```
((0) (YOU SAY 1)
(CAN YOU ELABORATE ON THAT) (DO YOU SAY 1 FOR SOME SPECIAL REASON)
(THAT'S QUITE INTERESTING)))
(YOU = I ((0 I REMIND YOU OF 0) (=DIT))
((0 I ARE 0) (WHAT MAKES YOU THINK I AM 4)
(DOES IT PLEASE YOU TO BELIEVE I AM 4)
(DO YOU SOMETIMES WISH YOU WERE 4)
(PERHAPS YOU WOULD LIKE TO BE 4))
((0 I 0 YOU) (WHY DO YOU THINK I 3 YOU)
(YOU LIKE TO THINK I 3 YOU - DON'T YOU)
(WHAT MAKES YOU THINK I 3 YOU)
(REALLY, I 3 YOU) (DO YOU WISH TO BELIEVE I 3 YOU)
(REALLY, I 3 YOU) (DO YOU WISH TO BELIEVE I 3 YOU)
(SUPPOSE I DID 3 YOU - WHAT WOULD THAT MEAN)
(DOES SOMEONE ELSE BELIEVE I 3 YOU))
((0 I 0) (WE WERE DISCUSSING YOU - NOT ME)
(OH, I 3) (YOU'RE NOT REALLY TALKING ABOUT ME - ARE YOU)
(WHAT ARE YOUR FEELINGS NOW)))
(YES ((0) (YOU SEEM QUITE POSITIVE) (YOU ARE SURE)
(I SEE) (I UNDERSTAND)))
(NO ((0) (ARE YOU SAYING 'NO' JUST TO BE NEGATIVE)
(YOU ARE BEING A BIT NEGATIVE) (WHY NOT) (WHY 'NO')))
(MY = YOUR 2 ((0 YOUR 0 (/FAMILY) 0)
(TELL ME MORE ABOUT YOUR FAMILY) ( WHO ELSE IN YOUR FAMILY
5) (YOUR 4) (WHAT ELSE COMES TO MIND WHEN YOU THINK OF
YOUR 4))
((0 YOUR 0) (YOUR 3) (WHY DO YOU SAY YOUR 3) (DOES THAT
SUGGEST ANYTHING ELSE WHICH BELONGS TO YOU) (IS IT
IMPORTANT TO YOU THAT 2 3)))
(CAN ((0 CAN I 0)  (YOU BELIEVE I CAN 4 DON'T YOU) (=WHAT)
(YOU WANT ME TO BE ABLE TO 4) (PERHAPS YOU WOULD LIKE TO BE
ABLE TO 4 YOURSELF)) ((0 CAN YOU 0) (WHETHER OR NOT YOU CAN 4
DEPENDS ON YOU MORE THAN ON ME) (DO YOU WANT TO BE ABLE TO 4)
(PERHAPS YOU DON'T WANT TO 4) (=WHAT)))
(WHAT ((0) (WHY DO YOU ASK) (DOES THAT QUESTION INTEREST YOU)
(WHAT IS IT YOU REALLY WANT TO KNOW)
(ARE SUCH QUESTIONS MUCH ON YOUR MIND)
(WHAT ANSWER WOULD PLEASE YOU MOST)
(WHAT DO YOU THINK) (WHAT COMES TO YOUR MIND WHEN YOU ASK THAT)
(HAVE YOU ASKED SUCH QUESTION BEFORE)
(HAVE YOU ASKED ANYONE ELSE)))
(BECAUSE ((0) (IS THAT THE REAL REASON) (DON'T ANY OTHER REASONS
COME TO MIND) (DOES THAT REASON SEEM TO EXPLAIN ANYTHING ELSE)
(WHAT OTHER REASONS MIGHT THERE BE)))
(WHY ((0 WHY DON'T I 0) (DO YOU BELIEVE I DON'T 5) (PERHAPS I
WILL 5 IN GOOD TIME) (SHOULD YOU 5 YOURSELF) (YOU WANT ME TO 5)
(=WHAT))
(=WHAT))
((0 WHY CAN'T YOU 0) (DO YOU THINK YOU SHOULD BE ABLE TO 5)
(DO YOU WANT TO BE ABLE TO 5) (DO YOU BELIEVE THIS WILL HELP YOU
TO 5) (HAVE YOU ANY IDEA WHY YOU CAN'T 5) (=WHAT))
(= WHAT))
(EVERYONE 2 ((0 (* EVERYONE EVERYBODY NOBODY NOONE) 0 )
(REALLY, 2) (SURELY NOT 2) (CAN YOU THINK OF
ANYONE IN PARTICULAR) (WHO, FOR EXAMPLE) (YOU ARE THINKING OF
A VERY SPECIAL PERSON)
(WHO, MAY I ASK) (SOMEONE SPECIAL PERHAPS)
(YOU HAVE A PARTICULAR PERSON IN MIND, DON'T YOU) (WHO DO YOU
THINK YOU'RE TALKING ABOUT)))
(EVERYBODY 2 (= EVERYONE))
(NOBODY 2 (=EVERYONE))
(NOONE 2 (=EVERYONE))
(ALWAYS 1 ((0) (CAN YOU THINK OF A SPECIFIC EXAMPLE) (WHEN)
(WHAT INCIDENT ARE YOU THINKING OF) (REALLY, ALWAYS)))
(LIKE 10 ((0 (*AM IS ARE WAS) 0 LIKE 0) (=DIT))
((0) (NEWKEY)) )
(DIT ((0) (IN WHAT WAY)  (WHAT RESEMBLANCE DO YOU SEE)
(WHAT DOES THAT SIMILARITY SUGGEST TO YOU)
(WHAT OTHER CONNECTIONS DO YOU SEE)
(WHAT DO YOU SUPPOSE THAT RESEMBLANCE MEANS)
(WHAT IS THE CONNECTION, DO YOU SUPPOSE)
(COULD THERE REALLY BE SOME CONNECTION)
(HOW)))
()
```

