Subject: Re: IDL random number generator
Posted by krijger on Mon, 12 May 2003 09:29:54 GMT
View Forum Message <> Reply to Message

James Kuyper <kuyper@saicmodis.com> wrote in message
news:<3EBBB786.9C52F5F3@saicmodis.com>...
> krijger@astro.uu.nl wrote:
>>
>> Hi,
>> I know that randomn is pseudo-random, how many numbers can you
>> generate before the non-randomness kicks in?
>>
>> Thijs Krijger
>
> None. The non-randomness is there from the very beginning. You could
> make a true random number generator by running it off of the radioactive
> decay of atoms, or some similar hardware-based approach. However,
> software random number generators are absolutely deterministic, once
> you've set up the seed. You can set the seed form a clock setting, which
> means that the precise sequence of random numbers generated depends upon
> the precise time at which the program reads the clock. But even the very
> first number can be absolutely predicted from the seed value.
>
> Every random number generator has a period, after which it starts
> repeating the same exact sequence. How long that period is depends upon
> the quality of the algorithm used. Commonly used algorithms have periods
> in the range of 100,000 numbers or better. Very sophisticated generators
> can have periods that are so long that your computer will become
> obsolete before the sequence repeats.

So, if in IDL I use the data=randomn(seed,N), then how big can N be
(and I can make the claim that the numbers are still random (compared
to each other))?

Thijs Krijger