MemorySSA in 5 minutes

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George Burgess

What is MemorySSA?

How is MemorySSA formed?

- MemoryUse
- MemoryDef
- MemoryPhi

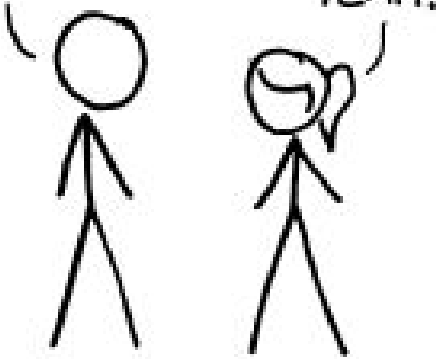
So it’s kind of like a Memory Dependence Analysis?

HOW STANDARDS PROLIFERATE:

(SEE: A/C CHARGERS, CHARACTER ENCODINGS, INSTANT MESSAGING, ETC.)

SITUATION: THERE ARE 14 COMPETING STANDARDS.

14?! RIDICULOUS! WE NEED TO DEVELOP ONE UNIVERSAL STANDARD THAT COVERS EVERYONE'S USE CASES.



SOON:

SITUATION: THERE ARE 15 COMPETING STANDARDS.

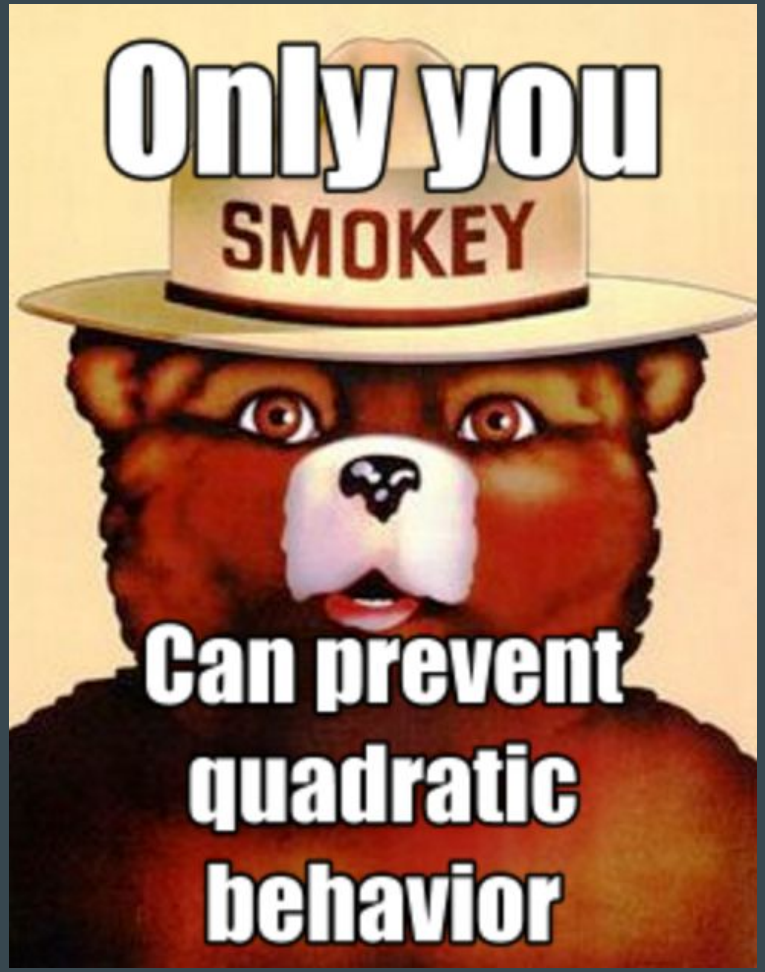
What makes MSSA better?

We have users!

- GVNHoist
- EarlyCSE
- Others in the works

More info

http://llvm.org/docs/MemorySSA.html


Only you
SMOKEY
Can prevent
quadratic
behavior

Thank you!