Example of how information may appear

* Description: ??
  + Size = ??
  + Location = ??

File has a file header, then an info file header, then the data itself. Some headers are different sizes and the additional headers, but we will assume that those don’t exist since most applications use the standard.

First is the file header. This contains the size of the file, the start of the pixel data, and other unnecessary things. 14 bytes in size. (Only showing necessary information)

* Description: Start of the pixel data
  + Size = 4
  + Location = 0x0A / 10

Next is the info header. This has the width, height, bits per pixel, compression method, color palette stuff, etc. 40 bytes in size. (Only showing necessary information)

* Description: Width
  + Size = 4
  + Location = 0x12 / 18
* Description: Height
  + Size = 4
  + Location = 0x16 / 22
* Description: Bits per Pixel (bpp)
  + Size = 2
  + Location = 0x1C / 28
* Description: Compression Method
  + Size = 4
  + Location = 0x1E / 30
* Description: Colors in the color palette
  + Size = 4
  + Location = 0x2E / 46

If there is a color palette, the next values will be the colors in the palette. Use the size of the palette to tell how much to read. Must be 4 byte aligned. Read as BGRA. Has an offset of 0x36 / 54.

Next is the pixel data. Must be 4 byte aligned. If the image has a palette, the data read refers to a location in the palette. If not, follow these rules.

If 1 bit, 2 bit, 4 bit, and 8 bit will have palettes.

If 16 bit, it can have a palette and be read as BGRA.

If 24 bit, read as BGR.

If 32 bit, read as BGRA.

Each scan line / row must always be 4 byte aligned. Skip the additional bytes at the end of the row if necessary. Use the width and bpp to determine the additional bytes of padding.

First pixel is located at the bottom left. Pixels go from left to right, bottom to top.

The compression methods used will be discussed in other files.