

## Working Variables

### See Also

Working variables are for internal use within a program. They are not included in the variables tree.

### Types of working variables

Type	Description	Range
Integer	2 Byte integer	-32768 to +32768
Long	4 Byte integer	-2147483648 to +2147483648
Longlong	8 Byte integer	-9,223,372,036,854,775,807 to 9,223,372,036,854,775,807
Single	4 Byte real	-3.37E+38 to +3.37E+38
Double	8 Byte real	-1.67D+308 to +1.67D+308
Str	Character string	See below
Const	Numeric constant	-1.67D+308 +1.67D+308



Working variables cannot be used for triggering actions.

### Changing the maximum length of a character string

The default maximum length of a character string is 2047. This can be changed by adding the following line to the global program.

```
SYS MAXARGSTRINGS=nnnn
```

Where nnnn is the maximum number of characters in the range 2047 to 8191.

### Examples

```
Sub func1 ()
'-----local variable
  Dim cMystring as STR;
  cMystring = Addstring("", "...."); 'up to 32000 chars

'-----variable in variables tree
  @textvar = mystring; 'up to 32000 chars
End sub
```

```
Sub func2 ()
'-----64-bit variable
  Dim LL1 as longlong;
  Dim LL2 as longlong;
  Dim LLRes as longlong;
  LL1 = 2147491969;
  Print(LL1); '2147491969
  LL2 = 1;
  LLRes = logical64("AND", LL1, LL2);
  Print(LLRes); '1
End Sub
```

### Variable scope

A variable's visibility to the program environment is determined by where it is declared. The behaviour from version 11.2 onwards is strictly enforced and is as follows.

Declared in	Visible to
Within the global program	All other programs and functions.
Outside of the functions at the head of a program	All functions in that program and cannot be re-declared in any function of that program.
Within a function	Only in that function.

Prior to version 11.2 the scope was not so strictly enforced and the following exceptions were permitted.

- Any variable declared in a function was also visible to any functions that it called. For example:

```
Sub Func1()  
  Dim I as Integer;  
  Func2();  
End Sub
```

```
Sub Func2()  
  I = 99;  
  Print(I);  
End Sub
```

- A variable declared at the head of the program could be re-declared in any function. For example:

```
Dim cString as Str;  
  
Sub Main ()  
  Dim cString as Str;  
  cString = "Hello";  
End Sub
```

#### **Variable scope backwards compatibility**

Backwards compatibility of variable scope is controlled by the Working variables scope control setting in the Program Settings dialog (Application Explorer).