**DET**

Ate In-Care Debug Program for the Varian FORA 620/1

**Name:** DET Version 1  
**Date:** June 1, 1969  
**Function:** Debug package  
**Programmer:** Barry Pollack  
**Core Requirements:** 495 or 757  
**Special Equipment:** 5TY  
**Load Point:** 16000  
**Source:** flexible 2000-11  
**Object:** flexible 2500-01

**Description:**

DET Version 1 is a teletype-oriented in-core debug package. It provides the ability to display and modify the registers and memory of the 620/1.

**Command Format:**

```
@ <command character> <operands>
```

DET currently recognizes 12 command characters. <operands> includes both DET responses and user responses.

**Commands:**

- `A # #` ← Display contents of A, modify leave unchanged
- `B # #` ← Display contents of B, modify leave unchanged
- `X # #` ← Display contents of X, modify leave unchanged
D # # # ← Display core loc'n #, modify leave unchanged
D # # # ← Display core loc'ns # through #
- # # # ← Display core loc'n , modify leave unchanged
↓ # # # ← Display next core loc'n, modify leave unchanged
↑ # # # ← Display previous core loc'n, modify leave unchanged
G # ← Jump to loc'n #
E # ← Execute # as an instruction
K # ← Insert breakpoint at loc'n #
F ← Remove breakpoint and proceed
! ← Remove breakpoint

Notes:
1) # is any octal number. Numbers may be signed or unsigned. 
Hitting rscut will restart the number input routine.
Numbers are terminated by any non-numeric character.
stands for carriage return or any other character.
3) # stands for line feed.
4) # in DDT's response to a command character: an octal number.
Modify means replace the contents of the specified register (core loc'n) with the number typed.
5) # stands for the current cell under examination.
6) If a cell is open and you close it with ↑ (↓) (regardless of whether you modified it) the previous (next) cell will be opened.
7) only one breakpoint is allowed. Breakpoints may be placed at any single-word instruction and at the first word of any double-word instruction.
8) DDT may be re-entered at 16000 at any time. It first saves the contents of the machine registers, then requests your command.
9) To display the overflow flip-flop, type $ 0, and then look at the console lights. To continue DDT press RIN.
10) If in a D command, the location typed is terminated by a comma, DDT waits for a second number and interprets the two numbers as bounds. It then displays all locations within the bounds.

EDT August 28, 1968