

Compilation 2010

Peephole Competition

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Most Obfuscated Pattern?

- Group 10: a complex condition...

```
pattern zero_imul x:  
  x ~ ldc_int (i0)  
  *  
  imul  
  && ( x ~ *  
      ldc_int(i1)  
      imul)  
  && (i0 == 0 ||  
      i1 == 0)  
-> 3 ldc_int (0)
```

Most Obfuscated Pattern?

- Group 10: a complex condition...

```
pattern zero_imul x:  
    x ~ ldc_int (i0)  
        ldc_int (i1)  
        imul  
  
        && (i0 == 0 ||  
            i1 == 0)  
-> 3 ldc_int (0)
```

Least Terminating Pattern?

- Group 24: make sure we ...

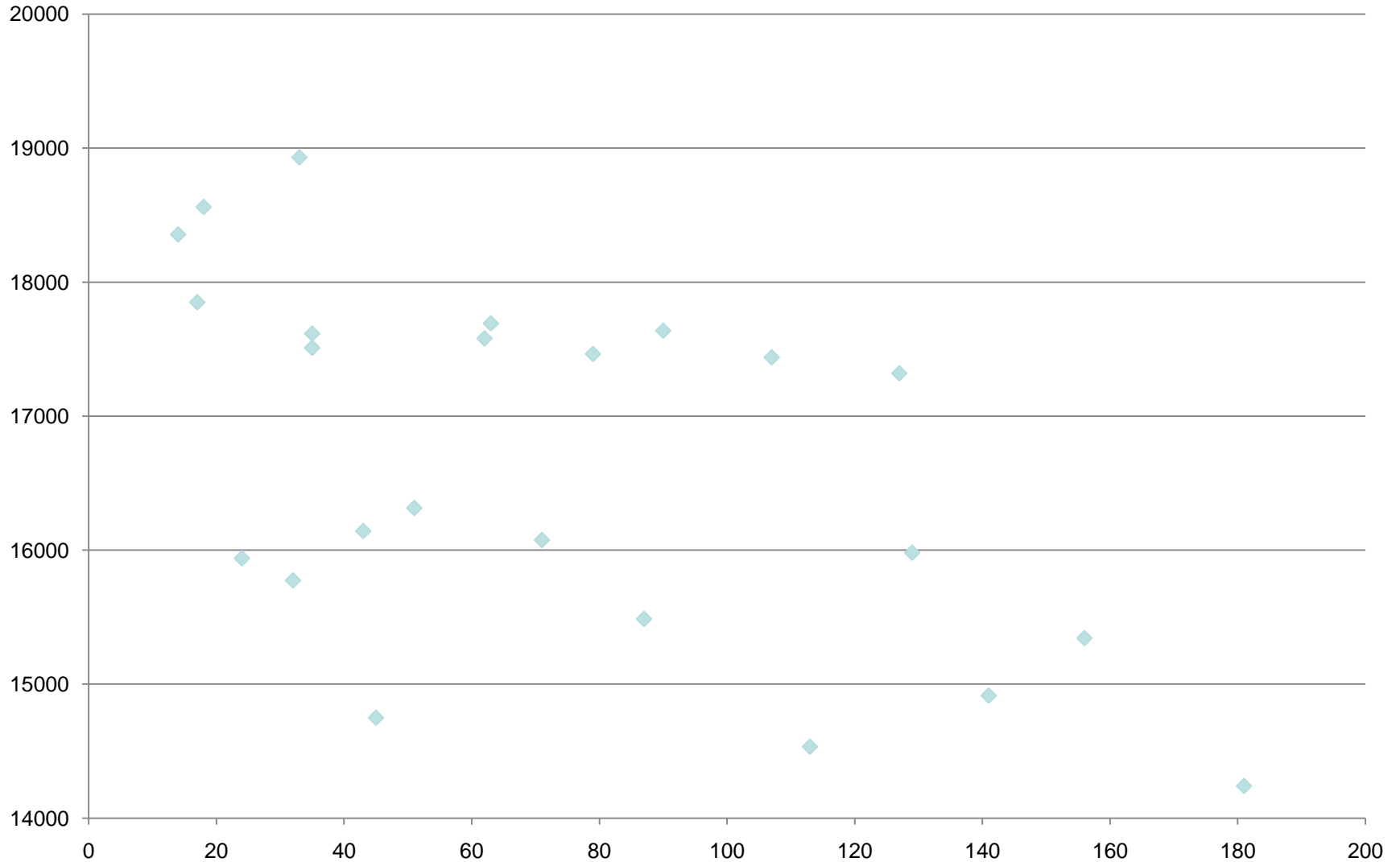
```
pattern secret74 x:
  x ~ ifcmp (c0,10) // eq
    ldc_int (n0) // 0
    goto (l1)
    label (l2) // <- ifcmp
    ldc_int (n1) // 1
    label (l3) // <- goto
    dup
    if (c1,l4)
    pop
    && c0 == eq
    && l1 == l3
    && c1 == eq
    && l3 == l4 // make sure we don't infi-loop
-> 7 ifcmp (c0,10) // eq
    ldc_int (n0) // 0
    goto (l4)
    label (l2) // <- ifcmp
    ldc_int (n1) // 1
    label (l3) // <- goto
    dup
    if (c1,l4)
    pop
```

