
Subject: Re: Speed Improvement

Posted by [Jeremy Bailin](#) on Tue, 25 Jan 2011 12:59:24 GMT

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On Jan 25, 4:24 am, Rony K Varghese <ronykvargh...@gmail.com> wrote:

> Dear All,

>

> How can i improve the speed of below IDL source through code

> optimizing..Now the performance is not satisfactory..

>

> ;Processing a picture

> for sCount = 0, 9 do begin

> for sRow = UpperRow, LowerRow do begin

> for sCol = sLeftCol, sRightCol do begin

> ; Check whether high pixels.

> if E_F_ATTNMAP_HIGH_PIXEL eq PixelArr[sCol, sRow] then

> begin

> sXCol = sCol

> sYRow = sRow

> endif

> ; from the center to the left

> for sIndex = 0, sHalfWid do begin

> if HIGH_PIXEL eq vTemp[sXCol - sIndex, sYRow] then

> begin

> PixelArr[sXCol - sIndex, sYRow] = HIGH_PIXEL

> endif else begin

> break ; break from for sIndex

> endelse

> endfor

> ; from the center to the right

> for sIndex = 0, sHalfWid do begin

> if HIGH_PIXEL eq vTemp[sXCol + sIndex, sYRow] then

> begin

> PixelArr[sXCol + sIndex, sYRow] = HIGH_PIXEL

> endif else begin

> break ; break from for sIndex

> endelse

> endfor

> ; from the center to down

> for sIndex = 0, sHalfHght do begin

> if HIGH_PIXEL eq vTemp[sXCol, sYRow+ sIndex] then

> begin

> PixelArr[sXCol, sYRow+ sIndex] = HIGH_PIXEL

> endif else begin

> break ; break from for sIndex

> endelse

> endfor

> ; from the center to up

```

>         for sIndex = 0, sHalfHght do begin
>             if HIGH_PIXEL eq vTemp[sXCol, sYRow - sIndex] then
> begin
>                 PixelArr[sXCol, sYRow - sIndex] = HIGH_PIXEL
>             endif else begin
>                 break ; break from for sIndex
>             endelse
>             endfor
>         endfor; end for sCol
>     endfor; end for sRow
> endfor;end for sCount
>
> Thanks in advance..
> Rony

```

It might help if you could get a sketch of what this is supposed to do.

-Jeremy.

Subject: Re: Speed Improvement
 Posted by [jeanh](#) on Tue, 25 Jan 2011 13:03:31 GMT
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Hi,

first, you are not using sCount anywhere... remove this loop

Instead of looping through all pixels, look for the needed ones

```

pixelsToProcess = where(PixelArr eq E_F_ATTNNMAP_HIGH_PIXEL,
countPixToProcess)

```

```

sXYcol = array_indices(pixelArr, pixelsToProcess) ;get the 2D coords

```

```

for i=0L, countPixToProcess -1 do begin
;process
endfor

```

Jean

On 25/01/2011 4:24 AM, Rony K Varghese wrote:

```

> ;Processing a picture
> for sCount = 0, 9 do begin
>     for sRow = UpperRow, LowerRow do begin
>         for sCol = sLeftCol, sRightCol do begin
>             ; Check whether high pixels.

```

```

> if E_F_ATTMAP_HIGH_PIXEL eq PixelArr[sCol, sRow] then
> begin
>     sXCol = sCol
>     sYRow = sRow
> endif
> ; from the center to the left
> for sIndex = 0, sHalfWid do begin
>     if HIGH_PIXEL eq vTemp[sXCol - sIndex, sYRow] then
> begin
>         PixelArr[sXCol - sIndex, sYRow] = HIGH_PIXEL
>     endif else begin
>         break ; break from for sIndex
>     endelse
> endfor
> ; from the center to the right
> for sIndex = 0, sHalfWid do begin
>     if HIGH_PIXEL eq vTemp[sXCol + sIndex, sYRow] then
> begin
>         PixelArr[sXCol + sIndex, sYRow] = HIGH_PIXEL
>     endif else begin
>         break ; break from for sIndex
>     endelse
> endfor
> ; from the center to down
> for sIndex = 0, sHalfHght do begin
>     if HIGH_PIXEL eq vTemp[sXCol, sYRow+ sIndex] then
> begin
>         PixelArr[sXCol, sYRow+ sIndex] = HIGH_PIXEL
>     endif else begin
>         break ; break from for sIndex
>     endelse
> endfor
> ; from the center to up
> for sIndex = 0, sHalfHght do begin
>     if HIGH_PIXEL eq vTemp[sXCol, sYRow - sIndex] then
> begin
>         PixelArr[sXCol, sYRow - sIndex] = HIGH_PIXEL
>     endif else begin
>         break ; break from for sIndex
>     endelse
> endfor
> endfor; end for sCol
> endfor; end for sRow
> endfor;end for sCount

```

Subject: Re: Speed Improvement

Posted by [rogass](#) on Wed, 26 Jan 2011 20:53:50 GMT

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On 25 Jan., 13:59, Jeremy Bailin <astroco...@gmail.com> wrote:

> On Jan 25, 4:24 am, Rony K Varghese <ronykvargh...@gmail.com> wrote:

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>

>> Dear All,

>

>> How can i improve the speed of below IDL source through code

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>> ;Processing a picture

>> for sCount = 0, 9 do begin

>> for sRow = UpperRow, LowerRow do begin

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>> if E_F_ATTMAP_HIGH_PIXEL eq PixelArr[sCol, sRow] then

