Adjust flag

The **Adjust flag** is a <u>CPU flag</u> in the <u>FLAGS register</u> of all <u>x86-compatible CPUs</u>, and the preceding <u>8080-family</u>; it is also called the **Auxiliary flag** and the **Auxiliary Carry** flag (AC). The flag bit is located at <u>position</u> 4 in the CPU flag register. It indicates when an arithmetic carry or borrow has been generated out of the

Intel CPU status register

15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 (bit position)

- - - O D I T S Z - A - P - C Flags

four least significant bits, or lower nibble. It is primarily used to support <u>binary-coded decimal</u> (BCD) arithmetic.

The Auxiliary flag is set (to 1) if during an "**add**" operation there is a carry from the low nibble (lowest four bits) to the high nibble (upper four bits), or a borrow from the high nibble to the low nibble, in the low-order 8-bit portion, during a subtraction. Otherwise, if no such carry or borrow occurs, the flag is cleared or "reset" (set to 0).

See also

- Intel BCD opcode
- Half-carry flag

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