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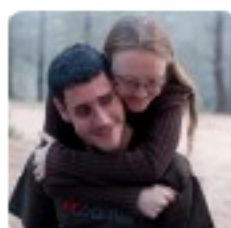
凹凸实验室

promise performance

Promise Performance Meeting #31

! Open

benjaminjr opened this issue on 16 Aug · 33 comments



benjaminjr commented on 16 Aug

Member



I would like to set up a hangout with the V8 team regarding promise performance. I've already talked to @bmeurer the person in charge on V8's side regarding a meeting and he has been gracious enough to agree to set up one.

by all means, if discussion here gets noisy feel free to unsubscribe - we will discuss this in the hangout

Doxbee sequential

Node.js	LTS	Chrome V8	Time, ms	Memory, MB
v4.84	Argon	4.5.103.47	1433	185.33
v6.11.2	Boron	5.1.281.103	1468	141.76
v8.4.0+util.promisify	Carbon	6.0.286.52	730	61.86

Doxbee sequential

Async Type	Time, ms	Memory, MB
Callbacks	161	33.54
Bluebird Promises	372	41.32
Async functions + Bluebird promisify	583	72.79
Native Promises + util.promisify	730	61.86
Async functions + util.promisify	743	79.89

Benjaminr benchmark

Async Type	Time, ms	Memory, MB
Callbacks	162	32.8
Bluebird Promises generator	257	40.44
Bluebird Promises	316	45.18
Native Promises + util.promisify	538	63.64
Native Promises	659	109.70
Async functions	772	135.84

util.promisify

node 8.0.0

```
const stat = util.promisify(fs.stat)
```


util.promisify

```
const {
  createPromise,
  getHiddenValue,
  promiseResolve,
  promiseReject,
  setHiddenValue,
  arrow_message_private_symbol: kArrowMessagePrivateSymbolIndex,
  decorated_private_symbol: kDecoratedPrivateSymbolIndex
} = process.binding('util');
```

[https://nodejs.org/docs/latest-v10.x/api/util.html#util_promisify](#)

Native ES6 promises

- Chrome V8 promises implementation
- written in JS

Native ES6 promises

```
function PromiseInit(promise) {  
  return PromiseSet(  
    promise, 0, UNDEFINED, new InternalArray, new InternalArray)  
}
```

Native ES6 promises

new Promise: 3 closures allocated per promise

T H A N K S
FOR YOUR WATCHING