byo-yomi
Basic time and additional time for each move
- Canadian Byo-yomi
Basic time and additional time for each series of moves
- Fisher
Bonus time is added to the credit of the player after each move, starting from the first move of the game.

EGF classes

Depending on the time parameters, OpenGotha computes the class (A, B, C, or no class) according to EGF rules.

EGF recognizes three tournament categories:

- **class A** - well organised tournament recognised by EGF member
time limit requirements: adjusted time minimum 75 minutes, basic time minimum 60 minutes (45 for Fischer)
weight for inclusion to EGF ratings: 1.00
In addition tournaments with handicaps in the top bar are not included in class A.
- **class B** - well organized tournament recognized by EGF member
time limit requirements: adjusted time minimum 50 minutes, basic time minimum 40 minutes (30 for Fischer)
weight for inclusion to EGF ratings: 0.75
- **class C** - casual or club tournament recognized by EGF member
time limit requirements: adjusted time minimum 30 minutes, basic time minimum 25 minutes (20 for Fischer)
weight for inclusion to EGF ratings: 0.50

Adjusted time:

is calculated as:

- **Sudden death** - basic time.
- **Standard byoyomi** - basic time + time equivalent to 45 moves.
e.g.: basic time: 60 minutes, byoyomi: 30 seconds per move:
 $60 + (45 \times 30'') = 82.5$ minutes
- **Canadian byoyomi** - basic time + time equivalent to 60 moves.
e.g.: basic time: 75 minutes, byoyomi: 12 moves in 5 minutes:
 $75 + (60 \times (5 / 12)) = 100$ minutes
- **Fischer** - basic time + bonus time equivalent to 120 moves.
e.g.: basic time: 45 minutes, bonus per move: 15 seconds:
 $45 + (120 \times 15'') = 75$ minutes

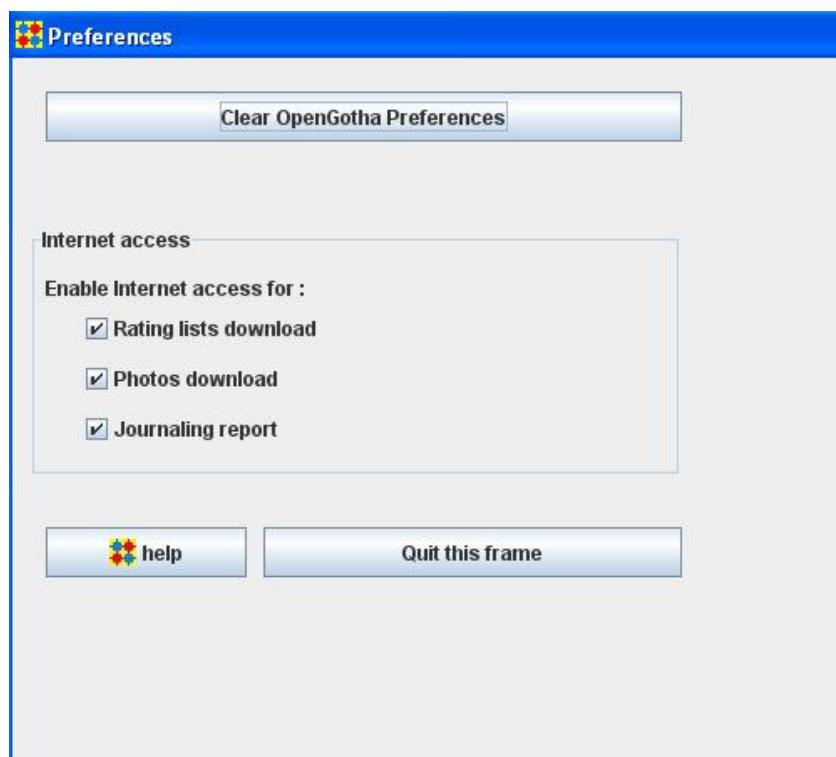
Sudden death - implying adjusted time = basic time - is acceptable, provided all other criteria are met.

