abc summary

- where we are and where we're going -

abc and abcTests.xml

abcTests.xml includes
all of ajcTests.xml, plus
new tests

running abc on abcTests.xml:
865   passed
19   failed (9 from ajcTests.xml)
103   skipped

reasons for failure:
9   abc bugs
6   polyglot bugs
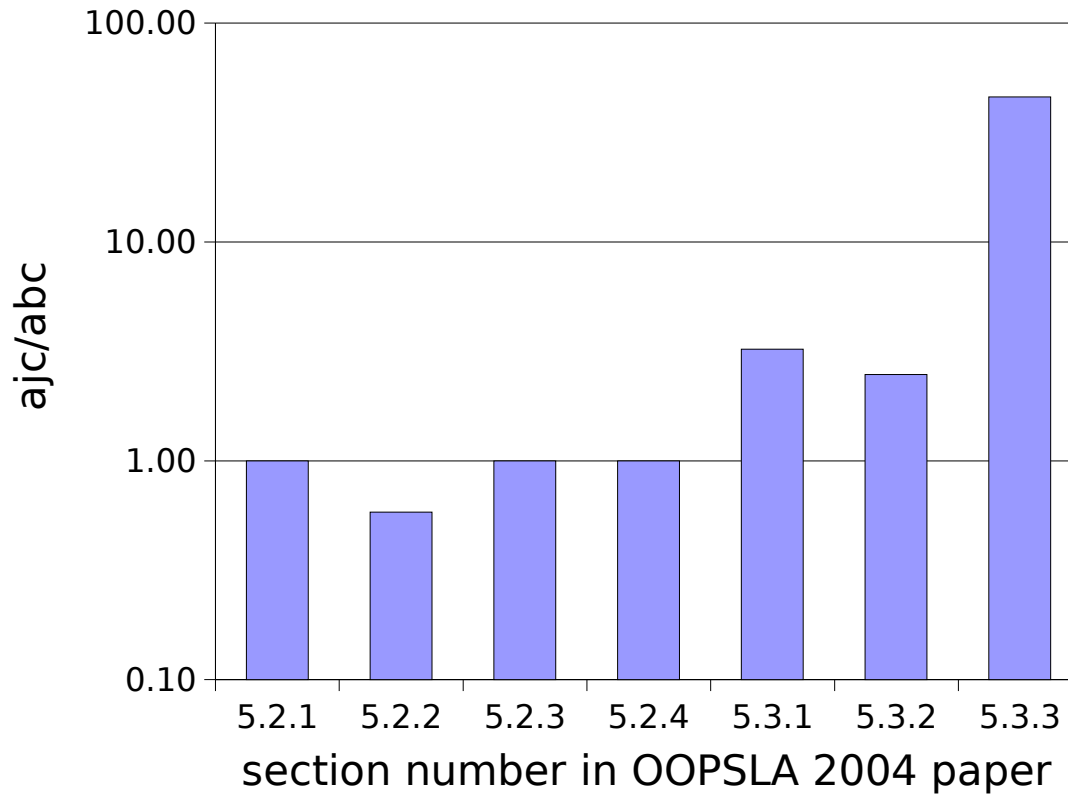1   javaToJimple/soot bug
3   queries for ajc

reasons for skip:
18 no incremental compilation
    for aspects & aspect-aware classes
34 options
9   not compiled by javac
2   package dir mismatch
34 "known limitation" of ajc
6   scanner

skipped options: incremental, usejavac, strict, X0codesize, extdirs
skip compile attribute: aspectpath

Initial performance experiments

Speedup factor of abc over ajc (JIT)

5.2.2 discrepancy due to architecture-specific JIT optimisations

Development plans

eliminate bugs

improve compilation speed

Java 1.5 support

*J tagger for performance measurement

Dava support for decompiling AspectJ to Java

visualisation in Eclipse

Future optimisations & analyses

- Further around optimisations:
  - smart cycle breaking, inliner
- Interprocedural analysis for eliminating cflow overheads
- Test for pure aspects
- Slicer for AspectJ

Future language extensions

- Semantic pointcuts:
  - predicted cflow
  - dataflow pointcuts
  - tracecuts
- Feature composition
  - CCC/Plainway ideas integrated with AspectJ