

□ Documentation

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API Collection

Discrete Cosine transforms

Transform vectors of temporal and spatial domain real values to the frequency domain, and vice versa.

Topics

First Steps

{} Signal extraction from noise

Use Accelerate's discrete cosine transform to remove noise from a signal.

{} Equalizing audio with discrete cosine transforms (DCTs)

Change the frequency response of an audio signal by manipulating frequency-domain data.

Objects that Simplify Discrete Cosine Transforms

`class DCT`

A single-precision discrete cosine transform.

`enum DCTTransformType`

An enumeration that describes the discrete cosine transform types.

Discrete Cosine Transforms

The functions in the Discrete Cosine Transforms (DCT) family calculate a discrete cosine transform of a specified length on a vector.

`vDSP_DCT_CreateSetup`

Builds a data structure that contains precalculated data to perform a discrete cosine transform.

enum vDSP_DCT_Type

Constants that indicate the type for a discrete cosine transform.

vDSP_DCT_Execute

Calculates the discrete cosine transform for a vector.

See Also

Fourier and Cosine Transforms

-  Understanding data packing for Fourier transforms
Format source data for the vDSP Fourier functions, and interpret the results.
-  Finding the component frequencies in a composite sine wave
Use 1D fast Fourier transform to compute the frequency components of a signal.
-  Performing Fourier transforms on interleaved-complex data
Optimize discrete Fourier transform (DFT) performance with the vDSP interleaved DFT routines.
-  Reducing spectral leakage with windowing
Multiply signal data by window sequence values when performing transforms with noninteger period signals.
-  Signal extraction from noise
Use Accelerate's discrete cosine transform to remove noise from a signal.
-  Performing Fourier Transforms on Multiple Signals
Use Accelerate's multiple-signal fast Fourier transform (FFT) functions to transform multiple signals with a single function call.
-  Halftone descreening with 2D fast Fourier transform
Reduce or remove periodic artifacts from images.
-  Fast Fourier transforms
Transform vectors and matrices of temporal and spatial domain complex values to the frequency domain, and vice versa.

☰ Discrete Fourier transforms

Transform vectors of temporal and spatial domain complex values to the frequency domain, and vice versa.