## ASCII Code

|  | Column Number |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 000 | 001 | 010 | 011 | 100 | 101 | 110 | 111 |
| Row <br> Number |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| 0000 | NUL | DLE | $\bigcirc$ | 0 | @ | P | , | p |
| 0001 | SOH | DC1 | ! | 1 | A | Q | a | q |
| 0010 | STX | DC2 | ' | 2 | B | R | b | r |
| 0011 | ETX | DC3 | \# | 3 | C | S | C | S |
| 0100 | EOT | DC4 | \$ | 4 | D | T | d | t |
| 0101 | ENQ | NAK | \% | 5 | E | U | e | u |
| 0110 | ACK | SYN | \& | 6 | F | V | f | V |
| 0111 | BELL | ETB | ' | 7 | G | W | g | W |
| 1000 | BS | CAN | ( | 8 | H | X | h | X |
| 1001 | HT | EM | ) | 9 | I | Y | 1 | y |
| 1010 | LF | SUB | * | : | J | Z | j | Z |
| 1011 | $V T$ | ESC | + | , | K | [ | k | \{ |
| 1100 | FF | FS | , | $<$ | L | 1 | 1 |  |
| 1101 | CR | GS | - | $=$ | M | ] | m | \} |
| 1110 | SO | RS | - | > | N | $\wedge$ | n | $\sim$ |
| 1111 | SI | US | / | ? | O | - | 0 | DEL |

The ASCII code of a character is found by combining its Column Number (given in 3-bit binary) with its Row Number (given in 4-bit binary).
The Column Number forms bits 6, 5 and 4 of the ASCII, and the Row Number forms bits 3, 2, 1 and 0 of the ASCII.

Example of use: to get ASCII code for letter "n", locate it in Column 110, Row 1110. Hence its ASCII code is $\mathbf{1 1 0 1 1 1 0}$.

The Control Code mnemonics are given in italics above; e.g. $C R$ for Carriage Return, $L F$ for Line Feed, $B E L L$ for the Bell, $D E L$ for Delete.

The Space is ASCII 0100000 , and is shown as $\diamond$ here.

