Subject: Speed Improvement
Posted by Rony K Varghese on Tue, 25 Jan 2011 09:24:22 GMT
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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

Subject: Re: Speed Improvement
Posted by Jeremy Bailin on Thu, 27 Jan 2011 15:38:41 GMT
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On Jan 26, 10:56 pm, Rony K Varghese <ronykvargh...@gmail.com> wrote:
> On Jan 25, 10:03 pm, jeanh
>
>
>
>
>
>
>
>
>
>
> <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.

Well, yes, I got that much. :-)= I was trying to understand what
processing you are doing in order to suggest a more efficient method.

-Jeremy.
