Profiling

profiling	-prof
show runtime-system statistics	+RTS -T
save runtime-system statistics to *file*	+RTS -t*file*
all bindings not marked INLINE	-fprof-auto
all top-level bindings not marked INLINE	-fprof-auto-top
all exported bindings nto marked INLINE	-fprof-auto-exported
all call sites	-fprof-auto-calls

Flow of Heap Profiling

compiling with	-prof -fprof-auto -rtsopts
running with	+RTS -h
visualizing with	hp2ps *.hp
colored OUTPUT	hp2ps -c *.hp

- category setting

break by cost-center	-hc
break by module	-hm
break by constructor/closure	-hd
break by type	-hy

- hp2ps options

place rough bands on top	-d
big box for title	-b
EPS for latex	-e
for preview	-g
limit to *n* bands	-m*n*
use the previous parameters	-p
color output	-c
ignore marks	-y
print help	-?

Flow of Time Profiling

compiling with	-prof -fprof-auto -rtsopts
running with	+RTS -p
OUTPUT	*.prof

Flow of Stack Trace

compiling with	-prof -fprof-auto -rtsopts
running with	+RTC -xc

Flow of Code Coverage

compiling with	-fhpc
running	no options need
reporting	hpc report *tix file*
making html files	hpc markup *tix file*
Coverage data is stored in *.tix file.	

- hpc options

display help	hpc help
report coverage	hpc report
make html files	hpc markup
sum multiple coverages	hpc sum
combine two coverages	hpc combine
show in verbose mode	hpc show
display version	hpc version

Optimization

optimization level	-O*n* (*n* =1,2,3,4)
no optimization	-O0
make constructor fields strict	-funbox-strict-fields
static argument transformation	-fstatic-argument-transformation
for IO/ST monad	-fno-state-hack

RTS options for GC

allocation area size	-A*size* (default: 512KB)
suggested heap size	-H*size* (default: 0KB)
maximum heap size	-M*size* (default: unlimited)

Backends

Native Code Generator	-fasm
LLVM	-fllvm
-fvia-c is obsolete.	

SMP Parallelism

use thread	-threaded
avoid repeated computation of thunks	-feager-blackholing
avoid waiting	-fno-strictness
use *n* threads	+RTS -N*n*
use all processors	+RTS -N
pin threads	+RTS -qa
enable auto thread migration	+RTS -qm

- debug parallelism

make eventlog of parallel sparks (sampled)	-lp (default)
make eventlog of parallel sparks (fully accurate)	-lf
eventlog is stored as *.eventlog	

By **nash**
cheatography.com/nash/

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Page 1 of 1.