

B\$BCN - Convert Global format Speedbase Database

The B\$BCN routine is used to convert a Global format Speedbase database between dictionary generations.

This routine provides the same functionality as the Convert Database functionality of \$BADGN.

1. Invocation

To convert a Global format Speedbase database code:

```
CALL B$BCN USING cn
```

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

```
01  CN
02  CNVERS          PIC 9(4) COMP    * Control block version number
                                     * must be set to 1 or 2
02  CNDBASE        PIC X(5)          * Database name
02  CNDUAD         PIC X(3)          * Database unit
02  CNCDIC         PIC X(5)          * Conversion dictionary name
02  CNCUAD         PIC X(3)          * Conversion dictionary unit
02  CNTITL         PIC X(30)         * New database title
                                     * (SPACES = unchanged)
02  CNRECS OCCURS 36 PIC 9(9) COMP * Number of records
                                     * 0 has a special meaning:
                                     * For existing records, 0 keeps the
                                     * number of records the same;
                                     * for new records, a value of 0 will
                                     * cause the number of records to be
                                     * set to 50
02  CNFILN OCCURS 36 PIC 9 COMP      * File number 1 to 3
                                     * 0 has a special meaning
                                     * for existing records, 0 keeps the
                                     * database file number the same;
                                     * For new records, a value of 0
                                     * means use the first database file
*
*   The following fields are only recognised if the CNVERS field is
*   2, or higher.
*
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\$BCN:

STOP code	Description
25201	The version number in the CN block is invalid (i.e. not 1)

The following EXIT codes may be returned by B\$BCN:

EXIT code	\$\$COND	Description
25201	1	Error opening target dictionary
25203	3	Error opening data files
25204	4	I/O error on dictionary file
25206	6	I/O Error on index file
25207	7	Invalid file type
25216	16	Unable to allocate data page
25218	18	Error opening index file
25219	19	Invalid index file
25220	20	Error opening conversion dictionary
25221	21	I/O error on conversion dictionary
25222	22	Unable to open conversion work file
25223	23	Error closing conversion work file
25224	24	Insufficient memory to read record into work buffer
25225	25	Error on work conversion work file
25226	26	Corrupt database

25231	31	Insufficient space on unit
25232	32	Record set start address too high in datafile

3. Programming Notes

The database file created by B\$BCN is complete and requires no further manipulation. Unlike the related B\$BAD routine, there is no need to follow the call to B\$BCN by a call to B\$RBG to complete the database creation process.

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\$BCN 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 set number
                                           * 1-36
02  DTRCID       PIC X(2)              * Record id
02  DTIXNO       PIC 9(2) COMP          * Index number
02  DTHRCN       PIC 9(9) COMP          * Highest record processed so far
```

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

The following Message Numbers are defined:

Message Number	Meaning
1	Copying record set number DTRCNO id DTRCID highest record processed DTHRCN. The Progress Message Display Routine is called at the end of every "block" that is processed. Each block should take approximately the same time to process so the routine will be called fairly regularly. The DTHRCN field will contain the record number at the end of the block just processed. Note that each block is 32Kb and may contains several hundred records so for some small databases there may only be a single block per record set. A particular record set will either be copied (message number 1) or converted (message number 2), but not both.

2	Converting record set number DTRCNO id DTRCID highest record processed DTHRCN. The Progress Message Display Routine for each 256 th record. Because it may take considerably longer to process some records than others, although the record number in the DTHRCN will be modified in a consistent manner, the routine may not be called regularly. A particular record set will either be copied (message number 1) or converted (message number 2), but not both.
3	Building index number DTIXNO of record set number DTRCNO id DTRCID. By its very nature, the rebuilding of index blocks does not have any associated record numbers. The Index rebuild is run as a separate phase immediately after the copying/converting phase.

4. Examples

[EXAMPLE REQUIRED]

5. Copy-Books

None.

6. See Also

B\$BAD Create new Global format Speedbase database
 B\$RBL Database Re-Index routine
 B\$RBG Database Rebuild routine