# Parameters for D2000 Server

## Parameters for the D2000 Server process

The process D2000 Server reads the following parameters from the system registry during its start. Values are adjusted using the process D2000 Application Manager (D2Smc.exe).

| Parameter | Possible values | Meaning |
|---|---|---|
| AckForValue | 0/1 | If the parameter value is 1, every new value in the system will be set to the attribute *NoAckValue*. Operator can acknowledge that he saw the value in the object control window. |
| AlarmsWithoutFocus | 0/1 | If the value of this parameter is 1, the window opening by new alarm, don't take focus of another window of HI process |
| AuditDepth_RES_GROUP | | The value different from 0 sets the full monitoring changes in the configuration of Object group. It represents a time depth of the stored information in months. The value 0 (or absence of parameter) deactivates the monitoring. |
| AuditDepth_USER | | The value different from 0 sets the full monitoring changes in the configuration of User. It represents a time depth of the stored information in months. The value 0 (or absence of parameter) deactivates the monitoring. |
| APPL_NAME | | Application name. |
| AuthMethod | | Default authentication method. The parameter can acquire the following values:<br>• D2000<br>• NTLM<br>• Kerberos<br>Detail information about parameter is mentioned in the topic Authentication in D2000, part AuthMethod. |
| AuthSecPrinc | | Security principal for Kerberos authentication.<br>Detail information about parameter is mentioned in the topic Authentication in D2000, part AuthSecPrinc. |
| BackupSysCfgDeep | | Depth of configuration database backups that are created automatically. The backups older than defined depth are automatically deleted. It is defined in seconds.<br>**Note:** If the value is 0 (zero), the automatic backup of configuration database is disabled. |
| BackupSysCfgOffset | | Shift of automatic backup of configuration database in given period. It is defined in the format HH:MM, i.e. shift in hours and minutes. |
| BackupSysCfgPath | | Path to directory in which the backups of configuration database, created automatically, are to be stored. Default setting is *%D2000_APP%\%application_name%\SysCfg\Backup*.<br>**Note:** For proper functionality of automatic backup of configuration database, any other directories and files should not be created in the directory for storing these backups. |
| BackupSysCfgPeriod | | Period of automatic backup of configuration database. it is defined in the format *NX*, where *N* is integer and *X* is a time unit. The permitted time units are H - hour, D - day, W - week, M - monthe.<br>**Note:** If you set an empty value or *0H* , backup of configuration database is disabled. |
| ColorMandatoryItems | | Background color for mandatory item in active pictures (Text entry field and List box). Default value = FFFFFF – i.e. no background. The color is represented by the number that can be derived from the RGB by the following formula: R + 256*G + 65536*B (see %MakeRGB function) |
| ColorConditionalItems | | Background color for conditional item in active pictures (Text entry field and List box). Default value = FFFFFF – i.e. no background. The color is represented by the number that can be derived from the RGB by the following formula: R + 256*G + 65536*B (see %MakeRGB function) |
| ConfigBackUpTimeout | 0... | Maximum time [s] of backup of syscfg database. The backup is executed through the external process.<br>If the parameter is:<br>> 0 - the process is ended forcibly if the backup has not been executed successfully in defined time.<br>= 0 - the process is ended after the database backup is executed. It can take very long when the process is jammed. |
| ConfigSynchroTimeout | 0... | Maximum time [s] of synchronizing of the syscfg database.<br>If the parameter is:<br>> 0 - the synchronization is ended forcibly if it has not been finished in defined time.<br>= 0 - the synchronization can take unlimited time. |
| ControlRightForKvit | 0/1 | If the parameter value is 1, user can acknowledge an alarm only if he/she has the access right with the level Control or higher to the alarm. If the value is 0, the user needs the access level with the level Read (default state) only. |

