

Swiss McMahon Pairing Program Requirements for User Interface and Reporting for Go tournaments June 21, 2008

Draft posted for review and comment until July 15, 2008

This document defines functions, inputs, outputs and program and user interface requirements for programs that will be certified as meeting AGA standards for pairing programs.

Note: most of these standards apply to tournaments paired with other systems as well, and we therefore include some elements that apply to those other systems. In the future, we may write separate specifications for them, but it doesn't seem necessary now.

Data use and management

Primary data entry:

The system must input available player data from the official AGA database. Fields are:

- Name
- AGA number
- Membership expire date
- Rating
- Chapter affiliation
- State
- Citizenship

The data is available for download on the AGA website.

Program must assign player numbers.

Secondary data

Program will accumulate both raw and McMahon scores, and tie breaking scores for at minimum the following tie-breaking systems: SOS, SODOS, These must be available using either the McMahon score (Often called SOMS, SODOMS), or raw score. (Other tie break scores may be programmed and used as well, and programmers are encouraged to do so.)

The main issue here is to provide intermediate results, which the TD will use to facilitate decisions about necessary forced pairings when circumstances dictate.

In addition to providing the TD with needed information, the program must be able to store the data separately (i.e. On removable media) for back up purposes. The data format must be standard, and readable by other programs meeting this standard. (This format has not yet been specified, and reviewers are invited to suggest a standard.) In principle, any program should be able to read the intermediate data from any other, and proceed with the pairing. i.e. If an Internet based system loses access, one should be able to read the accumulated data into a standalone program and proceed.

User interface

Registration

There must be a manual search capability to acquire AGA data by name or AGA #.
The TD must be **actively** warned of lapsed membership if the data so indicates. (A modal window message is strongly suggested for this.)

If an entered name has duplicates in the AGA table, the TD should be warned, and presented with the ratings and State for each.

TD must be **actively** warned if a player requests to play at a rating lower than their current published rating. TD must provide a statement of evidence that this is justified. Only medical reasons, such as history of stroke or other brain damage, are acceptable. Lack of recent play is not. The TD warning should convey this requirement. This cannot be controlled by a program, but the field must be presented and the data reported in the AGA report defined later in this document.

Default entry rating is current AGA rating, if available. Otherwise it will be the midpoint of the rank specified (i.e., a 4 dan would be given an entry rating of 4.5).

TD must have opportunity to increase the entry rating as needed. Promotions of less than 2 stones are discouraged but allowed.

Reviewers: This is a controversial issue. We believe it is not a programming issue, but a TD management one. These decisions are not computable, and don't belong in a program. A required element of the interface is that the TD be able to specify an entry rating different from the existing AGA rating. These decisions belong there.

Tournament set up

The following data is required, and the program must provide for obtaining it.

Static data

- Name of Tournament
- Date played
- Location (City, State)
- Name of TD
- TD phone contact
- TD email address

- Name of sponsor (may be blank)
- Time control
- Rule set
- Komi for even games
- Pairing system used (i.e. Swiss, McMahon Swiss, Accelrat, round robin, etc.)
- Tie breaking system

Note: The program doesn't need all these, but for automated reporting of results, it is valuable information. We want to create a system where you can go on the net, click on a tournament and get a cross table, and description of the conditions. By putting the information into the tournament set up, we make it available for future use.

Dynamic data

McMahon band separation specification:

Nominal separation between bands is 1 point. This must be adjusted in relation to the number of players and rounds in the tournament. Separation = Integer value of P/RK where P = number of players and R the number of rounds, and K is between 0.67 and 1.5. Default value of K is 1. Thus, the standard is that one increases the space between bands if there are 2 times the number of players as rounds. (or if 3 you would increase by 2.) Varying K alters the break point, inversely, being more restrictive as K decreases.

Note: this may be (and is in the pairing document) stated alternatively by specifying a result such that P/R is between 1.67 and 2.5. These are equivalent statements.

Reviewers:

Comment requested

This is suggested as a modern expansion of the original, which mandated the break point at $P/R = 2$. ($K = 1$) We believe there are valid reasons to allow latitude for special circumstances such as tournaments with a large number of new players (where one wants more mixing sooner) and large tournaments with large bands and an insufficient number of rounds (where one wants less mixing.)

Note: For the top band only, the current practice is to keep only a one point separation between top and next band. This was instituted in order to allow for the possibility of a person in the second band to win the tournament by winning all games. We believe this practice should be discontinued because the range of skill in the top band is now so great and field sizes so large, that it is unrealistic to believe a person in the next band could go so far. At minimum, the default value of $K = .67$ should be used. (This will keep the separation at 1 until the number of players is 3 times the number of rounds, a condition which commonly creates more top level ties than is tolerable.)