Preferences

As opposed to *parameters*, attached to a tournament and stored in the tournament file, *preferences* are attached to a computer and stored in the register (Windows) or a dedicated file (Linux and Mac OS).

OpenGotha uses *preferences* to store

- The default type of rating list
- The default registration status, Preliminary or Final
- The list of recent tournaments
- The journaling informations
- The Internet access authorizations



Internet access authorizations

- Rating list downloads
Enables/Disables the possibility to download rating lists
- Photos downloads
Enables/Disables the possibility to download photos from EGD
- Journaling report
Enables/Disables the possibility to upload Journaling reports
Journaling report data are sent to the author of this program. It is highly recommended to keep journaling enabled.

Options menu



Menu items list

Discard rounds

This gives access to [Discard rounds frame](#).

RMI Manager

Useful for Administrators/Programmers.

Memory manager

Useful for Administrators/Programmers.

Experimental tools

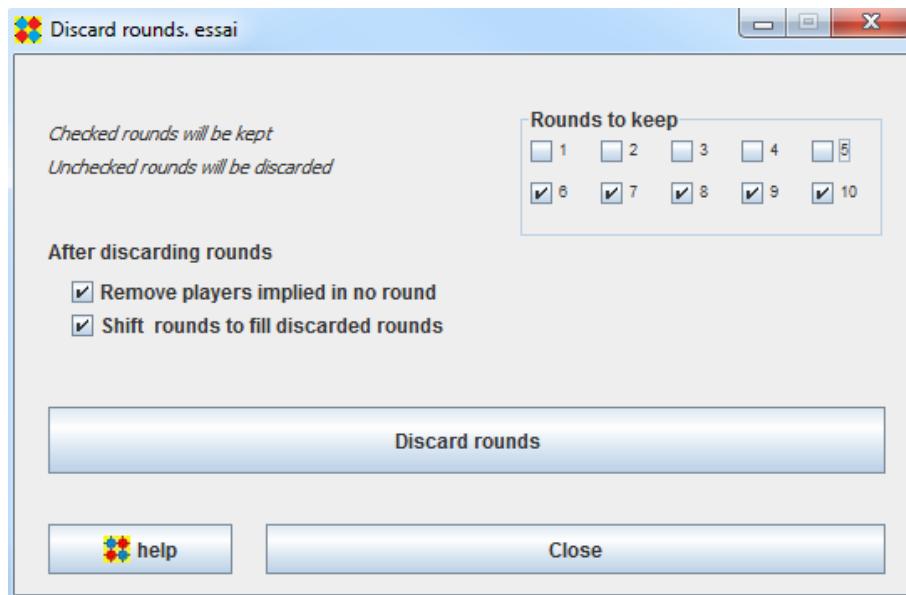


Maintenance in progress

Discard rounds frame

Useful to keep certain rounds in a tournament and discard others.

May be used before exporting part of a tournament. Typically, if you run a main tournament in an european congress, you will have to split your rounds, round 1-5 for 1st week, round 6-10 for 2nd week (as in example beloww)



The "Discard rounds" button will :

- Discard unchecked rounds
- (if checkbox selected) Remove players implied in no round
- (if checkbox selected) Shift rounds to fill discarded rounds

In the example above, results of 2nd week (rounds 6-10) will be shifted to rounds 1-5

Appendices

[Games encoding](#)

[Pairing algorithm](#)

[Pairing evaluation function](#)

[Compatibility issues](#)

[VBar-separated format](#)

Games encoding

When displayed in a frame like Games .. Results, a game is represented by a string of 1 to 4 characters.

Result	Encoding
Unknown	-
White wins	1-0
Black wins	0-1
Equal	½-½
Both win	1-1
Both lose	0-0
White wins by default	1-0!
Black wins by default	0-1!
Equal by default	½-½!
Both win by default	1-1!
Both lose by default	0-0!

A result is said "by default" when one player or both did not show up.

