Subject: Matrix a*b in loop
Posted by Gompie on Thu, 17 Jul 2014 21:16:29 GMT
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Hi,
I have a simple question.

I have two matricies A (696 , 1523854) and B (1,696) Matrix .
I wish to have a matrix c whose each row is a product of rows elements of a and b i.e a*b

 I can do it in a loop by saying a(:,i)*b but it takes a lot of time because I (~1523854) would be very large number. Is it possible to do it in one go.

Thanks
GlanPlot

Subject: Re: Matrix a*b in loop
Posted by Yngvar Larsen on Fri, 18 Jul 2014 08:43:09 GMT
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The following does the job, but will consume a lot of memory:

C = A*(reform(B))[*,intarr(1523854)]

If memory is a problem, you can also split that operation in a loop, e.g. 1000 or 10000 rows at a time, reducing the number of iterations in the loop. The details are left as an exercise to the reader :)

On Thursday, 17 July 2014 23:16:29 UTC+2, Gompie wrote:
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> GlanPlot

Subject: Re: Matrix a*b in loop
Posted by on Sat, 19 Jul 2014 20:31:55 GMT
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Den torsdagen den 17:e juli 2014 kl. 23:16:29 UTC+2 skrev Gompie:
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Is this what you want to do?

```
IDL> a = randomu(seed,696,1523854)
IDL> b = randomu(seed,1,696)
IDL> help,a,b
A               FLOAT     = Array[696, 1523854]
B               FLOAT     = Array[1, 696]
IDL> c = a ## b
IDL> help,c
C               FLOAT     = Array[1, 1523854]
```

http://www.exelisvis.com/docs/Matrix_Operators.html
http://www.exelisvis.com/docs/matrix_multiply.html
