

# KRO image format

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KRO image files were created by authors of the AutoPano tools to independently get around the 30K limitation of many other image formats. It also offers high dynamic range through 16 and 32 bit colours. It consists of a header (20 bytes) followed by the raw data. The header is as follows, all multiple byte entities are in big endian order:

- First three bytes are the magic identifier for the file, "KRO" (0x4B 0x52 0x4F).
- The next byte is a version number, don't believe it has gone past 1 (0x01)
- The next two unsigned long ints (4 bytes) are the image width and height.
- The next unsigned long is the colour component depth, may be 8, 16 or 32.
- And lastly, also unsigned long, the number of colour components per pixel, may be 3 (RGB) or 4 (RGBA).

## Notes

- The origin is taken to be the top left corner of the image.
- The image is stored in row major order, that is, first row, then second, and so on.
- 32 bit colour component values are stored as floats, IEEE 754 binary floating point.
- 16 bit data are unsigned shorts, so 0 to  $2^{16}-1$