

# Historical Value Representation (Work with D2000 HI)

## Historical value representation

H.Zataz\_Op1 - Systémová zátaz

H.Zataz\_Op1[1]

Settings:

☒ msec ☐ Ascending ☐ Min.

☐ year ☒ Descending ☐ Max.

Row:  Column:

Select time interval: From: 12:00 4. 11. 2011 To: 13:00 4. 11. 2011

This hour

Time	Value	Value state	Limits	Archi...	Value
4. 11. 2011 12:48:4...	49		InLimit		
4. 11. 2011 12:48:4...	48		InLimit		
4. 11. 2011 12:48:4...	47		InLimit		
4. 11. 2011 12:48:4...	46		InLimit		
4. 11. 2011 12:48:4...	45		InLimit		
4. 11. 2011 12:48:4...	44		InLimit		
4. 11. 2011 12:48:4...	43		InLimit		
4. 11. 2011 12:48:4...	42		InLimit		
4. 11. 2011 12:48:4...	41		InLimit		
4. 11. 2011 12:48:4...	40		InLimit		

Minimum: 0 12:37:00.000 4. 11. 2011 12

Maximum: 59 12:36:59.000 4. 11. 2011 12

Paging: 1/3 0

Edit Delete Insert Cancel

H.ArchStruct[1]^obj - Riadok 1 SV.AA - Popis - obj\_popis

H.ArchStruct[1]^ 1 - Riadok 1 SV.AA - Popis - obj\_popis

Settings:

☒ msec ☒ Ascending ☐ Min. ☐ Max. ☐ year ☐ Descending

Export ... Columns ...

Row: 2 Column: obj

Select time interval: From: 25.1.2019 14:00 To: 25.1.2019 15:00 This hour

Time	Value	Limits	Value flags	Value state	Archive flags
9.10.2018 7:24:09,009	Invalid	---	---	Invalid	STOP
25.1.2019 14:50:16,011	16	InLimit			START
25.1.2019 14:50:17,011	17	InLimit			
25.1.2019 14:50:18,011	18	InLimit			
25.1.2019 14:50:19,011	19	InLimit			
25.1.2019 14:50:20,012	20	InLimit			
25.1.2019 14:50:21,011	21	InLimit			
25.1.2019 14:50:22,011	22	InLimit			
25.1.2019 14:50:23,012	23	InLimit			
25.1.2019 14:50:24,012	24	InLimit			
25.1.2019 14:50:25,012	25	InLimit			


Minimum: 0 25.1.2019 14:51:00,010 6

Maximum: 59 25.1.2019 14:50:59,009 6


Paging: 1/2 0


Edit Delete Insert Cancel

Meaning of the buttons placed in the dialog box is following:






Button	Meaning
Export	Saves values displayed in the table into a file. Clicking the button opens the menu allowing you to save values in a text file, CSV file or copy them into the clipboard. It is also possible to save either all the values of the table (the <b>All values</b> item) or only selected values (lines).
Columns	Configuration of columns displayed in the table.
Edit	Edits selected value of the archive object.
Delete	Deletes selected value of the archive object.
Insert	Inserts a new value into the current table position.
	Shows values of the archive object in the graph.
Close	Closes the dialog box of the archive object.

**Note:** The buttons **Edit**, **Delete**, **Insert** are disabled if an archive object disallows this activity from HI.

The parameters **Row** and **Column** are enabled if the browsed archive object is a [structure](#). When changing row (**Row** parameter) or column (**Column** parameter) of the particular archive object and clicking on button  , it loads data from the archive. The change is indicated by the red color of the parameter **Row** or **Column**. You can see the current values in the object name in a title bar.

The button  refreshes the displayed data of the archive object.

If the archive contains more values for a given time interval than may be displayed in the dialog box, you must use the paging functions. For easy orientation and moving within the multi-page list, you can use the buttons located below the list.

