

# COMS w I 004-002

February 3, 2005

# Classes and Objects

<b>Class Name</b>
Attributes
Attributes
Operations
Operations

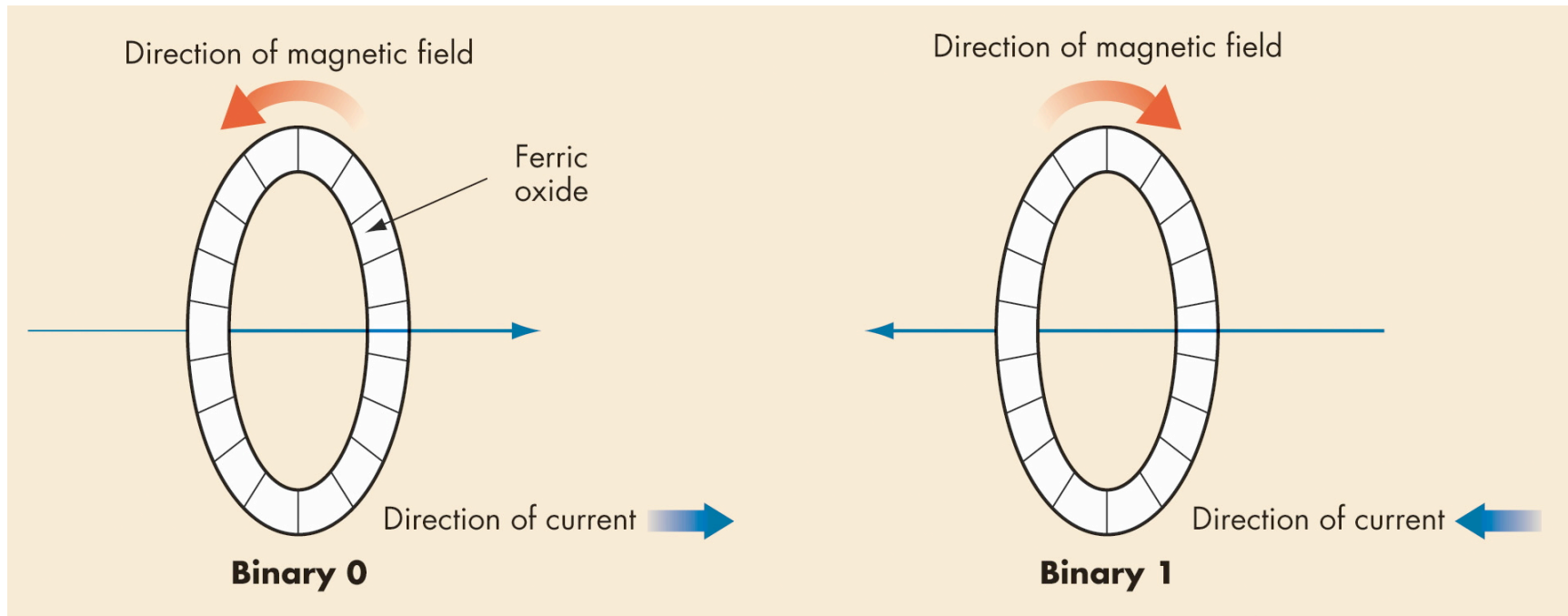
<b>Employee</b>
Salary
StartDate
EndData
+GrantRaise()

