**activeelement**

*Function returns index of the first non-zero element in array.*

**Syntax:**

*x =* **activeelement***(X);*

**Arguments:**

*Х* – input array

**Description:**

*activeelement(X)* – function returns index of the first non-zero element in array. If all elements are of zero type, it returns zero. Indices begin with one.

The input array *X* can be assigned:

* as variable of array type determined earlier:

*х* = **activeelement**(*X*);

* as array consisting of variables determined earlier:

*x* = **activeelement**([*x1,x2,x3,x4*]);

* as constant array:

*х* = **activeelement**([0,0,2,1,0]);

**Result:**

*x* – index of the first non-zero element in array. It features integer type.

**Example 1:**

|  |  |
| --- | --- |
|  | **output** i;//output – index of non-zero element  i = **activeelement**([0,1,0]); // Result: i = 2 |

As a result variable i will be assigned integer 2 corresponding to index of the first non-zero element in array [0,1,0].

**Example 2:**

|  |  |
| --- | --- |
|  | **output** i;//output – index of non-zero element  i =**activeelement**([0,0,2,1,0]); // Result: i = 3 |

As a result variable i will be assigned integer 3 corresponding to index of the first non-zero element in array [0,0,2,1,0].

**Example 3:**

|  |  |
| --- | --- |
|  | **output** i;//output – index of non-zero element  **const** a = [0,0,0,0,0,0];  i =**activeelement**(a); // Result: i = 0 |

As a result variable i will be assigned integer 0, since all the elements in array [0,0,0,0,0,0] are of zero type.