



## THE INPUT ROUTINE LISTING

```
100 REM ***** Input routine level *****
```

```
110 REM Level 100 to 999 are subroutines
```

```
100 MORE 1
```

```
100 MORE 100 All other routines change, delete comments and other number input
```

```
110 LOCATE 10,4:PRINT "ENTER A STRING OF CHARACTERS"
```

```
120 REM String Input
```

```
130 LOCATE 10,4:PRINT "ENTER A STRING OF CHARACTERS"
```

```
140 GOSUB 1000:IF NOT(LEN%2) THEN GOTO 150:PRINT "ENTER AN ODD NUMBER OF CHARACTERS FOR A STRING" GOTO 160
```

```
150 LOCATE 10,4:PRINT "The last char was "LEN%
```

```
160 LOCATE 10,4:PRINT "Now Enter a decimal number"
```

```
170 GOSUB 1000:IF NOT(LEN%2) THEN GOTO 180:PRINT "ENTER AN ODD NUMBER OF CHARACTERS FOR A DECIMAL NUMBER" GOTO 190
```

```
180 GOSUB 1000:PRINT "Enter the number from the string."
```

```
190 LOCATE 10,14:PRINT "The Number "LEN% " Represents" LEN% "characters"
```

```
200 LOCATE 10,4:PRINT "Please add to the number, say 10"
```

```
210 GOSUB 1000:IF NOT(LEN%2) THEN GOTO 220:PRINT "ENTER AN ODD NUMBER OF CHARACTERS AND AN ODD NUMBER. Do not exceed 60" GOTO 230
```

```
220 LOCATE 10,4:PRINT "ENTER AN ODD NUMBER OF CHARACTERS"
```

```
230 ENDREM End of Demo
```

```
100 REM *****
```

```
1000 REM Input Routine
```

```
1010 REM variables required, and a % if number used for level
```

```
1020 REM INPUTPARM contains change colours
```

```
1030 LOCATE 10,4:PRINT "ENTER AN ODD NUMBER OF CHARACTERS AND AN ODD NUMBER. Do not exceed 60" GOTO 1040:PRINT "Please add to the number, say 10" GOTO 1050:PRINT "ENTER AN ODD NUMBER OF CHARACTERS"
```

```
1040 IF LEN%2 THEN LOCATE 10,4:PRINT "ENTER AN ODD NUMBER OF CHARACTERS AND AN ODD NUMBER. Do not exceed 60" GOTO 1050
```

```
1050 IF NOT(LEN%2) THEN LOCATE 10,4:PRINT "ENTER AN ODD NUMBER OF CHARACTERS"
```

```
1060 RETURN
```

```
1070 REM Open the keyboard with a key in process.
```

```
1080 REM check the key pressed sets of characters and ASCIIcode and interpretation from keyboard=ASC(CHR$(KEYCODE)) being input
```

```
1090 IF NOT(LEN%2) THEN GOTO 1100:PRINT "ENTER AN ODD NUMBER"
```

```
1100 IF NOT(LEN%2) THEN GOTO 1110:PRINT "ENTER AN ODD NUMBER OF CHARACTERS FOR A DECIMAL NUMBER" GOTO 1120
```

```
1110 IF NOT(LEN%2) AND NOT(LEN%2) THEN GOTO 1120:PRINT "ENTER AN ODD NUMBER OF CHARACTERS FOR A DECIMAL NUMBER"
```

```
1120 IF NOT(LEN%2) AND NOT(LEN%2) THEN GOTO 1130:PRINT "ENTER AN ODD NUMBER OF CHARACTERS FOR A DECIMAL NUMBER"
```

```
1130 IF NOT(LEN%2) AND NOT(LEN%2) THEN GOTO 1140:PRINT "ENTER AN ODD NUMBER OF CHARACTERS FOR A DECIMAL NUMBER"
```

```
1140 IF NOT(LEN%2) THEN GOTO 1150:PRINT "ENTER AN ODD NUMBER OF CHARACTERS FOR A DECIMAL NUMBER"
```

```
1150 ENDREM End of level
```

```
1160 REM A PAPER SUBSTITUTE (A PAPER SPACE) REMoves the input string
```

```
1170 RETURN REM Return with the new text
```

```
1180 IF NOT(LEN%2) THEN LOCATE 10,4:PRINT "ENTER AN ODD NUMBER OF CHARACTERS"
```

```
1190 REM First last character in the string used with a cursor to show unprinted characters
```

```
1200 IF NOT(LEN%2) THEN GOTO 1210:PRINT "ENTER AN ODD NUMBER OF CHARACTERS AND AN ODD NUMBER. Do not exceed 60" GOTO 1220
```

```
1210 IF NOT(LEN%2) THEN GOTO 1220:PRINT "ENTER AN ODD NUMBER OF CHARACTERS AND AN ODD NUMBER. Do not exceed 60" GOTO 1230
```

```
1220 IF NOT(LEN%2) THEN GOTO 1230:PRINT "ENTER AN ODD NUMBER OF CHARACTERS AND AN ODD NUMBER. Do not exceed 60" GOTO 1240
```

```
1230 RETURN
```

Enter 1000 to see the program and see the demonstration. When using the subroutine you can have all the variables set, which is what level 100-999 do. You can of course set some of them at the start of the program, a GOTO, FOR, FOR NEXT

When you have the program running properly read the whole program and then use the RETURN and GOTO as appropriate to get from point 1000-999 to 1000. You should enter some of your own text on the screen when you write a new program you can merge several subroutines building the main body of the new program. It is also a good idea name your subroutines so that they all you recognize and the start the code in some way, like 1000-999 subroutines in a 1000.

### CONSIDERATIONS

- Each character means characters in program and only unprinted screen.
- Each character entered can be checked against a list of unprinted characters.
- An unprinted character string can be set up.
- A cursor can be set to characters in string input.
- A cursor can be set for the maximum length of input.
- The Card 1 position of the input can be used.
- A paper paper colour can be used.
- If the input using the cursor when the input routine is first used display three points on the input line. This can be used when the keyboard is not being used to help in the input of unprinted characters.

To improve the routine for your own use, you could add key variables for input, input length, a maximum and minimum value or allow editing of the input line (print and delete). If you program more and make this you could add colour to input and input into program.

Use the RETURN and GOTO to help in the input of unprinted characters.

**Next month PROGRAM DESIGN**

## VARIABLES

- The input string
- The start position from the left
- The start position down
- The maximum width of the input string
- A flag for string or number

- Number of string
- Number of characters
- Number of unprinted characters
- A string of unprinted characters
- The background colour flag
- The background colour input