

1) Big Endian and 3-bytes

$$29,109,375 = 1,1101000111 \times 2^4$$

Bias = $2^{10-1} - 1 = 511$ fraction

$$E = \text{exp} - \text{Bias}$$

$$L_1 = \text{exp} - 511 \neq \text{exp} = 515$$
$$= 100000011$$

exp

0100000011101000110000
4 0 7 A 3 8

$$-63 = -1, \overset{\text{frac}}{11111} \times 2^5$$

$$E = \text{exp} - \text{Bias} \Rightarrow \text{exp} = 516$$

11 0000001000111100000000
C 0 9 F 0 0

2) Little End. - 1 byte

$$-0,1875 = -0,0011 = -1,1 \times 2^{-3}$$

$$\text{Bias} = 2^{3-1} - 1 = 3$$

$$-3 = \text{exp} - 3 \Rightarrow \text{exp} = 0 \text{ (denorm!)} \quad 1$$

The # should be: $-0,11 \times 2^{-2}$
1 000 100 \Rightarrow 8C _{fraction}

3) Big Endian - 3 byte

16 28, 95 31 25

= 11001011100,111101

= 1,100101110011101 $\times 2^{10}$
round up

= 1, 1001011101000
fraction

Bias = 511

$E = \text{exp} - \text{Bias}$

$10 = \text{exp} - 511 \Rightarrow \text{exp} = 521$

\Rightarrow

0 100/000 100/000 100/000 100/000 100/000 100/000
4 1 3 2 E 8