# Pixel Formats

This page contains a list of pixel formats which can be used with ImageJCV. The pixel formats define how to interpret the bits of each pixel of an image.

Values are defined by FFmpeg and are used by the ffmpeg streaming capabilities of the video feature. Not all image functions work properly with all pixel formats!

**Pixel formats**

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AV_PIX_FMT_NONE = -1
AV_PIX_FMT_YUV420P = 0
AV_PIX_FMT_YUYV422 = 1
AV_PIX_FMT_RGB24 = 2
AV_PIX_FMT_BGR24 = 3
AV_PIX_FMT_YUV422P = 4
AV_PIX_FMT_YUV444P = 5
AV_PIX_FMT_YUV410P = 6
AV_PIX_FMT_YUV411P = 7
AV_PIX_FMT_GRAY8 = 8
AV_PIX_FMT_MONOWHITE = 9
AV_PIX_FMT_MONOBLACK = 10
AV_PIX_FMT_PAL8 = 11
AV_PIX_FMT_YUVJ420P = 12
AV_PIX_FMT_YUVJ422P = 13
AV_PIX_FMT_YUVJ444P = 14
AV_PIX_FMT_XVMC_MPEG2_MC = 15
AV_PIX_FMT_XVMC_MPEG2_IDCT = 16
AV_PIX_FMT_XVMC = 16
AV_PIX_FMT_UYVY422 = 17
AV_PIX_FMT_UYYVYY411 = 18
AV_PIX_FMT_BGR8 = 19
AV_PIX_FMT_BGR4 = 20
AV_PIX_FMT_BGR4_BYTE = 21
AV_PIX_FMT_RGB8 = 22
AV_PIX_FMT_RGB4 = 23
AV_PIX_FMT_RGB4_BYTE = 24
AV_PIX_FMT_NV12 = 25
AV_PIX_FMT_NV21 = 26
AV_PIX_FMT_ARGB = 27
AV_PIX_FMT_RGBA = 28
AV_PIX_FMT_ABGR = 29
AV_PIX_FMT_BGRA = 30
AV_PIX_FMT_GRAY16BE = 31
AV_PIX_FMT_GRAY16LE = 32
AV_PIX_FMT_YUV440P = 33
AV_PIX_FMT_YUVJ440P = 34
AV_PIX_FMT_YUVA420P = 35
AV_PIX_FMT_VDPAU_H264 = 36
AV_PIX_FMT_VDPAU_MPEG1 = 37
AV_PIX_FMT_VDPAU_MPEG2 = 38
AV_PIX_FMT_VDPAU_WMV3 = 39
AV_PIX_FMT_VDPAU_VC1 = 40
AV_PIX_FMT_RGB48BE = 41
AV_PIX_FMT_RGB48LE = 42
AV_PIX_FMT_RGB565BE = 43
AV_PIX_FMT_RGB565LE = 44
AV_PIX_FMT_RGB555BE = 45
AV_PIX_FMT_RGB555LE = 46
AV_PIX_FMT_BGR565BE = 47
AV_PIX_FMT_BGR565LE = 48
AV_PIX_FMT_BGR555BE = 49
AV_PIX_FMT_BGR555LE = 50
AV_PIX_FMT_VAAPI_MOCO = 51
AV_PIX_FMT_VAAPI_IDCT = 52
AV_PIX_FMT_VAAPI_VLD = 53
AV_PIX_FMT_YUV420P16LE = 54
AV_PIX_FMT_YUV420P16BE = 55
AV_PIX_FMT_YUV422P16LE = 56
AV_PIX_FMT_YUV422P16BE = 57
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AV_PIX_FMT_YUV444P16LE = 58
AV_PIX_FMT_YUV444P16BE = 59
AV_PIX_FMT_VDPAU_MPEG4 = 60
AV_PIX_FMT_DXVA2_VLD = 61
AV_PIX_FMT_RGB444LE = 62
AV_PIX_FMT_RGB444BE = 63
AV_PIX_FMT_BGR444LE = 64
AV_PIX_FMT_BGR444BE = 65
AV_PIX_FMT_YA8 = 66
AV_PIX_FMT_Y400A = 66
AV_PIX_FMT_GRAY8A = 66
AV_PIX_FMT_BGR48BE = 67
AV_PIX_FMT_BGR48LE = 68
AV_PIX_FMT_YUV420P9BE = 69
AV_PIX_FMT_YUV420P9LE = 70
AV_PIX_FMT_YUV420P10BE = 71
AV_PIX_FMT_YUV420P10LE = 72
AV_PIX_FMT_YUV422P10BE = 73
AV_PIX_FMT_YUV422P10LE = 74
AV_PIX_FMT_YUV444P9BE = 75
AV_PIX_FMT_YUV444P9LE = 76
AV_PIX_FMT_YUV444P10BE = 77
AV_PIX_FMT_YUV444P10LE = 78
AV_PIX_FMT_YUV422P9BE = 79
AV_PIX_FMT_YUV422P9LE = 80
AV_PIX_FMT_VDA_VLD = 81
AV_PIX_FMT_GBRP = 82
AV_PIX_FMT_GBRP9BE = 83
AV_PIX_FMT_GBRP9LE = 84
