

## Output Variables

DuplicateDataFolder sets the following output variable:

`V_flag` 0 if the operation succeeded, -1 if the destination data folder already existed, or a non-zero error code. The `V_flag` output variable was added in Igor Pro 8.00.

## Examples

```
DuplicateDataFolder root:DF0, root:DF0Copy // Create a copy of DF0 named DF0Copy
```

## See Also

**MoveDataFolder**, **Data Folders** on page II-107, **Data Folder References** on page IV-78, **Free Data Folders** on page IV-96

# DWT

**DWT [flags] srcWaveName, destWaveName**

The DWT operation performs discrete wavelet transform on the input wave `srcWaveName`. The operation works on one or more dimensions only as long as the number of elements in each dimension is a power of 2 or when the /P flag is specified

## Flags

`/D` Denoises the source wave. Performs the specified wavelet transform in the forward direction. It then zeros all transform coefficients whose magnitude fall below a given percentage (specified by the /V flag) of the maximum magnitude of the transform. It then performs the inverse transform placing the result in `destWaveName`. The /I flag is incompatible with the /D flag.

`/I` Perform the inverse wavelet transform. The /S and /D flags are incompatible with the /I flag.

`/N=num` Specifies the number of wavelet coefficients. See /T flag for supported combinations.

`/P=num` Controls padding:

`num=1:` Adds zero padding to the end of the dimension up to nearest power of 2 when the number of data elements in a given dimension of `srcWaveName` is not a power of 2.

`num=2:` Uses zero padding to compute the transform, but the resulting wave is truncated to the length of the input wave.

`/S` Smooths the source wave. This performs the specified wavelet transform in the forward direction. It then zeros all transform coefficients except those between 0 and the cut-off value (specified in % by /V flag). It then performs the inverse transform placing the result in `destWaveName`. The /I flag is incompatible with the /S flag.

`/T=type` Performs the wavelet transform specified by `type`. The following table gives the transform name with the `type` code for the transform and the allowed values of the `num` parameter used with the /N flag. "NA" means that the /N flag is not applicable to the corresponding transform.

Wavelet Transform	<code>type</code>	<code>num</code>
Daubechies	1 (default)	4, 6, 8, 10, 12, 20
Haar	2	NA
Battle-Lemarie	4	NA
Burt-Adelson	8	NA
Coifman	16	2, 4, 6
Pseudo-Coifman	32	NA
splines	64	1 (2-2), 2 (2-4), 3 (3-3), 4 (3-7)

`/V=value` Specifies the degree of smoothing with the /S and /D flags only.

For /S, `value` gives the cutoff as a percentage of data points above which coefficients are set to zero. For /D, `value` specifies the percentage of the maximum magnitude of the transform such that coefficients smaller than this value are set to zero.