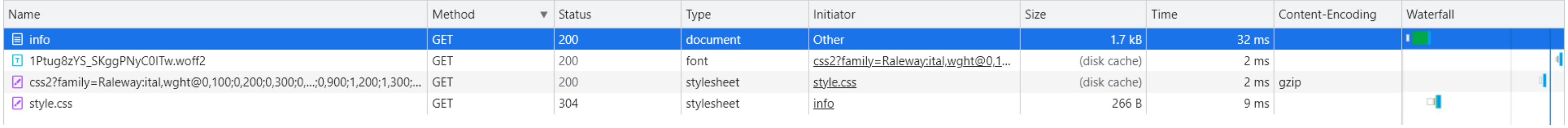
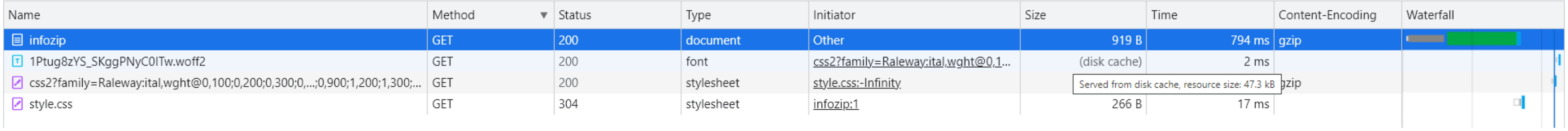
Info sin compresión de gzip:



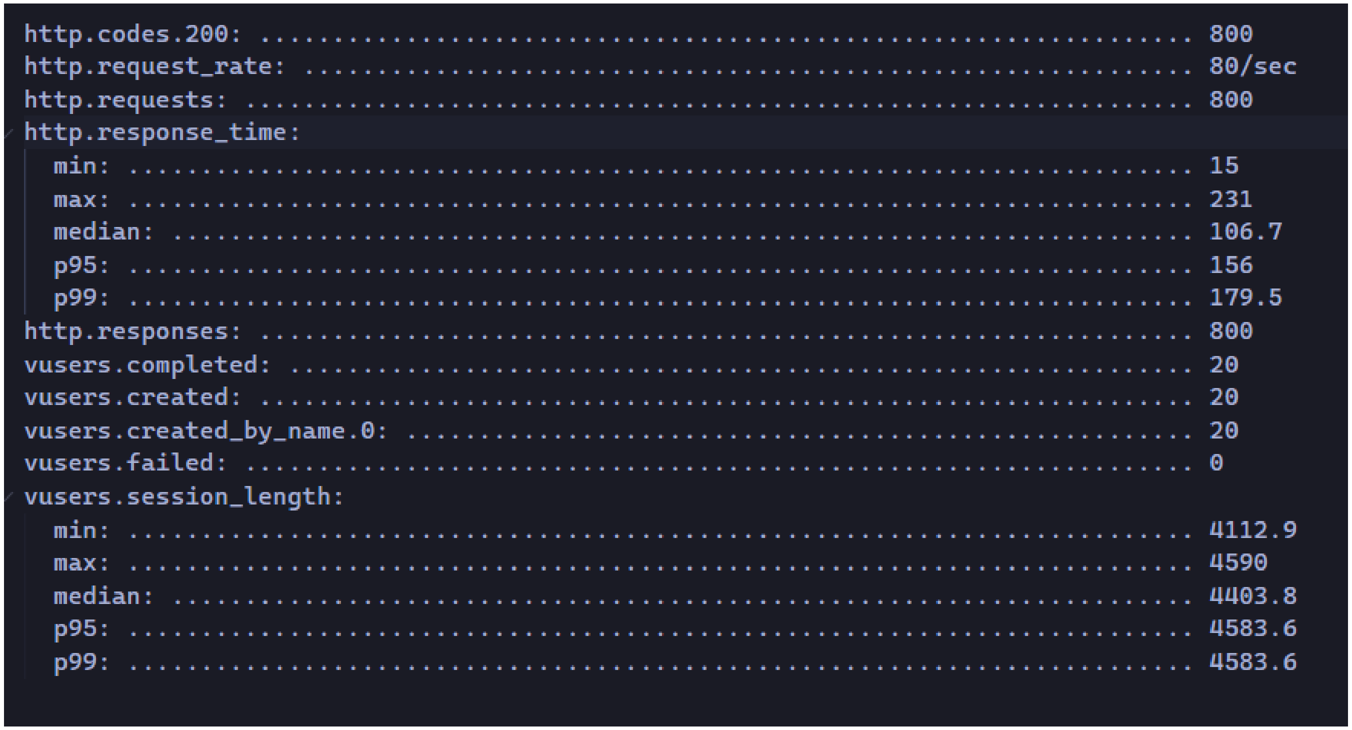
Name	Method	Status	Type	Initiator	Size	Time	Content-Encoding	Waterfall
info	GET	200	document	Other	1.7 kB	32 ms		
1Ptug8zYS_SKggPNyC0ITw.woff2	GET	200	font	css2?family=Raleway:ital,wght@0,1...	(disk cache)	2 ms		
css2?family=Raleway:ital,wght@0,100;0,200;0,300;0,...;0,900;1,200;1,300;...	GET	200	stylesheet	style.css	(disk cache)	2 ms	gzip	
style.css	GET	304	stylesheet	info	266 B	9 ms		

Info con compresión de gzip: reducción de aproximadamente el 50% de peso, mejora la disponibilidad del ancho de banda del servidor.



