
Subject: Re: Randomize array order

Posted by [James Kuyper](#) on Fri, 27 Jul 2007 21:29:17 GMT

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David Streutker wrote:

...

> If there are only 2^{32} possible sequences, then why is the internal
> state characterized by a 36-element array?

>

> IDL> test = randomu(seed)

> IDL> help, seed

> SEED LONG = Array[36]

That is a VERY good question. I only looked at the documentation; I didn't bother to check. The documentation says:

> The state of the random number generator is contained in a long integer vector.

and also

> If the Seed argument is:

> * an undefined variable - the generic state is used and the resulting generic state array is stored in the variable.

Given that the resulting generic state appears to be a 36-element array, I don't think both statements can be true. An array of 36 longs would be more than enough to generate all possible shuffles of a 52-card deck. More importantly, it's large enough to do large numerical simulations in quantum field theory without introducing spurious correlations. Therefore I hope that the second statement is the one that's correct.
