

# Parameters for D2000 Server

## Parameters for the D2000 Server process

The [D2000 Server](#) process 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 <i>NoAckValue</i> . An operator can acknowledge he saw the value in the object control window.
AlarmsWithoutFocus	0/1	If the value of this parameter is 1, the window opened by a new alarm doesn't take the focus of another window of the HMI process.
AllowNonAdminConfLogin	0/1	If the value of this parameter is 1, users without administrative rights are allowed to log in to the configuration processes of the system. The default value is 0. That means, non-administrative users can not log in to configuration processes.
AuditDepth_RES_GROUP		The value differing from 0 sets the <a href="#">full monitoring of changes</a> in the configuration of the <a href="#">Object group</a> . It represents the time depth of the stored information in months. The value 0 (or absence of parameter) deactivates the monitoring.
AuditDepth_USER		The value differing from 0 sets the <a href="#">full monitoring of changes</a> in the configuration of the <a href="#">User</a> . It represents the time depth of information in months. The value 0 (or absence of parameter) deactivates the monitoring.
APPL_NAME		Application name.
AuthMethod		Default <a href="#">authentication method</a> . The parameter can acquire the following values: <ul style="list-style-type: none"><li>• <a href="#">D2000</a></li><li>• <a href="#">NTLM</a></li><li>• <a href="#">Kerberos</a></li></ul> Detailed information about the parameter is mentioned in the topic <a href="#">Authentication in D2000</a> , part <a href="#">AuthMethod</a> .
AuthSecPrinc		Security principal for <a href="#">Kerberos</a> authentication. Detailed information about the parameter is mentioned in the topic <a href="#">Authentication in D2000</a> , part <a href="#">AuthSecPrinc</a> .
BackupSysCfgDeep		Depth of <a href="#">configuration database backups</a> that are created automatically. The backups older than defined depth are automatically deleted. It is defined in seconds. <b>Note:</b> If the value is 0 (zero), the automatic backup of the configuration database is disabled.
BackupSysCfgOffset		A shift of <a href="#">automatic backup</a> of configuration database in a given period. It is defined in the format HH:MM, i.e. shift in hours and minutes.
BackupSysCfgPath		Path to directory in which the <a href="#">backups of configuration database</a> , created automatically, are to be stored. Default setting is %D2000_APP%\%application_name%\SysCfg\Backup. <b>Note:</b> For proper functionality of automatic backup of configuration database, no other directories and files should be created in the directory where these backups are stored.
BackupSysCfgPeriod		Period of an <a href="#">automatic backup</a> of the configuration database. It is defined in the format <i>NX</i> , where <i>N</i> is integer and <i>X</i> is a time unit. Permitted time units are H - hour, D - day, W - week, M - month. <b>Note:</b> If you set an empty value or <i>0H</i> , the backup of the configuration database is disabled.
ColorMandatoryItems		Background color for a mandatory item in pictures ( <a href="#">Text entry field</a> and <a href="#">List box</a> ). Default value = FFFFFFFF – i.e. no background color is represented by the number that can be derived from the RGB by the following formula: $R + 256 \cdot G + 65536 \cdot B$ (see <a href="#">% function</a> )
ColorConditionalItems		Background color for a conditional item in pictures ( <a href="#">Text entry field</a> and <a href="#">List box</a> ). Default value = FFFFFFFF – i.e. no background color is represented by the number that can be derived from the RGB by the following formula: $R + 256 \cdot G + 65536 \cdot B$ (see <a href="#">% function</a> )
ConfigBackupTimeout	0...	Maximum time [s] of backup of the configuration database. The backup is executed through the external process. If the parameter is: > 0 - the process is ended forcibly if the backup has not been executed successfully in a defined time. = 0 - the process is ended after the database backup is executed. It can take very long when the process is jammed.
ConfigSynchronizationTimeout	0...	Maximum time [s] of synchronizing of the configuration database. If the parameter is: > 0 - the synchronization is ended forcibly if it has not been finished in a defined time. = 0 - the synchronization can take unlimited time.