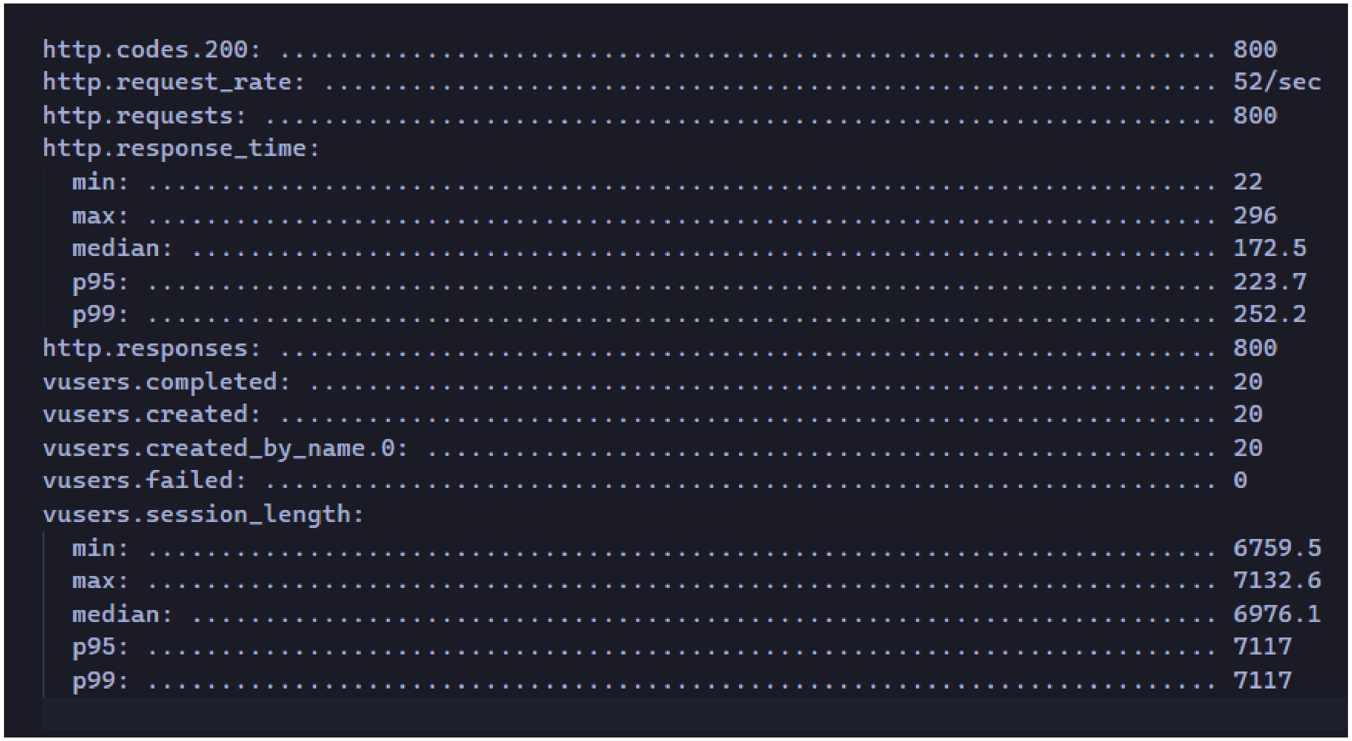
Name	Method	Status	Type	Initiator	Size	Time	Content-Encoding	Waterfall
infozip	GET	200	document	Other	919 B	794 ms	gzip	
1Ptug8zYS_SKggPNyC0ITw.woff2	GET	200	font	css2?family=Raleway:ital,wght@0,1...	(disk cache)	2 ms		
css2?family=Raleway:ital,wght@0,100;0,200;0,300;0,...;0,900;1,200;1,300;...	GET	200	stylesheet	style.css:-Infinity	Served from disk cache, resource size: 47.3 kB		gzip	
style.css	GET	304	stylesheet	infozip:1	266 B	17 ms		

GET a la ruta info sin console.log



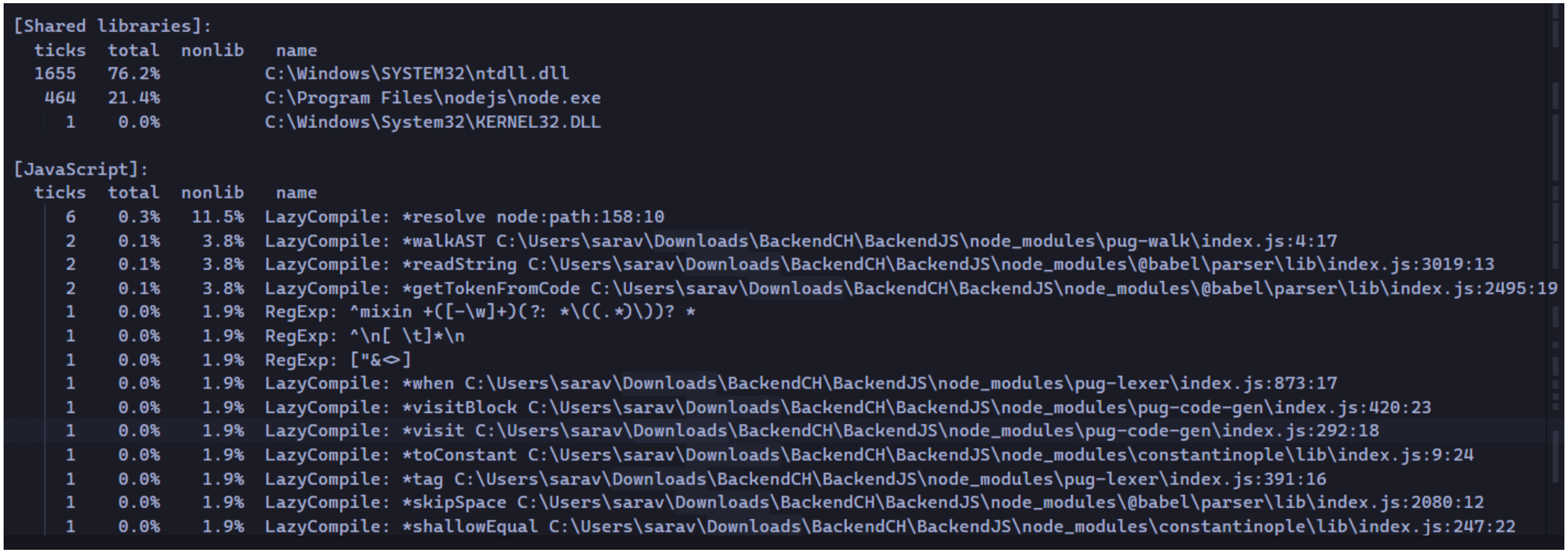
```
http.codes.200: ...................................................... 800
http.request_rate: ................................................... 80/sec
http.requests: ....................................................... 800
http.response_time:
  min: ............................................................... 15
  max: ............................................................... 231
  median: ............................................................ 106.7
  p95: ............................................................... 156
  p99: ............................................................... 179.5
http.responses: ...................................................... 800
vusers.completed: .................................................... 20
vusers.created: ...................................................... 20
vusers.created_by_name.0: ............................................ 20
vusers.failed: ....................................................... 0
vusers.session_length:
  min: ............................................................... 4112.9
  max: ............................................................... 4590
  median: ............................................................ 4403.8
  p95: ............................................................... 4583.6
  p99: ............................................................... 4583.6
```

GET a la ruta info con console.log: Aumento del tiempo, p99 o percentil 99, debido al tiempo necesario para direccionar el contenido de la variable info a la salida de consola.

