GETARCHCOL

GETARCHCOL action

Function

Bulk read of archive values.

Declaration

```
 GETARCHCOL archIdent, locRecDstIdent, timeFromIdent_TmA, timeToIdent_TmA,
stepIdent_Int, maxValsIdent_Int, statusIdent_Int [,archivInstance_Int]
[TIMEBYROW |  TIMEBYCOL]
```

Parameters

archIdent	in	Reference to item of: • object of Structured variable type, • local variable of *Record* type, • structured historical value, or reference to one-column historical value.
locRecDstIdent	out	Local structured variable for read result.
timeFromIdent_TmA	in	Identifier of *Absolute time* type - interval beginning.
timeToIdent_TmA	in	Identifier of *Absolute time* type - interval end.
stepIdent_Int	in	Identifier of *Int* type - time step for archive values oversampling.
maxValsIdent_Int	in	Maximum number of values. If given interval contains more data, the action will trim off the data and return ERR_MORE_DATA warning in the parameter *statusIdent_Int*.
statusIdent_Int	out	Read success.
TIMEBYROW		Places result values by time into rows.
TIMEBYCOL		Places result values by time into columns.
archivInstance_Int	in	Optional identifier of *Int* type - identification of archive instance. If the parameter is not defined, the value 0 will replace it.

Description

According to the parameter *archIdent*, the action (analogous to the action GETARCHROW) generates more requests for archive reading and synchronously waits for their completion. The item defined by *archIdent* specifies the row that is to be used for archive data requests.

The parameter *archIdent* can be defined by one of the following ways:

1. **Column of local variable of „typed ALIAS“ type**
   Example:
   ALIAS (structure definition) _lAT
   SET _lAT AS SV.Struct
   GETARCHCOL _lAT[0]^Item1 , ...

   Individual read requests are ALWAYS addressed to items in given column of the structure *SV.Struct* (even if the column contains items of *Object* type).

2. **Column of object of *Structured variable* type**
   Example:
   GETARCHCOL SV.Struct[0]^Item2 , ...

   Request addressing is the same as described in the article 1.

3. **Column of local variable *of Record* type**
   Example:
   RECORD (structure definition) _lRec
   REDIM _lRec[3]

   SET _lRec[1]^Item2 AS Sec
   SET _lRec[2]^Item2 AS SysTime
   SET _lRec[3]^Item2 AS M.MeranyBod
   .....

   GETARCHCOL _lRec[0]^Item2, ...

The column must be of *Object* type. Individual read requests are to be addressed to the objects the column items refer to.
If any item doesn't refer to object, the action is to be terminated and returns the ERR_NO_ASSIGNED_ALIAS error.

4. **Column of structured historical value**
   Example:
   GETARCHCOL H.Struct[0]^Item2, ...

   Individual read requests are gradually addressed to all items in given column. The object *H.Struct* cannot be a one-column historical value.

5. **One-column historical value**
   Example:
   GETARCHCOL H.Struct, ...

   Individual read requests are to be gradually addressed to all items.

Read result is stored in the local structured variable defined by the parameter *_locRecDstIdent*. Result of every request is either one value or a sequence of values. Every sequence of values is stored in the local variable *_locRecDstIdent*:

- **in rows** (analogous to the action GETARCHROW) - the first column contains the values obtained by the read request of first row (respective column), the second column contains the values obtained by the read request of first row, ... Structured variable *_locRecDstIdent* must be of correct size. If not, the action automatically resizes it to required size,

- **in columns** - every sequence of values is written into one row of the local variable *_locRecDstIdent*. If some of the sequences contains more values than the number of columns, the variable *statusIdent_Int* gets the value of _ERR_MORE_DATA, but the values that could be written will be inserted into the local variable *_locRecDstIdent*.

Value of parameter *archivInstance_Int* defines the instance of archive which executes the request. If the parameter is not defined (or the value is 0), the active instance of archive will execute the request.

The variable *statusIdent_Int* indicates the success of reading the action. If this variable acquires the value _ERR_NO_DATA(22), it means that all archives, which were used when reading, do not contain any data. If at least one of the archives contains data, the action returns _ERR_NO_ERR(0).

Example GETARCH* actions - example.

Related pages:

Script actions