Subject: Re: Efficient sub array extraction
Posted by Heinz Stege on Tue, 11 Dec 2012 23:41:57 GMT
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On Tue, 11 Dec 2012 14:26:40 -0800 (PST), markjamie@gmail.com wrote:

> I'm using large 2D arrays e.g 30000 x 30000 and need to remove a 2D sub array for later processing e.g. Rows 30-700 and columns 100-10000.
>
> Is there a more efficient way to do this than using subscript ranges?
>
> For example?
>
> Subarray = largearray[100:10000, 30:700]
>
>
> The exact code I'm using is as follows:
>
> A = [100,10000]
> B = [30,700]
>
> Subarray = largearray[A[0]:A[1],B[0]:B[1]]

Hi Mark,

from my point of view the use of subscript ranges is fine. (However do not use arrays for subscripting.) Using subscript ranges is fast and don't need much memory. In the following example roughly about 100 extra bytes are used at creating the subarray:

```
IDL> array=bindgen(30000,30000)
IDL> a=[100,10000]
IDL> b=[30,70]
IDL> help,/mem
heap memory used:  900729595, max:  900729989, gets:     1073, frees:
232
IDL> subarr=array[a[0]:a[1],b[0]:b[1]]
IDL> help,/mem
heap memory used:  901135568, max:  901135685, gets:     1085, frees:
243
IDL> print,!version
{ x86 Win32 Windows Microsoft Windows 8.0.1 Oct  5 2010      32
64}
```

Cheers, Heinz