

# Interpretando “signed” y “unsigned”

|  | Signed | Unsigned |   |   |   |   |   |   |      |     |
|--|--------|----------|---|---|---|---|---|---|------|-----|
| <table><tr><td>0</td><td>1</td><td>1</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table> | 0      | 1        | 1 | 0 | 1 | 1 | 1 | 1 | 111  | 111 |
| 0  | 1      | 1        | 0 | 1 | 1 | 1 | 1 |   |      |     |
| <table><tr><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table> | 1      | 0        | 0 | 0 | 0 | 0 | 0 | 0 | -128 | 128 |
| 1  | 0      | 0        | 0 | 0 | 0 | 0 | 0 |   |      |     |
| <hr/>  |        |          |   |   |   |   |   |   |      |     |
| <table><tr><td>1</td><td>1</td><td>1</td><td>0</td><td>1</td><td>1</td><td>1</td><td>1</td></tr></table> | 1      | 1        | 1 | 0 | 1 | 1 | 1 | 1 | -17  | 239 |
| 1  | 1      | 1        | 0 | 1 | 1 | 1 | 1 |   |      |     |

OF = 0, CF = 0, SF = 1

# Banderas

Registro de banderas (eflags o rflags) – sólo algunas –

| Bit       | Abr       | Descripción             | Categoría      |
|-----------|-----------|-------------------------|----------------|
| <b>0</b>  | <b>CF</b> | <b>Carry flag</b>       | Status         |
| 1         | 1         | Reserved                |                |
| 2         | PF        | Parity flag             | Status         |
| 3         | 0         | Reserved                |                |
| 4         | AF        | Adjust flag             | Status         |
| 5         | 0         | Reserved                |                |
| <b>6</b>  | <b>ZF</b> | <b>Zero flag</b>        | Status         |
| <b>7</b>  | <b>SF</b> | <b>Sign flag</b>        | Status         |
| 8         | TF        | Trap flag (single step) | Control        |
| 9         | IF        | Interrupt enable flag   | Control        |
| <b>10</b> | <b>DF</b> | <b>Direction flag</b>   | <b>Control</b> |
| <b>11</b> | <b>OF</b> | <b>Overflow flag</b>    | Status         |

# Un caso con acarreo

|   |   | Signed | Unsigned  |
|---|---|--------|-----------|
| <div><div>1</div><div>1</div><div>0</div><div>0</div><div>0</div><div>0</div><div>0</div><div>0</div></div> |   | -64    | 192       |
| <div><div>1</div><div>1</div><div>1</div><div>0</div><div>0</div><div>0</div><div>0</div><div>0</div></div> |   | -32    | 224       |
| <hr/>   |   |        |           |
| <div>1</div>  | <div><div>1</div><div>0</div><div>1</div><div>0</div><div>0</div><div>0</div><div>0</div><div>0</div></div> | -96    | 160       |
| <div>↓</div>  |   |        | + 256     |
| <div>OF = 0, CF = 1, SF = 1</div>   |   |        | <hr/> 416 |

# Un caso más feo

|   | Signed                                    | Unsigned   |
|---|---|--|
| <div>1 1 0 0 0 0 0 0</div>                                  | -64                                       | 192  |
| <div>1 0 1 0 0 0 0 0</div>                                  | -96                                       | 160  |
| <hr/>   |   |  |
| <div> <div>1</div> <div>0 1 1 0 0 0 0 0</div> </div>        | 96  | 96   |
| <div> <div>↓</div> <div>OF = 1, CF = 1, SF = 0</div> </div> | <div> <div>↕</div> <div>-160</div> </div> | <div> <div>+ 256</div> <hr/> <div>352</div> </div> |

# Última combinación

|  | Signed       | Unsigned |   |   |   |   |   |   |      |     |
|--|--------------|----------|---|---|---|---|---|---|------|-----|
| <table><tr><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table> | 0            | 1        | 0 | 0 | 0 | 0 | 0 | 0 | 64   | 64  |
| 0  | 1            | 0        | 0 | 0 | 0 | 0 | 0 |   |      |     |
| <table><tr><td>0</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table> | 0            | 1        | 0 | 0 | 0 | 0 | 0 | 0 | 64   | 64  |
| 0  | 1            | 0        | 0 | 0 | 0 | 0 | 0 |   |      |     |
| <hr/>  |              |          |   |   |   |   |   |   |      |     |
| <table><tr><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr></table> | 1            | 0        | 0 | 0 | 0 | 0 | 0 | 0 | -128 | 128 |
| 1  | 0            | 0        | 0 | 0 | 0 | 0 | 0 |   |      |     |
| <div>↓</div>   | <div>↕</div> |          |   |   |   |   |   |   |      |     |
| OF = 1, CF = 0, SF = 1   | 128          |          |   |   |   |   |   |   |      |     |