Paging:       

## Table description

Besides particular values of an archive object, each table line contains other information concerning the given value. Their displaying depends on the table column settings. The table has the following structure:

Column	Contents
Time	Information about the time when the value was saved into the archive database. If the <b>msec</b> parameter is checked then the column displays time data with the millisecond accuracy. The checked <b>Year</b> parameter allows displaying information about the current year.
Value	Value of the archive object (object <i>Historical value</i> type) in corresponding time. If it contains "???" string, this value is not valid.
Limits	Limit state of the value: InLimit, VL-Limit,L-Limit, H-Limit, VH-Limit, LimitsProblem
Value state	Process state of the value: Invalid, ProcAlarm, NoAckPAlarm, PrAISilent, Weak, NoAckValue, Transient, Default, Manual, PrAlCrit.
<a href="#">Archive flags</a>	Flags: START, STOP, BLOCK, UNBLOCK, DELETED, USERMODIFY, OLDVAL, PROCESMODIFY, LOADDATA, MONO_TIME, K, L, M.
Value flags	Flags of the value. This column displays only the flags with TRUE value.

Colors in a table:

- White color - data from the archive database. Editing is enabled.
- Red color - data from the archive database. Editing is disabled.
- Grey - live data from the graphs. Editing is disabled.

The descriptions of individual value states are explained in the following table.

Value state	Meaning
INLIMIT	The value is at once greater than the low limit (Low Limit) and less than the high limit (High Limit).
VL_LIMIT	The value is less than the lowest limit (Very Low Limit).
L_LIMIT	The value is less than the low limit (Low Limit).
H_LIMIT	The value is less than the high limit (High Limit).
VH_LIMIT	The value is less than the highest limit (Very High Limit).
LIMITSPROBLEM	Condition $VLL < LL < HL < VHL$ is violated.

TRANSIENT	The command to set value was issued at the moment of the value writing into the archive database, but backward reading has not verified the value yet.
DEFAULT	The value in Default mode (default value).
WEAK	Suspicious value (Weak Value). This value is not valid in the system because all the validity conditions are not met, yet.
INVALID	Invalid object value.
ProcAlarm	The state occurs if the given object has an active process alarm.
NoAckPAlarm	The state occurs if the process alarm is not acknowledged by the operator in the <a href="#">D2000 HI</a> process.
PrAISilent	The state occurs if the given object hasn't any active process alarm, or the Silent option is enabled in the configuration of object process alarms in the <a href="#">D2000 CNF</a> process.
NoAckValue	The state occurs if the last object value change is not acknowledged by the operator in the <a href="#">D2000 HI</a> process.
Manual	The object value is in a Manual state if it was manually adjusted by the operator in the <a href="#">D2000 HI</a> process.
PrAICrit	The status occurs if the process alarm is defined as a critical one in the <a href="#">D2000 CNF</a> process.

The following table explains the archive flags.

Archive flag	Meaning
START	The value stored in the database at the moment of D2000 Archiv start.
STOP	The value stored in the database at the moment of D2000 Archiv stop.
BLOCK	The value stored in the database at the beginning of blocking the archiving (by the stop condition of archiving configured in <a href="#">D2000 CNF</a> ).
UNBLOCK	The value stored in the database at the end of blocking the archiving (by the start condition of archiving configured in <a href="#">D2000 CNF</a> ).
DELETED	The value from the archive database, which was deleted by a user.
USERMODIFY	The value in the archive, which was modified by a user.
OLDVAL	An old value obtained from communication.
PROCESS MODIFY	Value was modified by a D2000 process different than HI (e.g. by EVENT via action UPDATEARCHVAL).
LOADDATA	Obsolete: value was obtained from OS/2 database SQL Gupta via Online archive database import.
MONO_TIME	Value is stored with monotonous time. All values in D2000 version 6.5 and above have this flag. In the case of archive databases, created in previous D2000 versions, this flag is set for all values newer than the time of starting the new archive. <b>Note:</b> Flag MONO_TIME is not displayed in HI.
K	Archive flag only occurs in the periodic archives. To avoid unnecessary space consumption in the database, the periodic archives are archived when they change. I.e. if the value and its attributes (limits, value state, value flags) remain the same as in the previous period, it will not be written to the database. During the reading this value will be reconstructed as a copy of the previous value, with changed time and the 'K' archive flag set.
L	The flag is set while reading. A value with such a flag is read from the <i>write cache</i> and is not yet committed in the archive database.
M	The flag is set while reading. A value with such a flag is read from the <a href="#">isochronous cache</a> .



#### Related pages:

[Historical value export](#)