

Table 3.6 Pentium EFLAGS Register Bits

Control Bits	Operating Mode Bits
<p>AC (Alignment check) Set if a word or doubleword is addressed on a nonword or nondoubleword boundary.</p>	<p>NT (Nested task flag) Indicates that the current task is nested within another task in protected mode operation.</p>
<p>ID (Identification flag) If this bit can be set and cleared, this processor supports the CPUID instruction. This instruction provides information about the vendor, family, and model.</p>	<p>VM (Virtual 8086 mode) Allows the programmer to enable or disable virtual 8086 mode, which determines whether the processor runs as an 8086 machine.</p>
<p>RF (Resume flag) Allows the programmer to disable debug exceptions so that the instruction can be restarted after a debug exception without immediately causing another debug exception.</p>	<p>VIP (Virtual interrupt pending) Used in virtual 8086 mode to indicate that one or more interrupts are awaiting service.</p>
<p>IOPL (I/O privilege level) When set, causes the processor to generate an exception on all accesses to I/O devices during protected mode operation.</p>	<p>VIF (Virtual interrupt flag) Used in virtual 8086 mode instead of IF.</p>
<p>DF (Direction flag) Determines whether string processing instructions increment or decrement the 16-bit half-registers SI and DI (for 16-bit operations) or the 32-bit registers ESI and EDI (for 32-bit operations).</p>	<p>Condition Codes</p>
<p>IF (Interrupt enable flag) When set, the processor will recognize external interrupts.</p>	<p>AF (Auxiliary carry flag) Represents carrying or borrowing between half-bytes of an 8-bit arithmetic or logic operation using the AL register.</p>
<p>TF (Trap flag) When set, causes an interrupt after the execution of each instruction. This is used for debugging.</p>	<p>CF (Carry flag) Indicates carrying over or borrowing into the leftmost bit position following an arithmetic operation. Also modified by some of the shift and rotate operations.</p>
	<p>OF (Overflow flag) Indicates an arithmetic overflow after an addition or subtraction.</p>
	<p>PF (Parity flag) Parity of the result of an arithmetic or logic operation. 1 indicates even parity; 0 indicates odd parity.</p>
	<p>SF (Sign flag) Indicates the sign of the result of an arithmetic or logic operation.</p>
	<p>ZF (Zero flag) Indicates that the result of an arithmetic or logic operation is 0.</p>