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mgs4ff
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floatingpoint.doc

My floating point number is: -4.40625
Convert it to little endian binary and express it in hex:
Binary:
1. Sign: 1
2. Exponent:
4.40625 / 2^2 = 1.1015625
2 + 127 = 129
Divide by 2:
129/2 1
64/2 0
32/2 0
16/2 0
8/2 0
4/2 0
2/2 0
1/2 1
Binary: 10000001

3. Mantissa:
1.1015625 - 1 = 0.1015625
Subtract powers of 1/2:
.1015625 - .5 = 0
.1015625 - .25 = 0
.1015625 - .125 = 0
.1015625 - .0625 = 1
.0390625 - .03125 = 1
.0078125 - .015625 = 0
.0078125 - .0078125 = 1
Binary: 00011010000000000000000

Total Binary: 1100 0000 1000 1101 0000 0000 0000 0000
Hexadecimal: 0xC08D0000
Little Endian: 0x00008dc0

My other floating point number is: 0x0000a03f
Convert it to (32 bit) floating point number:
Big Endian: 0x3fa00000
Binary: 0011 1111 1010 0000 0000 0000 0000 0000
Sign: 0
Exponent:01111111
0111 1111 = 0x7f = 127
127 - 127 = 0

Mantissa:01000000000000000000000
(1/4)^1 = .25
1.25
Total Decimal: 1.25*2^0 = 1.25