530128-16-1E AID:83578 | 19/03/2019

**Program Plan:**

The byte ordering decides how multibyte data-types such as integer, float are stored in a computer machine. In big-endian byte ordering the first byte of data stored in MSB and in little-endian byte ordering the last byte of data stord in MSB.

For example a 32-bit integer with the value 0x02010306 and to be casted its address with a character pointer(byte). In big-endian machine byte[0] contain 6 and byte[3] contain 2. In a little-endian machine byte[0] contain value 2 and byte[3] contain value 6.

**Program:**

/\*

\* Program to determine system's byte ordering.

\*/

**#include** <stdio.h>

**int** **main**()

{

**unsigned** **int** integer = 0x02010306;

**char** \*byte = (**char**\*) &integer;

**if** (2 == byte[0] && 6 == byte[3])

**printf**("Little-endian byte order");

**else**

**printf**("Big-endian byte order");

**return** 0;

}

**Sample Output:**

Little-endian byte order