<b>John :Employee</b>
Salary = 100000
StartDate = 01/15/1998
EndData

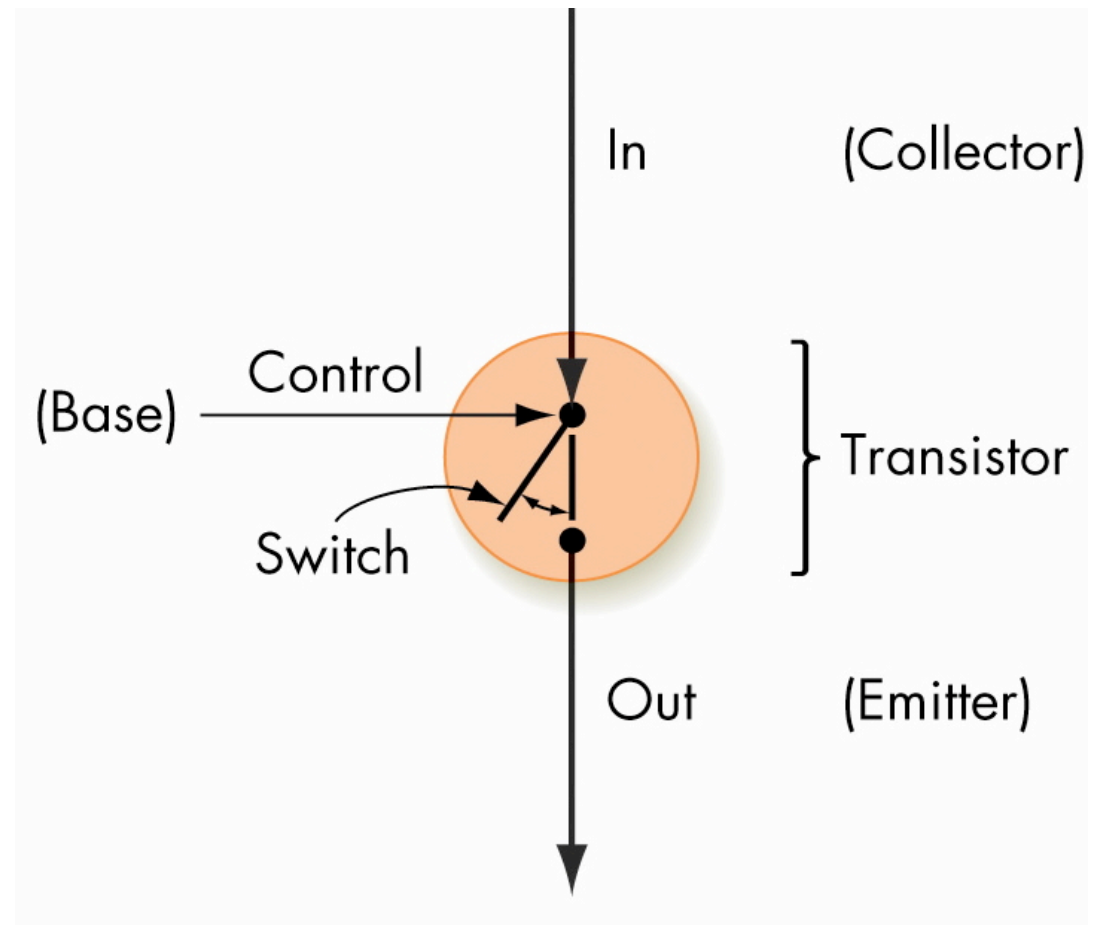
<b>William :Employee</b>
Salary = 24000
StartDate = 09/01/1999
EndData= 07/23/2003

<b>Mary :Employee</b>
Salary = 125000
StartDate = 08/20/2003
EndData=

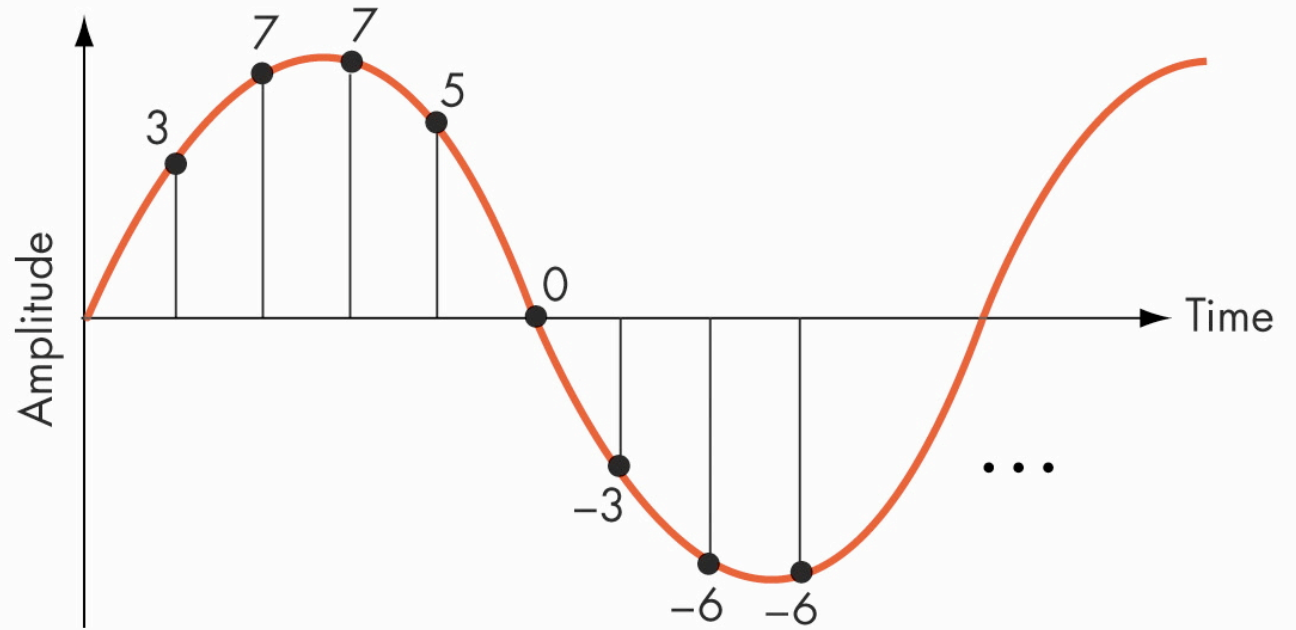
# Using magnetic cores to represent binary data



