

TEAM PAIRING SYSTEM

Approved by the Council on 29/07/2024

Applied from 01/08/2024

0. Preface

The Swiss Pairing System Rules specified in the Basic Rules for Swiss Systems and in the Articles 1, 3 and 4 of the General Handling Rules for Swiss Tournaments are for individuals, but can also be applied mutatis mutandis to teams, with one significant exception: the Articles 6 and 7 of the Basic Rules for Swiss Systems never apply.

In fact, for teams, the colours are less important. This is mainly because individuals in a team can be substituted or shifted between the various boards, and because teams are often composed of an even number of players, resulting in each team having an equal number of players playing with White and Black. That's why the rules presented here display various lower-strength colour preferences than those described in the individual rules, and of different varieties, to facilitate various forms of team competitions. There may be competitions where colours have no importance at all (for instance because each individual plays one game with White and one with Black); others where having a particular colour is not a decisive factor (for instance, because teams have an even number of players and all teams play in the same geographical place); and other competitions, where the colour is more meaningful (for instance, because the composition of the teams cannot be changed, or teams have an odd-number of players, or having a particular colour may mean a home or a road match). In any case, the colour will never be a factor so decisive as to prevent two teams from playing against each other. Therefore, there are no absolute colour preferences outlined in these regulations.

The Article 2 of the General Handling Rules for Swiss Tournaments (Initial Order) has been deliberately omitted from the initial list shown above because there are too many variants to take into account to define an appropriate strength for teams, such as only using starters' ratings, including reserves, counting a fixed number of highest ratings, managing unrated players, and so on. In the end, it's preferable to leave any details out of the general rules and let the initial order of teams be determined by the rules of each specific competition.

1. Introductory Remarks and Definitions

1.1 Tournament Pairing Number ("TPN")

- 1.1.1 Each team must have a different TPN, from 1 to the TPN corresponding to the last team.
- 1.1.2 The rules of the team competition shall describe how to assign a TPN to each team. Otherwise, it is a decision of the arbiter.

Note: This provision overrides the rules of Article 2 of the General Handling Rules for Swiss Tournaments (Initial Order).

- 1.1.3 Once defined, the TPN should not be modified (except as stated in Article 3 of the General Handling Rules for Swiss Tournaments (Late Entries)), unless the arbiter decides otherwise.

1.2 Score

- 1.2.1 The rules of the competition shall state which, between "match points" and "game points", is called "primary score" (or, more simply, "score"), and whether the other ("secondary score") is used, and if so, for what.
- 1.2.2 The default is to use "match points" as the (primary) score and "game points" only for colour allocation (see Article 4.2.2).

1.3 Scoregroups and Pairing Brackets

- 1.3.1 A scoregroup is composed of all the teams with the same score.
- 1.3.2 A (pairing) bracket is an even numbered group of teams all to be paired. It is composed of teams coming from the same scoregroup (called resident teams) and (possibly) of teams coming from lower scoregroups (called upfloaters).

1.4 Pairing-Allocated-Bye (PAB)

- 1.4.1 Should the number of teams to be paired be odd, one team is unpaired. This team receives a pairing-allocated-bye: no opponent, no colour, and as many match points and game points as are rewarded for a draw, unless the regulation of the team competition state otherwise.

1.5 Floaters

- 1.5.1 A team is said to float when plays against an opponent with a different primary score.

1.6 Colour Difference (CD)

- 1.6.1 A team is said to have (had) a colour (White or Black) in a match if the match was actually played and the player on the first board was scheduled to play with that colour.
- 1.6.2 The colour difference of a team is the number of matches where the team had White minus the number of matches where the team had Black.

1.7 Colour Preference

Type A colour preferences are used unless the rules of the team competition specify that either Type B colour preferences shall be used or colour preferences are not to be used at all.

1.7.1 Type A colour preferences

- 1) A team has a simple (Type A) colour preference for White if its CD is less than -1, or, being its CD 0 or -1, the team had Black in the last two played matches.
- 2) A team has a simple (Type A) colour preference for Black if its CD is more than +1, or, being its CD 0 or +1, the team had White in the last two played matches.
- 3) In all other situations, the team has no (Type A) colour preference.

1.7.2 Type B colour preferences

- 1) A team has a strong (Type B) colour preference for White if its CD is less than -1, or, being its CD 0 or -1, the team had Black in the last two played matches.

- 2) A team has a strong (Type B) colour preference for Black if its CD is more than +1, or, being its CD 0 or +1, the team had White in the last two played matches.
- 3) A team has a mild (Type B) colour preference for White if its CD is -1, or, if it is zero and it is not the last round, the team had Black in the last played match.
- 4) A team has a mild (Type B) colour preference for Black if its CD is +1, or, if it is zero and it is not the last round, the team had White in the last played match.
- 5) A team has no (Type B) colour preference when it has yet to play a match, or when its CD is zero when pairing for the last round.

1.8 Top-Scoregroup

- 1.8.1 During the pairing, it is the group of one or more teams that have the highest score among the teams that are yet to be paired.

1.9 Round-Pairing Outlook

- 1.9.1 The pairing of a round (called round-pairing) is complete if all the teams (except at most one, who receives the pairing-allocated bye) have been paired and the absolute criteria [C1] and [C2] (see Article 3.1) have been complied with.

- 1.9.2 The pairing process consists of the following steps:

- 1) The first step in the pairing process is the assignment of the pairing-allocated-bye (if needed) by applying Article 2.1.
- 2) Then, the top-scoregroup (see Article 1.8) is combined, when needed, with a set of upfloaters (selected according to Article 2.2), to form a bracket that is paired according to Article 2.3.
- 3) The previous step-2 is then repeated until the round-pairing is complete.
- 4) Colours are then assigned according to Article 4.

