

# Historical Values (D2000 VBApi)

## D2000 VBApi - Work with historical values

The calling the procedure **VBApiGetArchData** enables to get the historical values of some objects of the [Historical value](#) type. Values, acquired from the archive, are represented by a value array. Historical value is represented by the same [structure](#) 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

<b>arr</b>	Array of the result values got from the archive after the successful calling.  <b>Warning:</b> The array must not be dimensioned and must be empty before calling the procedure!
<b>name</b>	Name of object of <a href="#">Historical value</a> type.
<b>bt</b>	Begin time.
<b>et</b>	End time.
<b>step</b>	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.
<b>row</b>	Row of structured object of the <a href="#">Historical value</a> type.
<b>col</b>	Column of structured object of the <a href="#">Historical value</a> type.
<b>writeMethod</b>	Returns the <a href="#">archiving method</a> of for writing into archive. Return values: <ul style="list-style-type: none"><li>• 1 - periodically</li><li>• 2 - on value change (Filter)</li></ul>
<b>ok</b>	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 *newValue*. Time, for which the archive value is modified, is given by the value of *ValTime* in the structure [VBApi\\_TUniVal](#).

### Declaration

```
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

<b>name</b>	Name of object of <a href="#">Historical value</a> type.
<b>newValue</b>	New value with the time, for which is to be archived.
<b>row</b>	Row of structured object of <a href="#">Historical value</a> type.
<b>col</b>	Column of structured object of <a href="#">Historical value</a> type.
<b>ok</b>	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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