A check is made that we are not already in a declaration and then DECTYP is set to switch. The subroutine DEC is used to set up a block if this is the first declaration in the block. The next ALGOL section is fetched, which should be 'switchname :=', and LABCOU is cleared. DECL is used to declare the switchname in the namelist and make an entry in the label data area (CODL).

The loop is used to process each label in the switch list. (IFIP ALGOL allows only labels in the switch list).

e.g. switch S := TOM, DICK, HARRY;

Each label is declared in the namelist together with the address of the label in CODL and BN is entered in label entry in CODL. At the end of the switch list when ';' is read, the number of labels is entered in CODL and DECTYP is cleared.

e.g. layout of CODL for the above switch declaration.

| CODL | | | Namelist | |
|---|---|---|---|---|
| n | + 3 | ... no. of labels | s | n |
| n + 1 | + o | | | |
| n + 2 | BN | ... for TOM | TOM | n + 1 |
| n + 3 | + o | | | |
| n + 4 | BN | ... for DICK | DICK | n + 3 |
| n + 5 | + o | | | |
| n + 6 | BN | ... for HARRY | HARRY | n + 5 |

When the left-hand label is declared, its object program address is placed in the LODL label entry, overwriting the + o.

ERRORS

FAIL 26; no := following switch identifier in switch declaration, or switch misplaced.

FAIL 4; wrong identifier in switch list.