The technique consists of translating the code for the letter "O" to the code for the numeral 0 whenever it is encountered in the input character string. If the string consists only of items such as numbers and names and it is necessary to sort alphabetically on names, the occurrence of an alphabetic character within a name field is used to cause the code for zero to be retranslated to the code for the letter "O" by a rescan of the characters in the name field.

If no sorting is required, the retranslation can be avoided, provided that delimiters such as FORMAT or GO TO are spelled with zero within the recognizer segment of a translator. It is also necessary to redefine identifier as

$\langle$identifier$\rangle ::= \langle$letter$\rangle \mid \langle$identifier$\rangle \langle$letter$\rangle \mid \langle$identifier$\rangle \langle$digit$\rangle \mid \langle$0$\rangle \langle$identifier$\rangle$

where it is understood that the letter "O" is removed from the standard definition of letter as in ALGOL 60. The redefinition permits the inclusion of identifiers such as ODD or OOPS but prevents the use of an identifier consisting only of the repeated mark O.

This technique requires consistency of use and might result in chaos in a warehousing operation in which the letter "O" is used in parts labels with check digits.

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Comments on a Problem in Concurrent Programming Control

Dear Editor:

I would like to comment on Mr. Dijkstra's solution [Solution of a problem in concurrent programming control. Comm ACM 8 (Sept. 1965), 569] to a messy problem that is hardly academic. We are using it now on a multiple computer complex.

When there are only two computers, the algorithm may be simplified to the following:

```
Boolean array b(0; 1) integer k, i, j,
comment  This is the program for computer i, which may be
   either 0 or 1, computer j ≠ i is the other one, 1 or 0;
C0:  b (i) := false;
C1:  if k ≠ i then begin
C2:  if not b(j) then go to C2;
     else k := i;  go to C1 end;
     else critical section;
     b(i) := true;
     remainder of program;
     go to C0;
     end
```

Mr. Dijkstra has come up with a clever solution to a really practical problem.

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