RUM Optimization Laboratory Notes

Michael Cavallaro & Matt Hogan

Benchmark	Time	Instructions	Rel. to start	Rel. to prev	Improvement
Big Small	354.88s 13.16s	2,113,497,561 85,070,522	1.000 1.000	1.000 1.000	n/a (Initial state)
Big Small	377.21s 13.56s	2,113,497,561 85,070,522	1.063 1.030	1.063 1.030	Only initialized register indexes as needed; this ended up being slower.
Big Small	325.85s 13.02s	2,113,497,561 85,070,522	0.918 0.989	0.864 0.960	Reversed previous optimization attempt; removed .clear() from UMapSeg as it was redundant; slightly faster than original.
Big Small	369.00s 13.27s	2,113,497,561 85,070,522	1.040 1.008	1.132 1.019	Attempted to increase efficiency by removing a variable, actually decreased it as the program had to do more operations.
Big Small	12.95s 0.55s	2,113,497,561 85,070,522	0.036 0.042	0.035 0.041	On the LP opcode, added a simple condition to check rather register B holds the value 0. If so, skip over copying a memory segment. This greatly improved our efficiency.