Subject: Re: Assignment Time for a 3d Variable
Posted by David Fanning on Wed, 23 Nov 2005 15:57:57 GMT
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Nuno Oliveira writes:

> I was making a routine that was doing an intense assignment in one of
> the three directions possible, according to an option (either the first,
> second or third dimension). I noticed that when I was doing it in the
> first direction I took MUCH more time than in the other two directions.
>
> Anyone has a clue for why does this happen? And anyone knows a way that
> can make execution time similar? (Making the others to wait is not a
> valid answer, ;))

The speed differences have to do with how you access different parts of the array in memory. If the parts you want are contiguous, then you can get them faster than you can if they are far apart in memory. (Think how much faster it is to pick up the poker chips when they are stacked than when they are scattered all around the table.)

To make these kinds of assignments as fast as possible, use the TRANSPOSE function to organize the data into the fastest possible position:

```
IDL> Help, data
  DATA          BYTE      = Array[3, 227, 149]
IDL> data = Transpose( Temporary(data), [2,3,1] )
IDL> Help, data
  DATA          BYTE      = Array[227, 149, 3]
```

Cheers,

David

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