

ASCII Reference Sheet



What is ASCII?

ASCII (American Standard Code for Information Interchange) is a widely used system for character encoding. It was originally developed in 1963 as a 7-bit system allowing for 128 characters. Symbols 0-31 and 127 were reserved for control characters (e.g. "Backspace" or "Delete") with the numbers 32-126 being used for printable characters. As the 8-bit "byte" became standardized, ASCII was extended to the 8-bit format you see below.

| Num. | Bits | Char. |
|------|----------|-------|
| 32 | 00100000 | Space |
| 33 | 00100001 | ! |
| 34 | 00100010 | " |
| 35 | 00100011 | # |
| 36 | 00100100 | \$ |
| 37 | 00100101 | % |
| 38 | 00100110 | & |
| 39 | 00100111 | ' |
| 40 | 00101000 | (|
| 41 | 00101001 |) |
| 42 | 00101010 | * |
| 43 | 00101011 | + |
| 44 | 00101100 | , |
| 45 | 00101101 | - |
| 46 | 00101110 | . |
| 47 | 00101111 | / |
| 48 | 00110000 | 0 |
| 49 | 00110001 | 1 |
| 50 | 00110010 | 2 |
| 51 | 00110011 | 3 |
| 52 | 00110100 | 4 |
| 53 | 00110101 | 5 |
| 54 | 00110110 | 6 |
| 55 | 00110111 | 7 |
| 56 | 00111000 | 8 |
| 57 | 00111001 | 9 |
| 58 | 00111010 | : |
| 59 | 00111011 | ; |
| 60 | 00111100 | < |
| 61 | 00111101 | = |
| 62 | 00111110 | > |
| 63 | 00111111 | ? |

| Num. | Bits | Char. |
|------|----------|-------|
| 64 | 01000000 | @ |
| 65 | 01000001 | A |
| 66 | 01000010 | B |
| 67 | 01000011 | C |
| 68 | 01000100 | D |
| 69 | 01000101 | E |
| 70 | 01000110 | F |
| 71 | 01000111 | G |
| 72 | 01001000 | H |
| 73 | 01001001 | I |
| 74 | 01001010 | J |
| 75 | 01001011 | K |
| 76 | 01001100 | L |
| 77 | 01001101 | M |
| 78 | 01001110 | N |
| 79 | 01001111 | O |
| 80 | 01010000 | P |
| 81 | 01010001 | Q |
| 82 | 01010010 | R |
| 83 | 01010011 | S |
| 84 | 01010100 | T |
| 85 | 01010101 | U |
| 86 | 01010110 | V |
| 87 | 01010111 | W |
| 88 | 01011000 | X |
| 89 | 01011001 | Y |
| 90 | 01011010 | Z |
| 91 | 01011011 | [|
| 92 | 01011100 | \ |
| 93 | 01011101 |] |
| 94 | 01011110 | ^ |
| 95 | 01011111 | _ |

| Num. | Bits | Char. |
|------|----------|-------|
| 96 | 01100000 | ` |
| 97 | 01100001 | a |
| 98 | 01100010 | b |
| 99 | 01100011 | c |
| 100 | 01100100 | d |
| 101 | 01100101 | e |
| 102 | 01100110 | f |
| 103 | 01100111 | g |
| 104 | 01101000 | h |
| 105 | 01101001 | i |
| 106 | 01101010 | j |
| 107 | 01101011 | k |
| 108 | 01101100 | l |
| 109 | 01101101 | m |
| 110 | 01101110 | n |
| 111 | 01101111 | o |
| 112 | 01110000 | p |
| 113 | 01110001 | q |
| 114 | 01110010 | r |
| 115 | 01110011 | s |
| 116 | 01110100 | t |
| 117 | 01110101 | u |
| 118 | 01110110 | v |
| 119 | 01110111 | w |
| 120 | 01111000 | x |
| 121 | 01111001 | y |
| 122 | 01111010 | z |
| 123 | 01111011 | { |
| 124 | 01111100 | |
| 125 | 01111101 | } |
| 126 | 01111110 | ~ |