

Compiler Design
Programming Assignment No.1
Machine Independent Optimizations
Due Feb 28 2006

You are required to implement Partial Redundancy Elimination(PRE) on intermediate code produced by LANCE a front-end for C. The input to your program will be a set of C code statements representing intermediate code. You are required to implement the PRE algorithm discussed in class which requires four unidirectional analyses, two forward and two backward. The output of your program should be optimized C code. Prior to implementing PRE, common subexpressions within basic blocks should be eliminated using value numbering. (You can do this given the scheme in ASU). Please submit along with your assignment 5 source programs tested by you and on which your code works. We will also use some test programs of our own in evaluating the assignment.