Error reporting

In order to simplify and quicken the localization process and the correction of errors occurring in D2000 systems, each D2000 system generates various files (so-called logs) containing the description of the behavior of individual processes as well as of the entire system. The following text contains all essentials, required for localization of possible error and eliminating it.

Please, send the specifications described below along with your error report.

Log file types

- *.log - file into which a process writes current debugging information,
- *.prev.log - file, containing the next to last log (from the next to last start of the process),
- *.his.log - file, containing a log history (except for those in *.log and *.prev.log),
- *.his.log.bak - file represents a backup of *.his.log and it can be created only if parameter Max_Log_Size is defined (limit of *.his.log file size).

Operation principle

- Backup with the name *.his.log.bak is generated automatically if the parameter Max_Log_Size is defined and file size of *.his.log (or *.log) exceeds the value of this parameter at process start (original file is cancelled after this).
- File *.his.log is generated by the cumulation of logs from the file *.prev.log (file *.prev.log is canceled after this).
- File *.prev.log is generated as a copy of *.log (file *.log is cancelled after this).
- *.log is a new log of the process which has been just started up.

D2000 system information

1. Your D2000 system version and release number can be found e.g. in the *KNL-SELF.log* file - the line in the header (.eg. *### BASIC V12.02.067 D2000@SERVER (A200703067-01) [s358]*), or by means of the user processes (D2000 HI, D2000 CNF, D2000 GrEditor) - the item **Info** from the menu **Help**.
2. Name of the application and the method (procedure) that causes the error, eventually names of objects, etc. because many problems are hard to invoke.
3. Description of the activity when the error occurred. Is it possible to repeat the error or is it an accidental error?
4. The file **SimpleWrite_ERROR** - if exists, it is placed in the **Log** subdirectory of the installation directory.
   Warning: The file may contain more error records, each of them consists of two parts: *D2000 Exception: Exception Information* and *D2000 Exception: Symbolic Traceback*.
5. Each process of the D2000 system creates a log file – the name is in the following format: extension[_mode][-name_of_the_process][-instance]. his.log (possibly file *.his.log.bak, if it exists)*. For instance: KOM-SELF.his.log, HIP.his.log, HIP-PC1.his.log, ARC-SELF-2.his.log, etc.
   A list of extensions is closer described in the chapter Processes. Other parts of the name creation depend on the process's configuration. For interactive processes such as HI, Graph. editor, CNF, and VBApi the implicit SELF identifier is not automatically added to the name. Some processes may create another name than described in a particular process's documentation. A process instance is only used in the case that the process is defined as an instance object. The parameter _mode is specific only for some kinds of processes when it is appropriate to distinguish which mode the process was started from (a common example of this is the event – it can be run as a standalone process or as a child process of HI in a DLL library).
   These files are located in the **Log** directory, which is a subdirectory of the installation directory of the D2000 system.

   Warning: These files (*.his.log* and *.his.log.bak*) may contain error records, each of them contains two parts: *D2000 Exception : Exception Information* and *D2000 Exception : Symbolic Traceback*.

   * Note: Process D2000 Server generates the file named *KNL-SELF.log*.
6. For process D2000 DBManager:
   - type of database (Sybase, Oracle) + version (e.g. Sybase 7.0 Engine, Sybase 9.0 Network Server, Oracle 9.2.0.4, ...),
   - the version of ODBC driver (for *dbmanager.exe*),
   - the version of ORACLE on the computer with the running process **D2000 DBManager** - can be detected e.g. from Oracle Universal Installers (for *dbmanager_ora.exe* and *dbmanager.exe*),
   - configuration:
     - D2000 DBManager and database on one computer,
     - communication between D2000 DBManager and database through the network.
7. Communication:
   D2000 systems support a great number of communication standards and protocols. Errors may occur when configuring the communication with I/O devices or during the system operation. In such a case:
   - check out the status of hardware devices used for communication (serial ports, interface converters, cabling, Ethernet connections and connectivity, etc.)
   - check out, if the configuration of an I/O device has not been changed and if a possible change has been performed in D2000 system configuration
   - in the configuration of the communication line, set the parameter Communication tracing to the level **Screen & disk**. The communication process will save service debug information into the file called ***line_name.log*** placed in the **Trace** subdirectory of the application directory.
   - type of communication protocol
   - description of the configuration of communication objects (lines, stations, and I/O tags), unless you send the entire configuration database of the D2000 system - (the *syscfg.db* file in case of Sybase SQL Anywhere database).

8. Return code of the process.
It defines a type of error that has occurred. This code can be found in the list of events of the operating system. The following return codes are used:

0		The process has been closed correctly.
1	MAIN_THREAD_CRASH	The special status has occurred in the main thread of the client.
2	THREAD_CRASH	An unexpected error has occurred.
3	KERNEL_ERROR	The connection to the process D2000 Server is wrong.
4	WD_ERROR	The flow of WatchDog messages between process and D2000 Server has been aborted.
5	FATAL_ODBC_ERROR	The connection error to the database.
6	HARD_KEY_ERROR	The hardware key error.
8	APP_SYNCHRO_ERROR	The process with this name has been running in DODM.
10	CLIENT_REFUSED_ERROR	D2000 Server refused to connect the client.

9. Process dump
If the process has been started with parameter /DUMP (or its derivations), after its crash, the dump file is generated in the folder \Log\dumps, which is a subfolder of the installation directory. Format of dump file name is *[process name]_[date of crash]_[time of crash].dmp*.

Other information

1. Processor type, memory size, graphic card type of the computer where the error occurred.
2. Information from the Task Manager -the **Performance** tab.