

FORTH Screen Data Entry

Introduction

This document describes a process for entering FORTH Screen data held in Text file into a FORTH program on a Microtan.

Requirements

Microtan with TANEX Serial option

A PC/Laptop with a terminal emulator (eg Hyperterminal/Tera Term) installed

RS232 cable connecting the PC/Laptop to the Microtan

Process

Data File Preparation

The text file for the FORTH Screen is likely to look like this:

```
SCR # 2
0 ( RANDOM NUMBER SUPPORT           WANB 15AUG81 )
1 25 VARIABLE VRND           ( RANDOM NUMBER VARIABLE)
2
3 : PRND           ( PRIMITIVE OPERATION)
4   32763 M* DROP ;
5
6 : RND           ( LEAVES NEW RND INTEGER)
7   VRND DUP @ PRND PRND DUP ROT ! 32767 AND ;
8
9 : SRND   ( SCALED RANDOM NO. N --- M . M=RANDOM NUMBER)
10  RND 32767 */;           ( BETWEEN 0 AND N)
11
12 : RANDOMISE   ( INITIAL SCRAMBLE N --- )
13  VRND ! 100 0 DO RND DROP LOOP ;
14
15 ;S
OK
```

This needs to be edited with a Text Editor (eg Notepad) to remove superfluous text and insert a “ P ” between the Line number and start of text on each line to look like this:

```
0 P ( RANDOM NUMBER SUPPORT           WANB 15AUG81 )
1 P 25 VARIABLE VRND                   ( RANDOM NUMBER VARIABLE)
3 P : PRND                             ( PRIMITIVE OPERATION)
4 P 32763 M* DROP ;
6 P : RND                               ( LEAVES NEW RND INTEGER)
7 P VRND DUP @ PRND PRND DUP ROT ! 32767 AND ;
9 P : SRND ( SCALED RANDOM NO. N --- M . M=RANDOM NUMBER)
10 P RND 32767 */ ; ( BETWEEN 0 AND N)
12 P : RANDOMISE ( INITIAL SCRAMBLE N --- )
13 P VRND ! 100 0 DO RND DROP LOOP ;
15 P ;S
```

This should be saved as a text file and will be used as the input file for this particular screen

PC/Laptop Prep

Run the Terminal Emulator application

Open new connection:

Name:Microtan

Configure the Serial port to 19200-8-N-1

Configure the ASCII Transmit settings - delay 20mS characters and 1000ms line ends
- Echo typed Characters

Microtan Prep

Configure Serial port to 19200-8-N-1

MBFD3 = 1F

MBFD2 = 09

Configure Microtan to accept input via serial port

M0 = 21

Note: after changing \$0 from \$20 to \$21, keyboard entry to the Microtan should be conducted from the PC/Laptop.

PC/Laptop

Start FORTH and set up the screen ready for data entry. The sequence will depend on the version of FORTH in use. For DFORTH this will be:

1:DFORTH<CR>

fig-FORTH 1.0 (TUG)

EMPTY-BUFFERS DR0<CR> OK

EDITOR<CR> OK

2 CLEAR<CR> OK

Use the Terminal Emulator application to send the text file prepared above to the Microtan. On completion, use the following FORTH command to save the screen:

FLUSH<CR> OK