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DECTYP is used to decide whether the current identifier follows a label or a lower bound in an array declaration.

In the latter case, ARRBND processes the current ALGOL section.

In the former case, EXP is used to check the validity of the use of the label, and DECSTA is set to statement level (as one cannot label a declaration without an intervening begin). The Name List is then searched for the label (which must have been declared in a prior switch list declaration), and the label entry in Label Object Data Load (CODL) should have an address part of zero. If not, this label has been met on the left-hand side of a colon twice and this is an error.

The next test is to see whether this label has been declared in the current block. If it hasn't, it is an error except in the case of procedure definitions or for clauses (see example below). In these cases, the existing entry in CODL is cleared and a new entry made.

ERRORS

FAIL 29; : in type or switch declaration.

FAIL 9; label used twice on left-hand side.

FAIL 48; misused identifier.

Example: begin real c; switch S:= LABEL;
 procedure P (q,r,s); integer q,r,s;
 LABEL: begin q ; = r + s;
 go to LABEL

 end;

If the first begin sets the block number to (say) 52, LABEL is entered by its declaration in Block 52. But procedure P resets the block number to 53, and when LABEL is met on the left-hand side, the block numbers do not correspond.