

A Node.JS Bag of Goodies for Analysing Web Traffic

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Leave feedback on this talk at joinind.in/5967



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We do real user web performance analysis



This talk covers some of the Node.JS modules we use to do this analysis



Examples for this talk

<http://bluesmoon.github.com/talks/node-modules/>



Node.JS & npm



0.1 The 2 minute Node.JS Tutorial

```
node  
> m = require('module')  
> console.log(m.foo)
```

We'll be using node v0.6.x



0.1 *The 2 minute Node.JS Tutorial*

```
node script.js
```



0.1 The 2 minute Node.JS Tutorial

```
echo "console.log('hello, world!')" | node
```

Notice that in JavaScript, semicolons are optional



0.2 *Installing modules*

```
npm install module
```

Installs into a local `node_modules` directory



0.2 *Installing modules globally*

```
sudo npm install -g module
```

Installs into the `/usr/lib/node_modules` directory



0.2 *npm help*

```
npm help npm
```



search.npmjs.org



What's the time?

13:37?



1

HTTP Logs



1.1 UserAgent Parsing

```
npm install ua-parser  
  
var parser=require('ua-parser');  
var ua = parser.parse(ua_string);  
  
// family, major, minor, patch, os
```

Extracted from Google's BrowserScope Project



1.2 IP Addresses

```
var net = require('net');  
  
net.isIP(ip); // returns 0, 4 or 6
```

The `net` module is part of node



1.3 GeoLocation

```
npm install geoip-lite  
  
var geo = require('geoip-lite');  
var loc = geo.lookup(ip);  
  
// country, region, city, ll
```

Uses MaxMind's GeoIP database. Very fast lookups, IPv4 & v6



1.3 *geip-lite's hidden function*

```
var geo = require('geip-lite');  
geo.cmp(ip1, ip2);  
  
// -1, 0 or 1
```

Used internally to do a binary search on the IP database



1.4 Date formatting

```
npm install prettydate
```

```
var strftime = require('prettydate').strftime;
```

```
var dstr = strftime(new Date, "%c");
```

Also accepts a locale as a third parameter.



1.5 Querystring Parsing

```
var qs = require('querystring');
```

```
qs.parse('name=Larry&name=Moe&name=Curly');  
// { name: [ 'Larry', 'Moe', 'Curly' ] }
```



1.6 Creating Hashes

```
var crypto = require('crypto');  
  
var hash = crypto.createHash('sha1');  
hash.update(data);  
  
var digest = hash.digest('hex');
```



1.6 Creating HMACs

```
var crypto = require('crypto');  
  
var hmac = crypto.createHmac('sha1', key);  
hmac.update(data);  
  
var digest = hmac.digest('base64');
```



What's the time?

It should be

14:05

I hope ;)



2

Statistical Analysis



2.1 *faststats*

```
npm install fast-stats
```

```
var Stats = require('fast-stats').Stats;  
var s = new Stats().push(1, 2, 3, 10, 8, 4, 3);  
console.log(s.amean().toFixed(2));
```

Caveat: I haven't pushed out a new version in a while



2.2 *gauss*

```
npm install gauss
```

```
var gauss = require('gauss');  
var set = new gauss.Vector(5, 1, 3, 2, 21);  
console.log(set.mean());
```



2.3 statsd

```
npm install statsd node-statsd
```

- github.com/etsy/statsd
- Easy to set up
- Requires graphite to plot charts
- Brought to you by Etsy



2.3 statsd

```
var StatsD = require('node-statsd').StatsD
c = new StatsD('example.org', 8125)
c.timing('node_test.some_service.task.time', 500)
```



2.4 *cube*

Disclaimer: I've never used this one before

```
npm install cube
```

- square.github.com/cube/
- github.com/square/cube/wiki



What's the time?

14:20?



Still trying to figure out the best way to debug Node.JS memory usage. Ideas? Let me know.



Questions?





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Contact me

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