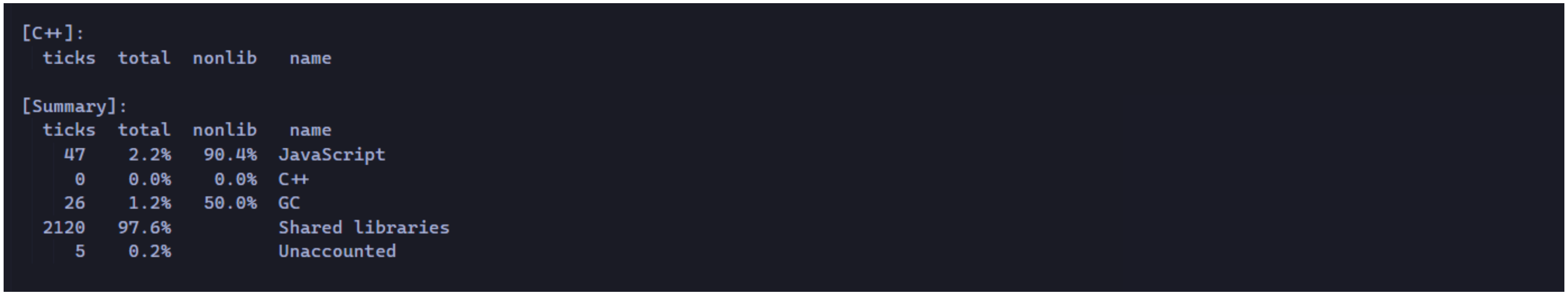


```
http.codes.200: ................................................................. 800
http.request_rate: .............................................................. 52/sec
http.requests: .................................................................. 800
http.response_time:
  min: .......................................................................... 22
  max: .......................................................................... 296
  median: ....................................................................... 172.5
  p95: .......................................................................... 223.7
  p99: .......................................................................... 252.2
http.responses: ................................................................. 800
vusers.completed: ............................................................... 20
vusers.created: ................................................................. 20
vusers.created_by_name.0: ....................................................... 20
vusers.failed: .................................................................. 0
vusers.session_length:
  min: .......................................................................... 6759.5
  max: .......................................................................... 7132.6
  median: ....................................................................... 6976.1
  p95: .......................................................................... 7117
  p99: .......................................................................... 7117
```

Profiler sin console.log

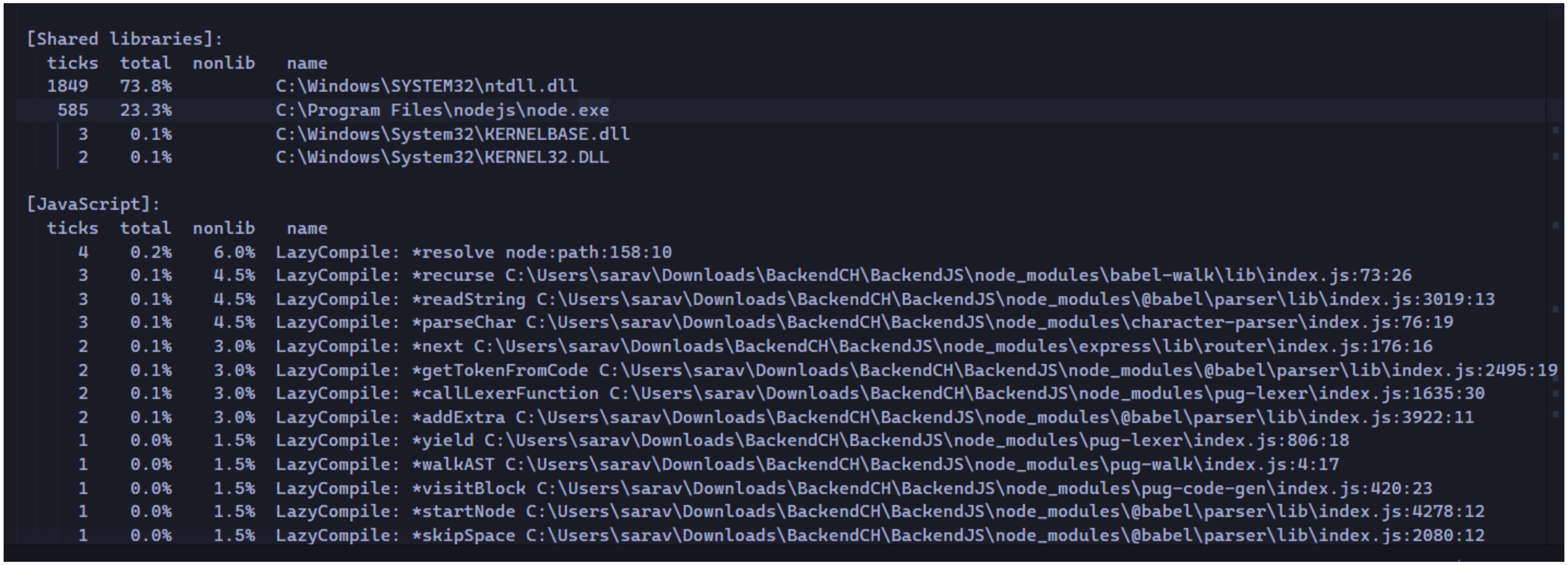


```
[Shared libraries]:
  ticks  total  nonlib   name
  1655   76.2%          C:\Windows\SYSTEM32\ntdll.dll
   464   21.4%          C:\Program Files\nodejs\node.exe
     1    0.0%          C:\Windows\System32\KERNEL32.DLL

[JavaScript]:
  ticks  total  nonlib   name
     6    0.3%   11.5%  LazyCompile: *resolve node:path:158:10
     2    0.1%    3.8%  LazyCompile: *walkAST C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-walk\index.js:4:17
     2    0.1%    3.8%  LazyCompile: *readString C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\@babel\parser\lib\index.js:3019:13
     2    0.1%    3.8%  LazyCompile: *getTokenFromCode C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\@babel\parser\lib\index.js:2495:19
     1    0.0%    1.9%  RegExp: ^mixin +([-\w]+)(?: *\((.*)\))? *
     1    0.0%    1.9%  RegExp: ^\n[ \t]*\n
     1    0.0%    1.9%  RegExp: ["&<>]
     1    0.0%    1.9%  LazyCompile: *when C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-lexer\index.js:873:17
     1    0.0%    1.9%  LazyCompile: *visitBlock C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-code-gen\index.js:420:23
     1    0.0%    1.9%  LazyCompile: *visit C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-code-gen\index.js:292:18
     1    0.0%    1.9%  LazyCompile: *toConstant C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\constantinople\lib\index.js:9:24
     1    0.0%    1.9%  LazyCompile: *tag C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-lexer\index.js:391:16
     1    0.0%    1.9%  LazyCompile: *skipSpace C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\@babel\parser\lib\index.js:2080:12
     1    0.0%    1.9%  LazyCompile: *shallowEqual C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\constantinople\lib\index.js:247:22
```

