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Subject: [SOLVED] accessing pixels in JPEG created from memory buffer

Posted by [qwerty](#) on Mon, 18 May 2009 21:41:14 GMT

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posting question in different way:

how can I create JPEG image in U++ from memory buffer data(where real JPEG image data lies (String - when I '<<' to FileOut, viewer shows it right)) and how can I access pixels(RGB ideally) or whole 'uncompressed' data array, to work with it in different application, to make from that BMP-like data other object.

I can't get through it many hours.

thank you

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Subject: Re: accessing pixels in JPEG created from memory buffer

Posted by [koldo](#) on Tue, 19 May 2009 07:00:43 GMT

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Hello qwerty

Please correct me if I am wrong. You are asking how:

1. Create a raw jpeg image directly in memory like if you would do

String str;

str = LoadFile("bitmap.jpg");

2. Load a bitmap from a file or create it in memory and access directly the pixels

Other thing to help us would be if you could give us a basic general view of your application.

Best regards

Koldo

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Subject: Re: accessing pixels in JPEG created from memory buffer

Posted by [qwerty](#) on Tue, 19 May 2009 08:02:27 GMT

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ok,

I have extracted JPEG image from MJPEG stream, code: <a href="

[http://www.ultimatepp.org/forum/index.php?t=msg&th=4396&start=0&target=\\_blank](http://www.ultimatepp.org/forum/index.php?t=msg&th=4396&start=0&target=_blank)></a> .

There is JPEG\_data, which contains data. When I put them to file and add '.jpeg' extension, file is accepted by picture viewer.

I written it to file just to be sure, that data has right format.

now.

I want this data, JPEG\_data convert somehow to a state, where I can manipulate with them, like I am manipulating with BMP-like data. uncompress somehow.

so, for example, I want to write something similar like MyPictureFromJPEG.pixels[x][y] = ColorRED; etc.

I have no code, I have just String of data and don't know, how to decompress and work with them, like I said.

(don't want to do it with external library, when I can do it in U++, for now)

I want to convert them to OpenCV library, but this I can handle, when I will be in THAT state.

thank you and sorry for my english, I am quite tired today.

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Subject: Re: accessing pixels in JPEG created from memory buffer

Posted by [mrjt](#) on Tue, 19 May 2009 08:25:45 GMT

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Make sure you add the package plugin/jpg to your project

```
// Load raw image into memory
```

```
FileIn fin(IMAGE_FILE_PATH);
```

```
if (!fin.IsOpen())
```

```
{ Exclamation("Unable to open file"); return; }
```

```
String raw = fin.Get((dword)fin.GetSize());
```

```
// Convert String to uncompressed Image
```

```
Image img = StreamRaster::LoadStringAny(raw);
```

```
// If you know the image format you could also use:
```

```
// Image img = JPGRaster().LoadString(raw);
```

```
if (IsNull(img))
```

```
{ Exclamation("Unknown/Bad image format"); return; }
```

```
// If you need to process the image use an ImageBuffer
```

```
ImageBuffer ib(img);
```

```
RGBA *q = ~ib;
```

```
RGBA *eoi = q + ib.GetLength();
```

```
while (q < eoi) {
```

```
    // Do something to *q
```

```
++q;  
}
```

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Subject: Re: accessing pixels in JPEG created from memory buffer

Posted by [qwerty](#) on Tue, 19 May 2009 08:58:42 GMT

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ou... thank you.

still can't get U++ syntax, but it taught me something more.  
compiled ok, seems logical, going to implement.

have a nice life

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Subject: Re: accessing pixels in JPEG created from memory buffer

Posted by [koldo](#) on Tue, 19 May 2009 12:00:43 GMT

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Hello qwerty

The mrjt sample is perfect.