AV_PIX_FMT_GBRP10BE = 85
AV_PIX_FMT_GBRP10LE = 86
AV_PIX_FMT_GBRP16BE = 87
AV_PIX_FMT_GBRP16LE = 88
AV_PIX_FMT_YUVA422P_LIBAV = 89
AV_PIX_FMT_YUVA444P_LIBAV = 90
AV_PIX_FMT_YUVA420P9BE = 91
AV_PIX_FMT_YUVA420P9LE = 92
AV_PIX_FMT_YUVA422P9BE = 93
AV_PIX_FMT_YUVA422P9LE = 94
AV_PIX_FMT_YUVA444P9BE = 95
AV_PIX_FMT_YUVA444P9LE = 96
AV_PIX_FMT_YUVA420P10BE = 97
AV_PIX_FMT_YUVA420P10LE = 98
AV_PIX_FMT_YUVA422P10BE = 99
AV_PIX_FMT_YUVA422P10LE = 100
AV_PIX_FMT_YUVA444P10BE = 101
AV_PIX_FMT_YUVA444P10LE = 102
AV_PIX_FMT_YUVA420P16BE = 103
AV_PIX_FMT_YUVA420P16LE = 104
AV_PIX_FMT_YUVA422P16BE = 105
AV_PIX_FMT_YUVA422P16LE = 106
AV_PIX_FMT_YUVA444P16BE = 107
AV_PIX_FMT_YUVA444P16LE = 108
AV_PIX_FMT_VDPAU = 109
AV_PIX_FMT_XYZ12LE = 110
AV_PIX_FMT_XYZ12BE = 111
AV_PIX_FMT_NV16 = 112
AV_PIX_FMT_NV20LE = 113
AV_PIX_FMT_NV20BE = 114
AV_PIX_FMT_RGBA64BE_LIBAV = 115
AV_PIX_FMT_RGBA64LE_LIBAV = 116
AV_PIX_FMT_BGRA64BE_LIBAV = 117
AV_PIX_FMT_BGRA64LE_LIBAV = 118
AV_PIX_FMT_YVYU422 = 119
AV_PIX_FMT_VDA = 120
AV_PIX_FMT_YA16BE = 121
AV_PIX_FMT_YA16LE = 122
AV_PIX_FMT_GBRAP_LIBAV = 123
AV_PIX_FMT_GBRAP16BE_LIBAV = 124
AV_PIX_FMT_GBRAP16LE_LIBAV = 125
AV_PIX_FMT_QSV = 126
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AV_PIX_FMT_MMAL = 127
AV_PIX_FMT_D3D11VA_VLD = 128
AV_PIX_FMT_RGBA64BE = 291
AV_PIX_FMT_RGBA64LE = 292
AV_PIX_FMT_BGRA64BE = 293
AV_PIX_FMT_BGRA64LE = 294
AV_PIX_FMT_0RGB = 295
AV_PIX_FMT_RGB0 = 296
AV_PIX_FMT_0BGR = 297
AV_PIX_FMT_BGR0 = 298
AV_PIX_FMT_YUVA444P = 299
AV_PIX_FMT_YUVA422P = 300
AV_PIX_FMT_YUV420P12BE = 301
AV_PIX_FMT_YUV420P12LE = 302
AV_PIX_FMT_YUV420P14BE = 303
AV_PIX_FMT_YUV420P14LE = 304
AV_PIX_FMT_YUV422P12BE = 305
AV_PIX_FMT_YUV422P12LE = 306
AV_PIX_FMT_YUV422P14BE = 307
AV_PIX_FMT_YUV422P14LE = 308
AV_PIX_FMT_YUV444P12BE = 309
AV_PIX_FMT_YUV444P12LE = 310
AV_PIX_FMT_YUV444P14BE = 311
AV_PIX_FMT_YUV444P14LE = 312
AV_PIX_FMT_GBRP12BE = 313
AV_PIX_FMT_GBRP12LE = 314
AV_PIX_FMT_GBRP14BE = 315
AV_PIX_FMT_GBRP14LE = 316
AV_PIX_FMT_GBRAP = 317
AV_PIX_FMT_GBRAP16BE = 318
AV_PIX_FMT_GBRAP16LE = 319
AV_PIX_FMT_YUVJ411P = 320
AV_PIX_FMT_BAYER_BGGR8 = 321
AV_PIX_FMT_BAYER_RGGB8 = 322
AV_PIX_FMT_BAYER_GBRG8 = 323
AV_PIX_FMT_BAYER_GRBG8 = 324
AV_PIX_FMT_BAYER_BGGR16LE = 325
AV_PIX_FMT_BAYER_BGGR16BE = 326
AV_PIX_FMT_BAYER_RGGB16LE = 327
AV_PIX_FMT_BAYER_RGGB16BE = 328
AV_PIX_FMT_BAYER_GBRG16LE = 329
AV_PIX_FMT_BAYER_GBRG16BE = 330
AV_PIX_FMT_BAYER_GRBG16LE = 331
AV_PIX_FMT_BAYER_GRBG16BE = 332
AV_PIX_FMT_YUV440P10LE = 333
AV_PIX_FMT_YUV440P10BE = 334
AV_PIX_FMT_YUV440P12LE = 335
AV_PIX_FMT_YUV440P12BE = 336
AV_PIX_FMT_NB = 337
AV_PIX_FMT_GBR24P = 82
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