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Subject: Randomu seed initialization

Posted by [Conor](#) on Wed, 11 Nov 2009 19:54:57 GMT

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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 relays 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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