



Array comprehensions

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July 29, 2010

Declarative syntactic sugar



```
[ key.toUpperCase() for (key in obj) ]
```

Declarative syntactic sugar, ctd.



high-integrity array construction

```
let (result = []) {  
  for (let key in obj) {  
    result[result.length] = key.toUpperCase();  
  }  
=> result  
}
```

high-integrity array push

Filtering



```
[ val for ([key, val] in properties(obj)) if (key % 2) ]
```

Filtering, ctd.



```
let (result = []) {  
  for (let [key, val] in properties(obj)) {  
    if (key % 2)  
      result[result.length] = val;  
  }  
  => result  
}
```

Comprehension clauses



CompClause ::= ForClause LetClause? IfClause?

ForClause ::= **“for”** **“(“** LHSExpression **“in”** Expression **“)”**

LetClause ::= **“let”** LetHead

IfClause ::= **“if”** **“(“** Expression **“)”**

Summary



- Simple syntactic sugar, big readability win.
- Fits into existing grammar pretty well!
- Plenty of prior art: Python, Haskell, math.