Transistors (usually designed as semiconductors):  
use a control to turn on and off flow (i.e. really  
tiny switches)

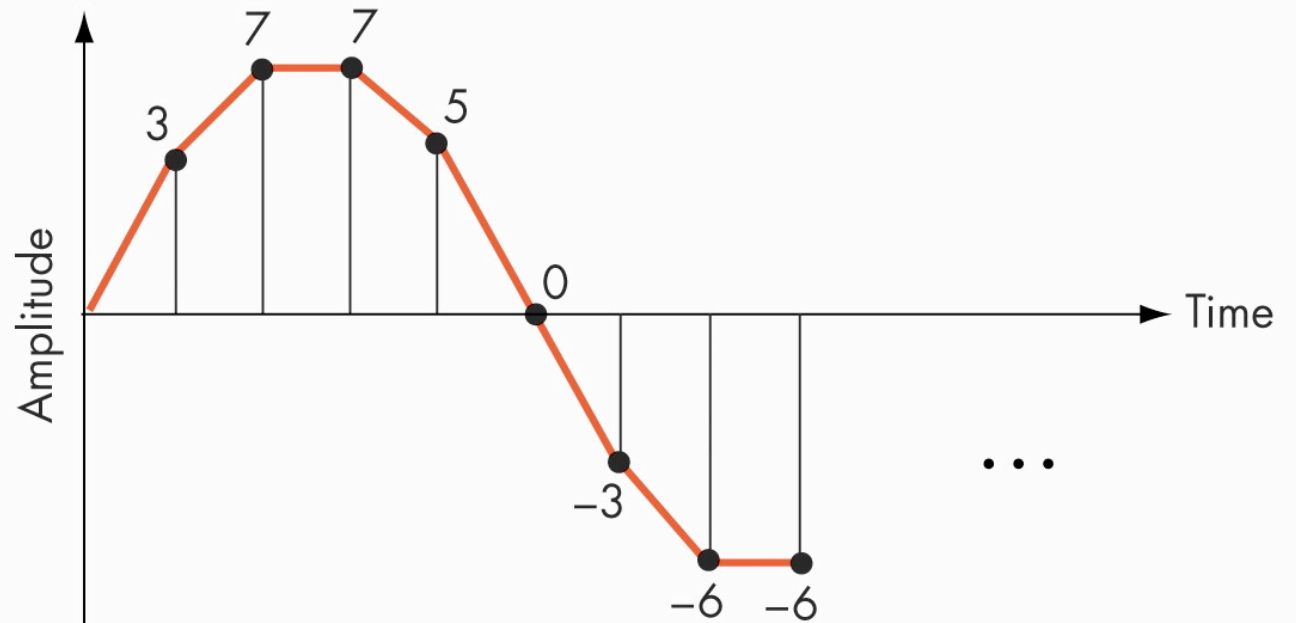


(a) Sampling the Original Signal



(a)

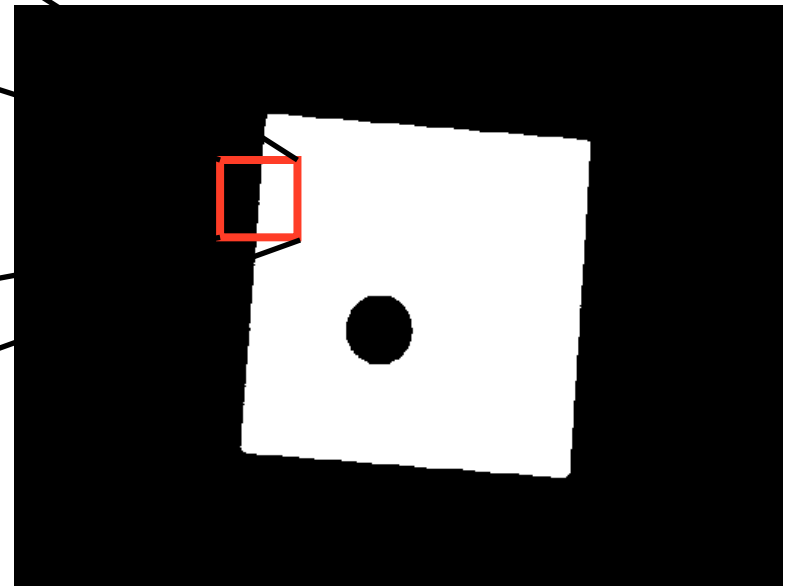
(b) Recreating the Signal from the Sampled Values