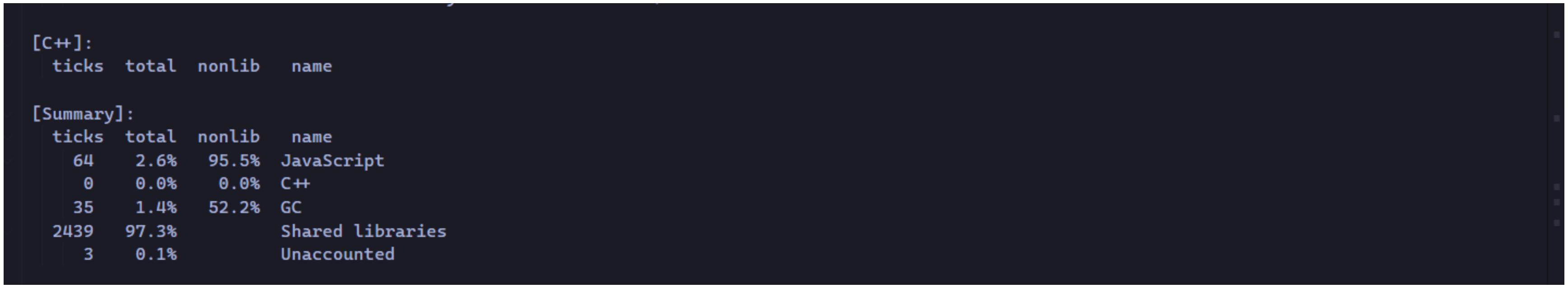


```
[C++]:
  ticks  total  nonlib   name

[Summary]:
  ticks  total  nonlib   name
     47    2.2%   90.4%  JavaScript
      0    0.0%    0.0%  C++
     26    1.2%   50.0%  GC
   2120   97.6%          Shared libraries
      5    0.2%          Unaccounted
```

Profiler con console.log

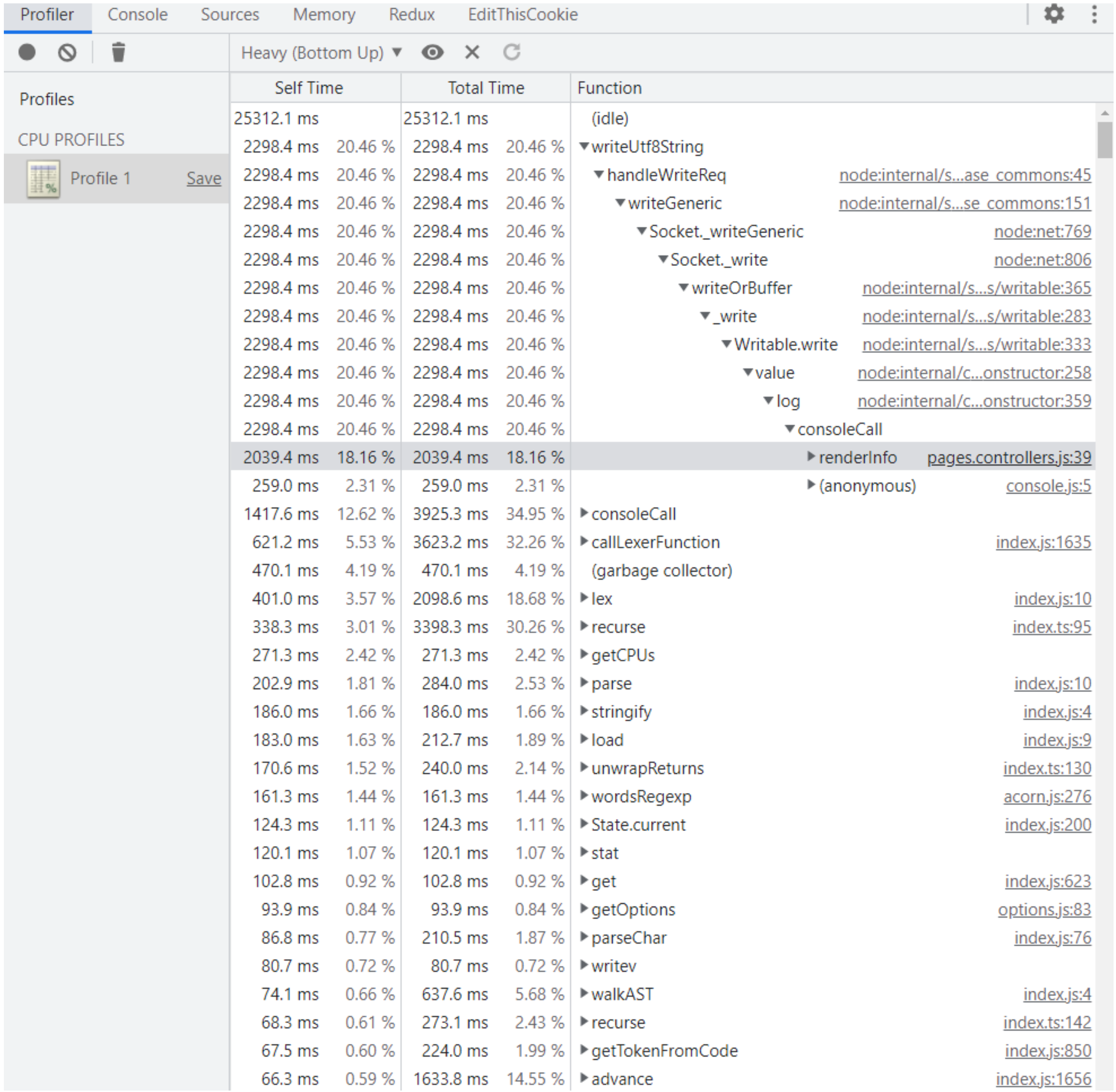


```
[Shared libraries]:
  ticks  total  nonlib   name
  1849   73.8%          C:\Windows\SYSTEM32\ntdll.dll
   585   23.3%          C:\Program Files\nodejs\node.exe
     3    0.1%          C:\Windows\System32\KERNELBASE.dll
     2    0.1%          C:\Windows\System32\KERNEL32.DLL

[JavaScript]:
  ticks  total  nonlib   name
     4    0.2%    6.0%  LazyCompile: *resolve node:path:158:10
     3    0.1%    4.5%  LazyCompile: *recurse C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\babel-walk\lib\index.js:73:26
     3    0.1%    4.5%  LazyCompile: *readString C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\@babel\parser\lib\index.js:3019:13
     3    0.1%    4.5%  LazyCompile: *parseChar C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\character-parser\index.js:76:19
     2    0.1%    3.0%  LazyCompile: *next C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:176:16
     2    0.1%    3.0%  LazyCompile: *getTokenFromCode C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\@babel\parser\lib\index.js:2495:19
     2    0.1%    3.0%  LazyCompile: *callLexerFunction C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-lexer\index.js:1635:30
     2    0.1%    3.0%  LazyCompile: *addExtra C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\@babel\parser\lib\index.js:3922:11
     1    0.0%    1.5%  LazyCompile: *yield C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-lexer\index.js:806:18
     1    0.0%    1.5%  LazyCompile: *walkAST C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-walk\index.js:4:17
     1    0.0%    1.5%  LazyCompile: *visitBlock C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-code-gen\index.js:420:23
     1    0.0%    1.5%  LazyCompile: *startNode C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\@babel\parser\lib\index.js:4278:12
     1    0.0%    1.5%  LazyCompile: *skipSpace C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\@babel\parser\lib\index.js:2080:12
```



