

Rip first 10 mins

Branch Prediction:

- * do-while loop \rightarrow ^{conditional} branch always taken _(almost)
- * while loop \rightarrow ^{conditional} branch rarely taken
- * for loop \rightarrow

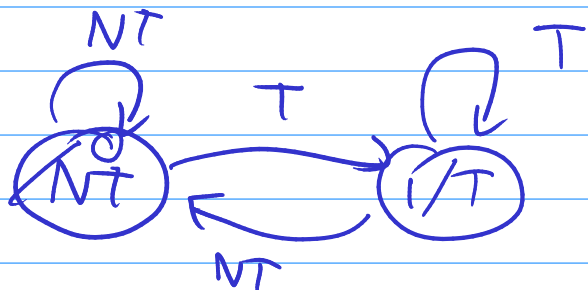
most orcs don't implement branch predictions

Content
Addressable (CAM)
Memory

branch target
buffer (BTB)

address of branch	target address
1008	1028

1004 I₁
1008 beqz L₁
1012 I₂
1016 I₃
1020 I₄
1024 j 1004
1028 I₅



Compiler
Should
help

```

for (i = 0; i < 10; i++) {
    if (i % 2 != 0) {
        ...
    }
}
  
```