ControlRightForKvit	0/1	If the parameter value is 1, a user can acknowledge an alarm only if he/she has the access right with the level Control or higher 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 the ES. The initial value is "@OS_ACTUAL@".
CheckDODMTreesInterval		<p>Defines DODM tree consistency check in regular intervals. A default value is 0 (zero) in seconds. The time of next processing parameter value depends on the parameter value that has been set while processing it (it may be changed while the system running):</p> <ul style="list-style-type: none"> <li><b>value &gt; 0:</b> it starts the DODM tree consistency check and then calculates the time of next processing (clock + interval[s])</li> <li><b>otherwise:</b> a check is disabled; the processing starts in a minute (clock + 60[s]).</li> </ul> <p>Start <a href="#">Debug info</a>, via <code>DBG.CHECK.DODM_TREES</code>, to see the information on the process of the DODM tree consistency check. <a href="#">More detailed reports</a> regarding this activity are mentioned thereafter.</p>
CtrlAckDialog	0/1	<p>Confirm setting a new value by opening a new window asking: <i>Do you want to set the X value?</i></p> <p>0 - no, 1 - yes.</p>
CtrlCloseAfterSetValue	0/1	<p>Auto close control window based on application parameter</p> <p>0 - no, 1 - yes.</p>
descInTitleBar	0/1	<p>Displaying of description in the title bar of graphs, reports, pictures, or structures instead of the object name.</p> <p>0 - hide description (shows object name only), 1 - show description</p> <p>The parameter is not valid for users with Administrator access rights.</p>
dynamGraphMaxTime		Time length [min], that determines the range of the horizontal (time) axis of <a href="#">dynamic graphs</a> .
dynamGraphShiftTime		The parameter [min] determines the shift of the time axis of <a href="#">dynamic graphs</a> when drawing a graphic flow reaches the right end of the axis.
dynamGraphLineType	0/1	<p>Definition of a <a href="#">graphic flow type</a> for <a href="#">dynamic graphs</a>.</p> <p>0 - a smooth line, 1 - a straight line.</p>
dynamGraphDescTable	0/1	<p>Displaying the descriptive table of <a href="#">dynamic graphs</a>.</p> <p>0 - hide table, 1 - show table.</p>
dynamGraphAllStatistics	0/1	<p>Displaying all the graphic flows of statistic values in <a href="#">dynamic graphs</a>.</p> <p>0 - hide graphic flows, 1 - show graphic flows.</p>
dynamGraphMultiArch	FALSE/TRUE	<p>Opens the archive objects in multigraphs.</p> <p>TRUE - the archive objects are opened in separate multigraphs (default).</p> <p>FALSE - the archive objects are opened together with other objects in the multigraphs.</p>
dynamGraphPointer	0/1	<p>Displaying the pointer on opening <a href="#">dynamic graphs</a>.</p> <p>0 - hide the pointer, 1 - show the pointer</p>
HeapArrSizeRef		<p>It represents the size of auxiliary "HEAP" arrays. The parameter is set automatically when the application is started for the first time. The default value is 100 000. It enables the optimization of some bulk allocations. The setting is especially important for <a href="#">XML</a>. An example of the log of allocated space for "HEAP" arrays is available <a href="#">here</a>.</p>
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 list). If the value is 0, then all the windows will consist list with basic logical groups only (collapsed list).
KeepObjectValueAfterSave	0/1	<p>0 - after saving the configuration, the object value is set to "invalid" - (standard behavior - the default value of the parameter)</p> <p>1 - after saving the configuration, the object value is not invalidated.</p>
LIC_DoNotAllowConsoleOverLimit	0/1	Disables the logon of the console (HI) if the license limit is exceeded. Default = off (0).
LIC_DoNotAllowSysProcOverLimit	0/1	Disables the logon of the system process if the license limit is exceeded. Default = off (0).
LIC_PostponeLicWrnToUsers	DWORD	<p>When a problem with the license occurs, first the administrator is informed until this time expires. After this, all users will be informed. The default value is 1 hour. The permitted maximum is limited by the time</p> <p>Constant Integer := 10*24; – [hours].</p>

