

CS 744 - Advanced Compiler Design

Reading Assignment 2

For this reading assignment, you will read the following:

1. Section 19.2 (Efficient Computation of the Dominator Tree) of Appel, A., *Modern Compiler Implementation in Java*, 2002.

Note: this section is the same in earlier editions of the book, as well as in the ML and C versions. You can read one of the other versions if you cannot find the Java version.

2. Cooper K. D., Harvey T. J., Kennedy K., A Simple, Fast Dominance Algorithm.
<http://www.hipersoft.rice.edu/grads/publications/dom14.pdf>

As before, you are to submit a brief summary of the two readings. The summary should not exceed two pages total. As before, your summary should include:

- the key ideas presented in the readings,
- a brief summary of the justification (theorems/proofs/experiments) given for the ideas,
- your opinion of the validity of the justification and the clarity of presentation, and
- two or three questions you have about the readings.

For this specific assignment, your summary should compare the approaches proposed in the two readings. Under which circumstances would you recommend using each of the two algorithms?