

Predefined Local Variables

Predefined local variables

Every script contains some predefined variables. All predefined variables are declared as constants, so they may not be changed from the script.

Value	Group of local variables	Value type	Meaning
QUERY action			
0	_Q_YES	INT	Positive response to an action.
1	_Q_NO	INT	Negative response to an action.
2	_Q_TIMEOUT	INT	Exceeded the maximal wait time on action.
3	_Q_DONTKNOW	INT	Response to an action.
Variables describing an error			
-	_ERR_LINE	INT	Line, where the error occurred.
-	_ERR_NR	INT	Error number.
-	_ERR_NR_TRANS_EX	INT	Extended error number - list of existing errors .
-	_ERR_MSG	TEXT	Error message.
Database opening parameters			
1	_DB_READ	INT	"Read only" access to the database.
2	_DB_MODIFY	INT	"Modify" access to the database.
Parameters from process D2000 HI			
-	_FROM_HIP	ALIAS	If the script is started from process D2000 HI , then the variable contains the reference to the given process.
-	_HIP_PAR_STR	TEXT	If the script is started from process D2000 HI , then the variable contains the parameter declared during event linking.
-	_HIP_USER_DESC	TEXT	If the script is started from process D2000 HI , then the variable contains the name of logged-on user. After logging off the user and then logging on the other one to D2000 HI, this variable is updated.
Error codes			
0	_ERR_NO_ERROR	INT	No error.
1	_ERR_EXPRESSION_STATUS	INT	Undefined value.
2	_ERR_EXPRESSION_TYPE	INT	Invalid value.
3	_ERR_NO_ASSIGNED_ALIAS	INT	Unassigned ALIAS.
4	_ERR_EXEC_EVENT	INT	Script execution failed.
5	_ERR_RETURN	INT	Unexpected RETURN.
6	_ERR_LOCAL_VAR_NOT_FOUND	INT	Unknown local variable.
7	_ERR_LOCAL_VAR_NOT_RECORD	INT	Local variable must be a structure.
8	_ERR_OBJECT_NOT_FOUND	INT	Unknown object.
9	_ERR_ARCHIV_NOT_RUNNING	INT	The archive is not running.
10	_ERR_TRANS_ABORT	INT	Transaction abort. Synchronous operation is broken.
11	_ERR_TRANS_ERROR	INT	Transaction error. Synchronous operation is not started (process is not running).
12	_ERR_TRANS_IGNORED	INT	Transaction ignored. Synchronous operation is not accepted (e.g. invalid parameters).
13	_ERR_EVAL_ERROR	INT	Error during the expression evaluation.
14	_ERR_RANGE_ERROR	INT	Limits overrun.
15	_ERR_NO_ALIAS	INT	ALIAS is required.
16	_ERR_NO_RECORD	INT	Value must be a structure.
17	_ERR_RECORD_NOT_COMPAT	INT	Structures are not the same type.
18	_ERR_INVALID_OBJECT_TYPE	INT	Invalid object type.
19	_ERR_VALUE_RANGE	INT	Value out of the range
20	_ERR_INVALID_HANDLE	INT	Invalid handle.
21	_ERR_LOCAL_MUST_PUBLIC	INT	Local variable must be PUBLIC.

