Subject: LedLabel new package
Posted by deep on Tue, 18 Mar 2014 10:16:15 GMT
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I required to display Input / Output status for DIO.

I made a package for displaying LED with label.

It also can be used to show Toggle switch.

Test and package is included.

File Attachments
1) LedLabel.png, downloaded 1191 times

Subject: Re: LedLabel new package
Posted by deep on Tue, 18 Mar 2014 10:17:58 GMT
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Package files.

With image probably I exceeded limit.

File Attachments
1) LedLabel.7z, downloaded 488 times

Subject: Re: LedLabel new package
Posted by jerson on Tue, 18 Mar 2014 10:27:03 GMT
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Very nice. Thank you

Subject: Re: LedLabel new package
Posted by koldo on Tue, 18 Mar 2014 13:16:00 GMT
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Hello Deep

They are cool .

Personally I would add some things:
- Preconfigured classes are now like this:
class RedLed : public LedLabel {
public :
 RedLed() {
  On = LedImg::redLed();
  Off = LedImg::offLed();
  Status = false ;
 }
};I would move Status = false to LedLabel constructor and I would create a LedLabel constructor
with on and off images.
LedLabel(Image on, Image off);
- To resize image to fit vertically and horizontally in control Size. "With custom image" first control
(the one with "OFF") is cut.

- To add push "Option like" buttons with on-off behavior but using images. The ones in the right
side are very nice.
- To include .usc files. If it is difficult for you I could help

File Attachments
1) Image.jpg, downloaded 1131 times

Subject: Re: LedLabel new package
Posted by deep on Tue, 18 Mar 2014 13:24:17 GMT
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Hi Koldo,

Thank you for reviewing my package.

I will try implementing your suggestions.

Subject: Re: LedLabel new package
Posted by deep on Tue, 18 Mar 2014 14:11:52 GMT
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Hi Koldo,

Quote:I have not used .usc file in my programs before.
Any help welcome. Small example for my package. So that I can expand on it
I checked some .usc files from codebase. I think I will try it first.

I do constructor like this. Then what should be syntax for pre-configured LEDs?

LedLabel(Image on, Image off);

Subject: Re: LedLabel new package
Posted by Klugier on Tue, 18 Mar 2014 19:31:20 GMT
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Hello Deep,

You are doing excelent job. But is there possibility to create procedural led painting? It will help a lot... Code sample:

```
class LedLable {
public:
    LedLable(const Color& ledColor) {
        this->ledColor = ledColor;
        // Do something with ledColor information.
    }

private:
    Color ledColor;
}

LedLable myLedLable(Color(0, 255, 0)); // <- Any color should be accepted here.
```

The second idea is to create array of leds (Similar sollution is implemented in LabView). More information you can find on following website:
http://www.pererikstrandberg.se/blog/index.cgi?page=LabviewS impleForAndWhileLoops (First screenshot).

BTW, you can create whole package "LedCtrlLib" which will contain whole LED stuff. Think about it!

Sincerely,
Klugier

Subject: Re: LedLabel new package
Posted by deep on Wed, 19 Mar 2014 01:46:33 GMT
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Hi Klugier,

Quote:
BTW, you can create whole package "LedCtrlLib" which will contain whole LED stuff. Think about it!

Which features expected? Any feature reference available? Eventually I would like to make it complete LedCtrlLib.

What I have done satisfied my immediate need. I will add array as it is required to show 8 or 16 bit IO status from PLC.

Subject: Re: LedLabel new package
Posted by mirek on Wed, 19 Mar 2014 07:52:41 GMT
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Nice. I have just two suggestions:

IMO,

 Image On, Off;
 bool Status;
 Label Caption;

should be private and some methods provided to change them. Besides, changing On/Off or Status should call Refresh to reflect changes.

Also, images in .iml file have wrong aliasing of borders. This means that with border other than something light-gray, borders will look ugly.

Subject: Re: LedLabel new package
Posted by koldo on Wed, 19 Mar 2014 08:41:46 GMT
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Hello Deep

One additional detail. Instead of having ON and one OFF images, in some cases (mainly for leds and lights) you could have only one and internally generating a second one by darkening the provided one. If you like it I can provide you the function to do it.

Subject: Re: LedLabel new package

Posted by deep on Wed, 19 Mar 2014 10:27:57 GMT

Mirek,

Thanks for suggestions. I will make changes.

Koldo,

Internally I will prefer to have 2 separate images for on and off. So that Draw uses image depending on status. Images assigned during init only.

Calculating off state image from on state image is good suggestion.

I want to store the images and not calculate on the fly as it is displayed. Speed of display change should be as fast as possible. Would like to avoid calculations for display rendering.

Actually today I could compile Xenomai real time extension with UPP. Previously Real Time Process was 'c' only program running independently. Communicating with HMI through rtpipes. Real time thread runs every 1 millisecond. I tested the RT thread running every 250 micro sec. with UPP GUI running. Using EtherCAT protocol and hardware.

Display update (io status display change) will be done every 100 ms. Number of IOs will be large and may not fit one screen. Only selected IOs will be displayed.

Subject: Re: LedLabel new package
Posted by deep on Fri, 18 Apr 2014 14:31:24 GMT

Hi,

I have now modified my package. Attempted to make changes as suggested.

This is my first attempt to use "usc" file.

Comments suggestions welcome.

I am using MakeImage to get Grayscale image. Are there any other way to create light grayscale image?

  ImgOff = MakeImage(imgon, Grayscale) ;

Array and "procedural led painting" is not yet added.

File Attachments
1) LedLabel-1.7z, downloaded 464 times

Subject: Re: LedLabel new package
Posted by deep on Sat, 19 Apr 2014 14:24:34 GMT

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Hi,

I have added "Procedural LED Painting"

Now any color can be given to led.
There are 6 predefined Led colors with images.
Custom Image can be used

File Attachments
1) LedLabel-2.7z, downloaded 453 times

Subject: Re: LedLabel new package
Posted by BioBytes on Wed, 23 Apr 2014 19:20:48 GMT

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Hi Deep,

I downloaded your package. Very nice new widget, I will use it in my own application.

Thank you very much for this really good work :d

Regards

Biobytes