
Subject: Re: Image thresholding
Posted by [David Kastrup](#) on Mon, 17 May 1999 07:00:00 GMT
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davidf@dfanning.com (David Fanning) writes:

```
> David Brennan (9147261b@clinmed.gla.ac.uk) writes:
>
>> Does anyone know of a fast routine or function for searching through a
>> 3D data set and setting numbers within a predetermined range of values
>> to zero. i.e,
>>
>> the range is 5 - 10
>>
>> A data set contains [0,1,2,3,4,5,6,7,8,9]. It becomes
>> [0,1,2,3,4,0,0,0,0,0]
>>
>> This would save me a lot of time.
>
> a = [0,1,2,3,4,5,6,7,8,9]
> b = a
> b[Where(a ge 5 AND a LT 10)] = 0
> Print, b
> 0,1,2,3,4,0,0,0,0,0
```

You lose.

If I followup with:

```
IDL> a=b
IDL> b[Where(a ge 5 AND a LT 10)] = 0
% Attempt to subscript B with <LONG ( -1)> is out of range.
% Execution halted at: $MAIN$
```

As you can see IDL blows this handy construct if no elements meet the conditions.

See separate post for correct solution.

--

David Kastrup Phone: +49-234-700-5570
Email: dak@neuroinformatik.ruhr-uni-bochum.de Fax: +49-234-709-4209
Institut für Neuroinformatik, Universitätsstr. 150, 44780 Bochum, Germany

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```

Cheers,

David

--

David Fanning, Ph.D.
Fanning Software Consulting
Phone: 970-221-0438 E-Mail: davidf@dfanning.com
Coyote's Guide to IDL Programming: <http://www.dfanning.com/>
Toll-Free IDL Book Orders: 1-888-461-0155

[Note: This follow-up was e-mailed to the cited author.]

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```

Well, in Matlab you would write

```
a(find(a >= 5 & a <= 10))=0;
```

The equivalent in IDL would be
a[where((a ge 5) and (a le 10))] = 0

Only that this fails miserably when no members satisfy the condition. A typical case of idiotic semantics of IDL core functions. So we have to write this as:

```
w = where((a ge 5) and (a le 10))
if w[0] ge 0 then a[w] = 0
```

--

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