

## ARRAYS

**Definition:** A consecutive group of memory locations that have the same name and type. A location is referenced by using the array name and the element's index.

**NB** The Index type must be ordinal (byte or integer) or an expression that evaluates to these types.

### Declaring Arrays

#### Format:

Array Data Type Array Name [Size];

**NB.** Array indexes begin at 0 so `int numbers[3]` has elements `numbers[0]`, `numbers[1]`, `numbers[2]`.

#### Example 1:

```
int numbers [3];
```

#### Example 2:

```
int numbers[3] = {0}; //initializes the array to 0
```

### Placing Values into an Array

#### Format:

Arrayname[index] = value;

#### Example:

```
numbers[0] = 10;
```

numbers	
Index	
0	10
1	
2	

### Copying a value from a Location in an array into a variable

#### Format:

```
variablename = Arrayname[index];
```

**Example:** `x = numbers[0];` {x now contains the value 10}