| | | |
|---|---|---|
| character_encoding_APP_DEFAULT | | Initial character encoding in the application. This parameter is used, when there is "@APP_DEFAULT@" encoding in ESL function. The initial value is "@OS_ACTUAL@". |
| CheckDODMTreesInterval | | Defines DODM tree consistency check in regular intervals. A default value is 0 (zero) in seconds. The time of next processing of the parameter value depends on the parameter value that has been set while processing it (it may be changed while the system is running):<br><br>• **value > 0**: it starts the DODM tree consistency check and then calculates the time of next processing (clock + interval [s]),<br>• **other state**: a check is disabled; the processing starts in a minute (clock + 60[s]).<br><br>Start Debug info, via *DBG.CHECK.DODM_TREES,* to see the information on the process of the DODM tree consistency check.<br>More detailed reports regarding this activity are mentioned thereinafter. |
| descInTitleBar | 0/1 | Displaying of description in the titlebar of graphs, reports, pictures or structures instead of object name.<br>0 - hide description (shows object name only), 1 - show description<br>The parameter is not valid for users with the Administrator access rights. |
| dynamGraphMaxTime | | Time length [min], that determines the range of the horizontal (time) axis of dynamic graphs. |
| dynamGraphShiftTime | | The parameter [min] determines the shift of the time axis of dynamic graphs, when drawing a graphic flow reaches the right margin of the axis. |
| dynamGraphLineType | 0/1 | Definition of a graphic flow type for dynamic graphs.<br>0 - smooth line, 1 - straight line. |
| dynamGraphDescTable | 0/1 | Displaying the descriptive table of dynamic graphs.<br>0 - hide table, 1 - show table. |
| dynamGraphAllStatistics | 0/1 | Displaying all the graphic flows of statistic values in dynamic graphs.<br>0 - hide graphic flows, 1 - show graphic flows. |
| dynamGraphMultiArch | FALSE /TRUE | Opens the archive objects in multigraphs.<br>TRUE - the archive objects are opened in the separate multigraphs (default).<br>FALSE- the archive objects are opened together with other objects in the multigraphs. |
| dynamGraphPointer | 0/1 | Displaying the pointer on opening dynamic graphs.<br>0 - hide the pointer, 1 - show the pointer |
| HeapArrSizeRef | | It represents the size of auxiliary "HEAP" arrays. The parameter is set automatically when the application is started for the first time. Default value is 100 000. It enables the optimization of some bulk allocations. The settings is important especially for XML Import. The example of the log of allocated space for "HEAP" arrays is stated here. |
| ExpandTree | 0/1 | If the value of the parameter is 1, then all selection windows in the system will consist complete list of logical groups (expanded). If the value is 0, then all the windows will consist list with basic logical groups only (collapsed list). |
| KeepObjectValueAfterSave | 0/1 | 0 - after saving the configuration, the setting of object is "invalid" - standard behaviour - default value of parameter.<br>1 - after saving configuration, the setting of object is same as previous till acquiring new value. |
| LIC_DoNotAllowConsoleOverLimit | 0/1 | Disables to logon the console if the licence limit is exceeded. Default = off. |
| LIC_DoNotAllowSysProcOverLimit | 0/1 | Disables to logon the system process if the licence limit is exceeded. Default = off. |
| LIC_PostponeLicWrnToUsers | DWORD | When occurring the problem with the licence, first the administrator is informed until this time expires. After this, all users will be informed. Default value is 1 hour. The permitted maximum is the constant integer := 10*24; – [hours]. |
| LogRecsLateSynchro | 0/1 | Defines **CfgSynchroAuto** starting - with or without parameter /NO_OBJLIFE (the object life logs are not synchronized). CfgSynchroAuto is called by D2000 Server, which is in HS state, when it receives a demand on synchronization of the configuration database from other D2000 Server connecting to a redundant group.<br><br>Allowed values:<br>0 - default synchronization<br>1 - synchronization with /NO_OBJLIFE<br><br>A detailed meaning of the parameters for cfgsynchroauto is described in Synchronization of configuration databases. |
| LogTrezorPath | | Path to the directory, where the log database depository will be created. |

