

Projeto Temático: Programação Estruturada

Leitura do Arquivo BMP

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File Header - BMP

Field Name	Size in Bytes	Description
bfType	2	The characters "BM"
bfSize	4	The size of the file in bytes
bfReserved1	2	Unused - must be zero
bfReserved2	2	Unused - must be zero
bfOffBits	4	Offset to start of Pixel Data

Struct - File Header

```
typedef struct fileheader {  
    unsigned short type;  
    unsigned int size_file;  
    unsigned short reservad1;  
    unsigned short reservad2;  
    unsigned int offset;  
} FILEHEADER;
```

Image Header - struct

Field Name	Size in Bytes	Description
biSize	4	Header Size - Must be at least 40
biWidth	4	Image width in pixels
biHeight	4	Image height in pixels
biPlanes	2	Must be 1
biBitCount	2	Bits per pixel - 1, 4, 8, 16, 24, or 32
biCompression	4	Compression type (0 = uncompressed)
biSizeImage	4	Image Size - may be zero for uncompressed images
biXPelsPerMeter	4	Preferred resolution in pixels per meter
biYPelsPerMeter	4	Preferred resolution in pixels per meter
biClrUsed	4	Number Color Map entries that are actually used
biClrImportant	4	Number of significant colors

Struct - File Header

```
typedef struct imageheader{  
    unsigned int size_image_header;  
    int width;  
    int height;  
    unsigned short planes;  
    unsigned short bits_per_pixel;  
    unsigned int compression;  
    unsigned int image_size;  
    int wresolution;  
    int hresolution;  
    unsigned int number_colors;  
    unsigned int significant_colors;  
} IMAGEHEADER;
```

Struct - RGB

```
typedef struct rgb{  
    unsigned char blue;  
    unsigned char green;  
    unsigned char red;  
} RGB;
```