NAME

ascii – the ASCII character set encoded in octal, decimal, and hexadecimal

DESCRIPTION

ASCII is the American Standard Code for Information Interchange. It is a 7-bit code. Many 8-bit codes (such as ISO 8859-1, the Linux default character set) contain ASCII as their lower half. The international counterpart of ASCII is known as ISO 646.

The following table contains the 128 ASCII characters.

C program `'\X'` escapes are noted.

Oct	Dec	Hex	Char		Oct	Dec	Hex	Char	
000	0	00	NUL '\0'		100	64	40	@	
001	1	01	SOH (start of heading)		101	65	41	A	
002	2	02	STX (start of text)		102	66	42	B	
003	3	03	ETX (end of text)		103	67	43	C	
004	4	04	EOT (end of transmission)		104	68	44	D	
005	5	05	ENQ (enquiry)		105	69	45	E	
006	6	06	ACK (acknowledge)		106	70	46	F	
007	7	07	BEL '\a' (bell)		107	71	47	G	
010	8	08	BS '\b' (backspace)		110	72	48	H	
011	9	09	HT '\t' (horizontal tab)		111	73	49	I	
012	10	0A	LF '\n' (new line)		112	74	4A	J	
013	11	0B	VT '\v' (vertical tab)		113	75	4B	K	
014	12	0C	FF '\f' (form feed)		114	76	4C	L	
015	13	0D	CR '\r' (carriage ret)		115	77	4D	M	
016	14	0E	SO (shift out)		116	78	4E	N	
017	15	0F	SI (shift in)		117	79	4F	O	
020	16	10	DLE (data link escape)		120	80	50	P	
021	17	11	DC1 (device control 1)		121	81	51	Q	
022	18	12	DC2 (device control 2)		122	82	52	R	
023	19	13	DC3 (device control 3)		123	83	53	S	
024	20	14	DC4 (device control 4)		124	84	54	T	
025	21	15	NAK (negative ack.)		125	85	55	U	
026	22	16	SYN (synchronous idle)		126	86	56	V	
027	23	17	ETB (end of trans. blk)		127	87	57	W	
030	24	18	CAN (cancel)		130	88	58	X	
031	25	19	EM (end of medium)		131	89	59	Y	
032	26	1A	SUB (substitute)		132	90	5A	Z	
033	27	1B	ESC (escape)		133	91	5B	[	
034	28	1C	FS (file separator)		134	92	5C	\	'\\'
035	29	1D	GS (group separator)		135	93	5D	]	
036	30	1E	RS (record separator)		136	94	5E	^	
037	31	1F	US (unit separator)		137	95	5F	_	
040	32	20	SPACE		140	96	60	`	
041	33	21	!		141	97	61	a	
042	34	22	"		142	98	62	b	
043	35	23	#		143	99	63	c	
044	36	24	$		144	100	64	d	
045	37	25	%		145	101	65	e	
046	38	26	&		146	102	66	f	
047	39	27	´		147	103	67	g	
050	40	28	(		150	104	68	h	
051	41	29	)		151	105	69	i	

```
052    42    2A    *                                  152    106   6A    j
053    43    2B    +                                  153    107   6B    k
054    44    2C    ,                                  154    108   6C    l
055    45    2D    -                                  155    109   6D    m
056    46    2E    .                                  156    110   6E    n
057    47    2F    /                                  157    111   6F    o
060    48    30    0                                  160    112   70    p
061    49    31    1                                  161    113   71    q
062    50    32    2                                  162    114   72    r
063    51    33    3                                  163    115   73    s
064    52    34    4                                  164    116   74    t
065    53    35    5                                  165    117   75    u
066    54    36    6                                  166    118   76    v
067    55    37    7                                  167    119   77    w
070    56    38    8                                  170    120   78    x
071    57    39    9                                  171    121   79    y
072    58    3A    :                                  172    122   7A    z
073    59    3B    ;                                  173    123   7B    {
074    60    3C    <                                  174    124   7C    |
075    61    3D    =                                  175    125   7D    }
076    62    3E    >                                  176    126   7E    ~
077    63    3F    ?                                  177    127   7F    DEL
```

Tables

For convenience, let us give more compact tables in hex and decimal.

```
      2 3 4 5 6 7           30 40 50 60 70 80 90 100 110 120
     -------------          ----------------------------------
0:   0 @ P ` p         0:       (   2   <   F   P   Z   d    n    x
1: ! 1 A Q a q         1:       )   3   =   G   Q   [   e    o    y
2: " 2 B R b r         2:       *   4   >   H   R   \   f    p    z
3: # 3 C S c s         3:   !   +   5   ?   I   S   ]   g    q    {
4: $ 4 D T d t         4:   "   ,   6   @   J   T   ^   h    r    |
5: % 5 E U e u         5:   #   -   7   A   K   U   _   i    s    }
6: & 6 F V f v         6:   $   .   8   B   L   V   `   j    t    ~
7: ´ 7 G W g w         7:   %   /   9   C   M   W   a   k    u    DEL
8: ( 8 H X h x         8:   &   0   :   D   N   X   b   l    v
9: ) 9 I Y i y         9:   ´   1   ;   E   O   Y   c   m    w
A: * : J Z j z
B: + ; K [ k {
C: , < L \ l |
D: - = M ] m }
E: . > N ^ n ~
F: / ? O _ o DEL
```

NOTES

History

An **ascii** manual page appeared in Version 7 of AT&T UNIX.

On older terminals, the underscore code is displayed as a left arrow, called backarrow, the caret is displayed as an up-arrow and the vertical bar has a hole in the middle.

Uppercase and lowercase characters differ by just one bit and the ASCII character 2 differs from the double quote by just one bit, too. That made it much easier to encode characters mechanically or with a non-microcontroller-based electronic keyboard and that pairing was found on old teletypes.

The ASCII standard was published by the United States of America Standards Institute (USASI) in 1968.

SEE ALSO

iso_8859-1(7), **iso_8859-10**(7), **iso_8859-13**(7), **iso_8859-14**(7), **iso_8859-15**(7), **iso_8859-16**(7),
iso_8859-2(7), **iso_8859-3**(7), **iso_8859-4**(7), **iso_8859-5**(7), **iso_8859-6**(7), **iso_8859-7**(7), **iso_8859-8**(7),
iso_8859-9(7)

COLOPHON

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