LogRecsLateSynchro	0/1	<p>Defines whether <b>CfgSynchroAuto</b> will be started with or without <i>/NO_OBJLIFE</i> parameter (the object life logs are not synch. CfgSynchroAuto is called by <a href="#">D2000 Server</a>, which is in a HOT state when it receives a request for synchronization of the cor database from another <a href="#">D2000 Server</a> connecting to a redundant group.</p> <p>Allowed values:  0 - default synchronization  1 - synchronization with <i>/NO_OBJLIFE</i></p> <p>Detailed meaning of the parameters for <b>CfgSynchroAuto</b> is described in <a href="#">Synchronization of configuration databases</a>.</p>
LogTrezorPath		Path to the directory, where the <a href="#">log database depository</a> will be created.
LogTrezorCompressPath		Path to the directory for storing compressed <a href="#">log database depositories</a> .
LogTrezorCompressTime		Time period, during which disconnected <a href="#">log database depository</a> is available for writing delayed data. The database will be compressed after the expiration of this period. The value of parameter <b>LogTrezorCompressTime</b> must be less than the value of parameter <b>LogTrezorPeriod</b> . 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 <a href="#">log database depository</a> . 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. Zero value (e.g. <i>0H</i> ) disables the log database depository. The default value of this parameter is <i>0H</i> .
MailingAddress		The email address to which the user <a href="#">can send</a> the application error information.
MaxMonitorItems		The maximal number of items, that the process <a href="#">D2000 Server</a> gives to the process <a href="#">D2000 HI</a> on request for the list from the database.
numLastUsers		<p>The number of last entered users in the list of Logon dialog box of HI and GrEditor - max. 10.</p> <p>If the number is equal to 1, a text box is displayed instead of a list box.</p> <p>If the number is greater than 1, the list of the last entered &lt;numLastUser&gt; users is displayed.</p>
OEM_ProtX_Name		<p>Name of OEM protocol nr. X, as will be displayed in the <a href="#">D2000 CNF</a> environment.</p> <p>For more details, see the description of the <a href="#">D2000 KomAPI</a> interface.</p>
OEM_ProtX_DLL		<p>Name of a dynamic library (.dll on Windows, .so on Linux), in which the communication protocol OEM nr. X is implemented. It is specified without a suffix.</p> <p>For more details, see the description of the <a href="#">D2000 KomAPI</a> interface.</p>
OldMasks		<p>Change of the <a href="#">format masks</a> behavior.</p> <p>0 - the character # after the decimal point means that the occurrence of number is not required</p> <p>1 - the character # after the decimal point is identical with the character 0 (required number occurrence) - compatible with D2 and older versions.</p>
SecurityPolicy	0/1	If 1 - activation of new rules, if 0 - default behavior 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 <a href="#">List of objects</a> .
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 <a href="#">D2000 HI</a> .
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	The ratio for similarity of the new password to previous ones. The value can be within the interval 0...100.
SP_History	0...10	The number of previous passwords, which are to be compared with the new password.
SP_AccountLockoutDuration		Time [s], which determines how long a user's account will be blocked, when the user exceeds the permitted count of logons.

SP_AccountLockoutThreshold		The number of permitted invalid logons. If the number is exceeded, the user's account will be blocked for the time defined by parameter <b>SP_AccountLockoutDuration</b> . If the value of the parameter <b>SP_AccountLockoutThreshold</b> is 0, the user's account never be blocked.
SP_MaxConsecutiveCharacters		The maximum number of consecutive characters included in the password.
SP_CheckMinCharacters	0/1	If the value is 1 - the number of digits and non-digits in the password is to be also checked. In this case, the value of the parameter <b>MinNumbers</b> defines the minimum number of both digits and non-digits.
SrvAppHelpType	HelpFileChm	<p>Selection of Application help type:</p> <ul style="list-style-type: none"> <li>• NoHelp</li> <li>• HelpFileChm</li> <li>• HelpWebServerConfluence</li> <li>• HelpWebServerHtml</li> <li>• HelpSharedDir</li> <li>• HelpLocalAppDir</li> <li>• HelpLocalAnyPath</li> </ul> <p>For an explanation, see <a href="#">below</a>.</p>
SrvAppHelpPath		Application help location setting (depending on the type specified by <i>SrvAppHelpType</i> ). The description of the location setting explained <a href="#">below</a> .
SrvAppHelpMainPage		Default application help page in an application using application help. It also opens in pictures (schemes) that do not have a help set in some other way (in the scheme configuration, by inheriting from the main scheme,...).
SrvD2000HelpType	HelpWebIPS	<p>Selection of D2000 help type:</p> <ul style="list-style-type: none"> <li>• HelpWebIPS</li> <li>• HelpWebServerHtml</li> <li>• HelpSharedDir</li> <li>• HelpLocalD2000Dir</li> <li>• HelpLocalAnyPath</li> </ul> <p>For an explanation, see <a href="#">below</a>.</p>
SrvD2000HelpPath	<a href="https://doc.ipesoft.com/label/D2DOCV">https://doc.ipesoft.com/label/D2DOCV</a>	D2000 help location setting (depending on the type specified by <i>SrvD2000HelpType</i> ). The description of the location setting explained <a href="#">below</a> .
TCP_NO_DELAY	DEFAULT TRUE FALSE	<p>During registration of every client connecting via TCP/IP protocol (start parameters <i>/TP</i> or <i>/TPP</i>) the process <b>D2000 Server</b> (the value of the socket parameter TCP_NODELAY to TRUE/FALSE. More details are available in the description of the <b>TCPAY</b> command.</p> <p>If the value of the TCP_NO_DELAY parameter is not set or is equal to <i>DEFAULT</i>, parameter TCP_NODELAY will not be checked.</p>
TestVersion		<p>The color distinction of production and test server in the process D2000 HI:</p> <ul style="list-style-type: none"> <li>• 0 - the server is a production server, not a test server (default)</li> <li>• 1 - 10 the server is a test server: the heading of D2000 HI can have a one from colors:</li> </ul> <div> <span>D2000</span> <span>D2000</span> <span>D2000</span> <span>D2000</span> <span>D2000</span> <span>D2000</span> <span>D2000</span> <span>D2000</span> <span>D2000</span> <span>D2000</span> </div> <p>Note: Parameter is implemented since version 22.0.76</p>
TNS_ServiceName		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.
WinDisColorUse		<p>Indication for the usage of the defined color in WinDisColorValue as the color in disable wincontrols in schemes.</p> <p>0 - no 1 - yes</p>
WinDisColorValue		<p>Colour in banned window controls in schemes (text input, buttons, trees, and lists).</p> <p>The color is represented by the number that can be derived from the RGB by the following formula: <math>R + 256 * G + 65536 * B</math> (see <a href="#">MakeRGB</a> function)</p>
XmlGitRepositoryEnabled	0/1	If the value is 1 and the path to the GIT repository is set - all changes to objects in D2000 are stored in the GIT object history.
XmlGitRepositoryPath		Path to GIT repository where all changes of objects are stored.

