$$\alpha^{\frac{1}{\gamma}}\Gamma\left(1+\frac{1}{\gamma}\right),$$

and the variance is

$$\alpha^{\frac{2}{\gamma}}\Gamma\left(1+\frac{2}{\gamma}\right)-\alpha^{\frac{2}{\gamma}}\left[\Gamma\left(1+\frac{1}{\gamma}\right)\right]^2.$$

Note that this definition of the PDF uses different scaling than the one used in StatsWeibullPDF. To match the scaling of StatsWeibullPDF multiply the result from Wnoise by the factor scale^(1-1/shape).

The random number generator initializes using the system clock when Igor Pro starts. This almost guarantees that you will never repeat a sequence. For repeatable "random" numbers, use **SetRandomSeed**. The algorithm uses the Mersenne Twister random number generator.

See Also

The **SetRandomSeed** operation.

Noise Functions on page III-390.

Chapter III-12, **Statistics** for a function and operation overview.

x

x

The x function returns the scaled row index for the current point of the destination wave in a wave assignment statement. This is the same as the X value if the destination wave is a vector (1D wave).

Details

Outside of a wave assignment statement, x acts like a normal variable. That is, you can assign a value to it and use it in an expression.

See Also

The **p** function and **Waveform Arithmetic and Assignments** on page II-74.

x2pnt

x2pnt(*waveName*, *x1*)

The x2pnt function returns the integer point number on the wave whose X value is closest to *x1*.

For higher dimensions, use **ScaleToIndex**.

See Also

DimDelta, **DimOffset**, **pnt2x**, **ScaleToIndex**

For an explanation of waves and X scaling, see **Changing Dimension and Data Scaling** on page II-68.

xcsr

xcsr(*cursorName* [, *graphNameStr*])

The xcsr function returns the X value of the point which the named cursor (A through J) is on in the top or named graph.

Parameters

cursorName identifies the cursor, which can be cursor A through J.

graphNameStr specifies the graph window or subwindow.

When identifying a subwindow with *graphNameStr*, see **Subwindow Syntax** on page III-92 for details on forming the window hierarchy.