

\*\*\*\*\*

\* FOR loop in 68000  
\*  
\* First Array Element to Process: TOP  
\* Last Array Element to Process: BOT  
\* The array: DATA  
\*  
\* Used to Index into array: DO  
\* Used as Pointer to array: AO  
\*

\*\*\*\*\*

\*

```
000000 00          DATA  DS  500      ;array of bytes
0001F4 0000          TOP   DC  0        ;first to process
0001F6 0000          BOT   DC  0        ;last to process
```

\*

\*

```
          ;other data
          ;and code
```

\*

\*

\* Assumes TOP & BOT previously calculated

\*

```
0001FB 41F900000000          LEA  DATA,AO      ;set pointer
0001FE 3039000001F4          MOVE TOP,DO        ;init index
000204 B0790000001F6          LOOP CMP  BOT,DO    ;check bounds
00020A 6206          BHI.S LABEL        ;end loop
0020C 42300000          CLR.B O(AO,DO)    ;loop body
000210 60F2          BRA.S LOOP         ;repeat
```

```
          LABEL
```

```
000212          END
```

MODULE TRIAL;

```
VAR
  DATA : ARRAY [1..500] OF CHAR;
  TOP, BOT, i : CARDINAL;
BEGIN
  (* Assumes TOP & BOT have been previously calculated *)

  FOR i := TOP TO BOT DO
```