Strategy

As we were concerned with accelerating the execution time of puzzler::Puzzle::Execute , we tried to identify all the major hotspots inside the Execute function call of the puzzles.

Each of the matrix\_exponent, string\_search, option\_explicit and life kernels have their own implementations of execute and therefore take different time to execute for the same parameters (scale).

Puzzles Reference Execution time for different scales

|  |  |  |  |
| --- | --- | --- | --- |
|  | 10 | 100 | 1000 |
| Matrix exponent | 1.0ms | 1020 ms |  |
| Life | 1.0ms | 261 ms | 7min50 |
| Circuit sim | 1.0ms | 13ms | 1015 ms |
| Option explicit | 1.0ms | <1.0ms | 13 ms |
| String search | 1.0ms | <1.0ms | 9.0ms |