When displayed in a table like in the Standings Tab or in an export file like html export file, a game is represented by a string of up to 8 characters

char 1-4 : opponent number

char 5 : result : + for win, - for lose, = for ½

char 6 : "/" or "" (empty) for "normal" result. "!" for "by default" result

char 6 or 7 : colour : w for white, b for black, ? for unknown colour.

char 7 or 8 : handicap : from 0 to 9

For a dummy game (absent, bye or unassigned) the string is "0-/", "0=/" or "0+/" meaning loss, equal or win. The result is always a loss for unassigned, and may be loss, equal or win for absent or bye, depending on user's choice in General parameters

Pairing algorithm

OpenGotha's pairing is based on [an evaluation function](#) and a maximum matching algorithm.

To pair a set of n players, OpenGotha first computes a cost for each pair of players, that is to say $n*(n-1)/2$ costs. The cost is computed by an evaluation function. A low cost means an undesirable pairing while a high cost means a desirable pairing. Then these $n*(n-1)/2$ costs are input to the maximum matching algorithm which finds the set of $n/2$ couples that give the maximum sum of costs.

The maximum matching algorithm

OpenGotha's pairing is based on an $O(n^3)$ implementation of Edmonds' algorithm, as presented by Harold N. Gabow. The development is a part of UCSB JICOS project. Adaptation for OpenGotha has been made by Jean-François Bocquet.

Descriptions of Maximum matching algorithms, Edmond's algorithm and Gabow's implementation can be found in :

- J. Edmonds, "An introduction to matching," Notes of Engineering Summer Conference, Univ. of Michigan, Ann Arbor, 1967.
- C. Gerlach, Ein Mac-Mahon-Lösungsprogramm für Go-Turniere unter Benutzung von Maximum Weight Perfect Matching :
<http://www.cgerlach.de/go/diplom.pdf>
- B. Korte, "Combinatorial Optimization", Springer, available on Google books :
<http://books.google.com/books?id=tu6nz572uJIC&printsec=frontcover&dq=Combinatorial+Optimization>

Pairing evaluation function

OpenGotha's pairing evaluation function delivers, for a given pair of players and for a given round, a cost value which takes in account evaluation criteria.

Base criteria

Avoid duplicate games

Set to $500\ 000 * 10^9$ if the two players have not yet played each other.

Set to 0 if the two players have already played each other.

Random

If the option is selected, set to a value between 0 and 10^9

The deterministic function is a scrambling function of players names

The non-deterministic function is based on standard Java method.

Balance White and Black

For each player, the number of games played with White and no handicap is compared with the number of games played with Black and no handicap.

If both players give a strictly opposed result, then set to 1 000 000.

If one player's balance is 0 and the other one's is greater than 1, then set to 500 000.

Else set to 0.

Main criteria

Avoid mixing categories

If both players belong to the same category, then set to $20\ 000 * 10^9$.

else set to $\text{coef} * 20\ 000 * 10^9$ where coef is a number between 0.0 and 1.0, computed by a [concavity function](#)

Minimize score difference

Aims at pairing inside a group.

If both players have equal score then set to $100 * 10^9$.

else set to $\text{coef} * 100 * 10^9$ where coef is a number between 0.0 and 1.0, computed by a [concavity function](#)

Draw-up Draw-down

Aims at choosing players according to their positions inside their group (Top/Middle/Bottom) and at correcting previous draw-ups/draw-downs.

If players have a group distance ≥ 4 , set to 0

else 4 scenarii :

- scenario = 0 : One of the players has been already drawn in the same sense
- scenario = 1 : Normal conditions (does not correct anything and no previous drawn in the same sense)
- scenario = 2 : It corrects a previous DU/DD for one player
- scenario = 3 : It corrects a previous DU/DD for both players

If scenario = 0, set to 0

Else take in account the position of the player inside a group. This gives a value between 0 and 33
333 333

If scenario = 2, add 33 333 333

If scenario = 3, add 66 666 666

Set to the resulting value, which is a number between 0 and 99 999 999

If players belong to different categories, decrease the resulting value

Seeding

Aims at pairing according to chosen seeding system : "Split and Random", "Split and Fold" or "Split and Slip".

