# **History of Tiddlywinks World Ratings**

### Version 1.0 (1986-1995)

In the late 1980s Nick Inglis gradually developed the first tiddlywinks ratings program based on the Elo ratings system used in chess. As he was Winking World editor, he got sent the scores of all tournaments, and so he was in a position to enter all of them into his BBC microcomputer (starting with the ETwA Singles in 1985). By 1988, the results were reported to the Cambridge club, and the algorithm was refined as the number of tournaments played increased. By 1990, the program was stable and reliable numbers for most players were produced. At that time, ratings began to be reported in Winking World and thus became available to the whole world of winkers.

1990-1995: Nick continued to maintain the ratings. However, the number of players and scores in the database gradually became too unwieldy for the original program, and several significant quirks began to become apparent. By 1996, other pressures on Nick meant that he no longer had the time to devote to maintaining and improving the ratings program.

#### Version 1.1 (1996-1997)

Tim Hedger resurrected and took over the ratings program. He used the same program as Nick but converted the database into Microsoft Access format. However, Tim was no longer an active player and work pressure meant that he became unable to keep ratings updated from 1998.

## Version 2.0 (1999-2001)

Patrick Barrie volunteered to take over maintenance of the ratings in June 1999. He decided to implement a new calculation algorithm in an attempt to eliminate some of the anomalous results that the former program occasionally produced. In particular, he introduced the concept of a Ratings Reliability Factor (RRF) into the calculation and removed the concept of "rated games". (In the former program, games involving players who hadn't played in the previous year were only used to rate the unrated player, and didn't influence that player's partner's rating). However, Patrick freely admitted that the algorithm used for calculating ratings at that time lacked any sound mathematical basis, and it was done on a "better than nothing" basis.

#### Version 3.0 (2002-2025)

Patrick Barrie introduced a new approach for calculating ratings based on his experience with version 2. The idea was that a proper statistical approach would lead to a method that would work sensibly for all the different tiddlywinks formats, even allowing for the fact that many tiddlywinks players only play in a limited number of tournament games. All ratings were recalculated using the new algorithm taking into account all games since November 1985. A paper describing the calculation method was published in the Journal of Applied Statistics in 2003.

Version 3.0 of the ratings program was written using a mixture of Access, Excel and VBA – that may have made sense in 2002, but it is not how anyone sensible would do it in the 2020s. By 2025 the program had become somewhat ponderous and unwieldy, perhaps unsurprisingly because the ratings database contained games scores for about 23,000 games involving 1000 players. That said, the program had coped well for 24 years with no changes (other than a minor hack to allow for the interruption of normal tournaments during the COVID-19 pandemic). Over the course of the years, a number of features had become apparent that Patrick felt could be handled better.

### Version 3.1 (2025-...)

Patrick Barrie rewrote the ratings program in Python. It still uses Access as the database for game scores, but it will be easy to change this in future. Because Patrick had become far more of an expert on error analysis and statistics than in 2002 he no longer needed to make some of the approximations in the error analysis that he had previously. In particular, the balance between singles, pairs, and mixed tournaments is now better handled. The new version also changed significantly how the ratings of winkers who had not played in over a year are treated to give more sensible behaviour.

Ratings have been back calculated for all tournaments back to November 1985.

Some people will notice that the back calculation causes ratings tables for old tournaments to use the current name of a player rather than the name the player used at that time. This affects Christine Wiggins/Barrie, Daniel Barnett/Winebar, Ben Lockwood/Locklen, Nick Reid/Tree. Another "feature" is that players who have sadly passed away (such as Charles Relle, Geoff Thorpe, Cyril Edwards, Jim Carrington, Tony Brennan, Yan Wang) still feature in the all-time ratings list, but with ratings that are slowly moving towards 1500.