

Benchmarking Environment - Feature #1010

Tasks # 824 (In Progress): Measure CPU time via callgrind

Valgrind as intrinsic execution engine

06/20/2012 12:04 AM - M. Rolf

Status:	In Progress	Start date:	06/19/2012
Priority:	Normal	Due date:	
Assignee:	M. Rolf	% Done:	10%
Category:		Estimated time:	0.00 hour
Target version:			
Description			
Allow benchmark calls that execute valgrind in background. Something like			
MyBenchmarkExecutable --engine cpu			
Benchcase [mu_suite:my_case]			
Total (corrected) time: 1.3 s			
Estimated cost per operation: 1.7 us			
Operations per second: 5.9e5			
vs.			
MyBenchmarkExecutable --engine valgrind			
Benchcase [mu_suite:my_case]			
Total (corrected) time: 1.3 GCycles			
Estimated cost per operation: 1.7 MCycles			
Operations per second: 5.9e5			
The "--engine valgrind" must call valgrind in background, read and parse the logfile and transfer the results into the internal result data-structure.			
Some ideas...			
<ul style="list-style-type: none">- Internally disable warmup and init-count (pointless when using valgrind)- Automatically reduce repetition-count, e.g. by factor 100			

History

#1 - 06/20/2012 01:16 PM - M. Rolf

- Parent task set to #824

#2 - 06/20/2012 02:49 PM - M. Rolf

Callgrind generates an awful output format:

<http://kcachegrind.sourceforge.net/html/CallgrindFormat.html>

Better use callgrind_annotate to collect infos in a more comprehensive, yet still ASCII and new-line/blank-line separated, format:

callgrind_annotate --inclusive=yes --threshold=100 <callgrind.out>

This tool cannot write to files, so we would need to do some bash-pipe stuff. Not very platform-independent ^^

#3 - 06/20/2012 02:55 PM - M. Rolf

- % Done changed from 0 to 10

#4 - 06/20/2012 02:55 PM - M. Rolf

- Status changed from New to In Progress