
Subject: Re: zero-padding an array of arbitrary dimensionality (replacing execute in vm)

Posted by [Vince Hradil](#) on Thu, 19 Jul 2007 22:11:45 GMT

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On Jul 19, 11:37 am, Allan Whiteford

<allan.rem...@phys.remove.strath.ac.remove.uk> wrote:

> Vince,

>

> data=fltarr(43,45,23,12) ; <-- arbitrary

> data[1,1,1,1]=1000. ; <-- so we know we get the right answer

>

> tmp=size(data)

> tmp=tmp[1:tmp[0]]

> idx=1

> for i=0,n_elements(tmp)-2 do idx=idx+product(tmp[0:i])

>

> print,data[idx] ; We get element [1,1,1,1]

>

> Helpful?

>

> Probably doesn't work for 1D arrays.

>

> Thanks,

>

> Allan

>

> hradilv wrote:

>> I would like to zero-pad an array programmatically without knowing in

>> advance what the dimensionality is of the array.

>

>> For example, in 2D, for data = some fltarr (31,31) I could do

>> dims = size(data,/dimensions)

>> zpad = fltarr(dims[0]+1,dims[1]+1)

>> zpad[1,1] = data

>

>> For arb. dimensionality I have:

>

>> dsize = size(data)

>> ndim = dsize[0]

>> dim = dsize[1:ndim]

>> dtmp = make_array(dim+2,value=0,type=dsize[ndim+1])

>

>> cmd = 'dtmp['

>> for n=0L, ndim-1 do cmd = cmd+'1,'

>> cmd = strmid(cmd,0,strlen(cmd)-1)+']=data'

>> result = execute(cmd)

>

>> But this won't work in the vm. So I need to somehow figure out the
>> position of the [1,1,1,...] index for an arbitrary dimensionality.
>
>> Clear enough? TIA!
>> Vince

Yes. I was just having some trouble wrapping my head around it.
Thanks!