| | | |
|---|---|---|
| LogTrezorCompressPath | | Path to the directory for storing compressed log database depositories. |
| LogTrezorCompressTime | | Time period, during which disconnected log database depository is available for writing delayed data. The database will be compressed after expiration of this period. Value of this parameter **LogTrezorPeriod** must be less than the value of the parameter **LogTrezorPeriod**. It is given in the format NX, where N is an integer number and X gives a time unit. Permitted time units: H - hour, D - day, W - week, M - month. |
| LogTrezorPeriod | | Period for creating the log database depository. It is given in the format NX, where N is an integer number and X gives a time unit.<br>Permitted time units: H - hour, D - day, W - week, M - month.<br>Zero value (e.g. *0H*) disables the log database depository. The default value of this parameter is *0H*. |
| MailingAddress | | The email address to which the user can send the application error information. |
| MaxMonitorItems | | Maximal number of items, that the process D2000 Server gives to the process D2000 HI on request for the list from the log database. |
| numLastUsers | | Number of last entered users in the list of Logon dialog box of HI and GrEditor - max. 10.<br>If the number is equal to 1, a text box displays at name.<br>If the number is greater than 1, the list of the last entered <numLastUser> users displays at name. |
| OEM_Prot*X*_Name | | Name of OEM protocol nr.*X*, as will be displayed in the D2000 CNF environment.<br>For more details, see description of D2000 KomAPI interface. |
| OEM_Prot*X*_DLL | | Name of a dynamic library (.dll on Windows, .so on Linux), in which the communication protocol OEM nr.*X* is implemented. The name is specified without a suffix.<br>For more details, see description of D2000 KomAPI interface. |
| OldMasks | | Change of the format masks behaviour.<br>0 - the character # after the decimal point means that the occurrence of number is not required<br>1 - the character # after the decimal point is identical with the character 0 (required number occurrence) - compatible with D2000 v5.0 and older versions. |
| SecurityPolicy | 0/1 | If 1 - activation of new rules, if 0 - default behaviour during a change of user's password. |
| ShowConsoleUsers | 0/1 | It determines if the users of console type (*.HIP.LOG) will be displayed in the List of objects. |
| SingleCommand | 0/1 | If the value of this parameter is 1, just one control window can be opened for one object at the same time in the process D2000 HI. |
| SP_MinLength | 0...20 | Minimal password length. |
| SP_MinLowerCaseLetters | | Minimal count of lower case in the password. |
| SP_MinNumbers | 0...10 | Minimal count of numbers in password. |
| SP_MinSpecials | 0...10 | Minimal count of special symbols (e.g. ! @ # $ % ^ & a pod.) in a password. |
| SP_MinUpperCaseLetters | | Minimal count of upper case in the password. |
| SP_Similarity | 0...100 | Ratio for similarity of new password to previous ones. The value can be within the interval 0...100. |
| SP_History | 0...10 | Number of previous passwords, which are to be compared with new password. |
| SP_AccountLockoutDuration | | Time [s], that determines how long user's account will be blocked, when user exceeds the permitted count of logons. |
| SP_AccountLockoutTreshold | | Number of permitted invalid logons. If the number is exceeded, user's account will be blocked for the time defined by the parameter **SP_AccountLockoutDuration**. If the value of the parameter **SP_AccountLockoutTreshold** is 0, the user's account will never be blocked. |
| SP_MaxConsecutiveCharacters | | Maximum number of consecutive characters included in password. |
| SP_CheckMinCharacters | 0/1 | If the value is 1 - the number of digits and non-digits in password is to be also checked. In this case, value of the parameter **SP_MinNumbers** defines the minimum number of both digits and non-digits. |
| SrvApplHelpType | HelpFileChm | Selection of Application Help Types - NoHelp, HelpFileChm, HelpWebServerConfluence, HelpWebServerHtml, HelpSharedDir, HelpLocalApplDir, HelpLocalAnyPath |

| | | |
|---|---|---|
| SrvApplHelpPath | | Set the location of the help by type SrvApplHelpType. |
| SrvD2000HelpType | HelpWebIPS | Selection of help types for D2000 - HelpWebIPS, HelpWebServerHtml, HelpSharedDir, HelpLocalD2000Dir, HelpLocalAnyPath |
| SrvD2000HelpPath | https://doc.ipesoft.com/label/D2DOCV | Set the location of the help by type SrvD2000HelpType. Popis nastavenia umiestnenia závisí je vysvetlený je nižšie. |
| TCP_NO_DELAY | DEFAULT<br>TRUE<br>FALSE | During registration of every client connecting via TCP/IP protocol (start parameters /TP or /TPP) the process D2000 Server can change the value of the socket parameter TCP_NODELAY to TRUE/FALSE. More details are available in the description of tell command TCP_NO_DELAY.<br>If the value of TCP_NO_DELAY parameter is not set or is equal to *DEFAULT*, parameter TCP_NODELAY will not be changed. |
| TestVersion | | Color distinction of production and test server in the process D2000 HI:<br>• 0 - the server is a production server, not a test server (default)<br>• 1 - the server is a test server: the heading of D2000 HI has red color<br>Note: Parameter is implemented since the version 7.02.001. |
| TNS_Service_Name | | Configuration parameter for the configuration and log databases on Oracle platform - defines TNS of the database the configuration and log tablespaces are in. |
| UseServerTimeZone | 0/1 | Allows the client processes to use the server time zone offset (KERNEL). By default, each process uses its system time zone offset. |
| WinDisColorUse | | Indication for usage the defined colour in WinDisColorValue as the color in disable wincontrols in schemes.<br>0 - no<br>1 - yes |
| WinDisColorValue | | Colour in banned window controls in schemes (text input, buttons, trees and lists).<br>The color is represented by the number that can be derived from the RGB by the following formula: R + 256*G + 65536*B (see %MakeRGB function) |

The following four parameters allow to set the logic beginning and end of day for the application. The settings have effect on the dialog boxes for defining a time interval - when you define time interval, hours and minutes are to be adjusted according to the parameters.

| Parameter | Meaning |
|---|---|
| day_start_hour * | Hour of beginning day. Default value: 0. |
| day_start_min * | Minute of beginning day. |
| day_end_hour * | Hour of end day. |
| day_end_min * | Minute of end day. |
| day_end_strong_ineq ** | • TRUE - for selected time interval, there is valid: *StartTime* interval<*EndTime*<br>• FALSE - for selected time interval, there is valid: *StartTime* interval*EndTime* |

* Example - technological day begins at 06:00 o'clock and ends the next day at 06:00 o'clock.

