

CS738: Advanced Compiler Optimizations

SSAPRE: Example

Amey Karkare

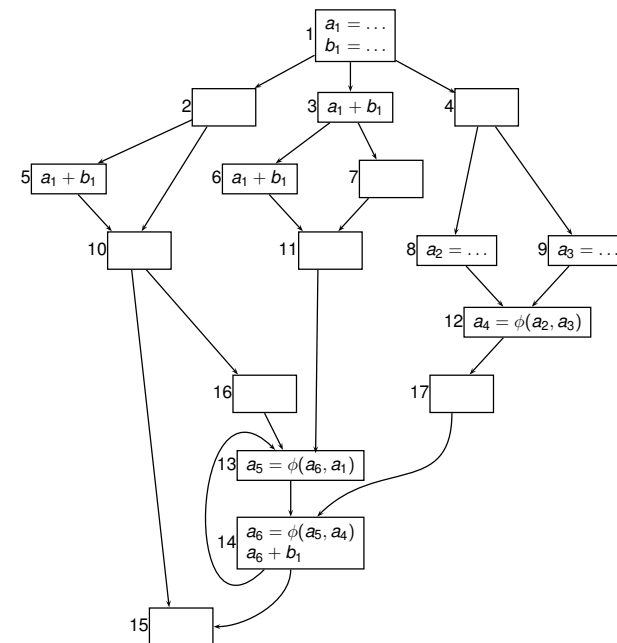
karkare@cse.iitk.ac.in

<http://www.cse.iitk.ac.in/~karkare/cs738>

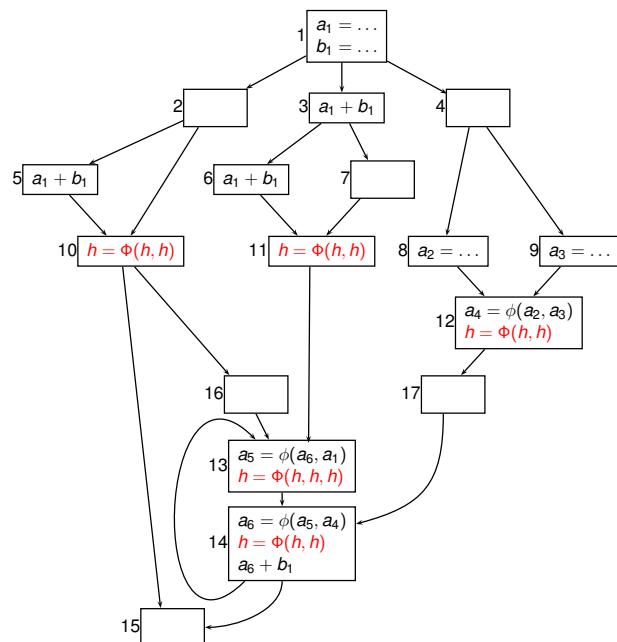
Department of CSE, IIT Kanpur



