
Subject: Re: Randomu seed initialization

Posted by [Conor](#) on Thu, 12 Nov 2009 13:59:44 GMT

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On Nov 11, 3:22 pm, pp <pp.pente...@gmail.com> wrote:

> On Nov 11, 5:54 pm, Conor <cmanc...@gmail.com> wrote:

>

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>

>> So I'm really wondering if I've hit some sort of strange IDL bug
>> (although everytime I thought that so far I've been wrong). Still,
>> thought I'd post about it.

>

>> I've got a routine I'm running to do some simulations. It calls a
>> function (generate_population) which generates 1000 variables
>> populated along a certain distribution. In my routine I later
>> generate another set of 1000 variables to select some of the generated
>> population. In both of these cases IDL has to initialize the random
>> seed generator because (of course) the generate_population routine is
>> a separate function and so the main routine can't use the 'seed'
>> variable generated in generate_population.

>

>> However, I noticed that the cut being made was very strange and not at
>> all what it should have been. After some examination, I discovered
>> that the random variables being created by generate_population were
>> the exact same random variables being used to make the cuts - two
>> different calls to randomu() were returning exactly the same random
>> variables. Which means that they were using the same seed. Except I
>> wasn't giving either one the seed - it was being generated
>> automatically by IDL. Weird... I've tried reproducing this by making
>> simple routines that do the same sort of thing, but I don't have the
>> same problem. Which would make me think the problem is with something
>> I'm doing, but at the same time I just don't see any problems in my
>> code - the part dealing with the random number generators is simple
>> enough. I'm hoping someone here might have some insights into how IDL
>> initializes the random number generator that might help me figure out
>> what's going on. For now I've fixed the problem because I pass the
>> seed back and forth between the two routines (so it only gets
>> initialized once), but I'd really like to know what's happening. It's
>> hard for me to post the code because it's part of a routine that relies
>> on some large data files, but if people think it might help I might be
>> able to parse it down to something post-able.

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> What exactly do you mean by "wasn't giving either one the seed"?
> Randomu cannot be called without a seed argument, so what were you
> using?

>

> Did you see randomu's help for the explanation of how the seed

> variable works, in all the different ways it can assume?

Sorry. By "didn't give it a seed" I mean, "passed it an undefined variable", under which circumstances it initializes the seed itself. I've read through randomu's help on how the seed works a number of times, including yesterday when I had this problem. This is the first time I've ever had any problems using randomu.
