

# ***Variables Commands***

Instructions and functions to manage variables and arrays in AOZ

## **Mod**

Operator. Calculates the modulo of two numbers

## **Not**

Operator. Logical NOT, equivalent to ! in other languages

## **Swap VARIABLE1, VARIABLE2**

Swap the content of two variables

*Parameters:*

VARIABLE1: First variable

VARIABLE2: Second variable

## **Shared VARIABLE**

Used in a procedure, make the variable visible by the procedure above

*Parameters:*

VARIABLE: Variable to share

## **Global VARIABLE**

Make a variable visible in the entire application

*Parameters:*

VARIABLE: Variable to share

## **Varptr VARIABLE**

Return the memory address of a variable so that you can poke in it. May be implemented in AOZ with specific memory emulation and for education purpose

*Parameters:*

VARIABLE: Variable to get the address from

## **Dim DIMENSION1, DIMENSION2, DIMENSION...**

Define a new array, or a list of arrays. The number of dimension is not limited, yet only by the memory imprint and the machine the application is running on, be careful with large arrays!

*Parameters:*

DIMENSION1: First dimension

DIMENSION2: Second dimension

DIMENSION...: Dimensions

## **Sort ARRAY**

Sort all elements in an array

*Parameters:*

ARRAY: The array to sort

## **Match ARRAY, ARRAY**

Search an array for a value

*Parameters:*

ARRAY: The array to search

ARRAY: The value to find. Must be of the same type (number or string) than the array

*Value returned:*

integer: The index of the item if found, -1 if not found

### **True**

Constant: boolean value TRUE

*Value returned:*

boolean: TRUE

### **False**

Constant: boolean value FALSE

*Value returned:*

boolean: FALSE

### **Is Defined**

Test if a variable has been defined. Only valid if automatic definition of variable is switched off when transpiling (TODO! link to tag)

*Value returned:*

boolean: TRUE if the variable is defined, FALSE if not

### **Inc**

Add one to the content of a variable

### **Dec**

Subtract one to the content of a variable

### **Add VARIABLE, EXPRESSION, BASE, TOP**

Quickly add an expression to a numeric variable

*Parameters:*

VARIABLE: The variable to add to

EXPRESSION: The value to add

BASE: Optional.

TOP: Optional, if specified behavior will be identical to :  $VARIABLE = VARIABLE + EXPRESSION$  : If  $VARIABLE < BASE$  Then  $VARIABLE = TOP$  : If  $VARIABLE > TOP$  Then  $VARIABLE = BASE$

### **Data**

Define a list of values to be read at runtime, either string or numbers, separated by commas. Data can be spread on several lines

### **Read VARIABLE**

Read the next value from the Data section of the code, and move the read-pointer to the next value. The type of the value must be identical to the type of the variable (number for numbers, strings for strings)

*Parameters:*

VARIABLE: The variable to read the data into.

### **Restore LABEL**

Position the data pointer to the beginning of the data definition or the data immediately following a label inside of the code

*Parameters:*

LABEL: (Optional) Indicate the position in the source code to restore to

## **Array ARRAY**

Return the memory address of the beginning of an array. May be implemented in AOZ for education purpose

*Parameters:*

ARRAY: The array to get the address from

*Value returned:*

integer: 0 until implemented