# **Historical Values (D2000 VBApi)**

# D2000 VBApi - Work with historical values

The calling the procedure **VBApiGetArchData** enables to get the historical values of some object of Historical value type. Values, got from the archive, are represented by a value array. Historical value is represented by the same structuree as the current value.

#### Declaration

Declare Sub VBApiGetArchData Lib "vbapi.dll" Alias "\_GetArchData@28" (arr() As VBApi\_TUniVal, ByRef name As String, ByRef bt As Date, ByRef et As Date, ByRef step As Long, ByRef writeMethod As Long, ByRef ok As Long)

#### or for structured objects of Historical value type

Declare Sub VBApiGetArchDataItem Lib "vbapi.dll" Alias "\_GetArchDataItem@36" (Arr() As VBApi\_TUniVal, ByRef name As String, ByRef row As Long, ByRef col As Long, ByRef bt As Date, ByRef et As Date, ByRef step As Long, ByRef writeMethod As Long, ByRef ok As Long)

#### **Parameters**

arr	Array of the result values got from the archive after the successful calling.
	Warning: The array must not be dimensioned and must be empty before calling the procedure!
name	Name of object of Historical value type.
bt	Begin time.
et	End time.
step	Time step used for oversampling values in the archive (given in seconds). If it is 0, there will be read all values within the given time interval.
row	Row of structured object of Historical value type.
col	Column of structured object of Historical value type.
writeMet hod	Returns the archiving method of for writing into archive. Return values:  • 1 - periodically • 2 - on value change (Filter)
ok	Return value - call success.

#### Return value

Value of the parameter ok.

Return value	Description
0	Call successful.
1	Incorrect object name (also in case, that the object is not opened)
2	No logged on user.
3	Unexpected internal error.
4	Incorrect parameters.

Modification of one value in the archive may be performed by calling the procedure **VBApiChangeArchValue**. New value is given by the parameter *ne wValue*. Time, for which the archive value is modified, is given by the value of *ValTime* in the structure VBApi\_TUniVal.

Declare Sub VBApiChangeArchValue Lib "vbapi.dll" Alias "\_ChangeArchValue@16" (ByRef name As String, ByRef newValue As VBApi\_TUniVal, ByRef ok As Long)

### or for structured objects of Historical value type:

Declare Sub VBApiChangeArchValueItem Lib "vbapi.dll" Alias "\_ChangeArchValueItem@20" (ByRef name As String, ByRef row As Long, ByRef col As Long, ByRef newValue As VBApi\_TUniVal, ByRef ok As Long)

#### **Parameters**

name	Name of object of Historical value type.
newValue	New value with the time, for which is to be archived.
row	Row of structured object of Historical value type.
col	Column of structured object of Historical value type.
ok	Return value - call success.

### Return value

Value of the parameter ok.

Return value	Description
0	Calling successful.
1	Incorrect object name (also in case, that the object is not opened)
2	No logged on user.
3	Unexpected internal error.
4	Incorrect parameters.

## Note

If the archive contains no value for the given time (none to modify), then the value *newValue* will be inserted into the archive.



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