XmlGitShare dRepoInRed undancy	0/1	If the value is 1 and the system is in redundant mode and storing changes into the GIT repository is enabled - all changes are only by the active (hot) server
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The following four parameters allow setting the logical beginning and end of the day for the application. The settings have an 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 the beginning of the day. Default value: 0.
day_start_min *	Minute of the beginning of the day.
day_end_hour *	Hour of end day.
day_end_min *	Minute of end day.
day_end_strong_ineq **	<ul style="list-style-type: none"> <li>• TRUE - for a selected time interval, the following will be valid: <i>StartTime</i> interval&lt;<i>EndTime</i></li> <li>• FALSE - for a selected time interval, the following will be valid: <i>StartTime</i> interval<i>EndTime</i></li> </ul>

\* 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.

## Setting up system help in D2000

The setup consists of 2 parts:

1. By entering the keyword in *SrvD2000HelpType*
2. By defining the help location in *SrvD2000HelpPath*. Locations are somewhat relative and the resulting path is composed according to the rules described below. The addition depends on the type of help given by the keyword and is described in the table. Links to specific help pages are then added to the calculated path. Some paths are predefined and cannot be changed. The reason for using "relative" paths is the possibility of using multilingual help depending on the language used by the user on his console and help for different versions.  
Note: For a specific user, it is still necessary to set the help parameters in the D2000 HI, in the [Help Settings](#). There it is possible to specify the use of server settings or enter custom settings that are subsequently used in the D2000 HI, D2000 Cnf, D2000 GrEditor processes.

Keyword	Meaning	SrvD2000HelpPath - Help location setting
HelpWebIPS	Web server Ipesoft (Confluence) - current help available on the website of Ipesoft s.r.o. It is continuously updated.	<p>The path is defined by the text "https://doc.ipesoft.com/label/D2DOCV" and cannot be changed. The final destination path is supplemented as follows: the D2000 version is added to the path, e.g. 22, and the language of the help, e.g.: <i>EN</i>.</p> <p>Example of the resulting location: https://doc.ipesoft.com/label/D2DOCV22EN/</p>

