



Curtin University

# Inputs

ISYS5002, School of Marketing and Management

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I acknowledge the traditional custodians of the land on which I work and live, and recognise their continuing connection to land, water and community. I pay respect to elders past, present and emerging.





# Decimal (base-10) Digits

0 1 2 3 4 5 6 7 8 9

# Binary (base-2) Digits

0 1

# Decimal (base-10)

1 2 3

# Decimal (base-10)

100      10      1  
1 2 3

# Decimal (base-10)

100      10      1  
1 2 3

$100 \times 1$

# Decimal (base-10)

100      10      1  
1 2 3

$$100 \times 1 + 10 \times 2$$

# Decimal (base-10)

100      10      1  
1      2      3

$$100 \times 1 + 10 \times 2 + 3 \times 1$$

# Decimal (base-10)

$$\begin{array}{ccc} 100 & 10 & 1 \\ 1 & 2 & 3 \\ 100 & + & 20 & + & 3 \end{array}$$

# Decimal (base-10)

1 2 3

# Decimal (base-10)

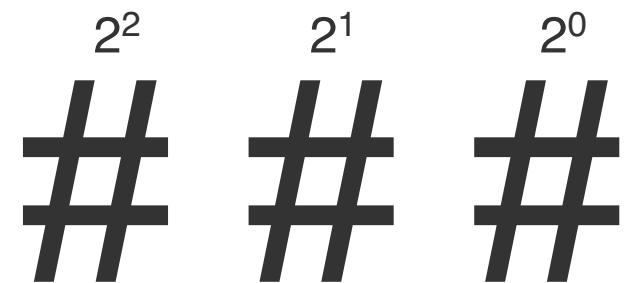
100	10	1
#	#	#

# Decimal (base-10)

$10^2$	$10^1$	$10^0$
#	#	#

# Binary (base-2)

$2^2$        $2^1$        $2^0$



# Binary (base-2)

4      2      1

#      #      #

# Binary (base-2)

4      2      1  
0      0      0

# Binary (base-2)

4      2      1  
0      0      0

$$4 \times 0 + 2 \times 0 + 1 \times 0$$

# Binary (base-2)

4	2	1
0	0	1

$$4 \times 0 + 2 \times 0 + 1 \times 1$$

# Binary (base-2)

4      2      1  
0 1 0

$$4 \times 0 + 2 \times 1 + 1 \times 0$$

# Binary (base-2)

4      2      1  
0      1      1

$$4 \times 0 + 2 \times 1 + 1 \times 1$$

# Binary (base-2)

4      2      1

1      1      1

# 65

... A B C D E F G H...  
... 65 66 67 68 69 70 71 72...

# Text

72 73 33

H I  
72 73 33

## The decimal set:

0	nul	1	soh	2	stx	3	etx	4	eot	5	enq	6	ack	7	bel
8	bs	9	ht	10	nl	11	vt	12	np	13	cr	14	so	15	si
16	dle	17	dc1	18	dc2	19	dc3	20	dc4	21	nak	22	syn	23	etb
24	can	25	em	26	sub	27	esc	28	fs	29	gs	30	rs	31	us
32	sp	33	!	34	"	35	#	36	\$	37	%	38	&	39	'
40	(	41	)	42	*	43	+	44	,	45	-	46	.	47	/
48	0	49	1	50	2	51	3	52	4	53	5	54	6	55	7
56	8	57	9	58	:	59	;	60	<	61	=	62	>	63	?
64	@	65	A	66	B	67	C	68	D	69	E	70	F	71	G
72	H	73	I	74	J	75	K	76	L	77	M	78	N	79	O
80	P	81	Q	82	R	83	S	84	T	85	U	86	V	87	W
88	X	89	Y	90	Z	91	[	92	\	93	]	94	^	95	-
96	`	97	a	98	b	99	c	100	d	101	e	102	f	103	g
104	h	105	i	106	j	107	k	108	l	109	m	110	n	111	o
112	p	113	q	114	r	115	s	116	t	117	u	118	v	119	w
120	x	121	y	122	z	123	{	124		125	}	126	~	127	del

