

## *\*----- SYSTICK TIMER -----\**

### *\* The basis of SysTick -->*

- 1) A 24-bit down counter that runs at the bus clock frequency*
- 2) Max.RELOAD VALUE = 0x00FFFFFF OR  $2^{24} - 1$*

### *\* SysTick --> simple counter used to*

- 1) Create time delays*
- 2) Generate periodic interrupts.*

### *\* Initialization*

- 1) Clear Enable to stop counter during initialization*
- 2) Specify the RELOAD value*
- 3) Clear the counter via NVIC\_ST\_CURRENT\_R*
- 4) Set NVIC\_ST\_CTRL\_R*
  - > CLK\_SRC (Bit 2) = 1 (If bus clock is the only option)*
  - > INTEN = 0 (No Interrupts)*
  - > Enable (Bit 0) = 1 (To enable counter)*

### *\* COUNT BIT*

*--> BIT 16 IN NVIC\_ST\_CTRL\_R*

*--> Acts like a FLAG When the CURRENT value counts down from 1 to 0*





