

## INFSNZ Increment f, skip if not 0

Syntax: [label] INFSNZ f [,d [,a]]

Operands:  $0 \leq f \leq 255$   
 $d \in [0,1]$   
 $a \in [0,1]$

Operation:  $(f) + 1 \rightarrow \text{dest}$ ,  
skip if result  $\neq 0$

Status Affected: None

Encoding:	0100	10da	ffff	ffff
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Description: The contents of register 'f' are incremented. If 'd' is 0, the result is placed in W. If 'd' is 1, the result is placed back in register 'f' (default). If the result is not 0, the next instruction, which is already fetched, is discarded, and a NOP is executed instead, making it a two-cycle instruction. If 'a' is 0, the Access Bank will be selected, overriding the BSR value. If 'a' = 1, then the bank will be selected as per the BSR value (default).

Words: 1

Cycles: 1(2)  
**Note:** 3 cycles if skip and followed by a 2-word instruction.

Q Cycle Activity:

Q1	Q2	Q3	Q4
Decode	Read register 'f'	Process Data	Write to destination

If skip:

Q1	Q2	Q3	Q4
No operation	No operation	No operation	No operation

If skip and followed by 2-word instruction:

is clasp and removed by 2 word instruction.

Q1	Q2	Q3	Q4
No operation	No operation	No operation	No operation
No operation	No operation	No operation	No operation

Example:            HERE        INFSNZ   REG, 1, 0  
                         ZERO  
                         NZERO

Before Instruction

PC        =    Address (HERE)

After Instruction

REG       =    REG + 1

If REG    ≠    0;

PC        =    Address (NZERO)

If REG    =    0;

PC        =    Address (ZERO)

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