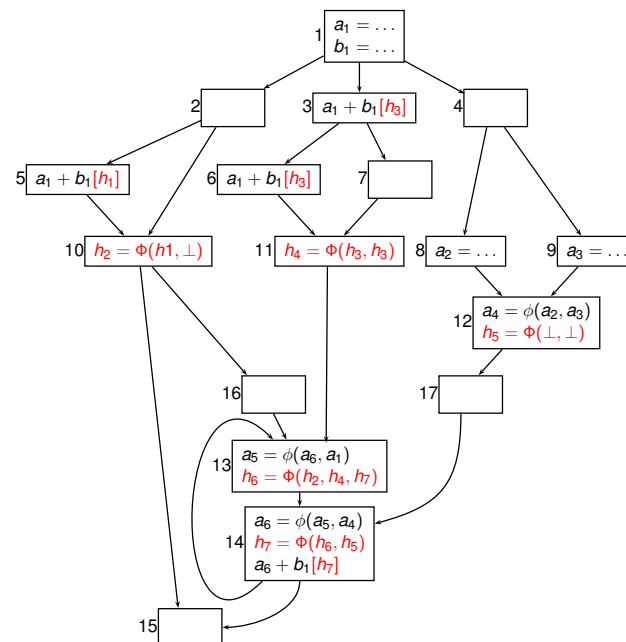
Example



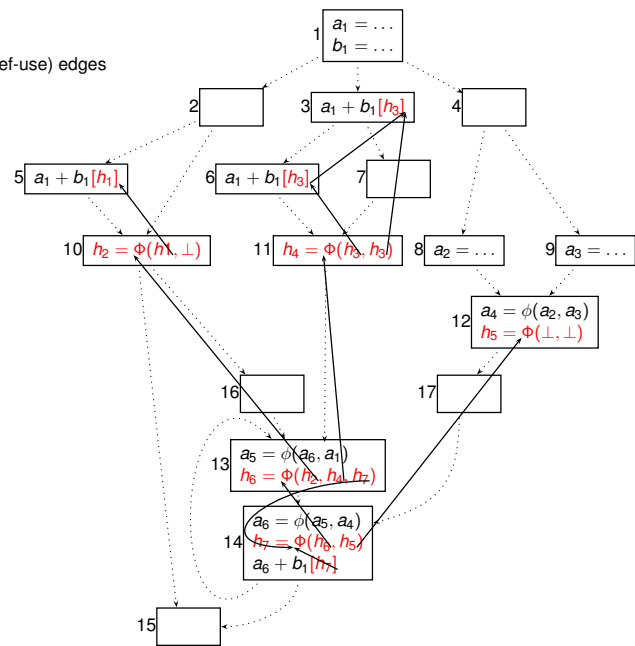
Φ insertion



Rename

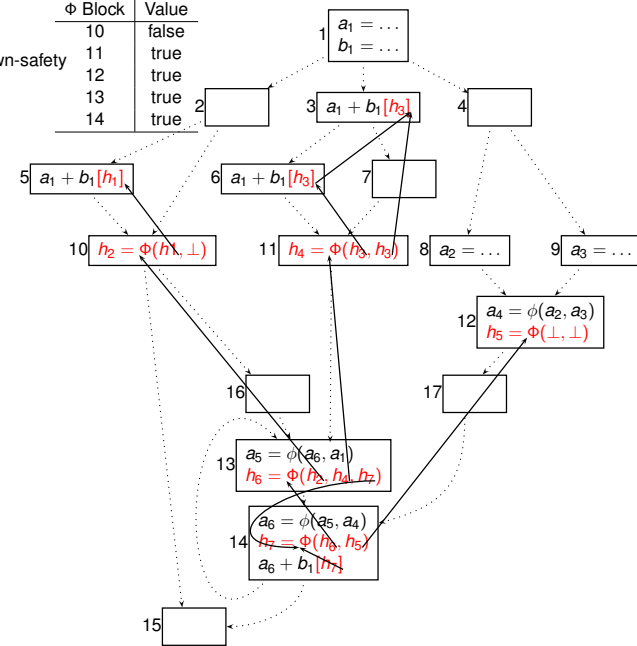


FRG (def-use) edges



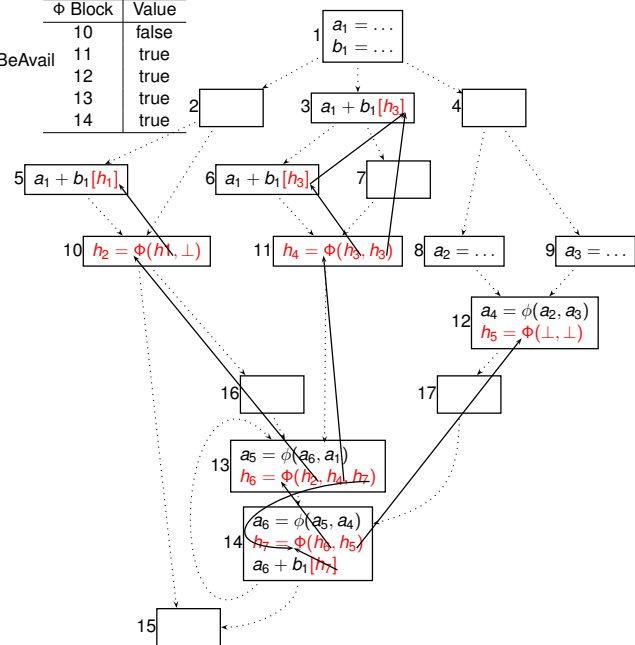
Φ Block	Value
10	false
11	true
12	true
13	true
14	true