- day_start_hour = 6
- day_start_min = 0
- day_end_hour = 30
- day_end_min = 0

** Example - user selects the entire day of January 1st 2005:

- **if *day_end_strong_ineq*=TRUE, then *StartTime*=1.1.2005 00:00:00.000 and *EndTime*=1.1.2005 23:59:59.999**
- **if *day_end_strong_ineq*=FALSE then *StartTime*=1.1.2005 00:00:00.000 and *EndTime*=2.1.2005 00:00:00.000**

**Note::** Individual parameters of the process D2000 Server can be changed after selecting the particular parameter in the right part of the window and pressing Enter, or after double-clicking the parameter.

## Parameter CheckDODMTreesInterval - detailed reports

When Debug info are activate via *DBG.CHECK.DODM_TREES* for this activity, these messages are written into D2000 Server log:

```
CheckDODMTreesConsistency.START[All:N=<name_tree_count>,T=<type_trees_count>,I=<id_trees_count>]
CheckDODMTreesConsistency.END[Static:N=<name_tree_count>,T=<type_trees_count>,I=<id_trees_count>]
```

**Start** means the beginning of the DODM tree consistency check containing all items in each tree.
**End** means the end of DODM tree consistency check containing the static items in each tree.

The following messages (errors) may occur:

1. An exception occurs while the item is being processed: `"%%%[src_tree_name]:!EXCEPTION;[name_or_id_key]/[step_enum]"`
2. Name of element is different than the object one: `"%%%[src_tree_name]:elmN<>refN;[src_object];[name_key]"`
3. ID of the element is different than the object one: `"%%%[src_tree_name]:elmI<>refI;[src_object];[id_key]"`
4. Type of the tree is different than the object one: `"%%%[src_tree_name]:TYPE<>refT;[src_object];[tree_type]"`
5. Src element is not in cmp tree: `"%%%[src_tree_name]:FIND?[cmp_tree_name];[src_object];null"`
6. Src element is different in cmp tree: `"%%%[src_tree_name]:ADDR?[cmp_tree_name];[src_object];[cmp_object]"`
7. An exception for complete check: `"CheckDODMTreesConsistency.END[EXCEPTION]"`

The messages are written into D2000 Server log.

These reports may be imported in the form of CSV data into MS Excel.

The messages relating to the name tree elements are **a**/**b**/**c**, or **e**/**f** when the name tree is compared with ID tree.
The messages relating to the type tree elements are **a**/**b**/**c**, or **e**/**f** when the type tree is compared with ID tree.
The messages relating to the ID tree elements are **a**/**c**, or **e**/**f** when the ID tree is compared with the name tree or type one.

## The log of allocated space for "HEAP" array after starting the application with parameter HeapArrSizeRef - value 100 000:

```
[05-08-2010 13:22:48] RecRef.HeapArrayCore_COL_REF.Initialize: HeapArray is allocated with size = 5200008.
[05-08-2010 13:22:48] RecRef.HeapArrayCore_COL_REFs.Initialize: HeapArray is allocated with size = 2800008.
[05-08-2010 13:22:48] RecRef.HeapArray_ColRefName.HeapElementArray.Initialize: HeapArray is allocated with size =
6800008.
[05-08-2010 13:22:48] RecRef.HeapArray_ColRefIdx.HeapElementArray.Initialize: HeapArray is allocated with size =
3200008.
[05-08-2010 13:22:48] RecRef.HeapArrayCore_TData.Initialize: HeapArray is allocated with size = 16000008.
[05-08-2010 13:22:48] RecRef.HeapArray_HobjRefTObjName.HeapElementArray.Initialize: HeapArray is allocated with
size = 10000008.
[05-08-2010 13:22:48] RecRef.HeapArray_HobjRefHOBJ.HeapElementArray.Initialize: HeapArray is allocated with size
= 3200008.
[05-08-2010 13:22:48] RecRef.HeapArray_HobjRefD2UID.HeapElementArray.Initialize: HeapArray is allocated with size
= 10000008.
[05-08-2010 13:22:48] HeapArray total allocated size: 57200064 bytes
```

**Related pages:**

Application configuration