Note: Band separation will be specified as zero (or so high that separate sections will never mix) if pairing system is other than McMahon.

Handicap specification for McMahon tournaments

A pairing of players with a rating difference greater than 2 may be handicapped. Default handicap is the rounded rating difference minus one. Thus, if ratings are -7.33 and -4.53, the difference is 2.8 and the handicap is 2 (1.8 rounded up) But if -7.33 and -4.93, the difference is 2.4 and the handicap would be 1.

Reviewers: Please consider this with respect to equity. Is it perhaps more reasonable to specify reverse komi to be the same as for the rule set being used?

Note: A handicap of one is played with a reverse komi of .5.

Pairing restrictions (Optional)

TD must be required to set pairing parameters as follows:

Restrict pairing by Chapter or State. These are on/off switches

Number of rounds to restrict. (May not be more than .5 * number of rounds, rounded up. Thus one may not restrict after round 3 in a 5 round event, but third round is OK.)

Reviewers: please consider the commentary below carefully, and comment.

We believe the zero up is the better approach and, after some trial by experience, should become standard.

Note: This would still calculate band separation from the top down. It would then add appropriately to make the bottom zero.

Theoretically, the top band may be set at any value. In practice, it will either be zero or set at a point to make the bottom band be zero. Classic bands (as stated by Mr. McMahon himself) start with zero and go down. This approach leads to some difficulties in tie breaking, and in appropriately pairing players who start late, or drop rounds in the middle. It also leaves the bulk of players in a large tournament with minus scores at the end. Making zero the bottom starting point mitigates these issues. While the classic approach is still most common, the alternative should be allowed as an option.

Set initial band value. Traditionally, this has been top down starting from zero. (meaning that most scores are negative) There are good arguments that it should be done bottom up from zero. (which forces all scores to be positive.)

Band values may be set from the top down starting from zero (all negative below top), or from a calculated top that makes all scores positive. (Bottom start score is zero.)

The program should provide the TD with the option to take either approach.

Banding

Players are listed in rating order by entry rating.

Set top band (This should be done automatically, but must be available for TD to revise.)

Set remaining bands

For McMahon paired tournaments the program will then create the bands using the banding protocol specified in setup above.

For handicap tournaments, the program will assign ranks to be used. These will be the integer value of the entry rating for players with an AGA rating, and the specified entry rank for those who have no AGA rating.

TD must have an opportunity to change both entry ratings and band assignment manually at this time.

TD must be able to manually override the program banding for specific players. Not usually recommended but occasionally appropriate.

Pairing

Pairing the first round

TD must have option to bye any player prior to, or even after pairing.

TD must have option to bye players for specified future rounds.

TD must have the option to manually pair any pair either before or after programmatic pairing.

TD must have the option to unbye or drop a player either before or after pairing any round.

Recording results

Recorded results must be editable. Errors are common, and sometimes not noted until a subsequent round, therefore they must be editable even after the next round begins.

User must receive appropriate warnings to ensure that prior rounds results are not changed by mistake. Available options for game results should be: win, loss, draw, double loss, double forfeit at a minimum.

Subsequent rounds

All first round options remain available

TD must have the option to revise a player's entry rating and band placement.

Reporting requirements

In process reports

Note: these reports must be available on a round by round basis, storable on separate media, and in a format readable by other programs.

A registration report (sign up sheet)

Contains: AGA #, Name, Entry Rating

Purpose: Posted for players to check their data. Many errors caught this way.

Pairing list

Contains: Player 1 – Name, AGA #, rating, Board #, color, Player 2 – Name AGA #, color.

Normally displayed in Alphabetic order, thus each player is shown once in each column.

It may be useful to display in board order as well, so this option should be available.

Purpose: Informs players of their board number and opponent.

Tie-break list

Contains: Player name, AGA #, Score, McMahon score (if applicable), Opponents (shown in such a manner as to indicate win or loss), color played, tie-breaking scores applicable to event.

Purpose: Assists TD in making manual pairings decisions for next round if necessary

Often posted publicly for players' interest after the next round begins. (You usually don't have time earlier.)

Bye, drop report

Contains: AGA #, Name, round for which bye or drop is given, drop or bye, reason for bye (Player request or program decision.)

Purpose: Helps TD keep track of what has – or has not – been done to prepare for next round.

Normally not published.

Winner - loss report

Contains: Player name, player result (wins – losses), opponent's name.