I inclose you a little change for you to see the rows and cols handling:

```
// Load raw image into memory  
FileIn fin(IMAGE_FILE_PATH);  
if (!fin.IsOpen())  
    { Exclamation("Unable to open file"); return; }  
String raw = fin.Get((dword)fin.GetSize());  
  
// Convert String to uncompressed Image  
Image img = StreamRaster::LoadStringAny(raw);  
// If you know the image format you could also use:  
// Image img = JPGRaster().LoadString(raw);  
if (IsNull(img))  
    { Exclamation("Unknown/Bad image format"); return; }  
  
// If you need to modify the image use an ImageBuffer  
ImageBuffer ib(img);  
for (int row = 0; row < ib.GetHeight(); ++row) {  
    RGBA *rowData = ib[row];  
    for(int col = 0; col < ib.GetWidth(); col++) {  
        rowData[col].red   = 255-rowData[col].red; // Inverting the colors  
        rowData[col].green = 255-rowData[col].green;
```

```
    rowData[col].blue = 255-rowData[col].blue;
}
}
img = ib;
```

Here we are inverting the colors so for example red are converted to 255-red as the maximum value of a color is 255.

Best regards  
Koldo

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Subject: accessing pixels in JPEG created from memory buffer  
Posted by [qwerty](#) on Tue, 19 May 2009 12:40:00 GMT  
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ohhhh yesss...

I am very thank you to both of you, because everything works perfectly. what more, OpenCV likes native U++ format of low level data.

very thank you

mrjt shows me converting connections  
koldo shows me, how to manipulate with individual elements

great, I am going to do some coffe and continue... :>

have a nice life moments...

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Subject: Re: accessing pixels in JPEG created from memory buffer  
Posted by [mirek](#) on Tue, 19 May 2009 14:13:38 GMT  
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mrjt wrote on Tue, 19 May 2009 04:25 Make sure you add the package plugin/jpg to your project

```
[code]// Load raw image into memory
FileIn fin(IMAGE_FILE_PATH);
if (!fin.IsOpen())
{ Exclamation("Unable to open file"); return; }
String raw = fin.Get((dword)fin.GetSize());
```

```
// Convert String to uncompressed Image
Image img = StreamRaster::LoadStringAny(raw);
```

```
// If you know the image format you could also use:  
// Image img = JpgRaster().LoadString(raw);
```

Or just:

```
Image img = StreamRaster::LoadFileAny(IMAGE_FILE_PATH);
```

Mirek

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Subject: Re: accessing pixels in JPEG created from memory buffer

Posted by [mrjt](#) on Tue, 19 May 2009 16:33:44 GMT

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luzr wrote on Tue, 19 May 2009 15:13mrjt wrote on Tue, 19 May 2009 04:25Make sure you add the package plugin/jpg to your project

```
[code]// Load raw image into memory
```

```
FileIn fin(IMAGE_FILE_PATH);
```

```
if (!fin.IsOpen())
```

```
{ Exclamation("Unable to open file"); return; }
```

```
String raw = fin.Get((dword)fin.GetSize());
```

```
// Convert String to uncompressed Image
```

```
Image img = StreamRaster::LoadStringAny(raw);
```

```
// If you know the image format you could also use:
```

```
// Image img = JpgRaster().LoadString(raw);
```

Or just:

```
Image img = StreamRaster::LoadFileAny(IMAGE_FILE_PATH);
```

Mirek

He already had the raw JPG in memory from an incoming MPEG stream. The first bit is merely illustrative.

Incidentally, the first time I attempted to compile this the various image plugins were listed in TheIDE (SVN version compile two days ago), but weren't actually included in the build process. I had to add them to the project to compile it (which is what I would expect, but having them visible is misleading).

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Subject: Re: [SOLVED] accessing pixels in JPEG created from memory buffer

Posted by [koldo](#) on Tue, 19 May 2009 19:34:44 GMT

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Hello qwerty

If you have any question about image processing perhaps I may help you. Perhaps you know a lot but if you are stuck ask just in case.

Best regards  
Koldo

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