22	_ERR_NO_DATA	INT	No data.
23	_ERR_MORE_DATA	INT	More data available.
24	_ERR_TIME_OUT	INT	Timeout.
25	_ERR_UNKNOWN_REFID*	INT	Unknown graphic object.
26	_ERR_INVALID_REFID_TYPE*	INT	Invalid type of the graphic object.
27	_ERR_MISSING_RETURN	INT	RETURN or END ProcedureName is missing in the procedure.
28	_ERR_SERVER_REQUIRED	INT	Attempt to call a remote procedure of system event, that is not declared as Server Event in the configuration.
29	_ERR_PROCEDURE_NOT_FOUND	INT	Attempt to call a remote procedure that does not exist.
30	_ERR_INV_NUM_PARAMS	INT	Incorrect number of parameters when calling the procedure.
31	_ERR_SET_CONST	INT	Attempt to change a constant value on the place of input-output parameter.
32	_ERR_FILE_ERROR	INT	Error during running the actions: DB_READ_BLOB - new file creation or modification is disabled DB_UPDATE_BLOB - file reading is disabled IMPORT_CSV - file reading is disabled
33	_ERR_JAVA_EXCEPTION	INT	Error at calling JAVA RPC procedure. Called procedure terminated in exception.
34	_ERR_OBJECT_IS_NOT_IN_ARCHIVE	INT	<ul style="list-style-type: none"> archive manipulation actions enable to specify archived object instead of archive object. This condition cannot be verified during saving ESL script therefore this error occurs when the object is not archived during this action. this error can also occur if limits (row) are exceeded in reference to structured archive.
35	_ERR_DATABASE_ROWS_LIMIT	INT	Actions DB_READ , DBS_READ , SQL_FETCH or SQL_SELECT required to read and the database table contained more rows than the limit specified by the parameter Maximum returned rows defined on the Database object.
36	ERR_IS_RECORD	INT	Defined value may not be a structure.
37	ERR_DEADLOCK_RPC	INT	Detection of ESL script deadlock when synchronous calling the RPC procedures between the scripts. If the deadlock occurs, the execution of script will be finished.
Access rights			
0	_ACC_NONE	INT	No access
1	_ACC_READ	INT	"Read only" access
2	_ACC_CONTROL	INT	"Control" access - value setting
3	_ACC_MODIFY	INT	"Modify" access
Priority for storing into the log database			
0	_LOG_PRTY_INFO	INT	Information
2	_LOG_PRTY_WARNING	INT	Warning
3	_LOG_PRTY_ALARM	INT	Alarm
4	_LOG_PRTY_CRITICAL_ALARM	INT	Critical alarm
5	_LOG_PRTY_ERROR	INT	Error
Row and column of the trigger value change during script start			
-	_TRIGGER_ROW	INT	Position of change : row
-	_TRIGGER_COL	INT	Position of change : column
Constants for specification of statistical function for the action CALCSTATFUNC and for functions D2_CalcStatFunc and D2_CalcStatFuncArr			
1	_STAT_F_AVG	INT	Arithmetical average
2	_STAT_F_WGAVG	INT	Weighted average
3	_STAT_F_INTEGRAL	INT	Integral
4	_STAT_F_SUM	INT	Sum
5	_STAT_F_MAX	INT	Maximum
6	_STAT_F_MIN	INT	Minimum
7	_STAT_F_COUNT	INT	Count
8	_STAT_F_FILTER	INT	Filter
9	_STAT_F_INCREMENT	INT	Increment (Compare value is 1.0)
10	_STAT_F_DELTA	INT	Delta (Compare value is 1.0)
11	_STAT_F_ECOAVG	INT	EcoAvg
12	_STAT_F_GT_TIME	INT	GT Time (>)
13	_STAT_F_GE_TIME	INT	GE Time (>=)
14	_STAT_F_LT_TIME	INT	LT Time (<)

15	_STAT_F_LE_TIME	INT	LE Time (<=)
16	_STAT_F_MAXT	INT	Interval maximum
17	_STAT_F_MINT	INT	Interval minimum
18	_STAT_F_NUMPEEKS	INT	Number of local maxima
19	_STAT_F_SUM_POSITIVE	INT	Sum of positive values
20	_STAT_F_SUM_NEGATIVE	INT	Sum of negative values
21	_STAT_F_AVG_POSITIVE	INT	Arithmetical average of positive values
22	_STAT_F_AVG_NEGATIVE	INT	Arithmetical average of negative values
23	_STAT_F_ADDITION	INT	Sum of increments (Compare value is 1.0)
24	_STAT_F_TIMESLICE	INT	Time slice
25	_STAT_F_NUMPITS	INT	Number of local minima
27	_STAT_F_SAMPLE_DEV	INT	Sample standard deviation
1000	_STAT_F_ADDITION_PARAM	INT	Sum of increments
1001	_STAT_F_INCREMENT_PARAM	INT	Increment
1002	_STAT_F_DELTA_PARAM	INT	Delta

Constants for specification of integral size for the action **CALCSTATFUNC** and for functions **D2_CalcStatFunc** and **D2_CalcStatFuncArr**

1	_INTEGRAL_HOURUNIT	INT	Hour integral
2	_INTEGRAL_MINUNIT	INT	Minute integral
3	_INTEGRAL_SECUNIT	INT	Second integral

Events class for **log database**. Application in functions **%HI_OpenLogDBByMask** and **%HI_OpenLogDBForObject**.

1	_LOGF_ALARM	INT	Alarms
2	_LOGF_SYSTEM	INT	System
4	_LOGF_PROCES	INT	Processes
8	_LOGF_KOM	INT	Kom
16	_LOGF_OPERATOR	INT	Operator intervention
32	_LOGF_EVENT	INT	Events
64	_LOGF_LOGONLOGOFF	INT	Log on / Log off
128	_LOGF_MANUALENTY	INT	Manual intervention
256	_LOGF_CHANGEVALUE	INT	Impulsive value change
512	_LOGF_POSTMORTEM DATA	INT	Time recorder

* Errors may be occurred only in an [active picture](#).



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