OVERLAPP AND ADD METHOD

PROGRAM:

x=[1 2 3 4 5 6];

h=[1 1 1];

n1=length(x);

n2=length(h);

N=n2+n1-1;

y=zeros(1,N);

h1=[h zeros(1,n2-1)];

n3=length(h1);

y=zeros(1,N+n3-n2);

H=fft(h1);

for i=1:n2:n1

if i<=(n1+n2-1)

x1=[x(i:i+n3-n2) zeros(1,n3-n2)];

else

x1=[x(i:n1) zeros(1,n3-n2)];

end

x2=fft(x1);

x3=x2.\*H;

x4=round(ifft(x3));

if(i==1)

y(1:n3)=x4(1:n3);

else

y(i:i+n3-1)=y(i:i+n3-1)+x4(1:n3);

end

end

disp('The output y(n)=');

disp(y(1:N));

stem((y(1:N)));

title('overlap add method');

xlabel('n');

ylabel('y(n)');

OUTPUT:

The output y(n)=

1 3 6 9 12 15 11 6