Least Terminating Pattern?

- Group 24: make sure we ... loop

```
pattern secret74 x:
  x ~ ifcmp (c0,10) // eq
    ldc_int (n0) // 0
    goto (l1)
    label (l2) // <- ifcmp
    ldc_int (n1) // 1
    label (l3) // <- goto
    dup
    if (c1,l4)
    pop
    && c0 == eq
    && l1 == l3
    && c1 == eq
    && l3 == l4 // make sure we don't infi-loop
-> 7 ifcmp (c0,10) // eq
    ldc_int (n0) // 0
    goto (l4)
    label (l2) // <- ifcmp
    ldc_int (n1) // 1
    label (l3) // <- goto
    dup
    if (c1,l4)
    pop
```

Reduction vs Patterns



Top 7 Results

- 19834 \leq baseline

Top 7 Results

- 15775 \leq group 16
- 19834 \leq baseline

Top 7 Results

- 15487 \leq group 21
- 15775 \leq group 16
- 19834 \leq baseline

Top 7 Results

- 15344 \leq group 01
- 15487 \leq group 21
- 15775 \leq group 16
- 19834 \leq baseline

Top 7 Results

- 14915 <= group 24
- 15344 <= group 01
- 15487 <= group 21
- 15775 <= group 16
- 19834 <= baseline

Top 7 Results

- 14750 <= group 13
- 14915 <= group 24
- 15344 <= group 01
- 15487 <= group 21
- 15775 <= group 16
- 19834 <= baseline

Top 7 Results

- 14534 <= group 15
- 14750 <= group 13
- 14915 <= group 24
- 15344 <= group 01
- 15487 <= group 21
- 15775 <= group 16
- 19834 <= baseline

Top 7 Results

- 14241 <= group 26
- 14534 <= group 15
- 14750 <= group 13
- 14915 <= group 24
- 15344 <= group 01
- 15487 <= group 21
- 15775 <= group 16
- 19834 <= baseline

Group 26

Allan Brøndum Rasmussen

Fabulous Prizes

Winner
doVs Peephole Competition
2010

But Wait – There Is More

- 14241 <= group 26
- 14534 <= group 15
- 14750 <= group 13
- 14915 <= group 24
- 15344 <= group 01
- 15487 <= group 21
- 15775 <= group 16
- 19834 <= baseline

But Wait – There Is More

- 14241 <= group 26
- 14534 <= group 15
- **14725 <= Winner 2009 (Lasse)**
- 14750 <= group 13
- 14915 <= group 24
- 15344 <= group 01
- 15487 <= group 21
- 15775 <= group 16
- 19834 <= baseline

But Wait – There Is Still More

- 14241 <= group 26
- 14534 <= group 15
- 14725 <= Winner 2009 (Lasse)
- 14750 <= group 13
- 14915 <= group 24
- 15344 <= group 01
- 15487 <= group 21
- 15775 <= group 16
- 19834 <= baseline

But Wait – There Is Still More

- 14241 <= group 26
- 14393 <= Aske (inventor)
- 14534 <= group 15
- 14725 <= Winner 2009 (Lasse)
- 14750 <= group 13
- 14915 <= group 24
- 15344 <= group 01
- 15487 <= group 21
- 15775 <= group 16
- 19834 <= baseline