
Subject: Re: A little help

Posted by [Yngvar Larsen](#) on Thu, 10 May 2012 11:09:02 GMT

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On Thursday, 10 May 2012 11:00:49 UTC+2, Konstantinos wrote:

> Dear All,
> Lets suppose that i have the folowing matrix lets call it A (14
> columns
> 16 rows) with elements as follows
> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
> 5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0
> 5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0
> 0 0 0 0 0 0 0 0 0 0 0 0 3 3 3 3
> 0 0 0 0 0 0 0 0 0 0 0 0 3 3 3 3
> 6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3
> 6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3
>
> What i want to do is to make a matrix B (8 columns 8 rows) such as
>
> 1 1 1 1 2 2 2 2
> 1 1 1 1 2 2 2 2
> 1 1 1 1 2 2 2 2
> 1 1 1 1 2 2 2 2
> 5 5 7 7 3 3 3 3
> 5 5 7 7 3 3 3 3
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> 5 5 8 8 3 3 3 3
>
> I cant think of anything
> I ll appreciate any help
> Thank u in advance
> Kostas

This looks like some kind of game. You need to specify the rules in order to solve this in general.

PS: I assume one "3" too much in your A matrix, and four of the "5"s in B should really be "6"?

--

Yngvar

Subject: Re: A little help

Posted by [Konstantinos](#) on Thu, 10 May 2012 11:45:20 GMT

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> On Thursday, 10 May 2012 11:00:49 UTC+2, Konstantinos wrote:

>> Dear All,

>> Lets suppose that i have the folowing matrix lets call it A (14

>> columns

>> 16 rows) with elements as follows

>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2

>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2

>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2

>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2

>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

>> 5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0

>> 5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0

>> 0 0 0 0 0 0 0 0 0 0 0 0 3 3 3 3

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>> 6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3

>> 6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3

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> Yngvar

Dear Yngvar.

No this is not a game,..imagine it as a matrix. Numbers 1,2,3, 5, 6, 8 are just numbers different than zero. I just put 1,2,3... for better viewing my image

Subject: Re: A little help

Posted by [Vincent Sarago](#) on Thu, 10 May 2012 11:59:40 GMT

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I assume you want to "compress" an image for suppressing all "0" Values

but what will you do if you have :

```
0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0
1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0
5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0 0 0 0 0 3 3 3 3
0 0 0 0 0 0 0 0 0 0 0 0 3 3 3 3
6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3
6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3
```

?

On Thursday, May 10, 2012 1:45:20 PM UTC+2, Konstantinos wrote:

>> On Thursday, 10 May 2012 11:00:49 UTC+2, Konstantinos wrote:

>>> Dear All,

>>> Lets suppose that i have the folowing matrix lets call it A (14

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>>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
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>>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
>>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
>>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2
>>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
>>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
>>> 5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0
```

```

>>> 5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0
>>> 0 0 0 0 0 0 0 0 0 0 0 0 3 3 3 3
>>> 0 0 0 0 0 0 0 0 0 0 0 0 3 3 3 3
>>> 6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3
>>> 6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3
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>> general.
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>> Yngvar
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> Dear Yngvar.
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> No this is not a game,..imagine it as a matrix. Numbers 1,2,3, 5, 6,
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> better viewing my image

```

Subject: Re: A little help

Posted by [natha](#) on Thu, 10 May 2012 12:05:11 GMT

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```

mask=WHERE(A NE 0,nm)
IF nm GT 0 THEN B=REBIN(A[mask],8,8)

```

I don't know if this is going to work, but you can try.

As Yngvar said, you need to specify the rules. If in the resulting array there are more than 8x8 values, the code won't work.

Bernat

On Thursday, May 10, 2012 7:45:20 AM UTC-4, Konstantinos wrote:

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>>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2

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>>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2

>>> 1 1 1 1 0 0 0 0 0 0 0 0 2 2 2 2

>>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

>>> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

>>> 5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0

>>> 5 5 0 0 7 7 0 0 0 0 0 0 0 0 0 0

>>> 0 0 0 0 0 0 0 0 0 0 0 0 3 3 3 3

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>>> 6 6 0 0 8 8 0 0 0 0 0 0 3 3 3 3

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>>> 1 1 1 1 2 2 2 2

>>> 1 1 1 1 2 2 2 2

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Subject: Re: A little help
Posted by [natha](#) on Thu, 10 May 2012 12:10:47 GMT
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Sorry, you have to use REFORM instead of REBIN !

Subject: Re: A little help
Posted by [Vincent Sarago](#) on Thu, 10 May 2012 12:22:18 GMT
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Nata is wright, but if you don't know the result size (8x8) you can try that :

```
a = intarr(10,10) + 1
a[*,4] = 0
a[4,*] = 0

print, a
print

nRow = (size(a))[2]

b = list()

for ii = 0, nRow - 1 do begin
    test = where(a[*,ii] ne 0, count)
    if count ne 0 then b.add, a[test,ii]
endfor

print, b
print

c = b.ToArray(TYPE=5, MISSING = !VALUES.D_NAN)

help, c
print, c

END
```

On Thursday, May 10, 2012 2:10:47 PM UTC+2, nata wrote:

> Sorry, you have to use REFORM instead of REBIN !

Subject: Re: A little help

Posted by [greg.addr](#) on Thu, 10 May 2012 12:34:28 GMT

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nata's solution doesn't work...

IDL> print,b

1	1	1	1	2	2	2	2
1	1	1	1	2	2	2	2
1	1	1	1	2	2	2	2
1	1	1	1	2	2	2	2
5	5	7	7	5	5	7	7
3	3	3	3	3	3	3	3
6	6	8	8	3	3	3	3
6	6	8	8	3	3	3	3

I suppose one of the rules must be that number blocks are 'rigid'. But that's still not enough... the 7- and 8-blocks could equally move upwards between the 1- & 2-blocks, giving a result that's not square. So then you need a condition that the final result is square, which seems like a game to me. Nice puzzle, though!

Subject: Re: A little help

Posted by [natha](#) on Thu, 10 May 2012 13:08:22 GMT

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ok ok . let's try this:

```
B=INTARR(8,8)
sz=SIZE(A,/DIM)
count=0
FOR i=0, sz[1]-1 DO BEGIN
  curr_A=A[*,i]
  ww=WHERE(curr_A NE 0,nn_w)
  IF nn_w NE 0 THEN BEGIN
    B[*,count]=curr_A[ww]
    count++
  
```

ENDIF
ENDFOR
