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J.T. Schwartz April 7, 1976

A Simple Criterion for Avoiding Basing Errors.

Basing errors can only occur if a base b is diminished or made an assignment target while one of the objects based on b is still alive. Therefore the following restriction is sufficient (but by no means necessary) to ensure that basing errors do not occur: suppose that b is a base. Let O_i , 1 = 1, ..., n be all the ovariable occurences of variables based (wholly or partially) on b. Let \overline{O}_j , j = 1, ..., m be all the ovariables such that $\operatorname{crthis}(\overline{O}_j)$ includes one of the O_i . Let x_j , j = 1, ..., m be the variables of the ovariables \overline{O}_j . We require that at each assignment to b there should exist no live variable x_j which is linked to \overline{O}_j along an x_j -clear path.