

```
1  h = [0.05 0.1 0.05 0.1 0.15 0.15 0.35 0.15 0.15 0.1 0.05 0.1 0.05]; %samples
2  NHL = 0; %linker Rand
3  NHR = 12 %rechter Rand
4  IH = 13; % breite
5
6  nh = 0:1:12; %indexachse
7  th = 0:1:12; %zeitachse
8
9  [wz, wfs, wbits]=wavread('MENU.WAV');
10 x=wz;
11 NXL = 0; %linker Rand
12 NXR = length(x)-1; %rechter Rand
13 IX = length(x); % breite
14 nx = 0:1:length(x)-1; %indexachse
15 tx = 0:1:length(x)-1; %zeitachse
16
17
18 y = []; %samples
19 NYL = 0; %linker Rand
20 NYR = 500; %rechter Rand
21 IY = 501; % breite
22 ny = []; %indexachse
23 ty = []; %zeitachse
24
25 fs = wfs;%Abtastfrequenz
26 T = 1/fs; %Abtastabstand 1/fs
27
28 %zeitachse Start
29 ty(1) = NYL;
30 ty(IY) = NYR;
31 schritt = (abs(NYL)+abs(NYR)) / (IY-1);
32
33 for i=2:1:(IY-1)
34     ty(i) = NYL + ((i-1)*schritt);
35 end
36 %zeitachse Ende
37
38
39 %indexachse Start
40 for i=1:1:IY
41     ny(i) = ty(i)/schritt;
42 end
43 %indexachse Ende
44
45
46 z2=1;
47 for j=ny(1):1:ny(1)+IY-1
48     z1 = 1; % Zähler
49     eintrag = 0;
50
51     for i=nh(1):1:nh(1)+IH
52         h_ind = find(nh == i);
53         temp = j-i;
54         temp = fix(100*temp)/100;
55         x_ind = find(nx == temp);
56         if isempty(h_ind)
57             E(z1) = 0;
58         elseif isempty(x_ind)
59             E(z1) = 0;
60         else
61
62             E(z1) = h(h_ind) * x(x_ind);
63
64         end
65         eintrag = eintrag+E(z1);
66         z1 = z1+1;
67     end
68
```

```
69     y(z2) = eintrag;
70     z2=z2+1;
71 end
72
73 subplot(3,1,1)
74 stem(nx,x)
75 axis([-4,12,-3,4])
76 subplot(3,1,2)
77 stem(nh,h)
78 axis([-4,12,-3,4])
79 subplot(3,1,3)
80 stem(ny,y)
81 axis([-4,12,-3,4])
82
83 figure
84 subplot(3,1,1)
85 stem(tx,x)
86 axis([0,length(x),-1,1])
87 subplot(3,1,2)
88 stem(th,h)
89 axis([0,12,-0.5,0.5])
90 subplot(3,1,3)
91 stem(ty,y)
92 axis([0,499,-0.05,0.05])
```