

# User functions

## ArchView - User functions

A user function can be defined for each view in the column **D** (**User function**). The definition consists of the function name and parameters, which are separated by semicolon ;.

If the function has been defined for a view, each displayed value in view is a result of its calling. The user function must be defined in a module **UserFuncti** and must contain the following parameters:

```
Private Function UserFunction(ArcBld As Long, Id As Long, NumItems As Long, UserParams As Variant) As Variant
```

where:

*ArcBld* - internal identifier of archive block  
*Id* - consecutive number of value which will be displayed. The value of parameter is:

- **-1**, in the case of initialization of function
- **NoDataTime**, if any value does not exist for the given cell
- **NoDataValid**, if there is not defined any value for the given cell

*NumItems* - size of longer side of view (viewing area), for which the function has been defined, or -1, in the case of initialization of function  
*UserParams* - array of user parameters defined in view definition.

You can accomplish the required calculation or modification of displayed value. Within this function, you can call the following functions:

### Getting the value to be displayed

Getting the value to be displayed by its consecutive number in archive block

```
Property Get GetActualD2DataObj(Index As Long, ByRef D2DataObj As VBApi_TUniVal) As Long
```

*Index* - consecutive number of value in archive block (parameter *Id* in *UserFunction*)  
*D2DataObj* - value from archive

Return value:

- *D2DataIdNotValid* - no data
- *RetOk* - *D2DataObj* contains the required value

### Getting the total number of values in archive block

```
Property Get GetActualD2DataObjItems() As Long
```

When an error occurs, the return value is -1.

### Getting the begin time of current archive block

```
Property Get GetActualD2DataBT() As Date
```

When an error occurs, the return value is *D2DataIdNotValid*.

### Getting the value by its consecutive number from the archive block

```
Property Get GetD2DataObj(ArchBlockId As Long, Index As Long, ByRef D2DataObj As VBApi_TUniVal) As Long
```

*ArchBlockId* - number of archive block (parameter of user function)  
*Index* - consecutive number of value in archive block (parameter *Id* in *UserFunction*)  
*D2DataObj* - value from archive

Return value:

- *D2DataIdNotValid* - no data

- *RetOk* - *D2DataObj* contains the required value
- *ArchBlockNotExist* - the required archive block does not exist

## Transfer between the archive block name and its numerical identifier

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```
Property Get GetArchBlockId(ArchBlock As String) As Long
```

When an error occurs, the return value is *ArchBlockNotExist*.



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