

ASCII

American Standard Code for Information Interchange

This is all great for storing and representing numbers, but what about letters and symbols?

One common way is using an *encoding*. We associated each character with a certain binary number.

Link to full ASCII table: <http://www.asciitable.com/>

ASCII – The Alphabet


Decimal Representation

Hexadecimal Representation

Octal Representation

HTML Representation

Character being Represented



Dec	Hx	Oct	Html	Chr
64	40	100	@	@
65	41	101	A	A
66	42	102	B	B
67	43	103	C	C
68	44	104	D	D
69	45	105	E	E
70	46	106	F	F
71	47	107	G	G
72	48	110	H	H
73	49	111	I	I
74	4A	112	J	J
75	4B	113	K	K
76	4C	114	L	L
77	4D	115	M	M
78	4E	116	N	N
79	4F	117	O	O
80	50	120	P	P
81	51	121	Q	Q
82	52	122	R	R
83	53	123	S	S
84	54	124	T	T
85	55	125	U	U
86	56	126	V	V
87	57	127	W	W

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ASCII isn't big enough!

ASCII encodings are only 7 bits long. This only allows up to 128 different encoded characters.

Why would we need more encodings?

Unicode is the new standard

Unicode is a *superset* of ASCII. This means that everything in ASCII is in Unicode (the first 128 encodings).

Emoji Encodings in Unicode

<http://apps.timwhitlock.info/emoji/tables/unicode>

Full Unicode can be found online.

Some facts...

- Your computer keyboard can generate most ASCII characters.
- Some extra characters (language-specific) can be typed using ALT encodings. Press *ALT* and any combination of numbers from the number pad (on the far right of the keyboard). A full listing of available characters is shown here: http://www.alt-codes.net/how_to_use_alt_codes/
- Some great info on Unicode available here: <http://www.joelonsoftware.com/articles/Unicode.html>