

## Answer on Question #43635, Programming, Other

What is the purpose of using various addressing modes techniques?

**Answer:**

In the design of central processing unit (CPU), the term **addressing mode** refers to the way in which the operand of an instruction could be accessed.

Different addressing mode techniques are used:

1. to give programming versatilities to the user to be more flexible (by providing such facilities as pointers to the memory, counters for loop control, indexing of data etc.);
2. to reduce the number of bits in the addressing field of the instruction;

Also, it could be said that the addressing mode is used to specify a rule for interpreting or modifying the address field of the instruction before the operand is actually executed.