

Kenneth P. Bowman writes:

```
> I couldn't drink a beer that fast even in my college days.
>
> PRO TEST_SCATTER
> ; Plot a scatterplot with a lot of points
> t0 = SYSTIME(/SECONDS)
> n = 4000000
> x = RANDOMU(seed, n)
> y = SIN(2.0*!PI*x) + 0.3*RANDOMN(seed, n)
> WINDOW, XSIZE = 1000, YSIZE = 1000
> PLOT, x, y, PSYM = 3
> PRINT, 'Elapsed time : ', SYSTIME(/SECONDS) - t0
> END
>
>
> IDL> .r test_scatter
> % Compiled module: TEST_SCATTER.
> IDL> test_scatter
> Elapsed time :      5.5195148
```

I guess my machine is a LOT slower. Which confuses me, because I spent good money on this darn machine! :-(

Anyway, when I run your program, it takes about 42 seconds. After three sets of tennis, I have been known to drink a beer in about that amount of time!

```
IDL> test_scatter
% Compiled module: TEST_SCATTER.
Elapsed time :      42.018000
```

But this sort of proves my point. If I run your program with 1 percent of the points, the "visualization" doesn't change in any material way, but the time is reduced by a factor of 1000.

```
PRO TEST_SCATTER
; Plot a scatterplot with a lot of points
n = 4000000L
x = RANDOMU(seed, n)
y = SIN(2.0*!PI*x) + 0.3*RANDOMN(seed, n)
indices = Round(randomu(seed,400000L)*4000000L)
WINDOW, XSIZE = 1000, YSIZE = 1000, 1
```

```
t0 = SYSTIME(/SECONDS)
PLOT, x[indices], y[indices], PSYM = 3
PRINT, 'Elapsed time : ', SYSTIME(/SECONDS) - t0
END
```

```
IDL> test_scatter
% Compiled module: TEST_SCATTER.
Elapsed time :    0.43099999
```

> I think that this is a quick and easy way to get
> an idea of what your data looks like, but I should know
> better than to expect to get the last word.

Gianguido was pointing out to me yesterday that the top three contributors to the IDL newsgroup for all time are:

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news@dfanning.com

You don't get these kinds of records by letting someone else have the last word! ;-)

Cheers,

David

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David Fanning, Ph.D.
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Coyote's Guide to IDL Programming: <http://www.idlcoyote.com/>
Sepore ma de ni thui. ("Perhaps thou speakest truth.")
