

NDB - Parameter Module NDBPARAM

The source module NDBPARAM contains Natural parameters specific to a DB2 environment. The parameter default values can be modified to meet site-specific requirements (see Step 5 in Installation Procedure, Steps Common to all Environments). The values of the parameters cannot be dynamically overwritten.

Below is a description of all NDBPARAM parameters:

BTIGN	Ignore BACKOUT TRANSACTION error
CONVERS	Conversational mode under CICS
DDFSERV	Alternate DD name for NDB file server
DELIMID	Escape character for delimited identifiers
EBPFSRV	Editor buffer pool for NDB file server
EBPPRAL	Editor buffer pool primary allocation
EBPSEC	Editor buffer pool secondary allocation
EBPMAX	Editor buffer pool maximum allocation
ETIGN	Ignore END TRANSACTION error
FSERV	Activate NDB file server
MAXLOOP	Maximum nested program loops
NNPSF	Set NATURAL NUMERIC's positive sign to F
REFRESH	Refresh setting of DB2 server and package set
RWRDONL	Generate delimited identifiers for reserved words only
STATDYN	Allow static to dynamic switch

BTIGN

Possible Values	Default Value
ON/OFF	ON

This parameter is relevant in CICS and IMS/TM environments only.

BTIGN ignores the error which results from a BACKOUT TRANSACTION statement that was issued too late for backing out the current transaction, because an implicit Syncpoint has previously been issued by the TP monitor.

Value	Explanation
ON	The error after a late BACKOUT TRANSACTION is ignored.
OFF	The error after a late BACKOUT TRANSACTION is not ignored.

CONVERS

Possible Values	Default Value
ON/OFF	ON

This parameter is used to allow conversational mode in CICS environments where no NDB file server is used.

Value	Explanation
ON	Conversational mode is allowed.
OFF	Conversational mode is not allowed.

If this parameter is set to OFF and no NDB file server is used, you cannot continue database loops across terminal I/Os; if so, the DB2 SQL codes -501, 504, 507, 514, or 518 may occur.

If you are using the SYSDDM SQL services in a CICS environment without NDB file server, you must specify CONVERS=ON, otherwise you get the errors mentioned above.

DDFSERV

Possible Values	Default Value
Any valid DD name	None

This parameter specifies a DD name for the NDB file server module other than CMFSERV.

DELIMID

Possible Values	Explanation	Default Value
"	Double quotation mark	
'	Single quotation mark	
	No value: Delimited identifiers are not enabled.	No value

This parameter determines the escape character to be used for generating delimited SQL identifiers for the column names and table names in SQL statements. A delimited identifier is a sequences of one or more characters enclosed in escape characters. You must specify a delimited identifier if you use SQL-reserved words for column names and tables names, as demonstrated in the Example of DELIMID below.

To enable generation of delimited identifiers, DELIMID must be set to double quotation mark (") or single quotation mark (').

The escape character specified for DELIMID and the SQL STRING DELIMITER are mutually exclusive. This implies that the mark (double or single quotation) used to enclose alphanumeric strings in SQL statements must be different from the value specified for DELIMID. If you enable delimited identifiers, ensure that the value specified for DELIMID also complies with the SQL STRING DELIMITER value of your DB2 installation.

See also the RWRDONL parameter to determine which delimited identifiers are generated in the SQL string.

Example of DELIMID:

In the following example, a double quotation mark (") has been specified as the escape character for the delimited identifier:

Natural statement:

```
SELECT FUNCTION INTO #FUNCTION FROM XYZ-T1000
```

Generated SQL string:

```
SELECT "FUNCTION" FROM XYZ.T1000
```

EBPFSRV

Possible Values	Default Value
ON/OFF	ON

This parameter is used to determine whether the NDB file server uses the Software AG Editor buffer pool as storage medium or not. If it is OFF, the NDB file server uses the VSAM file as in previous versions. The parameter must be set to ON, if the NDB file server is to be used in a Sysplex environment.

EBPPRAL

Possible Values	Default Value
0 - 32676	20

This parameter specifies the number of blocks to be allocated primarily to each user of the NDB file server, if the Software AG Editor buffer pool is used as storage medium.

