%wavelet 2 decomposition levels

ls = length(s);

x='db3';

[C,L] = wavedec(s,2,x);

cA2 = appcoef(C,L,x,2);

cD2 = detcoef(C,L,2);

cD1 = detcoef(C,L,1);

A2 = wrcoef('a',C,L,x,2);

D1 = wrcoef('d',C,L,x,1);

D2 = wrcoef('d',C,L,x,2);

%wavelet 2 decomposition levels too many data such as wells

WT=[1;1];

for i=1:1582

j=i+(47\*(i-1));

s=T(j:j+47);

ls = length(s);

x='db3';

[C,L] = wavedec(s,2,x);

cA2 = appcoef(C,L,x,2);

cD2 = detcoef(C,L,2);

cD1 = detcoef(C,L,1);

A2 = wrcoef('a',C,L,x,2);

D1 = wrcoef('d',C,L,x,1);

D2 = wrcoef('d',C,L,x,2);

WT=[WT;A2];

end

---------------------------------------------------------------------------------------------

%wavelet 3 decomposition levels

close all; clc;

x='dmey';

s=jamkaran;

ls = length(s);

[C,L] = wavedec(s,3,x);

cA3 = appcoef(C,L,x,3);

cD3 = detcoef(C,L,3);

cD2 = detcoef(C,L,2);

cD1 = detcoef(C,L,1);

A3 = wrcoef('a',C,L,x,3);

D1 = wrcoef('d',C,L,x,1);

D2 = wrcoef('d',C,L,x,2);

D3 = wrcoef('d',C,L,x,3);

-----------------------------------------------------------------------------------

%wavelet 3 decomposition levels too many data such as wells

WT=[1;1];

x='db3';

for i=1:1582

j=i+(47\*(i-1));

s=T(j:j+47);

ls = length(s);

[C,L] = wavedec(s,3,x);

cA3 = appcoef(C,L,x,3);

cD3 = detcoef(C,L,3);

cD2 = detcoef(C,L,2);

cD1 = detcoef(C,L,1);

A3 = wrcoef('a',C,L,x,3);

D1 = wrcoef('d',C,L,x,1);

D2 = wrcoef('d',C,L,x,2);

D3 = wrcoef('d',C,L,x,3);

WT=[WT;A3];

end