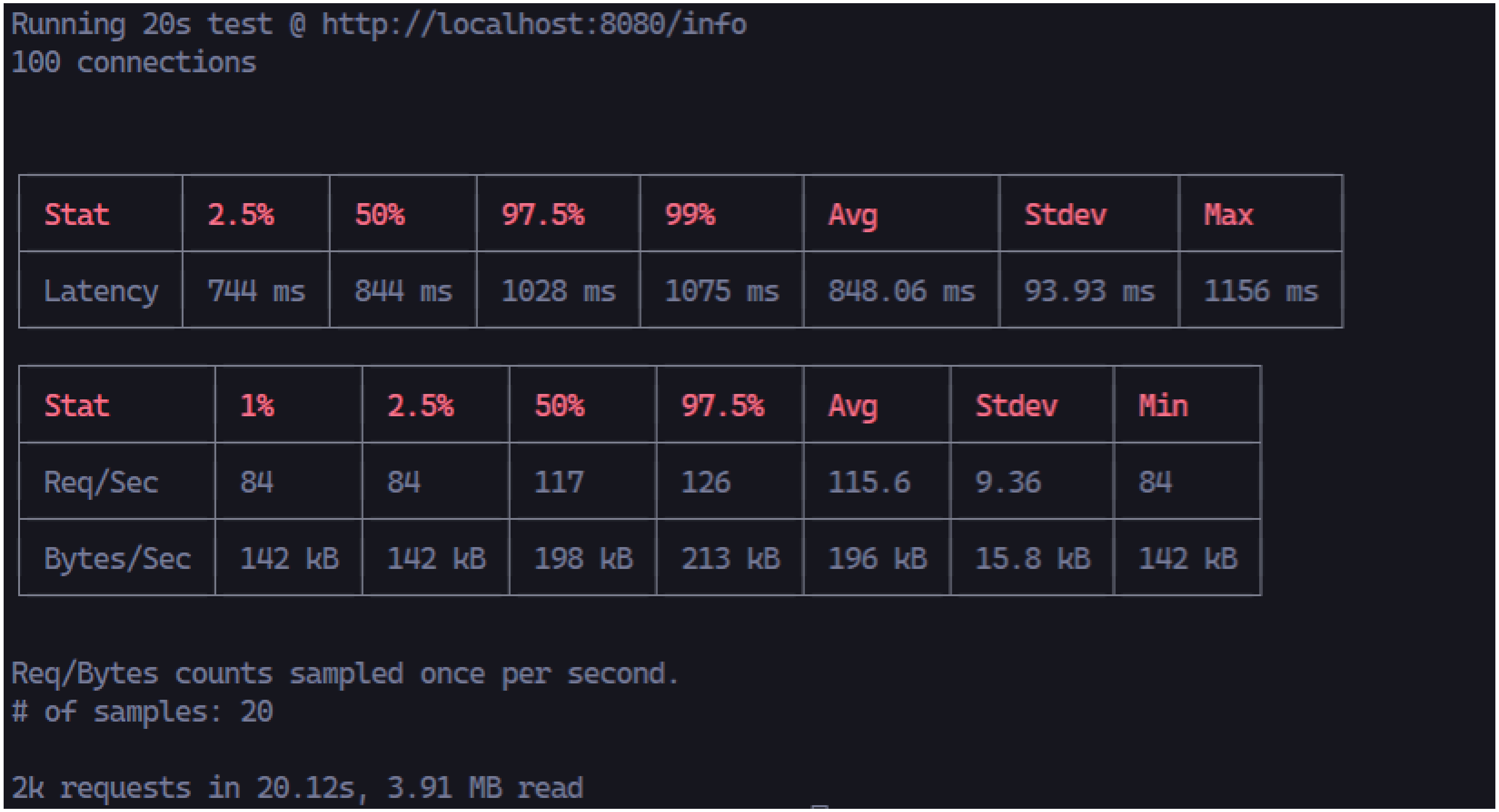
```
[C++]:
  ticks  total  nonlib   name

[Summary]:
  ticks  total  nonlib   name
    64    2.6%   95.5%  JavaScript
     0    0.0%    0.0%  C++
    35    1.4%   52.2%  GC
  2439   97.3%          Shared libraries
     3    0.1%          Unaccounted
```

Inspect: El proceso de mayor peso es justamente es el controller que atiende el request de la ruta solicitada en los test.