- 1.9.3 If it is impossible to complete a round-pairing, the arbiter shall decide what to do.

Note: Article 2 describes the pairing procedures.

Article 3 defines all the criteria that the pairing of a bracket has to satisfy (in order of priority).

Article 4 defines the colour allocation rules that determine which players will play with White.

2. Pairing Rules

A pairing is legal when the absolute criteria ([C1] and [C2], see Article 3.1) and, where applicable, the completion criterion ([C3], see Article 3.2) are complied with.

2.1 Pairing-Allocated-Bye Assignment

The pairing-allocated-bye is assigned to the team that:

- 2.1.1 leaves a legal pairing for all the teams

- 2.1.2 has the lowest score
- 2.1.3 has played the highest number of games
- 2.1.4 has the highest TPN

2.2 Selection of Upfloaters for the Top-Scoregroup

- 2.2.1 All teams with a lower score than the resident teams of the top-scoregroup (see Article 1.8) are potential upfloaters.
- 2.2.2 Consider all sets of potential upfloaters that comply with [C4] and [C5] (see Articles 3.3.1 and 3.3.2).

Note: This somehow determines the number of upfloaters in the set and their scores.

- 2.2.3 In each set, the potential upfloaters, identified by their TPN, are first sorted by score (from highest to lowest) and, when scores are equal, by TPN (from lowest to highest).
- 2.2.4 These sets are then sorted among themselves by the lexicographic order of their TPNs.

Example: Let's assume that 2,6,8 have 3 points, and 1,3,5 have 2.5 points. [C4] determines that a set of three upfloaters is needed, and [C5] determines that two upfloaters must have 3 points and the other 2.5 points. The possible set of upfloaters are: {2,6,1} < {2,6,3} < {2,6,5} < {2,8,1} < {2,8,3} < {2,8,5} < {6,8,1} < {6,8,3} < {6,8,5}, already sorted in the proper order.

- 2.2.5 Choose the first set that, together with the top-scoregroup (see Article 1.8), produces a legal pairing that also complies with criterion [C6] (see Article 3.3.3) - besides [C4] and [C5] (see Articles 3.3.1 and 3.3.2), which it complies with by construction.

2.3 Pairing of a Bracket

- 2.3.1 A pairing is a sequence of pairs that includes all teams in the bracket. For each pair, the team with the lower TPN is the top member of the pair; the team with the higher TPN is the bottom member of the pair.
- 2.3.2 A pairing is identified by the TPNs of the top members of each pair, sorted from lowest to highest, followed by the TPNs of the bottom member of the corresponding pair.

Example: If 11-24 16-6 10-9 8-4 is a pairing, its identifying number is 4 6 9 11 8 16 10 24.

- 2.3.3 Pairings are sorted by the lexicographic order of their identifiers.
- 2.3.4 Choose the first pairing that also complies with criteria [C1], [C7], [C8] and [C9] (see Articles 3.1.1 and 3.3.4 to 3.3.6 - besides the other criteria, which it complies with by construction).

3. Pairing Criteria

3.1 Absolute Criteria

No pairing shall violate the following absolute criteria:

- 3.1.1 [C1] Two teams shall not play against each other more than once.
- 3.1.2 [C2] A team that has already received a pairing-allocated bye, or has already scored in one single round, without playing, the same score rewarded for a win, shall not receive the pairing-allocated bye.

3.2 Completion Criterion

- 3.2.1 [C3] Choose the set of upfloaters (which may be empty) so that all the remaining teams outside the top-scoregroup allow the completion of the round-pairing.

3.3 Quality Criteria

In order to best pair all teams of the top-scoregroup (see Article 1.8), comply as much as possible with the following criteria, given in descending priority:

- 3.3.1 [C4] Minimise the number of upfloaters.
- 3.3.2 [C5] Minimise the score differences in the pairs involving upfloaters, i.e., maximise the lowest score among the upfloaters (and then the second lowest, and so on).
- 3.3.3 [C6] Choose the set of upfloaters in order to maximise the number of remaining teams that can be legally paired in the following scoregroup (*only in the following scoregroup, even though the upfloaters may come from lower scoregroups*).
- 3.3.4 [C7] Minimise the number of teams whose colour preference, if any, is not fulfilled.
- 3.3.5 [C8] (Type B only) Minimise the number of teams whose strong colour preference, if any, is not fulfilled.
- 3.3.6 [C9] With the exception of the last two rounds, minimise the number of teams that float in consecutive rounds.

4. Colour Allocation Rules

- 4.1 The initial-colour is the colour determined by drawing of lots before the pairing of the first round.
- 4.2 The first-team is the team (first that applies):
 - 4.2.1 with the higher primary score; or
 - 4.2.2 with the higher secondary score (*unless the rules of the competition state not to use it*); or
 - 4.2.3 with the lower TPN.
- 4.3 For each pair apply (with descending priority):
 - 4.3.1 When both team have yet to play a game, if the first-team has an odd TPN, give them the initial-colour; otherwise give them the opposite colour.

Note: Always consider Article 3 of the General Handling Rules for Swiss Tournaments (Late Entries) for the proper management of the TPN.

- 4.3.2 If only one team has a colour preference, grant it.
- 4.3.3 If the two teams have opposite colour preferences, grant them.
- 4.3.4 (Type B only) If only one team has a strong colour preference, grant it.
- 4.3.5 Give White to the team with the lower colour difference.

Note: -2 is lower than -1; +1 is lower than +2.

- 4.3.6 Alternate the colours to the most recent time in which one team had White and the other Black.

Note: Always consider Article 4.5 of the General Handling Rules for Swiss Tournaments.

- 4.3.7 Grant the colour preference of the first-team.
- 4.3.8 Alternate the colour of the first-team from the last played round.