>> begin

>> sXCol = sCol

>> sYRow = sRow

>> endif

>> ; from the center to the left

>> for sIndex = 0, sHalfWid do begin

>> if HIGH_PIXEL eq vTemp[sXCol - sIndex, sYRow] then

>> begin

>> PixelArr[sXCol - sIndex, sYRow] = HIGH_PIXEL

>> endif else begin

>> break ; break from for sIndex

>> endelse

>> endfor

>> ; from the center to the right

>> for sIndex = 0, sHalfWid do begin

>> if HIGH_PIXEL eq vTemp[sXCol + sIndex, sYRow] then

>> begin

>> PixelArr[sXCol + sIndex, sYRow] = HIGH_PIXEL

>> endif else begin

>> break ; break from for sIndex

>> endelse

>> endfor

>> ; from the center to down

>> for sIndex = 0, sHalfHght do begin

```

>>         if HIGH_PIXEL eq vTemp[sXCol, sYRow+ sIndex] then
>> begin
>>         PixelArr[sXCol, sYRow+ sIndex] = HIGH_PIXEL
>>         endif else begin
>>         break ; break from for sIndex
>>         endelse
>>     endfor
>>     ; from the center to up
>>     for sIndex = 0, sHalfHght do begin
>>         if HIGH_PIXEL eq vTemp[sXCol, sYRow - sIndex] then
>> begin
>>         PixelArr[sXCol, sYRow - sIndex] = HIGH_PIXEL
>>         endif else begin
>>         break ; break from for sIndex
>>         endelse
>>     endfor
>>     endfor; end for sCol
>>     endfor; end for sRow
>> endfor;end for sCount
>
>> Thanks in advance..
>> Rony
>
> It might help if you could get a sketch of what this is supposed to
> do.
>
> -Jeremy.

```

Same to me. If you want to perform a pattern matching maybe this works:

```

width = 2*halfwid+ (((halfwid mod 2) eq 0?) 1 :0)
wh = where(convol(/edge_zero,vtemp,rebin([high_pixel],width,width ,/
samp)) $
eq (width*highpixel^2),c)
if c gt 0 then pixelarr[wh]=high_pixel

```

Cheers

CR

Subject: Re: Speed Improvement
 Posted by [Rony K Varghese](#) on Thu, 27 Jan 2011 03:56:57 GMT
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On Jan 25, 10:03 pm, jean h
 <jghasb...@DELETETHIS.environmentalmodelers.ANDTHIS.com> wrote:

```

> Hi,
>
> first, you are not using sCount anywhere... remove this loop
>
> Instead of looping through all pixels, look for the needed ones
>
> pixelsToProcess = where(PixelArr eq E_F_ATTNMAP_HIGH_PIXEL,
> countPixToProcess)
>
> sXYcol = array_indices(pixelArr, pixelsToProcess) ;get the 2D coords
>
> for i=0L, countPixToProcess -1 do begin
>     ;process
> endfor
>
> Jean
>
> On 25/01/2011 4:24 AM, Rony K Varghese wrote:
>
>
>
>
>
>
>
>
>> ;Processing a picture
>> for sCount = 0, 9 do begin
>>     for sRow = UpperRow, LowerRow do begin
>>         for sCol = sLeftCol, sRightCol do begin
>>             ; Check whether high pixels.
>>             if E_F_ATTNMAP_HIGH_PIXEL eq PixelArr[sCol, sRow] then
>> begin
>>                 sXCol = sCol
>>                 sYRow = sRow
>>             endif
>>             ; from the center to the left
>>             for sIndex = 0, sHalfWid do begin
>>                 if HIGH_PIXEL eq vTemp[sXCol - sIndex, sYRow] then
>> begin
>>                     PixelArr[sXCol - sIndex, sYRow] = HIGH_PIXEL
>>                 endif else begin
>>                     break ; break from for sIndex
>>                 endelse
>>             endfor
>>             ; from the center to the right
>>             for sIndex = 0, sHalfWid do begin
>>                 if HIGH_PIXEL eq vTemp[sXCol + sIndex, sYRow] then
>> begin

```

```

>>         PixelArr[sXCol + sIndex, sYRow] = HIGH_PIXEL
>>     endif else begin
>>         break ; break from for sIndex
>>     endelse
>> endfor
>> ; from the center to down
>> for sIndex = 0, sHalfHght do begin
>>     if HIGH_PIXEL eq vTemp[sXCol, sYRow+ sIndex] then
>> begin
>>         PixelArr[sXCol, sYRow+ sIndex] = HIGH_PIXEL
>>     endif else begin
>>         break ; break from for sIndex
>>     endelse
>> endfor
>> ; from the center to up
>> for sIndex = 0, sHalfHght do begin
>>     if HIGH_PIXEL eq vTemp[sXCol, sYRow - sIndex] then
>> begin
>>         PixelArr[sXCol, sYRow - sIndex] = HIGH_PIXEL
>>     endif else begin
>>         break ; break from for sIndex
>>     endelse
>> endfor
>> endfor; end for sCol
>> endfor; end for sRow
>> endfor;end for sCount

```

Thank you all for the help to me.....

This function is to scan and process each pixel of the 128*128 picture as in the source code.

I cannot remove the for loop of scount, because that much times the code needs to be executed.