

NDB - Example Stored Procedure

This section describes the example stored procedure NDBPURGN, a Natural subprogram which purges Natural objects from the buffer pool used by the Natural stored procedures server.

This section covers the following topics:

- Members of NDBPURGN
- Defining the Stored Procedure NDBPURGN

Members of NDBPURGN

The example stored procedure NDBPURGN comprises the following text members which are stored in the Natural system library SYSDB2:

Member	Explanation
CR5PURGN	Input member for SYSDB2 ISQL. Contains SQL statements used to declare NDBPURGN in DB2 Version 5.
CR6PURGN	Input member for SYSDB2 ISQL. Contains SQL statements used to declare NDBPURGN in DB2 Version 6 and above.
NDBPURGP	The client (Natural) program which <ul style="list-style-type: none"> • Requests the name of the program to be purged and the library where it resides, • Invokes the stored procedure NDBPURGN and • Reports the outcome of the request.
NDBPURGN	The stored procedure which purges objects from the buffer pool. NDBPURGN invokes the application programming interface USR0340N supplied in the Natural system library SYSEXT. Therefore, USR0340N must be available in the library defined as the steplib for the execution environment.

Defining the Stored Procedure NDBPURGN

To define the example stored procedure NDBPURGN

1. Define the stored procedure in the DB2 catalog by using the SQL statements provided as text members CR5PURGN (for DB2 Version 5) and CR6PURGN (for DB2 Version 6).

2. Specify the name of the Natural stored procedure stub (here: NDB41SRV) as LOADMOD (V5) or EXTERNAL NAME (V6). The Natural stored procedure stub is generated during the installation by assembling the NDBSTUB macro.
3. As the first parameter, pass the internal Natural parameter STCB to the stored procedure. The STCB parameter is a VARCHAR field which contains information required to invoke the stored procedure in Natural:
 - The program name of the stored procedure and the library where it resides,
 - The description of the parameters passed to the stored procedure and
 - The error message created by Natural if the stored procedure fails during the execution.

The STCB parameter is generated automatically by the CALLMODE=NATURAL clause of the CALLDBPROC statement and is removed from the parameters passed to the Natural stored procedure by the server stub. Thus, STCB is invisible to the caller and the stored procedure. However, if a non-Natural client intends to call a Natural stored procedure, the client has to pass the STCB parameter explicitly. See also Stored Procedure Control Block below.

Stored Procedure Control Block (STCB)

Below is the Stored Procedure Control Block (STBC) generated by the CALLMODE=NATURAL clause as generated by the stored procedure NDBPURGN before and after execution. Changed values are emphasized in boldface:

STCB before Execution:

```

004C82  0132F0F3  F0F6E2E3  C3C2F3F1  F040C8C7  *. .0306STCB310 HG*   11097D42
004C92  D2404040  4040C8C7  D2404040  4040D5C4  *K      SAG      ND*   11097D52
004CA2  C2D7E4D9  C7D74040  40404040  4040F0F5  *BPURGP      05*   11097D62
004CB2  F7F0D5C4  C2D7E4D9  C7D5F0F0  F0F6F0F9 *70NDBPURGN000609* 11097D72
004CC2  F9F9F940  40404040  40404040  40404040  *999          *   11097D82
004CD2  40404040  40404040  40404040  40404040  *          *   11097D92
004CE2  40404040  40404040  40404040  40404040  *          *   11097DA2
004CF2  40404040  40404040  40404040  40404040  *          *   11097DB2
004D02  40404040  40404040  40404040  40404040  *          *   11097DC2
004D12  40404040  40404040  40404040  40404040  *          *   11097DD2
004D22  40404040  40404040  40404040  40404040  *          *   11097DE2
004D32  40404040  40404040  40404040  40404040  *          *   11097DF2
004D42  40404040  40404040  40404040  40404040  *          *   11097E02
004D52  40404040  40404040  40404040  40404040  *          *   11097E12
004D62  40404040  40404040  40404040  40404040  *          *   11097E22
004D72  40404040  40404040  40404040  40404040  *          *   11097E32
004D82  40404040  40404040  40404040  40404040  *          *   11097E42
004D92  40404040  D4C1F86B  F0D4C1F4  F06BF0D4  *      MA8 ,OMA40 ,OM* 11097E52
004DA2  C2F26BF0  D4C2F26B  F0D4C9F2  6BF0D4C9  *I2 ,OMI2 ,OMI2 ,OMI* 11097E62
004DB2  F26BF04B                *2 ,0.          *   11097E72

```

STCB after Execution:

```

004C82  0132F0F3  F0F6E2E3  C3C2F3F1  F040C8C7  *. .0306STCB310 HG*   11097D42
004C92  D2404040  4040C8C7  D2404040  4040D5C4  *K      SAG      ND*   11097D52
004CA2  C2D7E4D9  C7D74040  40404040  4040F0F5  *BPURGP      05*   11097D62
004CB2  F7F0D5C4  C2D7E4D9  C7D5F0F0  F0F6F0F0 *70NDBPURGN000600* 11097D72
004CC2  F0F0F040  40404040  40404040  40404040  *000          *   11097D82
004CD2  40404040  40404040  40404040  40404040  *          *   11097D92
004CE2  40404040  40404040  40404040  40404040  *          *   11097DA2

```

004CF2	40404040	40404040	40404040	40404040	*	*	11097DB2
004D02	40404040	40404040	40404040	40404040	*	*	11097DC2
004D12	40404040	40404040	40404040	40404040	*	*	11097DD2
004D22	40404040	40404040	40404040	40404040	*	*	11097DE2
004D32	40404040	40404040	40404040	40404040	*	*	11097DF2
004D42	40404040	40404040	40404040	40404040	*	*	11097E02
004D52	40404040	40404040	40404040	40404040	*	*	11097E12
004D62	40404040	40404040	40404040	40404040	*	*	11097E22
004D72	40404040	40404040	40404040	40404040	*	*	11097E32
004D82	40404040	40404040	40404040	40404040	*	*	11097E42
004D92	40404040	D4C1F86B	F0D4C1F4	F06BF0D4	*	MA8,OMA40,0M*	11097E52
004DA2	C2F26BF0	D4C2F26B	F0D4C9F2	6BF0D4C9	*I2,OMI2,OMI2,OMI*		11097E62
004DB2	F26BF04B				*2,0.	*	11097E72