

# COPYSTRUCT

## COPYSTRUCT action

**Function** The action copies the specified row/rows of the [structured local variable](#) to other local structured variable (i.e. local variable of *Record* type).

**Declaration**

```
COPYSTRUCT _dstStruct, _fromRow, _firstRowToCopy[, _lastRowToCopy]
```

or

```
COPYSTRUCT _dstStruct, _fromRow, _srcStruct
```

Parameters	_dstStruct	input/output	<a href="#">Identifier</a> of local variable of <i>Record</i> type - destination structure.
	_fromRow>	input	<a href="#">Identifier</a> of <i>Int</i> type - first row in destination structure ( <i>_dstStruct</i> ). Specified row, rows or whole structure will be copied (inserted) to destination structure from it (including).
	_firstRowToCopy	input	<a href="#">Identifier</a> of a row of source local variable - first row to be copied.
	_lastRowToCopy	input	Optional parameter - <a href="#">identifier</a> of a row of source local variable - last row to be copied.  <b>Note:</b> If the parameter is not specified, the action will copy just the row specified by the parameter <i>_firstRowToCopy</i> .

**Description**

The action copies:

- *one row* - only the parameter *\_firstRowToCopy* is specified (the parameter *\_lastRowToCopy* is NOT)
- *rows* - both the parameters *\_firstRowToCopy* and *\_lastRowToCopy* are defined
- *whole structure* - 2nd declaration (the parameter *\_srcStruct*)

The row, rows or entire structure to be copied and inserted into the local variable specified by the parameter *\_dstStruct* on the position given by the parameter *\_fromRow* and below.  
If the size of destination structure *\_dstStruct* is not sufficient, the action will generate the error *\_ERR\_RANGE\_ERROR*.

The local variables *\_dstStruct*, *\_firstRowToCopy* and *\_srcStruct* must be the same type (they must have the same [structure definition](#)).

If the parameter *\_lastRowToCopy* is specified, the action copies the rows between the parameters *\_firstRowToCopy* and *\_lastRowToCopy* including. In this case both the parameters must represent a row of the same structure.

**Example**

```

RECORD (SD.ArchData) _src
RECORD (SD.ArchData) _dst
INT _idx

BEGIN
; fill source variable with values from 1 to 10
REDIM _src[10]
_idx := 1

DO_LOOP
EXIT_LOOP _idx > _src\DIM
_src[_idx]^value := _idx
_idx := _idx + 1
END_LOOP

; set the size of destination variable
REDIM _dst[11]

; copy one row from structure _src to 4th row of structure _dst
; _dst[4] <-- _src[5]

COPYSTRUCT _dst, 4, _src[5]

; copy two rows from structure _src to structure _dst (from 3rd row down)
; _dst[3] <-- _src[5]
; _dst[4] <-- _src[6]

COPYSTRUCT _dst, 3, _src[5], _src[6]

; copy all rows from structure _src to structure _dst (from 2nd row below)
; _dst[2] <-- _src[1]
; _dst[3] <-- _src[2]
; _dst[4] <-- _src[3]
; ...

COPYSTRUCT _dst, 2, _src

END

```



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