

System Tags

System tags

System tags are objects, values of which are calculated, or detected by process [D2000 Server](#) on the basis of their definition. Values are calculated periodically or on change.

Usage of system tags in D2000 system (examples):

- controlling of output tags in the AUTO mode
- operands in logical a arithmetical expressions
- operands in conditions to raise and finish alarms
- displaying in graphical figures
- displaying in graphs

In the documented version of the D2000 system, there are the following system tags implemented:

Name	Type	Period	Meaning
ActNrDynamicObject	Integer	60 s	Current number of dynamic object in the system.
ActTagNr	Integer	on change	Current number of tags in the application.
ActTransListNr	Integer	1 s	Number of active transactions that have been opened by D2000 Server .
Act_Client	Integer	on change	Number of connected clients.
AllocatedMem	Integer	10 s	Allocated memory size [kB].
ArchivChange		not calculated	Change of values in the archive.
CPU_Load	Integer	1 s	Processor load [%] of the process D2000 Server . Note: This is a total average processor load which is computed by following formula: <i>(user_time + kernel_time)/TimeFromStart</i>
Day	Integer	24 h	Current day
DiskSpace	Integer	30 s	Free disk space [kB]
FreeMem	Integer	10 s	for Win32 - Free memory size [kB] for VMS - Remaining paging file quota of process D2000 Server in pagelets (on Alpha systems)
Hour	Integer	1 h	Current hour
IN_QUEUE	Integer	not calculated	Number of requests for D2000 Server
LogFileSize	Integer	15 min	Log database size [kB]
Min	Integer	1 min	Current minute
Month	Integer	24 h	Current month
Pending_Cfg_Rq	Integer	10 s	Number of queued write requests for the configuration database. These requests may cause a configuration change, alarm blocking or a value change of the object with enabled start value saving.
Pending_Monitor_Rq	Integer	10 s	Number of queued write requests for the log database.
Perf_Cfg_Rq	Integer	10 s	Number of executed configuration database write requests per second.
Perf_Kernel_Rq	Integer	10 s	Number of executed requests for process D2000 Server per second (message processing rate per second).
Perf_Monitor_Rq	Integer	10 s	Number of executed log database write requests per second.
ProcAlarmsNr	Integer	on change	Number of active process alarms
Sec	Integer	1 s	Current second
Signal_Trigger	Boolean	on change	Start signal of trigger. The system will generate the impulse of the value of TRUE on this system tag according to configuration of system or process alarms - the parameter Raise Signal .

SysAlarmsNr	Integer	on change	Number of active system alarms.
SystemError			System error information. Value of the variable is set by the system - D2000 Server and D2000 system processes. Value of the variable shows the last warning. Each value change sets process alarm of the object. The text in the columns Event description (the Alarm list window in process D2000 HI) and Incident (the Logging window in process D2000 HI) for process alarm is controlled by the display mask of the alarm - SM.SystemError (predefined value of the mask is {V} - so it copies object value). Occurrence of a system error is signalized by process alarm and history is stored in the log database.
SystemWarning			System warning information. Value of the variable is set by the system - D2000 Server and D2000 system processes. Value of the variable shows the last warning. Each value change sets process alarm of the object. The text in the columns Event description (the Alarm list window in process D2000 HI) and Incident (the Logging window in process D2000 HI) for process alarm is controlled by the display mask of the alarm - SM.SystemError (predefined value of the mask is {V} - so it copies object value). Occurrence of a system error is signalized by process alarm and history is stored in the log database.
SystemInfo			System information. The value of this tag is set by the system - by the process D2000 Server or by other processes of the D2000 system. The value of the tag shows the latest system information. Every change of the value causes setting of a process alarm on this object. The text in the columns Event description (the Alarm list window in the D2000 HI process) and Incident (the Logging window in the D2000 HI process) for the process alarm is controlled using the alarm display mask "SM.. SystemError" (predefined value of the mask is {V}, meaning it copies the object value). The emergence of system information is thus signalized by a process alarm and history is stored in the log database.
SysTime	Time	1 s	System time
TimeFromStart	Relative time	10 s	Time from starting the D2000 system. <i>Note:</i> For redundant D2000 systems, it is the running time of HS (Hot Server).
UpTime	Relative time	10 s	Running time of a redundant D2000 system. <i>Note:</i> For non-redundant D2000 systems - $UpTime = TimeFromStart$.
WeekDay	Integer	24 h	Day in week
Year	Integer	24 h	Current year