$$A_i = A_{i-1} * V, \qquad D_i = A_{i-1} * W$$

where

- V is the scaling wavelet vector,
- W is the differencing wavelet vector,
- A is the average vector (scaled vector),
- D is the difference component vector,
- $\forall i \in [1, L)$ and $A_0 = f$ which is the original signal, and
- L is the limit on the number resolutions that signal can have based on the wavelet type.