**Color selection**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Input** | | | **Output** | | |
| 255,0,0 | 253,0,0 | 130,0,0 | 255,0,0 | 255,0,0 | 136,0,0 |
| 0,255,0 | 0,253,0 | 210,11,157 |  |  |  |
| 0,0,255 | 0,0,253 | 142,168,28 |  |  |  |

**Binary (8 – bit representation)**

255 = 11111111

253 = 11111101

130 = 10000010

11 = 00001011

210 = 11010010

157 = 10011101

142 = 10001110

168 = 10101000

28 = 00011100

**Binary (4 – bit representation)**

255 = 1111

253 = 1111

130 = 1000

11 = 0000

210 = 1101

157 = 1001

142 = 1000

168 = 1010

28 = 0001

**Binary (8 – bit representation bit shifted from 4bit)**

255 = 11110000

253 = 11110000

130 = 10000000

11 = 00000000

210 = 11010000

157 = 10010000

142 = 10000000

168 = 10100000

28 = 00010000

New shift color code correctly projects the 16 millino color image of 24 bit color to 4096 colors (12 bit) !!