



Google

WHAT ?

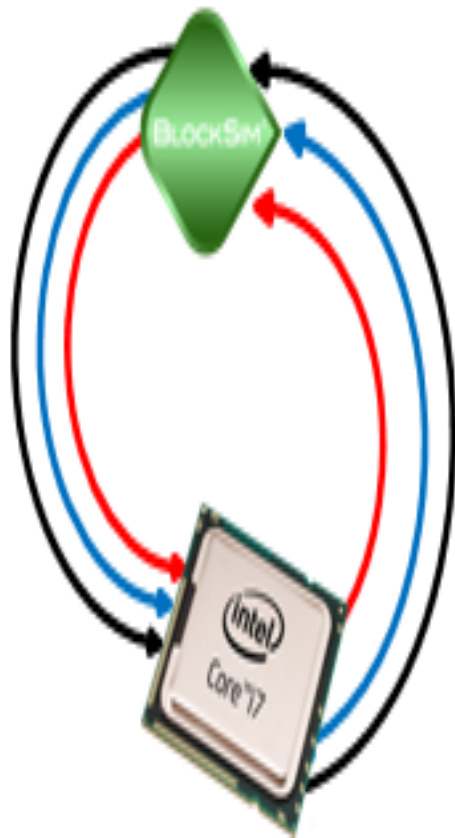
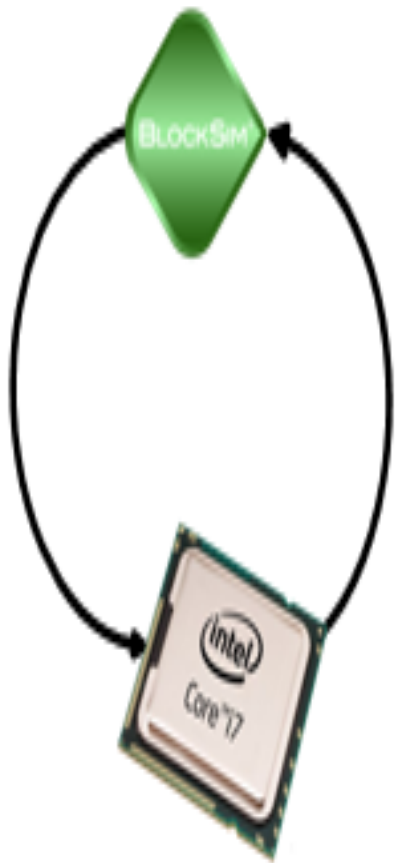


SpiderMonkey



Rhino

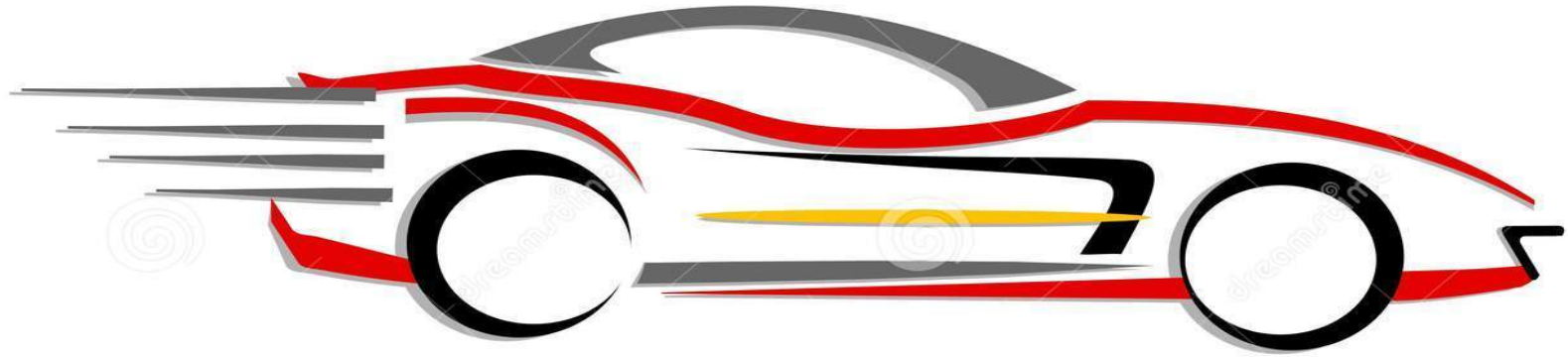




Three key areas to V8's performance:



Fast Property Access



Download from
Dreamstime.com

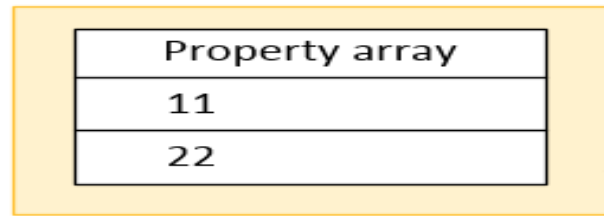
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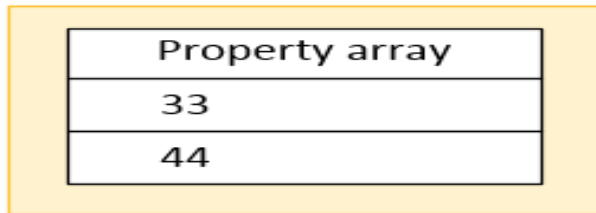
prototype
JavaScript framework

Hidden Class

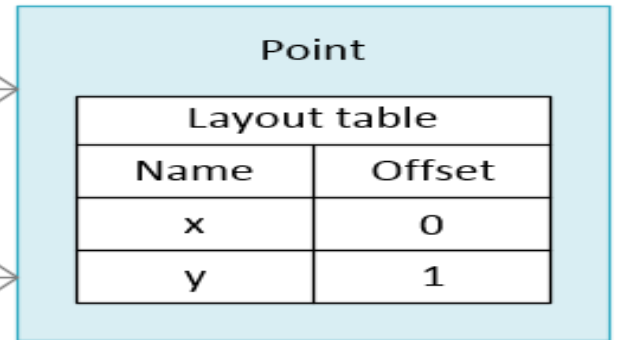
```
function Point(x, y) {  
    this.x = x;  
    this.y = y;  
}  
var p = new Point(11,22);  
var q = new Point(33,44);
```



`p`



`q`



Hidden class

Hidden Class

```
function Point(x, y) {  
    this.x = x; // Point_1  
    this.y = y; // Point_2  
}  
var p = new Point(11,22); // Point_0  
var q = new Point(33,44);  
q.z = 55; // Point_3
```

Property array
11
22

p

Property array
33
44
55

q

Point_0	
Layout table	
Name	Offset

Point_1	
Layout table	
Name	Offset
x	0

Point_2	
Layout table	
Name	Offset
x	0
y	1

Point_3	
Layout table	
Name	Offset
x	0
y	1
z	2

Dynamic Machine Code Generation



Compiler



Efficient Garbage Collection



Referências

<https://www.youtube.com/watch?v=UJPdhx5zTaw>

<https://www.youtube.com/watch?v=hWhMKalEicY>

<http://thibaultlaurens.github.io/javascript/2013/04/29/how-the-v8-engine-works/>



Thanks, Bro