If the EBPFSRV parameter is set to OFF, EBPPRAL is not used at runtime.

EBPSEC

Possible Values	Default Value
0 - 32676	10

This parameter specifies the number of blocks to be allocated secondarily to each user of the NDB file server if the Software AG Editor buffer pool is used as storage medium. The secondary allocation is used to allocate buffer pool blocks to the user if the primary allocation amount is already exhausted.

If the EBPFSRV parameter is set to OFF, EBPSEC is not used at runtime.

EBPMAX

Possible Values	Default Value
0 - 32676	100

This parameter specifies the maximum number of blocks to be allocated to each user of the NDB file server if the Software AG Editor buffer pool is used as storage medium. This parameter serves as upper limit for the allocation of buffer pool blocks to a single user. If the EBPFSRV parameter is set to OFF EBPMAX is not used at runtime.

ETIGN

Possible Values	Default Value
ON/OFF	ON

This parameter is relevant in IMS/TM MPP and message-oriented BMP environments only.

It is used to handle END TRANSACTION statements in a message-driven IMS region (MPP or message-oriented BMP).

In such a region, an END TRANSACTION cannot be executed by the Natural/IMS interface and is therefore ignored without any notification. In such situations, the ETIGN parameter can be used to issue an error message instead.

Value	Explanation
ON	The END TRANSACTION error is ignored and processing is continued.
OFF	The END TRANSACTION error is not ignored.

FSERV

Possible Values	Default Value
ON/OFF/DIS	OFF

This parameter determines whether the NDB file server is to be used and whether it can be disabled in the case of an initialization error.

Value	Explanation
ON	NDB file server is to be used.
OFF	NDB file server is not to be used.
DIS	NDB file server is to be used but is to be disabled if it cannot be initialized.

If FSERV is set to ON and the NDB file server is not operational, the initialization of Natural for DB2 is terminated with a corresponding Natural error message. The Natural interface to DB2 is disabled and any SQL call is rejected with a corresponding error message.

MAXLOOP

Possible Values	Default Value
1 - 99	10

This parameter specifies the maximum possible number of nested database loops.

NNPSF

Possible Values	Default Value
ON/OFF	OFF

This parameter changes the sign character of positive Natural variables which have format N, if they are filled from DB2. Usually these variables have the C as positive sign character. If the parameter NNPSF is set to ON, F is used as positive sign character.

Value	Explanation
ON	Positive numbers put into Natural NUMERIC variables by DB2 get the sign F.
OFF	Positive numbers put into Natural NUMERIC variables by DB2 get the sign as it was delivered for DB2.

REFRESH

Possible Values	Default Value
ON/OFF	OFF

This parameter is used to automatically set the DB2 server and package set to the values that applied when the last transaction was executed. Server and package set are refreshed by using the CONNECT TO *server-name* and SET CURRENT PACKAGESET = '*package-name*' SQL statements of DB2.

Value	Explanation
OFF	No automatic refresh is performed.
ON	An automatic refresh is performed every time before a database transaction starts and if a server or package set has been specified.

RWRDONL

Possible Values	Default Value
ON/OFF	ON

This parameter determines which identifiers are generated as delimited identifier in an SQL string. RWRDONL only takes effect if the setting of the DELIMID parameter allows delimited identifiers.

If RWRDONL is set to ON, only identifiers that are reserved words are generated as delimited identifiers. The list of reserved words is contained in the NDBPARAM macro. This list has been merged from the lists of reserved words for DB2 for z/OS, DB2 for VSE/VM, DB2 UDB for LINUX, OS/2, Windows and UNIX, and ISO/ANSI SQL99.

If RWRDONL is set to OFF, all identifiers are generated as delimited identifiers.

STATDYN

Possible Values	Default Value
NEVER/ALWAYS/SPECIAL	NEVER

This parameter is used to allow dynamic execution of statically generated SQL statements if the static execution returns an error.

Value	Explanation
NEVER	Dynamic execution is never allowed.
ALWAYS	Dynamic execution is always allowed after an error.
SPECIAL	Dynamic execution is allowed after special errors only. These special errors are: NAT3706: Load module not found SQL -805: DBRM (database request module) does not exist in plan SQL -818: Mismatch of timestamps