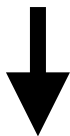




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Baseline
Compiler



Machine code



Optimizing
Compiler



Optimized
Machine Code



Re-compile “hot” functions

Sourcecode

```
graph TD; A[Sourcecode] --> B[Parser]; B --> C[AST]; C --> D[ ];
```

A flowchart illustrating the compilation process. It consists of three rectangular boxes with thick gray borders, arranged diagonally from top-left to bottom-right. The first box contains the text 'Sourcecode'. A dark gray arrow points from the bottom-right corner of the first box to the top-left corner of the second box. The second box contains the text 'Parser'. Another dark gray arrow points from the bottom-right corner of the second box to the top-left corner of the third box. The third box contains the text 'AST'. A final dark gray arrow points from the bottom-right corner of the third box, extending downwards and to the right, indicating a continuation of the process.

Parser

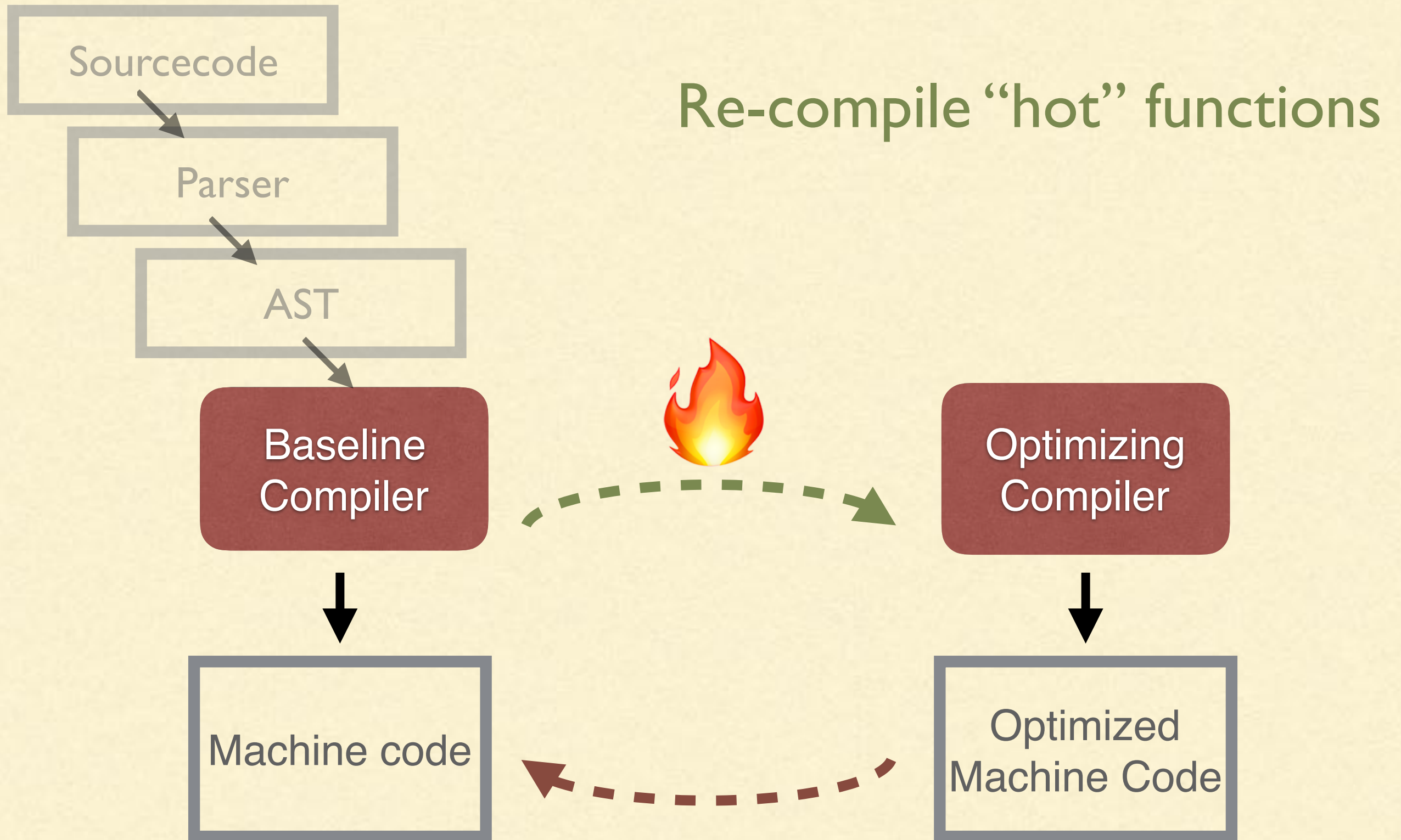
AST



Optimize on wrong speculation

```
function add(obj) {  
    return 1 + obj.x;  
}
```

```
add({x: 42});
```



Deoptimize on wrong speculation