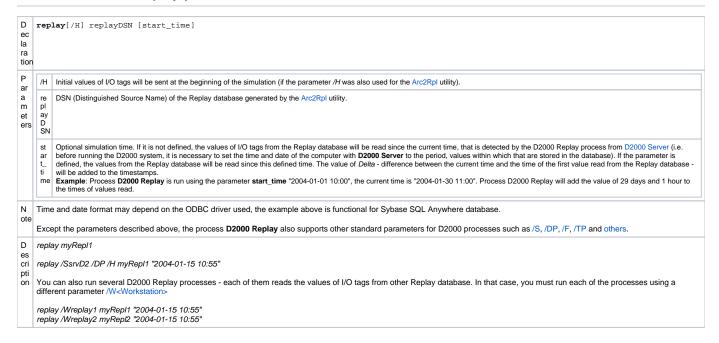
D2000 Replay

Process D2000 Replay is an auxiliary process used as a substitution of process D2000 KOM for the data simulation of I/O tags. Unlike the process D2000 KOM that allows to set individual stations to the simulation mode, the process D2000 Replay works with real data acquired from the archive database and can be used for e.g. replaying D2000 system reactions to particular input data and further debugging the application with real data. Of course, it is necessary to archive as many I/O tags as possible.

Before use of process D2000 Replay, all the archive data (or a part) must be converted to the Replay database using the Arc2Rpl utility.

To run the D2000 Replay process



Arc2Rpl utility

The Arc2Rpl utility is used for data conversion from the archive to the Replay database.

The utility reads the values of all I/O tag from the archive and then it saves them to the Replay database. While performing this task, it reads the I/O tags archived directly (in the configuration of historical value, there is defined an object of I/O tag type) as well as indirectly (using structures - in the configuration of historical value, there is a definition of a structure item of Object type that contains the reference to an I/O tag).

To run the Arc2Rpl utility

Declaration	arc2rpl	[/H] archive replay sysCfg [start_time [end_time]]	
Paramete rs	/H	In the Replay database (in the RPL_HIST table) there are stored last values of I/O tags before start_time . The values are used by the Replay as initial values.	
	archive	DSN (distinguished source name) of archive database (by default, ApplicationName.Archiv).	
	replay	DSN of Replay database.	
	sysCfg	DSN of configuration database of the application (by default, ApplicationName.Syscfg).	
	start_time	Optional parameter. Start time for reading the values of I/O tags from the archive. If it is not defined, all the archive contents will be converted.	
	end_time	Optional parameter. End time for reading the values of I/O tags from the archive. If it is not defined, the archive since either start_time or all the archive contents will be converted.	
Note	Time and date format can depend on the ODBC driver used, the example above is functional for Sybase SQL Anywhere database.		
Description After launching, the Arc2Rpl utility, except screen output, also generates the Arc2Rpl.log file placed in the directory, where the utility is placed in.			
Example	arc2rpl Te	arc2rpl Test.Archiv myRepl1 Test.Syscfg	
	arc2rpl Test.Archiv /H myRepl2 Test.Syscfg "2004-01-15 10:55"		
	arc2rpl Test.Archiv myRepl3 Test.Syscfg "2004-01-15 10:55" "2004-01-19"		

Replay database structure

An empty Replay database is placed in the directory **D2000.e60\Templates** as the Sybase database *rpltemplate.db*. The Replay database contains the tables *RPL_DATA* (time indexed values) and *RPL_HIST* (initial values) with the following columns (listed for the possibility to create a Replay database working on other database servers):

- ID integerCAS timestamp
- VALUE double
- STATUS integer
- FLAGS integer

In the table RPL_DATA an index on the column CAS is created, in the table RPL_HIST, no index is created. There is no unique index for the table RPL_D ATA, so when you run the utility several times the table may contain identical values of I/O tags.



Related pages:

System processes