HelpWebServerHtml	Web server (HTML) - help available through a website.	<p>The path leads to the Internet address. It is necessary to specify it.</p> <p>E.g.: https://MyWebsite/help</p> <p>The physical location is supplemented as follows: the help language is added to the path, for example <i>EN</i> + keyword <i>label</i></p> <p>Example of the resulting location: https://MyWebsite/help/EN/label</p>
HelpSharedDir	Shared directory (HTML). A directory with help located on a network share, common to multiple D2000 system consoles that have access to it.	<p>The path points to any location on the network drive. It is necessary to enter it.</p> <p>E.g: S:\D2000_HELP.</p> <p>The physical location is supplemented as follows: the help language is added to the path, for example <i>EN</i> + keyword <i>label</i></p> <p>Example of the resulting location: S:\D2000_HELP\EN\label</p>
HelpLocalD2000Dir	HELP directory of D2000 installation (HTML)	<p>The path points to the location of the D2000 installation and cannot be changed.</p> <p>E.g: C:\D2000\D2000_V22.0.76\D2000_EXE\HELP.</p> <p>The physical location is supplemented as follows: the help language is added to the path, for example <i>EN</i> + keyword <i>label</i></p> <p>Example of the resulting location: C:\D2000\D2000_V22.0.76\D2000_EXE\HELP\EN\label\</p>
HelpLocalAnyPath	Local directory (HTML) A directory with help located on a local or network drive that can be accessed by the console of the D2000 system.	<p>The path points to any location on the local disk. It is necessary to enter it.</p> <p>E.g: C:\D2000_HELP.</p> <p>The physical location is supplemented as follows: the help language is added to the path, for example <i>EN</i> + keyword <i>label</i></p> <p>Example of the resulting location: C:\D2000_HELP\EN\label\</p>

### The language of help

When opening the help, the language mutation of the help is selected according to the language used by the user on the client process (HI, CNF,...) The following labels are allowed:

**SK** - for Slovak and Czech languages

**EN** - for other languages

### Setting up application help in D2000

The setup consists of 2 parts:

1. By specifying the keyword in *SrvApplHelpType*
  2. By defining the help location in *SrvApplHelpPath*. The locations are relative in a way and the resulting path is composed according to the rules described below. The addition depends on the type of help given by the keyword and is described in the table. Links to specific help pages are then added to the calculated path. Some paths are predefined and cannot be changed. The reason for using "relative" paths is the possibility of using multilingual help depending on the language used by the user on his console and help for different versions.
- Note: For a specific user, it is still necessary to set the help parameters in the D2000 HI, in the [Help Settings](#). There it is possible to specify the use of server settings or enter custom settings that are subsequently used in the D2000 HI, D2000 Cnf, D2000 GrEditor processes.

Keyword	Meaning	SrvApplHelpType - Help location setting
NoHelp	Without help	Not specified.
HelpFileChm	HELP application directory (CHM). Help type <b>chm</b> is used.	<p>The path points to the location of the HELP directory in the D2000 application directory and cannot be changed.</p> <p>E.g: C:\D2000\D2000_V22.0.76\D2000_APP\Demo\HELP</p>
HelpWebServerConfluence	Web server (Confluence) - help available through a website created in Confluence.	The path leads to the Internet address. It is necessary to specify it. Physical location is final and must comply with Confluence rules.

HelpWebServerHtml	Web server (HTML) - help available through a website.	<p>The path leads to the Internet address. It is necessary to specify it.</p> <p>E.g.: https://MyWebsite/help</p> <p>The physical location is supplemented as follows: the help language is added to the path, for example <i>EN</i> + keyword <i>label</i></p> <p>Example of the resulting location: https://MyWebsite/help/EN/label</p>
HelpSharedDir	Shared directory (HTML). A directory with help located on a network share, common to multiple D2000 system consoles that have access to it.	<p>The path points to any location on the network drive. It is necessary to enter it.</p> <p>E.g: S:\MY_HELP.</p> <p>The physical location is supplemented as follows: the help language is added to the path, for example <i>EN</i> + keyword <i>label</i></p> <p>Example of the resulting location: S:\MY_HELP\EN\label</p>
HelpLocalAppDir	HELP application directory (HTML)	<p>The path points to the location of the HELP directory in the D2000 application directory and cannot be changed.</p> <p>E.g: C:\D2000\D2000_V22.0.76\D2000_APP\Demo\HELP</p> <p>The physical location is supplemented as follows: the help language is added to the path, for example <i>EN</i> + keyword <i>label</i></p> <p>Example of the resulting location: C:\D2000\D2000_V22.0.76\D2000_APP\Demo\HELP\EN\label</p>
HelpLocalAnyPath	Local directory (HTML) A directory with help located on a local or network drive that can be accessed by the console of the D2000 system.	<p>The path points to any location on the local disk. It is necessary to enter it.</p> <p>E.g: C:\MY_HELP.</p> <p>The physical location is supplemented as follows: the help language is added to the path, for example <i>EN</i> + keyword <i>label</i></p> <p>Example of the resulting location: C:\MY_HELP\EN\label\</p>

### The language of help

When opening the help, the language mutation of the help is selected according to the language used by the user on the client process (HI, CNF,...) The following labels are allowed:

**SK** - for Slovak and Czech languages

**EN** - for other languages

## Parameter CheckDODMTreesInterval - detailed reports

When [Debug info](#) is activated 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:

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