STFT

STFT [flags] *srcWave*

The STFT operation computes the Short-Time Fourier Transform of *srcWave*. STFT was added in Igor Pro 8.00.

Output is stored in the wave M_STFT in the current data folder or in a wave specified by the /DEST flag.

Flags

/DB=*dbMode*	*dbMode* determines if output is scaled in decibels: 0: No dB scaling (default) 1: Scale the output to standard dB using 20*log(wave) 2: Compute dBFS (dB relative to full scale where 0 is the maximum value)
/DEST=*destWave*	Specifies the output wave created by the FFT operation. It is an error to attempt specify the same wave as both *srcWave* and *destWave*. The default output wave name M_STFT is used if you omit /DEST. When used in a function, the STFT operation by default creates a real wave reference for the destination wave. See **Automatic Creation of WAVE References** on page IV-72 for details.
/HOPS=*hopSize*	Specifies the offset in points between centers of consecutive source segments. By default this value is 1 and the transform is computed for segments that are offset by a single points from each other.
/OUT=*mode*	Sets the output wave format. *mode*=1: Complex output (default) *mode*=2: Real output *mode*=3: Magnitude *mode*=4: Magnitude square *mode*=5: Phase *mode*=6: Scaled magnitude *mode*=7: Scaled magnitude squared The scaled quantities apply to transforms of real valued inputs where the output is normally folded in the first dimension (because of symmetry). The scaling applies a factor of 2 to the squared magnitude of all components except the DC. The scaled transforms should be used whenever Parseval's relation is expected to hold.
/PAD=*newSize*	Converts each segment of *srcWave* into a padded array of length *newSize*. The padded array contains the original data at the center of the array with zeros elements on both sides.
/RP=[*startPoint*, *endPoint*]	Specifies the range of *srcWave* from which data are sampled in point numbers. *startPoint* is the first point at which segments are centered. Wave data from points preceding *startPoint* are used as needed for the left parts of beginning segments.
/RX=(*startX*, *endX*)	Specifies the range of *srcWave* from which data are sampled in X values. The operation expects *startX*<*endX*. *startX* corresponds to the first point at which segments are centered. Data from points preceding *startX* are used as necessary to fill left parts of the beginning segments.
/SEGS=*segSize*	Sets the length of the segment sampled from *srcWave* in points. The segment is optionally padded to a larger dimension (see /PAD) and multiplied by a window function prior to FFT. The default segment size is 128 when the number of points in *srcWave* is greater than 128. Otherwise it is set to one less than the number of points in the *srcWave*. The operation requires that *segSize* is at least 32 points.