The rules for the Neptune World Rackets Ranking System for Singes play under which the algorithm calculates ranking points are set by the T&RA Rackets Committee as follows

This ranking system, and the explanation of its principles which appears below, are subject to review by the T&RA Rackets Committee.

Normal matches

- 1. Every match which ends in a 'normal' result will be processed automatically by the ELO algorithm. This will usually result in the winner gaining some ranking points and the other player losing an equal number of ranking points. We only measure games won, for example 2-1, or 4-3, and the points score in any game, for example 15-0 or 15-12, is irrelevant. The algorithm compares the actual result of a match with the result that would be expected based on the players' rankings. A more detailed description of ELO can be found here http://en.wikipedia.org/wiki/Elo rating system.
- 2. The system is normalised around 1500 points per ranked player, and at the end of each season, see below, the total number of ranking points allocated to all players points will be re-calibrated to re-set this level. If during the season there are net 20 new players who have achieved ranking points, 30000 new points [20 x 1500] will be put into the algorithm and automatically re-allocated across the whole ranked community.

Unusual outcomes

- 3. When a match doesn't run its full length, [e.g. injury], or is in some other way unusual, the administrator needs to be advised at the time that the results are submitted. That match's result will be dealt with as follows:
- 4. Where a player is unable to complete a match owing to injury, that player will be awarded the games which he actually won before having to withdraw. His opponent will be awarded the total number of games available to him in the match (2 in a best of three, 3 in a best of 5, 4 in a best of 7).
- 5. If a referee is forced to default a player due to injury, rule 4 will apply.
- 6. Long games (i.e. 25-points) will be treated as a best of three, with the losing player earning one game if he secures 80% of the total game points (i.e. 20 out of 25).
- 7. Any player defaulted by the referee in a match will be awarded the full quota of games against him, with none in his favour, regardless of how many games he may have won up to that point.

- 8. If a player scratches from a match after the draw has been completed, but before a ball has been struck in the tournament, there will be no result entered in the ranking system.
- 9. If a player scratches from a match after the first ball has been struck in the tournament, but prior to the match starting, the opponent will be deemed to have won 1-0.

New players

- 10. If a player who has never previously been ranked enters a ranking event, he or she will start at the standard entry ranking of 1500 points.
- 11. Any player playing his first ranking tournament, or playing his first "re-entry" tournament, will score full ranking points in the match(es) he plays. However, the match result will not be registered against his opponent(s). This will apply for the player's first three matches in that season, or his first two tournaments in that season, or until he gains his first victory in that season, whichever is the later. In summary, matches by new players will not affect the other player's ranking until the new player records a victory. Players who are yet to score a victory have a Provisional Ranking and are denoted by an asterisk (*) on the Rankings List.
- 12. If a player who has previously been removed from the ranking system under rule 16 enters a ranking event, his "re-entry" ranking will be 90% of the ranking points total held by him at the time when he was most recently removed from the system.

Seeding

- 13. It is recommended that tournament organisers use the rankings system to seed a maximum of half the entrants, with the top 50% of seeds being placed and the remaining 50% of seeds occupying spaces determined by a random draw. For example if 32 players enter the British Open:
 - a. The top 16 are seeded, with the top 8 seeds occupying the places in the round of 32, according to their specific seed number in the usual way (no. 1 seed at the top of the draw, no. 2 the bottom, etc).
 - b. Seeds 9 to 16 occupy places available in the round of 32 so that no seed can play another seed in the round of 32. The position of each of the players seeded 9 to 16 will be determined by a random draw.

c. The remaining 16 entrants occupy the 16 remaining available places in the round of 32, with all of their positions in that round being determined by a random draw.

Erosion

- 14. In order to prevent his ranking points total being subject to "erosion" at the end of any season, a player must play in a minimum of 3 ranking events in that season. If a player does not do so, then for each ranking event less than three which a player fails to enter, that player's ranking points will be subject to a 3% erosion calculation at the end of the season. For the avoidance of doubt, the maximum that a player's total ranking points can be eroded in any season is 9%, if a player plays in no ranking events in a season. (NB Masters and U21 & U24 events whilst the matches in these tournaments will be entered into the system, participation in these events, because they restrict certain age categories, will not be counted against a player's minimum of 3 ranking events to avoid erosion).
- 15. Within any season, the ranking of any player contesting either a Singles or Doubles World Championship in that season, including those players involved in eliminators in either case, will have one tournament's grace from erosion. For the avoidance of doubt, if a World Championship contestant does not play in any ranked event during that season the maximum that this player's total points can be eroded is 6%.
- 16. If a player fails to play in any ranked tournaments for four consecutive seasons from 1 August 2005 he will be excluded from the ranking list and will be subject to Rule 12 if he enters another ranked tournament.

World Championships

- 17. Eliminator and Challenge matches for the World Singles Championship will be entered into the ranking system. Additional ranking points will be awarded as follows:
 - a. The player who wins the World Singles Championship will be awarded 200 points in that season
 - b. The runner up in the World Singles Championship will be awarded 100 points in that season

c. The runner(s) up in any World Singles Championship eliminator match(es) will be awarded 50 points in that season

In each case these additional ranking points will be awarded once participating players' World Championship campaigns have come to an end and after the match calculation has been completed.

Year ends, manual adjustments, and recalibration

- 18. Following the application of erosion at the end of the season, the total number of points in the system is likely to be depleted from the target of 1500 per ranked player. Similarly, the total number of players in the system is likely to vary from season to season. In order to keep the system consistent, we will follow best practice of keeping the average number of ranking points per player exactly the same from year to year, currently 1500. This process is known as re-calibration. It does not affect relative positions.
- 19. The system will be re-calibrated prior to the first tournament each season, and will be carried out as follows:
 - a. Calculate the total number of points remaining in the system following:
 - i. Erosion event under rule 14; and
 - ii. The removal of players from the system under rule 16; and
 - iii. The award of any points to players involved in a Singles World Championship (the World Champion, the Challenger and any player who took part in a World Championship eliminator) under rule 17.
 - b. Calculate the "post-erosion" average number of points per player by dividing the total number of "post-erosion" points by the "post-erosion" total number of players.
 - c. For each player, calculate, in percentage terms, the difference between the player's "post-erosion" points total and the "post-erosion" average number of points per player as follows:
 - i. Subtract the "post-erosion" average number of points per player from the player's "post-erosion" points total to give each player their "Points Differential"
 - ii. Divide each player's "Points Differential" by the "post-erosion" average number of points per player. Then multiply the result by 100 to give each player his "Percentage Differential"

- d. To calculate the new total number of points in the system, take the "post-erosion" total number of players and multiply that figure by the new average number of points per player [currently 1500 but this may change in exceptional circumstances, see below].
- e. To calculate each player's re-calibrated number of rating points, multiply each player's "Percentage Differential" by the new average number of points per player. Add the result to the average number of points per player.
- 20. If in any given year there has been a large increase in the number of players on the system, to avoid too many players having the same ranking score a greater differential in points may be desirable, and this is best achieved through allocating a higher number of average points per player. <u>If the</u> <u>administrator elects to invoke this change, all ranked players will be notified,</u> <u>with an explanation.</u> If the optimum theoretical points differential between players is 10, the new average is simply worked out by multiplying the number of players on the system by 10 and then dividing by two. This process to find a new average should be carried out as rarely as possible, because the system's internal consistency comes second only to providing a fair comparison between players.

T&RA Rackets Committee, December 2010