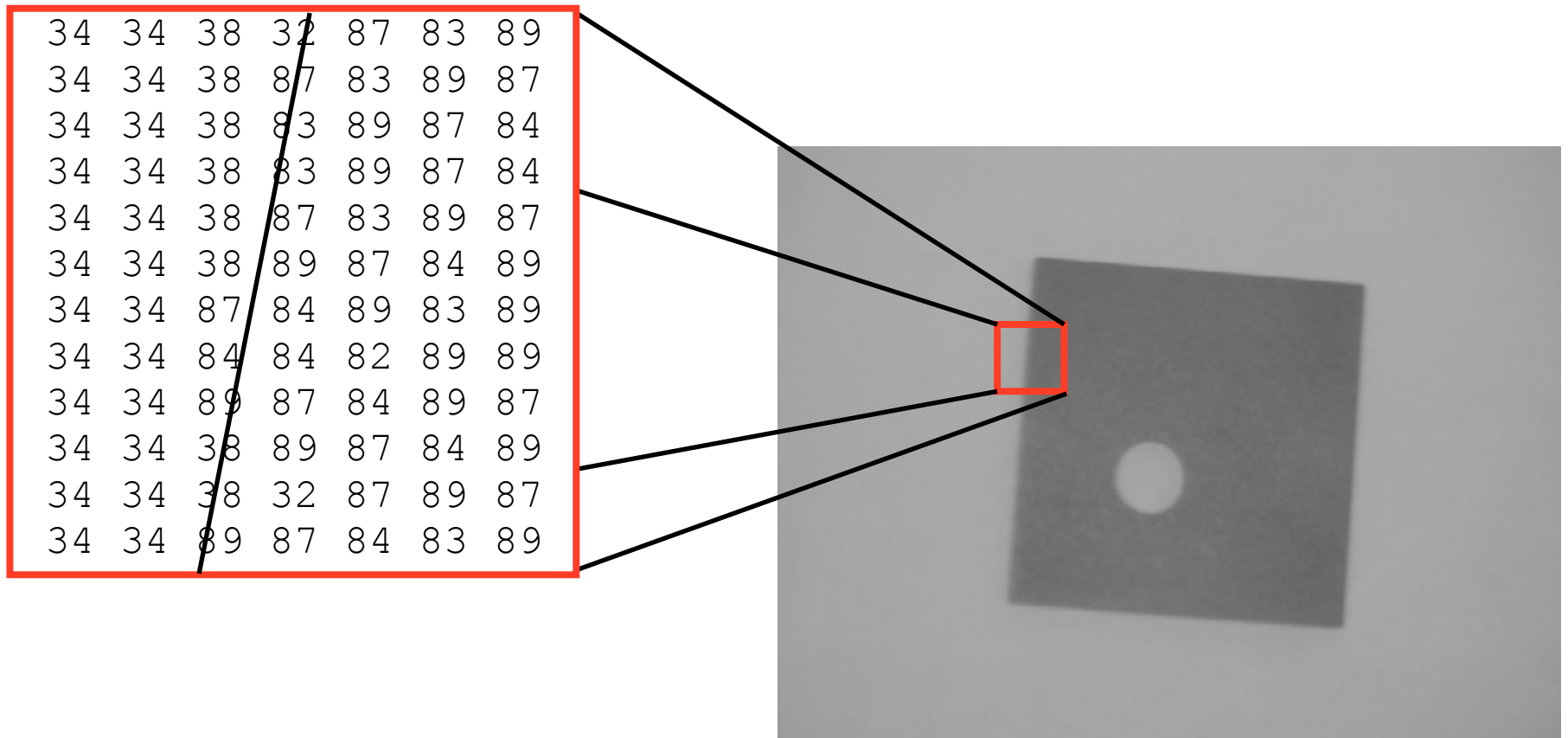
(b)

# “Binary” Image (2-bits)

```
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111  
000000000000111111111111
```



# “Grayscale” Image (8-bits)



# Color (RGB) Image

34	34	38	32	87	83	89	84
34	34	38	87	83	89	87	89
34	34	38	83	89	87	84	89
34	34	38	83	89	87	84	89
34	34	38	87	83	89	87	89
34	34	38	89	87	84	89	87
34	34	87	84	89	83	89	89
34	34	84	84	82	89	89	87
34	34	89	87	84	89	87	89
34	34	38	89	87	84	89	
34	34	38	32	87	83	89	
34	34	38	87	83	89	87	
34	34	38	83	89	87	84	

