

Implementations of NEXT in Forth Systems for the 6502 CPU#

FIG-FORTH (also X-FORTH, ANTIC FORTH and other derivatives of FIG-FORTH ...)#

```
NEXT
  LDY #1
  LDA (IP),Y ; Hi-Byte of wordaddress
  STA W+1    ; store in W-Reg
  DEY
  LDA (IP),Y ; Lo-Byte of wordaddress
  STA W      ; store in W-Reg
  CLC
  LDA IP     ; increment IP by 2
  ADC #2
  STA IP
  BCC L54
  INC IP+1
L54
  JMP W-1    ; indirect jump to (W)
```

64FORTH (Tom Zimmer)#

```
NEXT  LDY    #1
      LDA   (IP),Y
      STA   W+1
      DEY
      LDA   (IP),Y
      STA   W
      LDA   (W),Y
      STA   TMP
      INY
      LDA   (W),Y
      STA   TMP+1
      DEY
      CLC
      LDA   IP
      ADC   #2
      STA   IP
      BCC   L816E
      INC   IP+1
L816E JMP   (TMP)
```

See http://groups.google.de/group/comp.lang.forth/browse_thread/thread/19f7f2102e020583/8d1b52cf069d1258

FOCO65

<https://github.com/piotr-wiszowaty/foco65>

```
next
  ldy #0
  lda (ip),y ; lade naechste Adresse (IP=Instruction Pointer)
  sta w     ; und speichere in die Speicherstelle "w"
  iny
  lda (ip),y
  sta w+1
  lda #2    ; den Instruction-Pointer um zwei erhoehen, so das
```

```
clc          ; dieser auf den naechsten Befehl zeigt
adc ip
sta ip
lda #0
adc ip+1
sta ip+1
ldy #0
lda (w),y   ; Sprung-Adresse des naechsten Befehls laden
sta z       ; und in die Speicherstelle "z" schreiben
iny
lda (w),y
sta z+1
jmp (z)     ; indirekt an die Adresse in Speicherstelle "z"
            ; springen
```