

Interrupt Vector Table 8086:

The 8086 gets the new values of CS and IP register from four memory addresses. When it responds to an interrupt, the 8686 goes to memory locations to get the CS and IP values for the start of the interrupt service routine. In an Interrupt Structure of 8086 system the first 1 Kbyte of memory from 00000H to 003FFH is reserved for storing the starting addresses of interrupt service routines. This block of memory is often called the **Interrupt Vector Table in 8086** or the **interrupt pointer table**. Since 4 bytes are required to store the CS and IP values for each interrupt service procedure, the table can hold the starting addresses for 256 interrupt service routines. Fig. 9.2 shows how the 256 interrupt pointers are arranged in the memory table.

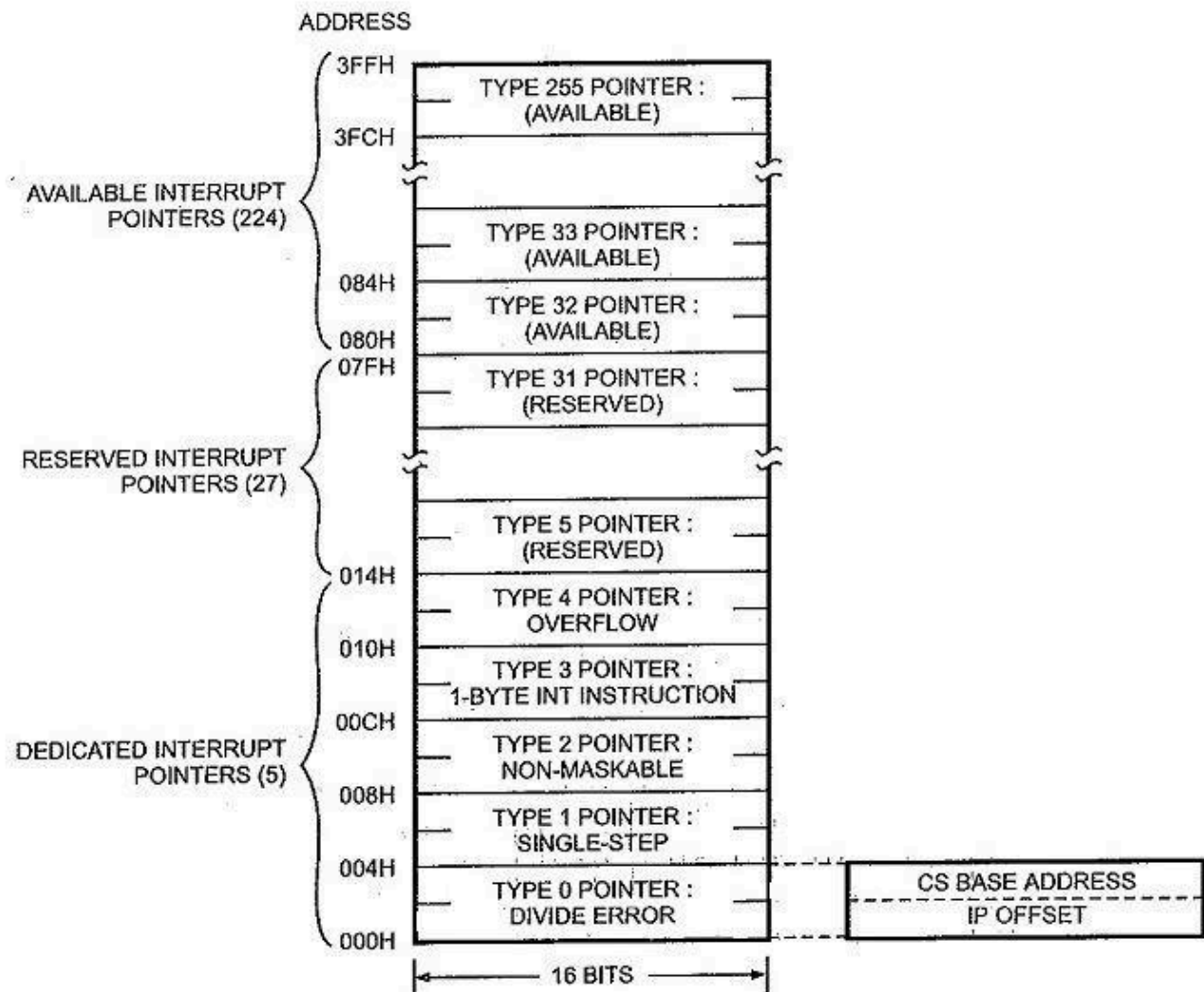


Fig. 9.2 8086 interrupt vector table

Each interrupt type is given a number between 0 to 255 and the address of each interrupt is found by multiplying the type by 4 e.g. for type 11, interrupt address is $11 \times 4 = 44_{10} = 0002CH$

Only first five types have explicit definitions such as divide by zero and non maskable interrupt. The next 27 interrupt types, from 5 to 31, are reserved by Intel for use in future microprocessors. The upper 224 interrupt types, from 32 to 255, are available for user for hardware or software interrupts.

When the 8086 responds to an interrupt, it automatically goes to the specified location in the Interrupt Vector Table in 8086 to get the starting address of interrupt

service routine. So user has to [load](#) these starting addresses for different routines at the start of the program.