
Subject: How must Alpha be managed ??

Posted by [Didier](#) on Thu, 20 Dec 2012 23:16:45 GMT

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Hi all,

I am currently trying to draw buttons that are transparent but they have special shapes.

For rectangles: it is easy, all I have to do is draw a small img in iml designer, set the RGBA values for all points and then use this image to draw in the dest rectangle.

For other shapes (circles for ex), I try to use ImageDraw and Alpha() method and it works ...

Question:

In the iml designer: all points are set to : RGBA(46,46,46,51)

Using Image Draw, I draw a circle with Color(46,46,46) and apply GreyColor(51)

... expecting to get RGBA(46,46,46,51)

But the result is not the same at all !!

Which is the way to go ?? (the color obtained with src image gives me the result expected by client)

Subject: Re: How must Alpha be managed ??

Posted by [forlano](#) on Fri, 21 Dec 2012 08:49:45 GMT

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Didier wrote on Fri, 21 December 2012 00:16Hi all,

For other shapes (circles for ex), I try to use ImageDraw and Alpha() method and it works ...

Hello Didier,

if possible I would like to see an example with button having a non standard shape. That of circle would be fine.

Thanks,

Luigi

Subject: Re: How must Alpha be managed ??

Posted by [omari](#) on Fri, 21 Dec 2012 09:31:31 GMT

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Hi,

take a look at this reference example:

Chameleon

Regards,
omari

Subject: Re: How must Alpha be managed ??

Posted by [Didier](#) on Fri, 21 Dec 2012 13:47:12 GMT

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Thankyou for you're replies

Quote:Hi,

take a look at this reference example:

Chameleon

Regards,
omari

I started from this example to manage drawing my own shapse but the problem is about Alpha management which is not explained in the reference example.

I think Premultiply() function must be used but how and when ???

Quote:Hello Didier,

if possible I would like to see an example with button having a non standard shape. That of circle would be fine.

Thanks,
Luigi

I will upload an example in 30 min with a sample shape I'm working on where we see two different ways to draw the shapes and the problem I encounter with transparency

Subject: Re: How must Alpha be managed ??

Posted by [Didier](#) on Fri, 21 Dec 2012 15:24:30 GMT

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Luigi,

Here is the example promised.

As for my problem:

Buttons 'CASE 1', 2 and 3 are the same but 'PREV' button doesn't have the same transparency.

On the other side, buttons 'CASE 4', 5, 6 and 'NEXT' have the same transparency.

Doing the example showed me that this has to do with the color used to fill the ImageDraw after applying the alpha value

... Still searching

File Attachments

1) [AlphaButtonTest.tar.gz](#), downloaded 307 times

Subject: Re: How must Alpha be managed ??

Posted by [omari](#) on Fri, 21 Dec 2012 20:53:11 GMT

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Hi,

to draw a transparent rectangle, you can draw lines:

```
void DrawRect(Draw&draw, Rect& r, int w = 1, Color c = Black())
{
    Vector<Point> ps;
    ps << r.TopLeft() << r.TopRight() <<
    r.BottomRight() << r.BottomLeft() << r.TopLeft();

    draw.DrawPolyline(ps, w, c);
}
```

to draw a transparent ellipse :

```
void DrawEllipse(Draw& w, Rect& r, Color c = Black(), int with = 1)
{
    Color nullcolor;
    nullcolor.SetNull();
    w.DrawEllipse(r, nullcolor, with, c);
}
```

Regards
omari

Subject: Re: How must Alpha be managed ??
Posted by [Didier](#) on Fri, 21 Dec 2012 21:31:43 GMT
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Hi Omari,

I'm not trying to draw empty rectangles or ellipstes.

What I'm trying to do is manage the Alpha value which gives the information about "how transparent it is" or "how opaque it is".

This I can do without any problem but I don't know what to put in alphaColor and alphaValue values :

```
ImageDraw iw(rect.Width(), rect.Height());
iw.Alpha().DrawRect(bandRect, GrayColor(e.alphaValue));
iw.Alpha().DrawEllipse(circleRect, GrayColor(e.alphaValue));
w.DrawImage( rect, iw , e.alphaColor);
in order to get the same result as if id did:
w.DrawImage(bandRect, e.bandStyle );
where bandStyle is an image containing RGBA pixels where ALPHA is not 255 nor 0
```

Look at the example I uploaded

Subject: Re: How must Alpha be managed ??
Posted by [mirek](#) on Sun, 23 Dec 2012 09:03:03 GMT
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Didier wrote on Thu, 20 December 2012 18:16Hi all,

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... expecting to get RGBA(46,46,46,51)

But the result is not the same at all !!

Which is the way to go ?? (the color obtained with src image gives me the result expected by client)

Actually, you are doing the right. In fact, ImageDraw uses R channel as alpha.

Anyway, I think the difference you can see MIGHT be because of alpha channel premultiply issue. E.g. $\text{RGBA}(46, 46, 46, 51)$ can never be present in Image (it is invalid value). If you have applied 51 alpha to $\text{RGB}(46, 46, 46)$, you should get something like $\text{RGBA}(46, 46, 46, 9)$ if you read pixel from Image created from ImageDraw.

Mirek

Subject: Re: How must Alpha be managed ??

Posted by [Didier](#) on Sun, 23 Dec 2012 12:10:05 GMT

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Quote: $\text{RGBA}(46, 46, 46, 51)$ can never be present in Image (it is invalid value).

I don't understand why it is invalid value since this value can be reached with iml designer ?

Anyway this issue does not block the development so I'll keep searching

Subject: Re: How must Alpha be managed ??

Posted by [mirek](#) on Sun, 23 Dec 2012 12:27:14 GMT

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Didier wrote on Sun, 23 December 2012 07:10Quote: $\text{RGBA}(46, 46, 46, 51)$ can never be present in Image (it is invalid value).

I don't understand why it is invalid value since this value can be reached with iml designer ?

Ops, sorry, my premultiplied alpha info got rusted, in fact above RGBA is valid (but $\text{RGBA}(51, 51, 51, 46)$ is not).

Anyway, I still think that this is the issue you are experiencing. And iml designer displays RGBA in "straight" unmultiplied form, which might be the source of confusion.

Mirek

Subject: Re: How must Alpha be managed ??

Posted by [Didier](#) on Sun, 23 Dec 2012 20:20:04 GMT

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iml designer displays RGBA in "straight" unmultiplied

Ahhh, This is the info that was missing

I think I'll be able to manage from now

Thank's for helping me
