Subject: Re: Image thresholding Posted by David Kastrup on Mon, 17 May 1999 07:00:00 GMT View Forum Message <> Reply to Message

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[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
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                                                   Fax: +49-234-709-4209
Institut fi¿½r Neuroinformatik, Universiti;½tsstr. 150, 44780 Bochum, Germany
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 b = a
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   0,1,2,3,4,0,0,0,0,0
Cheers,
David
David Fanning, Ph.D.
```

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

Coyote's Guide to IDL Programming: http://www.dfanning.com/

Phone: 970-221-0438 E-Mail: davidf@dfanning.com

Toll-Free IDL Book Orders: 1-888-461-0155

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```
> [0,1,2,3,4,0,0,0,0,0]
```

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 satify 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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