Down-safety



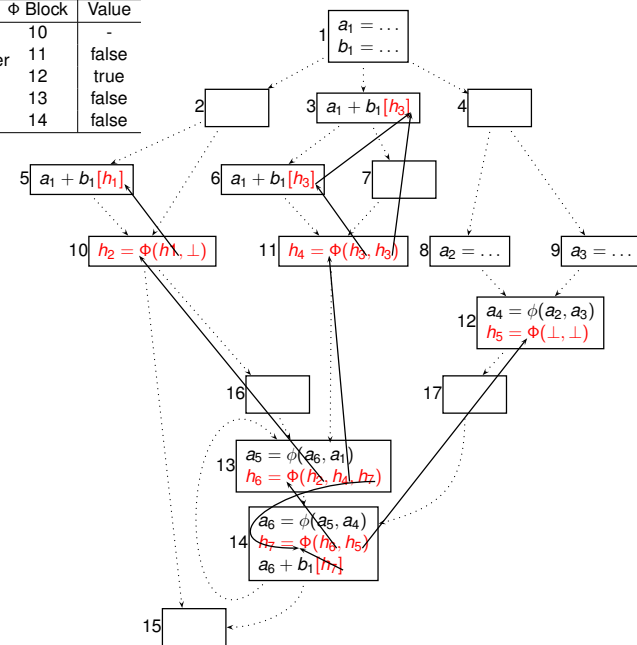
CanBeAvail

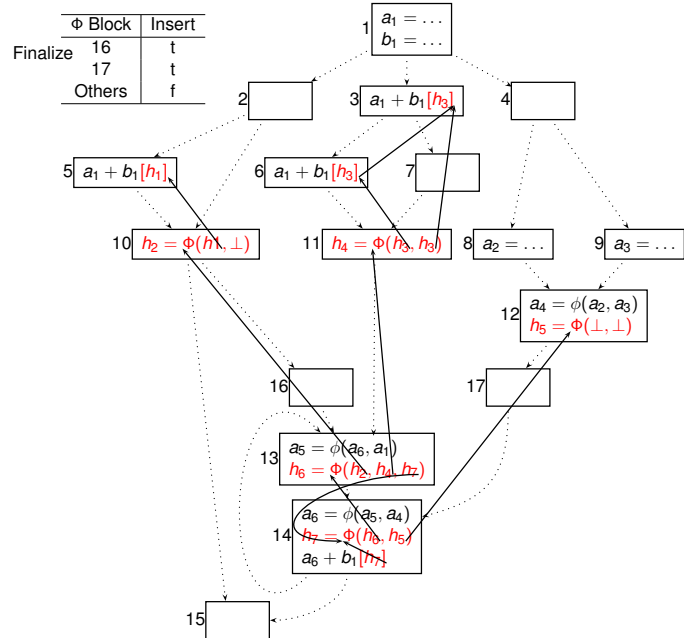
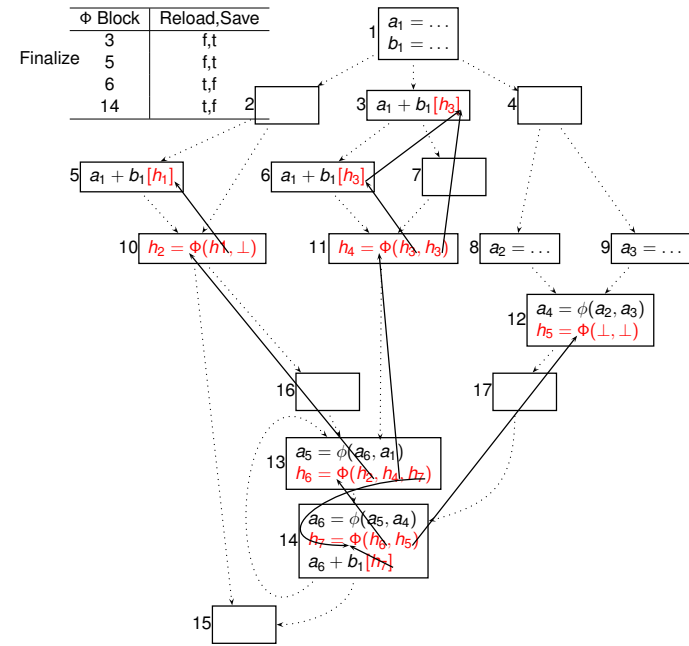
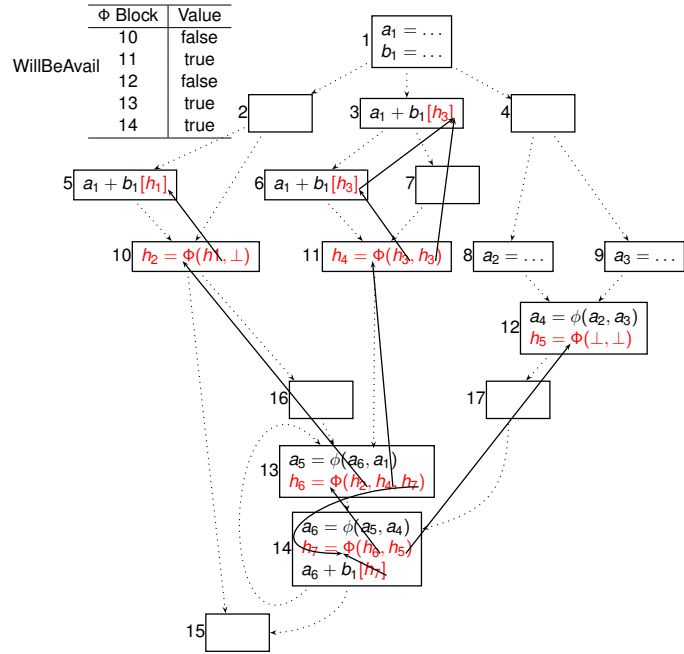
Φ Block	Value
10	false
11	true
12	true
13	true
14	true



Later

Φ Block	Value
10	-
11	false
12	true
13	false
14	false





Code Motion

