example, the maze on the left below has a solution as shown on the right.

```
00010          XXX X
11110            X X
01010          X X X
01110          X   X
00000          XXXXX
```

As you read the code, remember that a big program should be a collection of manageable pieces, each of which must obey the rules of good style.

```
EX510:PROCEDURE OPTIONS(MAIN);

 /*   FIRST ASSUME MAXIMUM DIMENSIONS FOR THE MAZE  -  HERE 50 X 50   */
  DCL (POINT(2,60),X,Y,(POSITIONX,POSITIONY)(2500)) DEC FIXED(4),
         MAZE(50,50) BIT(1),XMAZE(50,50) CHAR(1) ,
         BRANCH LABEL(LOOKL,LOOKR,LOOKU,LOOKD);
         XMAZE='X';
  GET LIST(N,M);

   GET EDIT(((MAZE(I,J) DO J=1 TO N) DO I=1 TO M))(COLUMN(1),(N)B(1));
   PUT EDIT(((MAZE(I,J) DO J=1 TO N) DO I=1 TO M))(LINE(33-M/2),
           (M) (COLUMN(40-N/2),(N) B(1),SKIP));
    I,MM,NN=1;       II,IN1,IN2=0;

/*  NEXT FIND A PATH THROUGH THE MAZE  -  THIS IS DONE BY SIMULATING
 A MAN KEEPING HIS RIGHT HAND IN CONTACT WITH THE WALL AND FOLLOWING IT  */

    RUNUD:DO K1=NN TO N BY N-1;
          DO K2=IN1+1 TO M;
          IF MAZE(K2,K1)='1'B THEN GO TO TEST1;
   END RUNUD;

    RUNLR:DO K1=MM TO M BY M-1;
          DO K2=IN2 TO N;
          IF MAZE(K1,K2)='1'B THEN GO TO TEST2;
    END RUNLR;

    TEST1:X,NN=K2;            POSITIONX(1)=X;
          Y,IN1=K1;           POSITIONY(1)=Y;
          IF NN=1 THEN GO TO LOOKR;
                       GO TO LOOKL;

    TEST2:Y,MM=K2;            POSITIONY(1)=Y;
          X,IN2=K1;           POSITIONX(1)=X;
          IF MM=1 THEN GO TO LOOKD;
```