

B\$BNN - Convert non-DBX SQL Format Speedbase Database

The B\$BNN routine can be used to convert an existing non-DBX Pervasive SQL or Microsoft SQL format Speedbase database to a new Generation Number. This routine provides the same functionality as the "Convert database" option of \$BN32, \$BS32, \$BADN and \$BADS.

1. Invocation

To convert an existing non-DBX Pervasive SQL or Microsoft SQL format Speedbase database to a new Generation Number code:

```
CALL B$BNN USING cn
```

where *cn* is a control block of the following format:

```

01  CN
02  CNVERS      PIC 9(4) COMP      * Convert database block version number
                                VALUE 1      * Must be set to 1
02  CNSCHE      PIC X(5)          * Source schema file
02  CNSUID      PIC X(3)          * and unit
02  CNDSCH      PIC X(5)          * Destination schema file
02  CNDUID      PIC X(3)          * and unit
02  CNPATH      PIC X(60)         * Destination directory path
02  CNDICT      PIC X(5)          * Conversion dictionary
02  CNCUID      PIC X(3)          * and unit
02  CNSIZE      PIC 9(6) COMP      * If a Microsoft SQL database is being
                                * created, this field may contain the
                                * the initial file size in Mbytes
                                * 0 = Default database size
02  CNNAME      PIC X(23)         * Database name (Microsoft SQL)
02  CNPROG      PIC 9 COMP        * 0 = No Progress Message Display required
                                * 1 = Progress Message Display required
02  CNPRTN      PIC PTR          * Pointer to the Progress Message Display
                                * routine.
                                * This pointer must be initialised
                                * if CNPROG = 1

```

2. STOP Codes and Exception Conditions

The following STOP codes may be generated by B\$BNN:

STOP code	Description
25310	Invalid CN block version number
25311	Incompatible GSM configuration

The following exceptions may be returned by B\$BNN:

EXIT code	\$\$COND	Description
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25303	3	Unable to open source dictionary exclusively
25304	4	Source dictionary of wrong type
25305	5	Corrupt source dictionary
25306	6	Cannot open the source schema file exclusively
25307	7	Corrupt source schema file
25308	8	Interface failure on source database (error code returned in \$\$CRES)
25309	9	Error opening source database (error code returned in \$\$CRES)
25310	10	Source schema file of invalid type
25311	11	Failure to close source database (error code returned in \$\$CRES)
25312	12	Cannot create destination schema file
25313	13	Destination schema file already exists
25314	14	Error opening destination schema file (error code returned in \$\$RES)
25315	15	Invalid directory string
25316	16	Interface failure on destination database (error code returned in \$\$CRES)
25317	17	Error opening destination database (error code returned in \$\$CRES)
25318	18	The destination database already exists

25319	19	Cannot open conversion dictionary
25320	20	Corrupt conversion dictionary
25321	21	Cannot create output dictionary (error code returned in \$\$RES)
25322	22	Record set with no index found in dictionary
25323	23	I/O error when writing to the output schema file
25324	24	Error creating BDCF file
25325	25	Error writing to BDCF file
25326	26	More than 255 index segment
25327	27	Number of links does not match the number of masters
25328	28	Missing GVF's
25329	29	Error closing database (error code returned in \$\$CRES)

3. Programming Notes

B\$BNN can only be used to convert a non-DBX database. Use B\$DBXN to convert DBX database.

If the source and destination schema files are the same then the schema file will be overwritten. Otherwise, if the destination schema file already exists, an "Already Exists" exception will be returned.

If CNPATH is spaces (i.e. no output directory is supplied) the current directory from the existing Schema file will be used.

If the CNPROG flag is set then CNPRTN **MUST** point to a "Progress Message Display Routine" in the application. This Progress Message Display Routine will be called by B\$BNN to display any progress messages. The Progress Message Display Routine entry-point should be coded as follows:

ENTRY *routine* USING *ms dt*

where *ms* is defined as follows:

```
77 MSNO PIC 9(4) COMP * Message Number
```

and *dt* is defined as follows:

```
01 DT
02 DTRCNO PIC 9(4) COMP * Record number
02 DTRCID PIC X(2) * Record id
02 DTRNAM PIC X(6) * Record name
02 DTBLOC PIC 9(6) COMP * Block number
02 DTUSED PIC 9(6) COMP * Total blocks
```

Important Note: The *dt* parameter is only valid for **some** Message Numbers (see below).

The following Message Numbers are defined:

Message Number	Meaning
1	Generating schema file - Please wait (the <i>dt</i> parameter is not valid for this Message Number)
2	Generating BDCF file - Please wait (the <i>dt</i> parameter is not valid for this Message Number)
3	Creating new database (the <i>dt</i> parameter is not valid for this Message Number)
4	Database successfully created - will now load it (the <i>dt</i> parameter is not valid for this Message Number)
5	Closing databases (the <i>dt</i> parameter is not valid for this Message Number)
6	Closing output files (the <i>dt</i> parameter is not valid for this Message Number)
7	Processing record number <i>dtrcno</i> record id/name <i>dtrcid/dtrnam</i> block number <i>dtbloc</i> of <i>dtused</i> (the <i>dt</i> parameter is valid for this Message Number)
8	Invalid conversion for record type <i>dtrcid</i> . Field initialised (the <i>dt</i> parameter is valid for this Message Number)
9	Numeric overflow on record type <i>dtrcid</i> (the <i>dt</i> parameter is valid for this Message Number)
10	Error writing record <i>dtrcno</i> to record type <i>dtrcid</i> (the <i>dt</i> parameter is valid for this Message Number)

For GSM SP-17, and later, the code that handles the CNPRTN pointer is more "defensive". This pointer can be set to HIGH-VALUES to indicate that a Progress Message Display Routine is **not** required.

CNPROG	CNPRTN	Comments
0	Not HIGH-VALUES	No Progress Message Display Routine required
0	HIGH_VALUES	No Progress Message Display Routine required
1	Not HIGH-VALUES	Progress Message Display Routine required

1	HIGH-VALUES	No Progress Message Display Routine required (prior to GSM SP-17 this combination will produce a NO BASE exception)
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4. Examples

[EXAMPLES REQUIRED]

5. Copy-Books

See copy-books "\$2" and "\$5" in copy-library S.SYS32. Note that these copy-books **MUST** be expanded using a SUBSTITUTING clause. For example:

```
COPY "$2" SUBSTITUTING "CN"
COPY "$5" SUBSTITUTING "DT"
```

6. See Also

B\$DBXN Convert DBX database
 B\$BNC Create new non-DBX database
 B\$BNR Rebuild non-DBX database
 B\$BND Delete non-DBX database
 B\$BNP Change path of non-DBX database