

# Xilinx Zynq FPGA, TI DSP, MCU 기반의 프로그래밍 및 회로 설계 전문가 과정

강사 – Innova Lee( 이상훈 )  
gcccompil3r@gmail.com  
학생 – 장성환  
redmk1025@gmail.com

```

73 static const hetINSTRUCTION_t het1PROGRAM[58U] =
74 {
75     /* CNT: Timebase
76      *      - Instruction           = 0
77      *      - Next instruction     = 1
78      *      - Conditional next instruction = na
79      *      - Interrupt           = na
80      *      - Pin                 = na
81      *      - Reg                 = T
82      */
83     {
84         /* Program */
85         0x00002C80U,
86         /* Control */
87         0x01FFFFFFU,
88         /* Data */
89         0xFFFFFFFFU,
90         /* Reserved */
91         0x00000000U
92     },

```

CNT 명령어를 살펴보자.

### 23.6.3.8 CNT (Count)

#### Syntax

```

CNT {
    [brk={OFF | ON}]
    [next={label | 9-bit unsigned integer}]
    [reqnum={3-bit unsigned integer}]
    [request={NOREQ | GENREQ | QUIET}]
    [angle_count={OFF | ON}]
    [reg={A | B | T | NONE}]
    [comp={EQ | GE}]
    [irq={OFF | ON}]
    [control={OFF | ON}]
    [max={25-bit unsigned integer}]
    [data={25-bit unsigned integer}]
}

```

Figure 23-134. CNT Program Field (P31:P0)

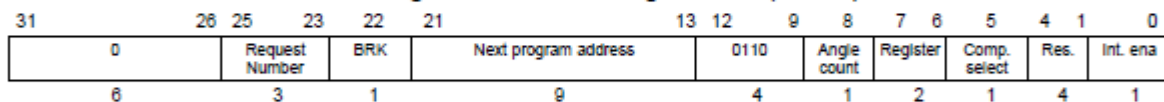


Figure 23-135. CNT Control Field (C31:C0)

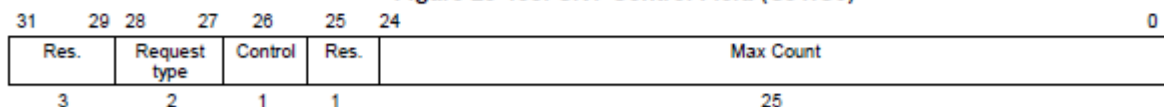
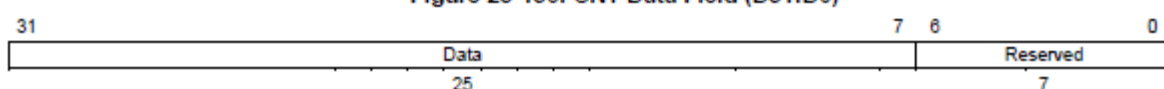


Figure 23-136. CNT Data Field (D31:D0)



처음 Program Field에 채워지는 값은 0x00002C80

따라서, 13, 11, 10, 7 비트 ON,

Next program address – 1

Instruction – 6 (CNT)

Register – 2 (T)

<b>reqnum*</b>	Defines the number of the request line (0,1,...,7) to trigger either the HTU or the DMA. Default: 0 Location: Program field [25:23]
<b>BRK</b>	Defines the software breakpoint for the device software debugger. Default: OFF Location: Program field [22]
<b>next</b>	Defines the program address of the next instruction in the program flow. This value may be a label or an 9-bit unsigned integer. Default: Current instruction + 1 Location: Program field [21:13]
<b>Pin*</b>	Pin Select: Selects the pin on which the action occurs. Enter the pin number. Default: pin 0 Location: Control field [12:8] except PCNT
<b>request*</b>	Allows to select between no request (NOREQ), request (GENREQ) and quiet request (QUIET). See <a href="#">Section 23.2.9</a> . Default: No request Location: Control Field [28:27]

Request	C[28]	C[27]	To HTU	To DMA
NOREQ	0	0	no request	no request
	1	0		
GENREQ	0	1	request	request
QUIET	1	1	quiet request	no request

컨트롤 비트 0x01FFFFFFU

[24:0] 을 ON한다. MAXCNT의 수가 3355431만큼 가능하다.

데이터 비트 0xFFFFFF80

[31:7]를 ON 한다.

모든 데이터가 1로 채워지며 10진수로 4294967168이 된다.