H I !  
72 73 33

H

I

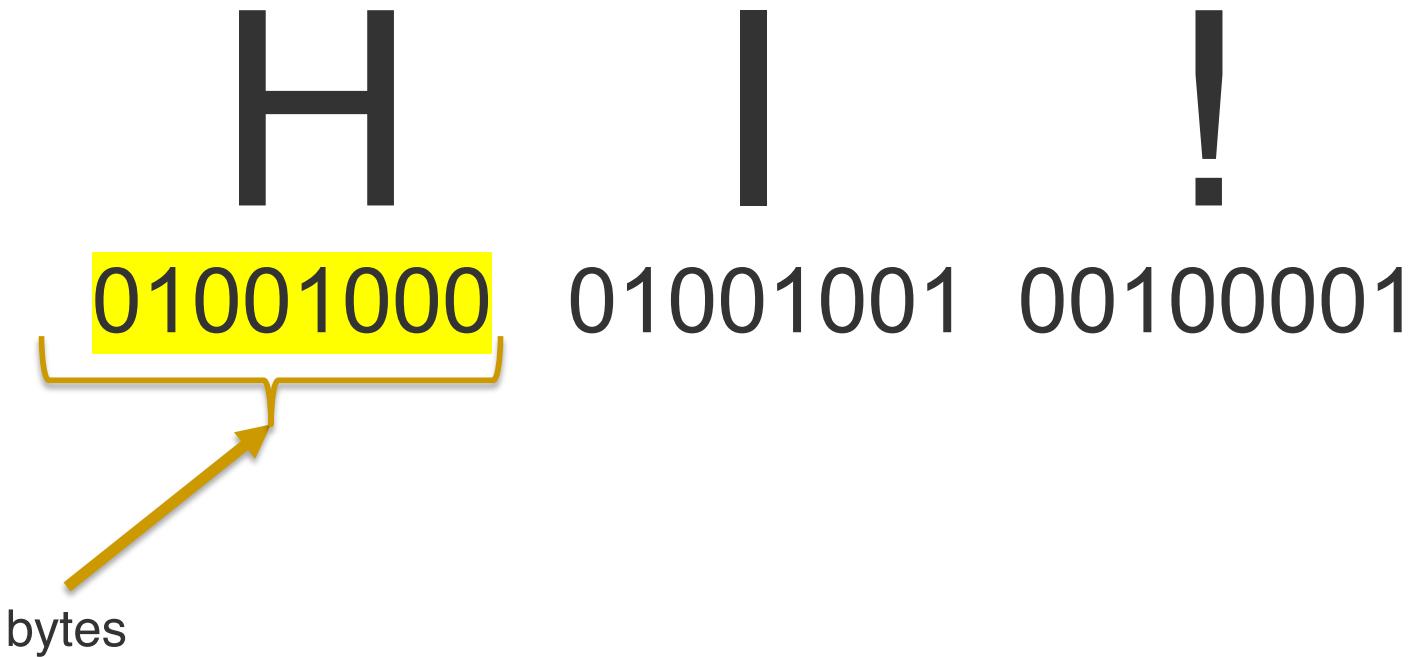
!

01001000 01001001 00100001

H I !

01001000 01001001 00100001

bytes



The diagram illustrates the binary representation of the string "HI!". The string is shown above its binary equivalent. The first byte, 'H', is highlighted with a yellow box, and an orange arrow points from this box to the word "bytes" located below the binary digits. The binary digits are arranged in groups of 8 bits, corresponding to the characters 'H', 'I', and '!' respectively.

