Sequential Code

Points-to Profiler | Edge Profiler | Memory Profiler

Static Analysis | Separation Spec | Control Spec | Memory Spec

Annotated PDG

pathcost

dist

RAW
WAR
WAW

OVERWRITE (e1)

UO={6} (v1)

29

(e4) (e5)

(e3)

OVERWRITE (e2)

40 **UO={6}** (v2)

(e7)

UO={6} (v3)

43 (e8)

(e6)

OVERWRITE (e9)

UO={3} (v4)

13 **not live out** (v4')

(e10) (e11)

37 **UO={3}** (v5)

not live out (v5')

REMOVABLE:
Static Analysis — (e3) (e4) (e5) (e6) (e7) (e8)
Memory Speculation — (e5) (e8)

OVERWRITE: Static Analysis — (e1) (e2)

UO: Separation Speculation — (v1) (v2) (v3)

REMOVABLE:
Static Analysis + Control Speculation — (e10) (e11)
Memory Speculation — (e11)

OVERWRITE: Static Analysis + Control Speculation — (e9)

UO:
Static Analysis — (v4) (v4') (v5) (v5')
Separation Speculation — (v4) (v5)

Classifier

Properties & Runtime Overheads

pathcost

dist

Properties

UO: {6}
i) is privatizable due to
UO annotation of (v1), (v2), (v3) and
REMOVABLE annotation of (e5), (e8)
ii) has known last update iteration due to
OVERWRITE annotation of (e1), (e2)

UO: {3}
i) is privatizable due to
UO annotation of (v4), (v5) and
REMOVABLE annotation of (e11)
ii) is not live-out due to
UO annotation of (v4') (v5')

Rumtime Overheads

- Head check for UO

- Misspec check for control speculation