

Genealogy Factors Matrix

Locations in matrix:

These folders are columns in this matrix. Each file is named the name found in the respective box of this matrix.

		Age Factor (A)				
		column0	column1	column2	column3	column4
		0	1	2	3	4
Preferential Attachment Factor (P)	0	A0.0_P0.0_T1	A0.25_P0.0_T1	A0.5_P0.0_T1	A0.75_P0.0_T1	A1.0_P0.0_T1
	1	A0.0_P0.5_T1	A0.25_P0.5_T1	A0.5_P0.5_T1	A0.75_P0.5_T1	A1.0_P0.5_T1
	2	A0.0_P1.0_T1	A0.25_P1.0_T1	A0.5_P1.0_T1	A0.75_P1.0_T1	A1.0_P1.0_T1
	3	A0.0_P1.5_T1	A0.25_P1.5_T1	A0.5_P1.5_T1	A0.75_P1.5_T1	A1.0_P1.5_T1
	4	A0.0_P2.0_T1	A0.25_P2.0_T1	A0.5_P2.0_T1	A0.75_P2.0_T1	A1.0_P2.0_T1

Factors held constant for each genealogy are:

- **Generations:** 15
- **Members per generation:** 16
- **Parents per child:** 2
- **Trait Factor (T):** 1
- **Red's trait-strength:** 2
- **Blue's trait-strength:** 1
- **Fitness Equation:** For a prospective parent p of child c ,

$$f(g_p, g_c, c, t) = (g_c - g_p)^A (c + 1)^P t^T$$

where g_p is the generation of the prospective parent, g_c is the generation of the child in question, c is the number of children p has, t is the trait-strength of p 's trait (*Red* or *Blue*), A is the Age Factor, and P is the Preferential Attachment Factor.

Additional notes:

- Fitness is used to weight the choice of parents for each member after generation 0.
- Fitness does not affect whether a parent will pass on its trait or not. Trait inheritance is only weighted by how many parents you have with a given trait.
- The first generation of each genealogy is evenly split 8 *Blue* and 8 *Red*.
- The number displayed on each member is the fitness of the member (rounded down to an integer)