To demonstrate how the pieces work together, we can repeat our example:

```
   >> alphabet = {'0' '1' '2' '3' '4' '5' '6' '7'};
   >> p = [0.05 0.2 0 0.2 0.1 0.25 0.05 0.15];
   >> [tree, tab] = hufftree(alphabet,p);
   >> tab

   tab =

        val: {'1'  '3'  '5'  '7'  '2'  '0'  '6'  '4'}
       code: {'00'  '01'  '10'  '110'  '111000'  '111001'  '11101'  '1111'}

   >> message = {'1' '3' '3' '7' '1' '5' '4' '5' '1' '5' '5' '1' '3' '5' '7'
'0' '6' '3' '4' '7'};
   >> code = huffencode(message,tab)

   code =

   00010111000101111100010100001101101110011110101111111O

   >> decoded = huffdecode(code,tree)

   decoded =

     Columns 1 through 13

       '1'    '3'    '3'    '7'    '1'    '5'    '4'    '5'    '1'    '5'
'5'    '1'    '3'

     Columns 14 through 20

       '5'    '7'    '0'    '6'    '3'    '4'    '7'

   >>
```