

---

```
close all; clearvars; clc
```

```
a = [1 0 0 1 1 1 0]
b = Bin2Dec(a)
c = Dec2Bin(b,8)
```

```
% Function to convert bit-matrix into integers (assuming first bit of each row
as MSb).
```

```
function [ OutVect ] = Bin2Dec( InMtx )
    Sz = size(InMtx);
    OutVect = zeros(Sz(1),1);
    for i = 1:Sz(1)
        for j = 1:Sz(2)
            OutVect(i) = OutVect(i)+InMtx(i,j)*2^(Sz(2)-j);
        end
    end
end
```

```
% Function to convert integers into bit-matrix (assuming first bit of each row
as MSb).
```

```
function [ OutMtx ] = Dec2Bin(InVect,Ndig)
    LenIn = length(InVect);
    OutMtx = zeros(LenIn,Ndig);
    for i = 1:LenIn
        Val = InVect(i);
        for j = 1:Ndig
            OutMtx(i,Ndig-j+1) = mod(Val,2);
            Val = floor(Val/2);
        end
    end
end
```

```
a =
```

```
    1    0    0    1    1    1    0
```

```
b =
```

```
    78
```

```
c =
```

```
    0    1    0    0    1    1    1    0
```

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