The cost of this criterion is between 0 and maxSeeding = 5 000 000

cla1 and cla2 being the internal placement (0 to groupSize - 1) of players inside the group ...

- Split and Random.
If both players are not in the same half of the group, the cost is randomly chosen between $0.8 * \text{maxSeeding}$ and $1.0 * \text{maxSeeding}$
else cost = 0
- Split and Fold.
 $x = \text{cla1} + \text{cla2} - (\text{groupSize} - 1)$
 $\text{cost} = \text{maxSeeding} - \text{maxSeeding} * x^2 / (\text{groupSize} - 1)^2$
- Split and Slip.
 $x = 2 * |\text{cla1} - \text{cla2}| - \text{groupSize}$
 $\text{cost} = \text{maxSeeding} - \text{maxSeeding} * x^2 / \text{groupSize}^2$

Secondary criteria

Are secondary criteria relevant for these players ?

Secondary criteria are not applied for players above a certain ranking, as set by the organizer (by default, 1D) and, optionnaly (by default, secondary criteria applied), for players with a number of wins \geq (number of rounds) /2.

When both players are concerned by secondary criteria, the function values are set as computed.

When both players are excluded from secondary criteria, the function values are set as to the maximum possible.

When one player is excluded from secondary criteria and the other player is not, an intermediate value will be computed (see sources for details)

Minimize handicap

The maximum value is $20\ 000 * 10^9$. The minimum is 0

Between the extrema, set to $\text{coef} * 20\ 000 * 10^9$ where coef is a number between 0.0 and 1.0, computed by a [concavity function](#) a If MMS difference is 0, set it to Secondary criteria are not applied for players above a certain ranking, as set by the organizer (by default, 4D) and, optionnaly (by default, secondary criteria applied), for players with a number of wins \geq (number of rounds) /2.

Geographical criteria

A malus value is computed for if both players belong to the same club. An other one for if both players belong to the same country. The values of the malus depends on the "Prefer a group gap of ..." as defined by the user. The geographical malus is set as a worse value between both malus.

Concavity function

The concavity function is used to compute the weight of several criteria.

Let us see why this function is necessary and how it is used.

An example : have a tournament where you have 1 player 1K, 2 players 2K, 2 players 3K, ... 2 players 10K and 1 player 11K. The parity issue will result in a choice between :

- Pair everybody with his same rank fellow. And fix the parity issue by pairing the 1K with the 11K.
- Pair the 1K with a 2K, the other 2K with a 3K, etc.

Any human organizer will choose the second possibility, but the computer will not, if you don't take care.

Assume that in your evaluation function, the base value for a pair is 1000 and you give a penalty of $100 * d$ for a d kyu rank difference.

The sum of values will be, in both cases 9000.

Now, with the concavity function.

Instead of $1000 - 100*d$, you use $1000 * (1.0 - x) * (1.0 + k * x)$ (OpenGotha uses 0.5 for k . $x = d/\text{maxRange}$, $d/10$ here)

Then, the sum of values will be $9 * 1000 + 0 = 9000$ in solution 1 and $10 * 945 = 9450$ in solution 2

OpenGotha prefers solution 2.

All the details

Download OpenGotha sources from OpenGotha Development page

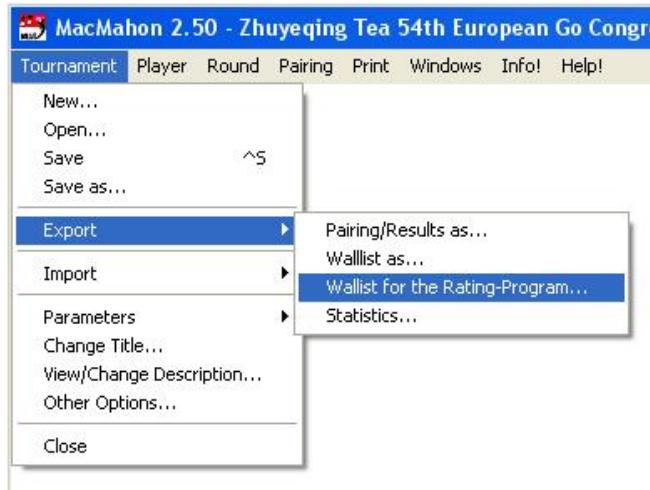
In Tournament.java, see the costValue method.