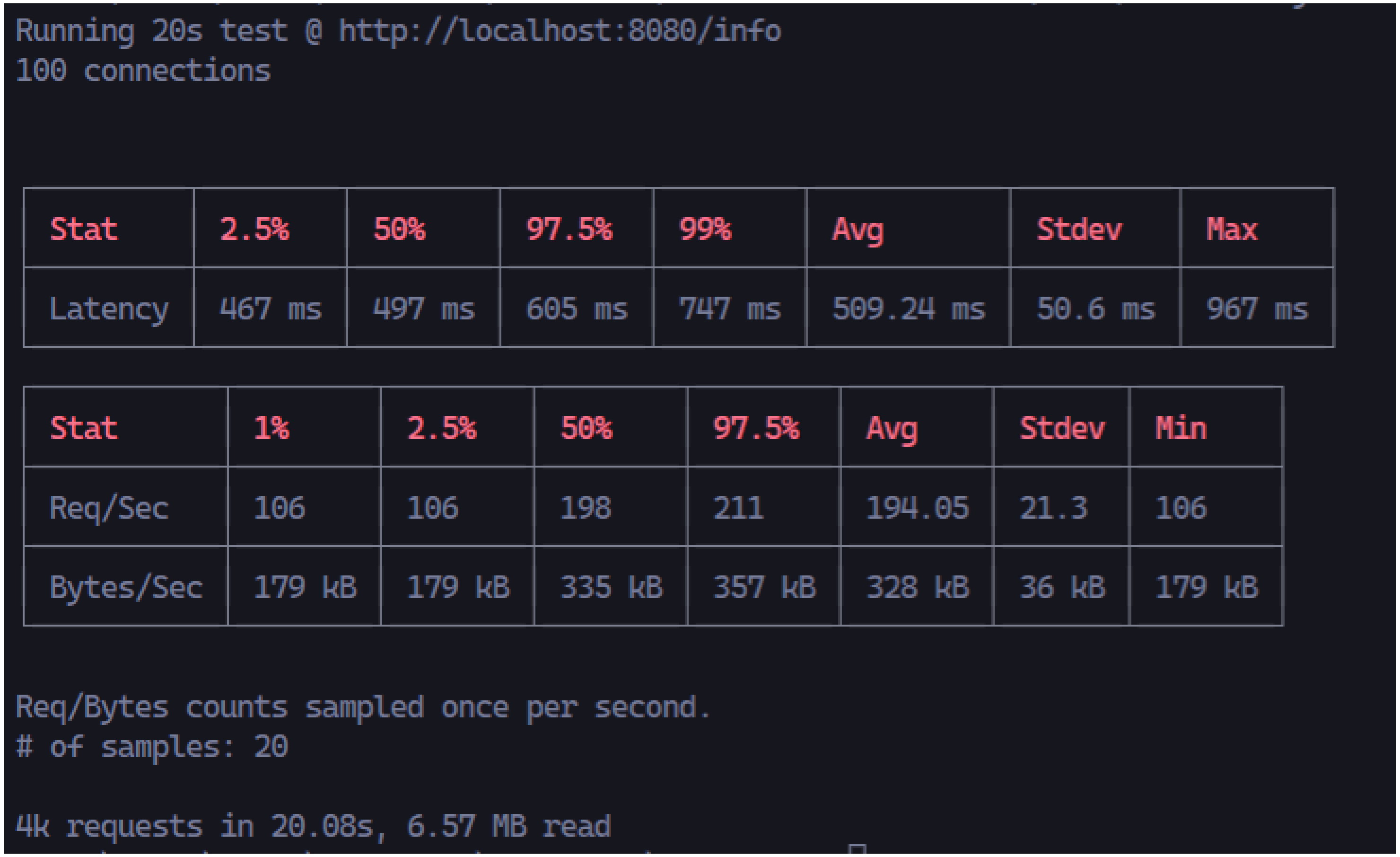
Self Time		Total Time		Function	
25312.1 ms		25312.1 ms		(idle)	
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼writeUtf8String	
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼handleWriteReq	node:internal/s...ase_commons:45
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼writeGeneric	node:internal/s...se_commons:151
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼Socket._writeGeneric	node:net:769
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼Socket._write	node:net:806
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼writeOrBuffer	node:internal/s...s/writable:365
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼_write	node:internal/s...s/writable:283
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼Writable.write	node:internal/s...s/writable:333
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼value	node:internal/c...onstructor:258
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼log	node:internal/c...onstructor:359
2298.4 ms	20.46 %	2298.4 ms	20.46 %	▼consoleCall	
2039.4 ms	18.16 %	2039.4 ms	18.16 %	▶renderInfo	pages.controllers.js:39
259.0 ms	2.31 %	259.0 ms	2.31 %	▶(anonymous)	console.js:5
1417.6 ms	12.62 %	3925.3 ms	34.95 %	▶consoleCall	
621.2 ms	5.53 %	3623.2 ms	32.26 %	▶callLexerFunction	index.js:1635
470.1 ms	4.19 %	470.1 ms	4.19 %	(garbage collector)	
401.0 ms	3.57 %	2098.6 ms	18.68 %	▶lex	index.js:10
338.3 ms	3.01 %	3398.3 ms	30.26 %	▶recurse	index.ts:95
271.3 ms	2.42 %	271.3 ms	2.42 %	▶getCPUs	
202.9 ms	1.81 %	284.0 ms	2.53 %	▶parse	index.js:10
186.0 ms	1.66 %	186.0 ms	1.66 %	▶stringify	index.js:4
183.0 ms	1.63 %	212.7 ms	1.89 %	▶load	index.js:9
170.6 ms	1.52 %	240.0 ms	2.14 %	▶unwrapReturns	index.ts:130
161.3 ms	1.44 %	161.3 ms	1.44 %	▶wordsRegexp	acorn.js:276
124.3 ms	1.11 %	124.3 ms	1.11 %	▶State.current	index.js:200
120.1 ms	1.07 %	120.1 ms	1.07 %	▶stat	
102.8 ms	0.92 %	102.8 ms	0.92 %	▶get	index.js:623
93.9 ms	0.84 %	93.9 ms	0.84 %	▶getOptions	options.js:83
86.8 ms	0.77 %	210.5 ms	1.87 %	▶parseChar	index.js:76
80.7 ms	0.72 %	80.7 ms	0.72 %	▶writev	
74.1 ms	0.66 %	637.6 ms	5.68 %	▶walkAST	index.js:4
68.3 ms	0.61 %	273.1 ms	2.43 %	▶recurse	index.ts:142
67.5 ms	0.60 %	224.0 ms	1.99 %	▶getTokenFromCode	index.js:850
66.3 ms	0.59 %	1633.8 ms	14.55 %	▶advance	index.js:1656

Autocannon y controller con console.log:



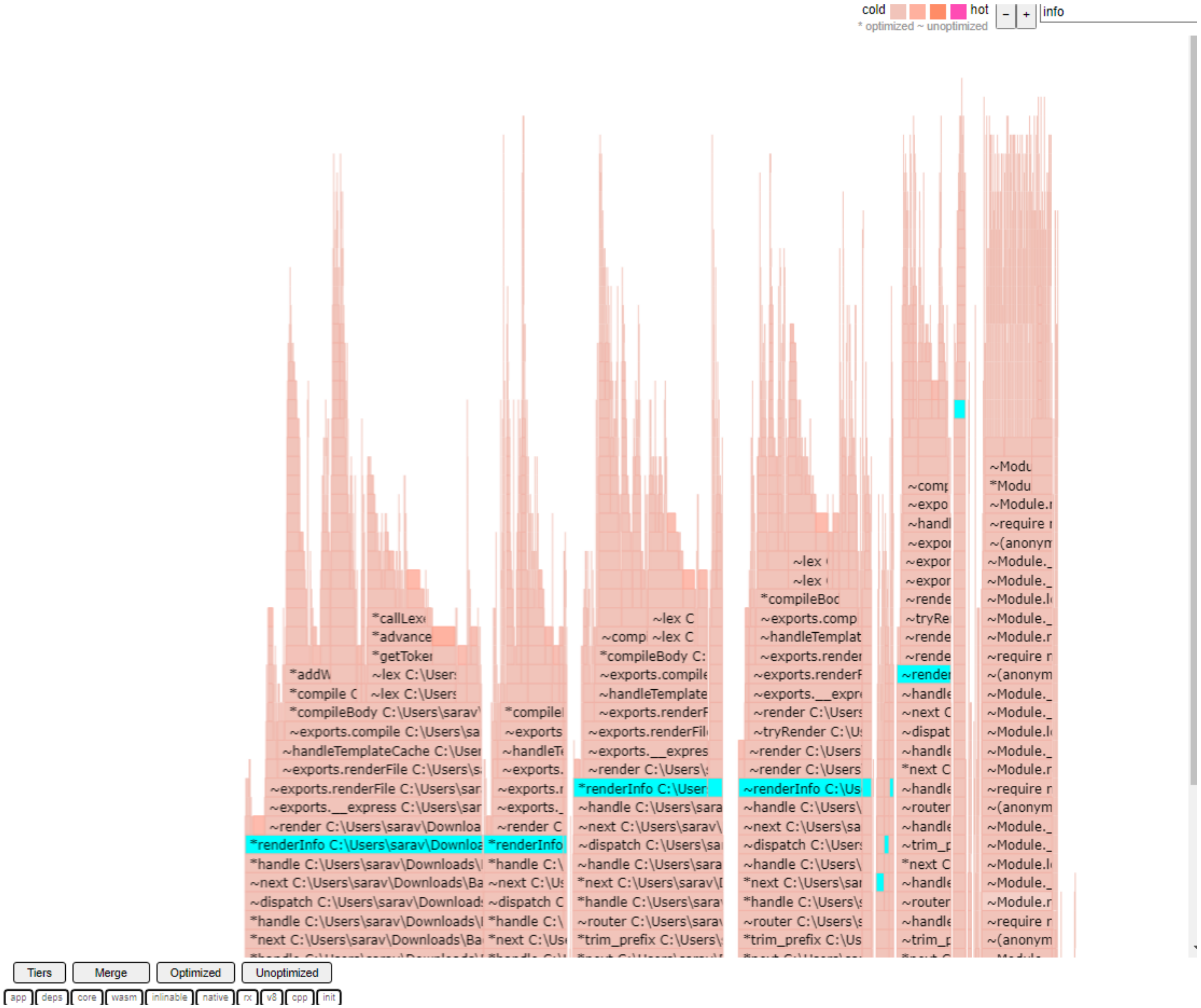
```
Running 20s test @ http://localhost:8080/info
100 connections


┌─────────┬────────┬────────┬─────────┬─────────┬───────────┬──────────┬─────────┐
│ Stat    │ 2.5%   │ 50%    │ 97.5%   │ 99%     │ Avg       │ Stdev    │ Max     │
├─────────┼────────┼────────┼─────────┼─────────┼───────────┼──────────┼─────────┤
│ Latency │ 744 ms │ 844 ms │ 1028 ms │ 1075 ms │ 848.06 ms │ 93.93 ms │ 1156 ms │
└─────────┴────────┴────────┴─────────┴─────────┴───────────┴──────────┴─────────┘
┌───────────┬────────┬────────┬────────┬────────┬────────┬─────────┬────────┐
│ Stat      │ 1%     │ 2.5%   │ 50%    │ 97.5%  │ Avg    │ Stdev   │ Min    │
├───────────┼────────┼────────┼────────┼────────┼────────┼─────────┼────────┤
│ Req/Sec   │ 84     │ 84     │ 117    │ 126    │ 115.6  │ 9.36    │ 84     │
├───────────┼────────┼────────┼────────┼────────┼────────┼─────────┼────────┤
│ Bytes/Sec │ 142 kB │ 142 kB │ 198 kB │ 213 kB │ 196 kB │ 15.8 kB │ 142 kB │
└───────────┴────────┴────────┴────────┴────────┴────────┴─────────┴────────┘

Req/Bytes counts sampled once per second.
# of samples: 20

2k requests in 20.12s, 3.91 MB read
```

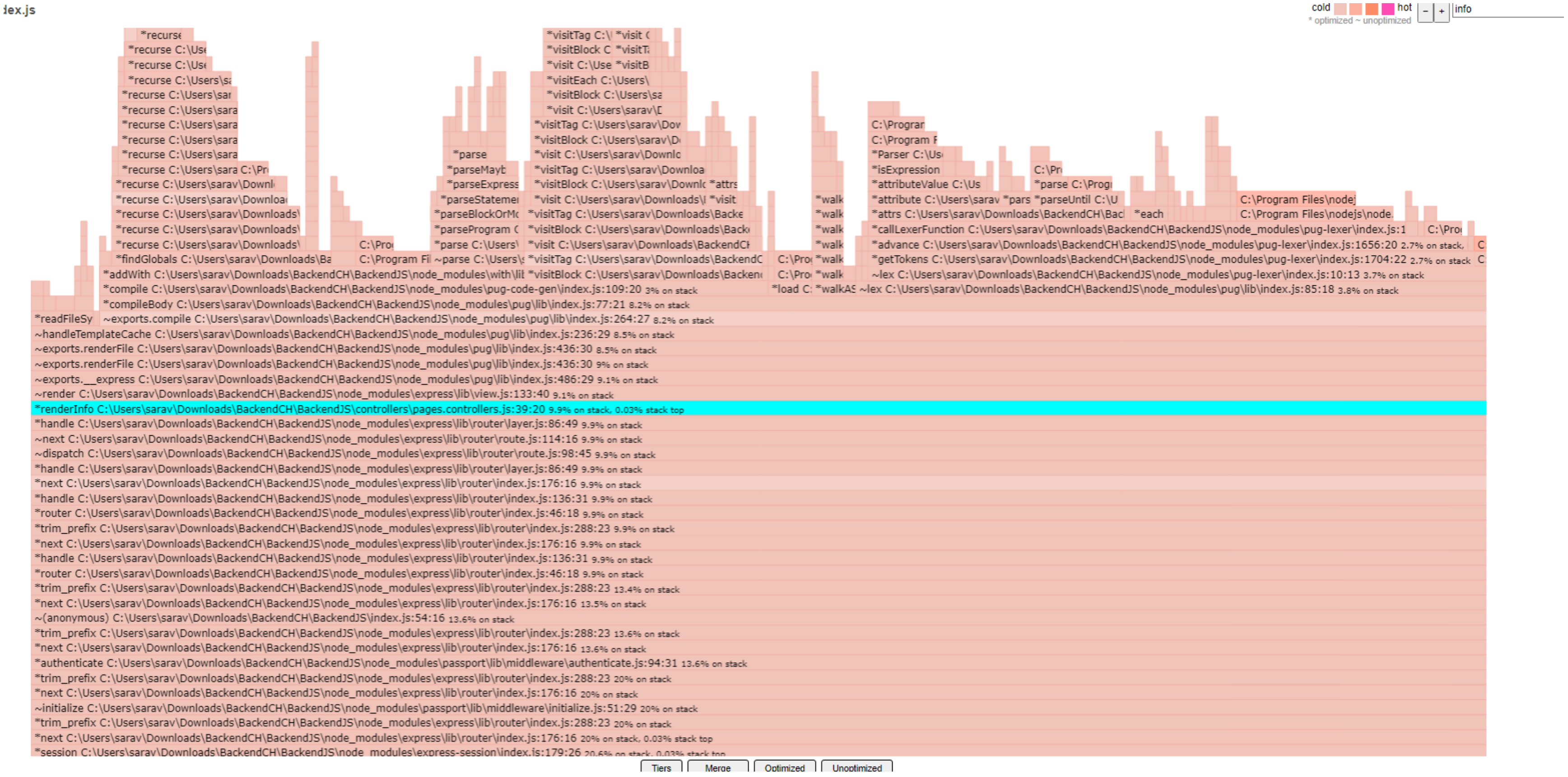
Autocannon y controller sin console.log: Disminuye la latencia y aumenta un 60% la cantidad de request que puede procesar por segundo.



```
Running 20s test @ http://localhost:8080/info
100 connections


┌─────────┬────────┬────────┬────────┬────────┬───────────┬─────────┬────────┐
│ Stat    │ 2.5%   │ 50%    │ 97.5%  │ 99%    │ Avg       │ Stdev   │ Max    │
├─────────┼────────┼────────┼────────┼────────┼───────────┼─────────┼────────┤
│ Latency │ 467 ms │ 497 ms │ 605 ms │ 747 ms │ 509.24 ms │ 50.6 ms │ 967 ms │
└─────────┴────────┴────────┴────────┴────────┴───────────┴─────────┴────────┘
┌───────────┬────────┬────────┬────────┬────────┬────────┬───────┬────────┐
│ Stat      │ 1%     │ 2.5%   │ 50%    │ 97.5%  │ Avg    │ Stdev │ Min    │
├───────────┼────────┼────────┼────────┼────────┼────────┼───────┼────────┤
│ Req/Sec   │ 106    │ 106    │ 198    │ 211    │ 194.05 │ 21.3  │ 106    │
├───────────┼────────┼────────┼────────┼────────┼────────┼───────┼────────┤
│ Bytes/Sec │ 179 kB │ 179 kB │ 335 kB │ 357 kB │ 328 kB │ 36 kB │ 179 kB │
└───────────┴────────┴────────┴────────┴────────┴────────┴───────┴────────┘

Req/Bytes counts sampled once per second.
# of samples: 20

4k requests in 20.08s, 6.57 MB read
```

