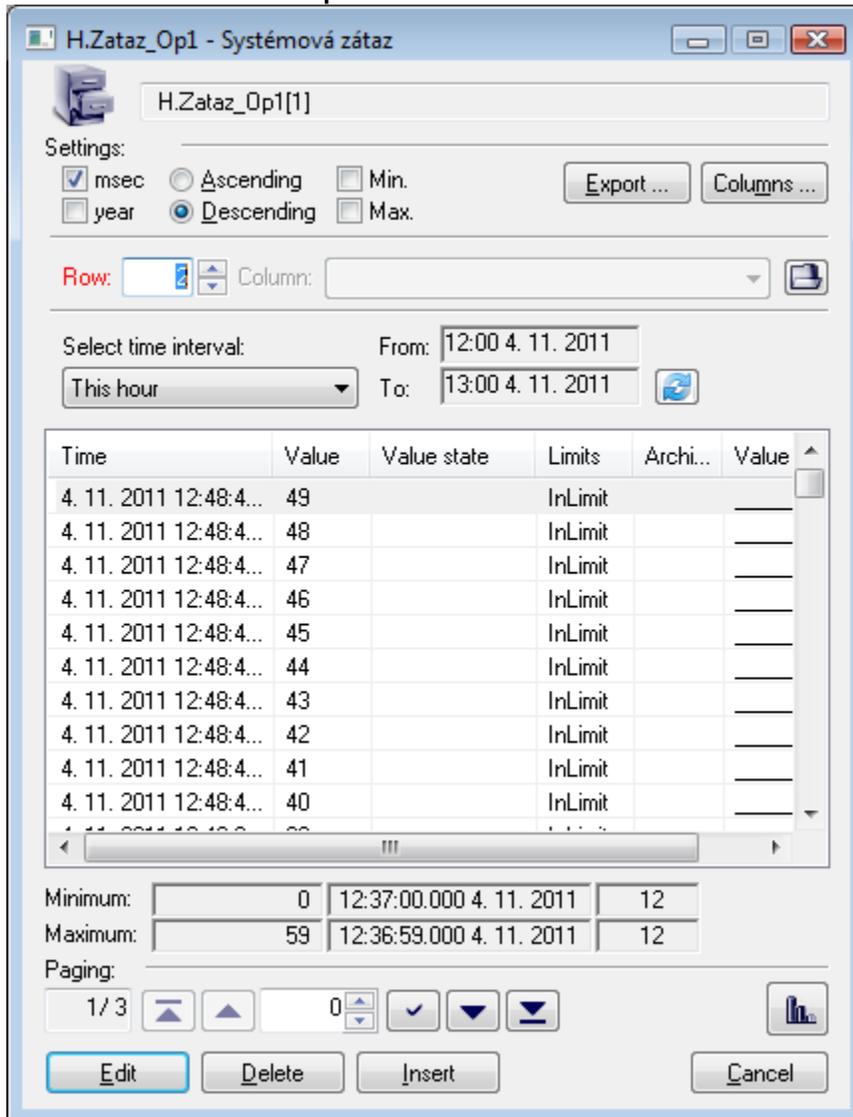


# Historical Value Representation (HI)

## Historical value representation



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

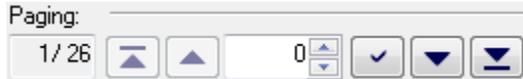
Button	Meaning
<a href="#">Export</a>	Saves values displayed in the table into a file. Clicking the button opens the menu allowing to save values in a text file, CSV file or to copy them into the clipboard. It is also possible to save either all the values of the table (the <b>All values</b> item) or only selected values (lines).
<a href="#">Columns</a>	Configuration of columns displayed in the table.
<a href="#">Edit</a>	Edits selected value of the archive object.
<a href="#">Delete</a>	Deletes selected value of the archive object.
<a href="#">Insert</a>	Inserts a new value into the current table position.
	Shows values of the archive object in 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 archive. The change is indicated by red colour 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 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.



## Table description

Besides particular values of an archive object, each table line contains other information concerning the given value. Their displaying depend on the table column settings. 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. Checked <b>Year</b> parameter allows to display information about 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, PrAICrit.
<a href="#">Archive flags</a>	Flags: START, STOP, BLOCK, UNBLOCK, DELETED, USERMODIFY, OLDVAL, PROCESMODIFY, LOADDATA, MONO_TIME, K
Value flags	Flags of the value. This column displays only the flags with TRUE value.

Colors in table:

- White color - data from the archive database. An editing is enabled.
- Red color - data from the archive database. An editing is disabled.
- Grey - life data from the graphs. An 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 setting.
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 is occurred in case that the given object has an active process alarm.
NoAckPAlarm	The state is occurred in case that the process alarm is not acknowledged by operator in process <a href="#">D2000 HI</a> .
PrAISilent	The state is occurred in case that the given object hasn't any active process alarm, or Silent option is enabled at configuration of object process alarms in the process <a href="#">D2000 CNF</a> .
NoAckValue	The state is occurred in case that the last object value change is not acknowledged by operator in process <a href="#">D2000 HI</a> .
Manual	The object value is in Manual state, if it is manually adjusted by operator in process <a href="#">D2000 HI</a> .
PrAICrit	The status is occurred in case that the process alarm is defined as critical one in the process <a href="#">D2000 CNF</a> .

The following table explains the archive flags.

Archive flag	Meaning
START	Value stored into the database at the moment of D2000 Archiv start.
STOP	Value stored into the database at the moment of D2000 Archiv stop.
BLOCK	Value stored into the database at the beginning of blocking the archiving (by the stop condition of archiving configured in <a href="#">D2000 CNF</a> ).
UNBLOCK	Value stored into the database at the end of blocking the archiving (by the start condition of archiving configured in <a href="#">D2000 CNF</a> ).
DELETED	Value from the archive database that was deleted by an user.
USERMODIFY	Value in the archive that was modified by an user.
OLDVAL	Old value obtained from communication.
PROCESMODIFY	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 On-line archive database import.
MONO_TIME	Value is stored with monotonous time. All values in D2000 version 6.5 and above have this flag. In case of archive databases, created in previous D2000 versions, this flag is newer for all values 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 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 previous period, it will not be written to the database. During the reading this value will be reconstructed as a copy of previous value, with changed time and set 'K' archive flag.



**Related pages:**

[Historical value export](#)