Purpose: Players can check to see that it was recorded correctly. Occasionally catches errors.

Normally posted as soon as last game of round is finished.

Pairing card report

Not a mandatory report, but a good back up just in case.

This report will print a pairing card that could be used in case the computing system fails. Ideally, it would be written to a file on separate media, i.e. A flash drive, after each round. It should be flat text and contain the following: Name of player, rating, start band as a header followed by: Round number, name of opponent, result, color played, cumulative score.

In an emergency, this output allows you to pair the tournament by hand.

External reports

AGA report

Tournament information and any other information the TD may wish to include shall be preceded by a # on each line. (Which will cause the reading program to treat it as a comment.)

Report is to be submitted as flat ASCII text

There will be 4 sections

Header
Player list
Rounds
Other information

Header specification.

The following fields must be included in the header portion of the document.

```
#Program: Example ATP V1.0 - jon@airsltd.com
#Name: Example SGC Monthly Ratings - 2007 Dec
#Location: Example Seattle Go Center
#Start: Example 2007-12-02
#Stop: Example 2007-12-02
#Director: Example Jon Boley (206)851-6597 jon@seattlegocenter.org
#Promotor: Example Seattle Go Center (206)545-1424 #manager@seattlegocenter.org
(Note # inserted if data wraps.)
#Rules: Japanese
#Time control: 45
#Overtime: Canadian 20/5
```

The first data section is the player list

AGA number is a numeric (up to 5 digits)

Name (Last comma First as a single field)

Rank or rating

Fields are space or tab delimited

Records are line delimited

```
15850 Chen, Renyu 6.13
14481 Wilkins, Don 1d
14002 Top, Daniel 2k
10283 Malveaux, Mike 3k
90001 Chang, Shih-wen 4k
90000 Cole, Jason 7k
10927 Sato, Akira 7k
2786 Chiles, Bill 7k
7031 New, Gordon 7k
15511 Feiveson, Eric 8k
6096 Brown, Frank 8k
15583 Borges-Garven, Robert 8k
13502 Fitzpatrick, Wilhelm 9k
11734 Castanza, Gordon 13k
```

Results data

Note: comments to specify rounds (for human readers) are indicated with the # sign.

Field 1: AGA number for White player

Field 2: AGA number for Black player

Field 3: color of winner (Upper case please) legal entry W or B

Field 4: handicap (integer between 0 and 9 inclusive)

Field 5: Komi (integer between -7 and +7 (handicap game is normally 0) negative komi is commonly referred to as reverse komi, and in this case the imputed .5 is also negative. Thus in a -7 komi, White

gives 7 points, and Black wins a tie.

Fields are space or tab delimited

Records are line delimited

Round 1

15850 14002 W 7 0
14481 10283 W 3 0
90001 15511 B 4 0
90000 6096 B 0 0
10927 15583 W 0 0
2786 13502 W 2 0
7031 11734 W 5 0

Round 2

15850 14481 B 6 0
14002 10283 W 0 0
10927 15511 B 0 0
2786 6096 W 0 0
90001 7031 B 3 0
90000 13502 W 2 0
15583 11734 W 5 0

Round 3

14481 14002 W 2 0
15850 10283 W 9 0
7031 15511 B 0 6
90000 15583 W 0 0
90001 6096 B 4 0
13502 11734 W 4 0

Other information

END

AGA Fee: \$15
AGA Number: 90001
Name: Chang, Shih-wen
Address 1: 150 102nd Ave
Address 2:
City, State Zip: Bellevue, Wa 98004
Home Email:
Club:

AGA Fee: R
AGA Number: 90000
Name: Cole, Jason
Address 1: 700 NE 45th St
Address 2:
City, State Zip: Seattle, Wa 98105
Home Email:
Club:

Note: In general, anything can be included in this report if each line begins with #, which is an

indicator that the line is not to be processed programmatically for rating purposes. It is used for other purposes.

Contains:

Section I: All tournament set up information listed above

Format: each line begins with a #

Section II: Player records each of which contains: AGA #, Name (last, comma, first), rank indicator (Rating or imputed rank)

Format: tab delimited

Section III: Begins with a round indicator preceded by # (Example: # Round 1)

Records contain: AGA # of White player, AGA # of Black player, Color of Winner, Handicap, Komi

Each round is reported separately, beginning with an indicator beginning with #

Note: Komi is reported as a whole number. (zero for games without komi, 7 for what is usually stated as 7.5 (AGA standard), and as a minus number for reverse komi games. (i.e. A one stone game, where black will win a game tied on the board, rather than white.