# Images

72

73

33

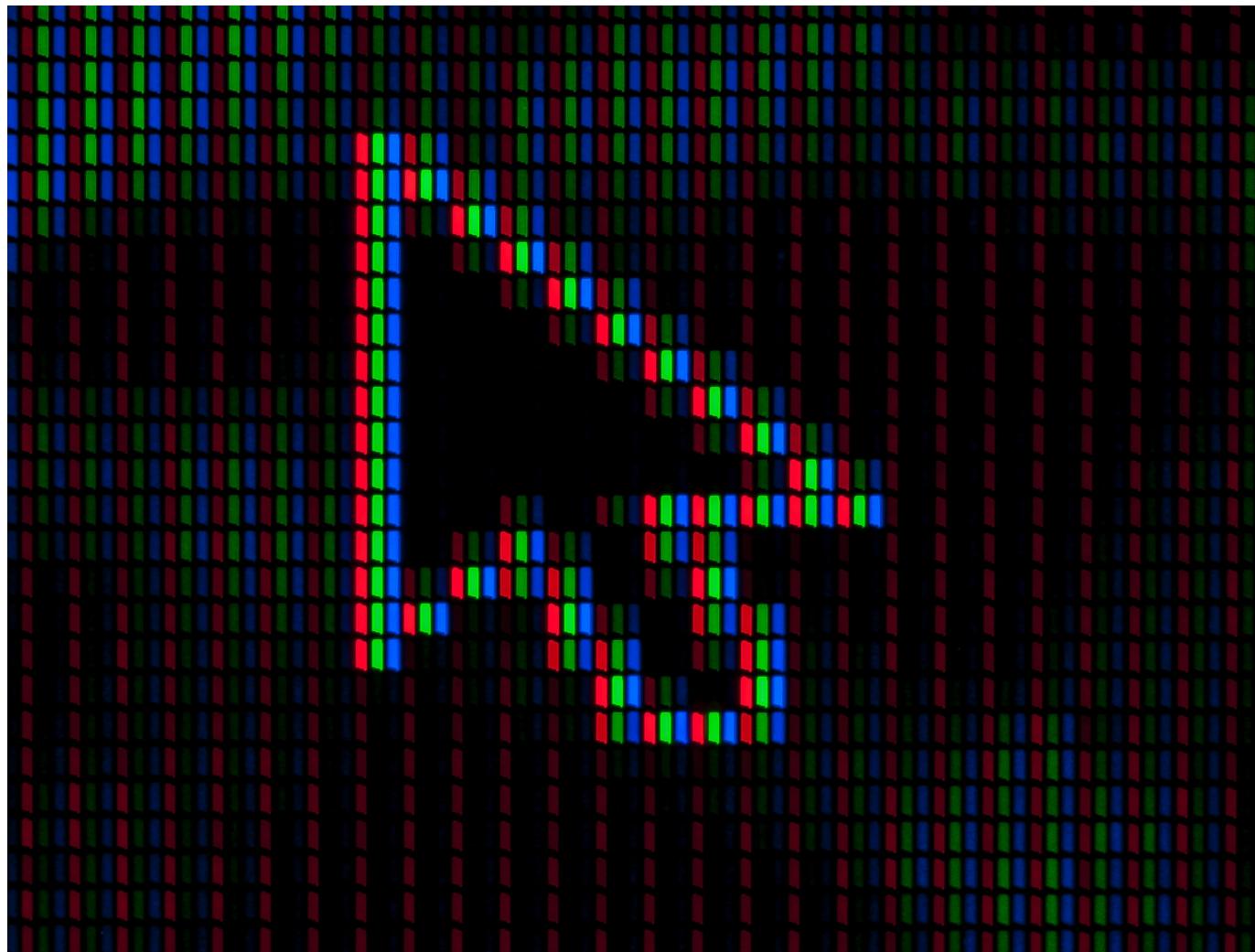
# Images



# Images



# Images



# Inputs

- Binary
- Agree on formats

Text

Images

Audio

Video