0x: Diagrama de flama con 100 conexiones y tiempo de duración de 20 s





dex.js
cold
hot
* optimized ~ unoptimized
-
+
info
*recurse
*recurse C:\Us
*recurse C:\Users\sa
*recurse C:\Users\sar
*recurse C:\Users\sara
*recurse C:\Users\sara C:\Pr
*recurse C:\Users\sarav\Downl
*recurse C:\Users\sarav\Downloa
*recurse C:\Users\sarav\Downloads\
*findGlobals C:\Users\sarav\Downloads\Ba
*addWith C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\with\lil
*compile C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-code-gen\index.js:109:20 3% on stack
*compileBody C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug\lib\index.js:77:21 8.2% on stack
*readFileSy
C:\Pro
C:\Program Fil
*parse
*parseMayb
*parseExpress
*parseStateme
*parseBlockOrM
*parseProgram C
*parse C:\Users\
~parse C:\Users\s
*visitTag C:\ *visit C
*visitBlock C *visitT
*visit C:\Use *visitB
*visitEach C:\Users\
*visitBlock C:\Users\sa
*visit C:\Users\sarav\D
*visitTag C:\Users\sarav\Dow
*visitBlock C:\Users\sarav\D
*visit C:\Users\sarav\Downlo
*visitTag C:\Users\sarav\Downloa
*visitBlock C:\Users\sarav\Downl *attrs
*visit C:\Users\sarav\Downloads\ *visit
*visitTag C:\Users\sarav\Downloads\Backe
*visitBlock C:\Users\sarav\Downloads\Back
*visit C:\Users\sarav\Downloads\BackendCH
*visitTag C:\Users\sarav\Downloads\BackendC
*visitBlock C:\Users\sarav\Downloads\Backen
C:\Pro
*load C:
*walk
*walkAS
C:\Program
C:\Program F
*Parser C:\Us
*isExpression
*attributeValue C:\Us
*attribute C:\Users\sarav *pars *parseUntil C:\U
*attrs C:\Users\sarav\Downloads\BackendCH\Bac *each
C:\Pr
*parse C:\Progr
C:\Program Files\nodej
C:\Program Files\nodejs\node.
*callLexerFunction C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-lexer\index.js:1
C:\Pro
*advance C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-lexer\index.js:1656:20 2.7% on stack,
*getTokens C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-lexer\index.js:1704:22 2.7% on stack
~lex C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug-lexer\index.js:10:13 3.7% on stack
~lex C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug\lib\index.js:85:18 3.8% on stack
Tiers
Merge
Optimized
Unoptimized

```
~exports.compile C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug\lib\index.js:264:27 8.2% on stack
~handleTemplateCache C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug\lib\index.js:236:29 8.5% on stack
~exports.renderFile C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug\lib\index.js:436:30 8.5% on stack
~exports.renderFile C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug\lib\index.js:436:30 9% on stack
~exports.__express C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\pug\lib\index.js:486:29 9.1% on stack
~render C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\view.js:133:40 9.1% on stack
*renderInfo C:\Users\sarav\Downloads\BackendCH\BackendJS\controllers\pages.controllers.js:39:20 9.9% on stack, 0.03% stack top
*handle C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\layer.js:86:49 9.9% on stack
~next C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\route.js:114:16 9.9% on stack
~dispatch C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\route.js:98:45 9.9% on stack
*handle C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\layer.js:86:49 9.9% on stack
*next C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:176:16 9.9% on stack
*handle C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:136:31 9.9% on stack
*router C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:46:18 9.9% on stack
*trim_prefix C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:288:23 9.9% on stack
*next C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:176:16 9.9% on stack
*handle C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:136:31 9.9% on stack
*router C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:46:18 9.9% on stack
*trim_prefix C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:288:23 13.4% on stack
*next C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:176:16 13.5% on stack
~(anonymous) C:\Users\sarav\Downloads\BackendCH\BackendJS\index.js:54:16 13.6% on stack
*trim_prefix C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:288:23 13.6% on stack
*next C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:176:16 13.6% on stack
*authenticate C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\passport\lib\middleware\authenticate.js:94:31 13.6% on stack
*trim_prefix C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:288:23 20% on stack
*next C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:176:16 20% on stack
~initialize C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\passport\lib\middleware\initialize.js:51:29 20% on stack
*trim_prefix C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:288:23 20% on stack
*next C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express\lib\router\index.js:176:16 20% on stack, 0.03% stack top
*session C:\Users\sarav\Downloads\BackendCH\BackendJS\node_modules\express-session\index.js:179:26 20.6% on stack, 0.03% stack top
```