XXX Genetic Algorithm

XXX.1 An Extended Encode

The commonly used encode method which have length of 64 while depth of memory is three has a drawback that it does not show the strategy for the first two steps of a competition. Instead, an extended encode method is proposed.

Generally, when depth of memory is , bits are required. To represent the initial moves, e.g. the second move, there is only one previous move, the corresponding memory depth of that moment is 1, so addition bits are required. To extend all initial steps, for depth of , bits are needed, where means the first step, i.e. no memory at certain stage.