Compatibility issues

You can re-use tournament data generated by other programs

Importing players and games from Christoph Gerlach's MacMahon program

From MacMahon 2.50, use "Tournament .. Export .. Wallist for the Rating-Program" menu item.



Save the file into a .txt file

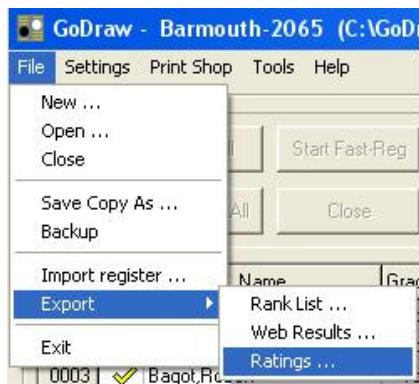
In OpenGotha, create a new tournament.

Then import the .txt file with the "Tournament .. Import .. Import Players and Games from Wallist file" menu item



Importing players and games from Geoff Kaniuk's GoDraw program

From GoDraw 6.3.6, use "File .. Export .. Ratings" menu item.



Save the file into a .h9 file

In OpenGotha, create a new tournament.

Then import the .h9 file with the "Tournament .. Import .. Import Players and Games from Wallist file" menu item



Opening a tournament saved by an old OpenGotha program

Usually, the "Tournament .. Open" menu item is what you need.

However, for tournaments managed by OpenGotha V3.22 or older, the file to open is the .xml file as generated by the "Tournament .. Export .. Tournament in XML format" menu item :



Save the file into a .xml file

In new OpenGotha, open the .xml file with the "Tournament .. Open .. " menu item

Running several instances of OpenGotha

Some compatibility issues may occur when running several releases of OpenGotha.

To solve them, choose the "Options .. Preferences" menu item and click "Clear OpenGotha Preferences"

VBar-separated format

vBar-separated format has been defined by Christoph Gerlach. It is supported by OpenGotha to facilitate transition from MacMahon program to OpenGotha.

Each row of the file holds the dataset for one player and has to follow this format :

name|firstname|rank|club|country|rating|registration

name :

firstname :

rank : Number followed by "d" or "D" is interpreted as Dan, everything else as Kyu; the limits are 30
Kyu - 9 Dan

club : Truncated after 4 characters

country : Truncated to 2 characters. Ignored if 0 or 1 character is supplied.

rating : from 0 to 2900.

registration : "p" for Preliminary "f" = Final.

Notes

- Fields must be separated by "|"
- ";" declares the rest of the row as a comment.

Index

A

Appendices (51)

C

Compatibility issues (58)
Create a new tournament (8)

D

Discard rounds frame (50)
Display and Print parameters (45)

E

Export facilities (10)

G

Games encoding (52)
Games menu (23)
Games Options (46)
Games Pair frame (24)
Games Results frame (27)
Games Round-robin frame (29)
General parameters (34)

H

Handicap parameters (36)

I

Import facilities (9)

M

Mac-Mahon groups frame (19)

O

Options menu (32)

P

Pairing algorithm (53)
Pairing evaluation function (54)
Pairing parameters (41)
Placement parameters (38)
Players Manager frame (13)
Players menu (12)
Players Quick check frame (16)
Preferences frame (48)

S

Starting OpenGotha (4)

T

Team Placement parameters (44)
Teams Manager frame (20)
Teams Pairing frame (30)
Tools menu (49)
Tournament menu (7)
Tournament Options (33)

U

Update ratings frame (17)

V

Vbar-separated format (61)