



VisualAge Pacbase 2.5

**TANDEM DBD
REFERENCE MANUAL**

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INTRODUCTION

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1. INTRODUCTION

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1.1. INTRODUCTION TO THE DATABASE DESCRIPTION FUNCTION

INTRODUCTION TO THE D.B.D. FUNCTION

The Database Description function automatically generates database descriptions adapted to the database management system in use. This is done by using segment and relationship descriptions defined during the application analysis phase.

The DBD function can generate the description of the following DBMS's:

- . Relational databases,
- . Network databases (CODASYL),
- . Hierarchical databases (DL/1),
- . Physical File - AS/400 databases and TANDEM DDL,
- . TurboImage databases,
- . DMSII databases.

Each one of these DBMS's is documented in a specific Reference Manual.

DBD/RELATIONAL SQL

This function can only be used in conjunction with the Dictionary: data defined in the Specifications Dictionary (whether or not the METHODOLOGY function is being used) can be used to generate database descriptions.

This information is described through a database description language which is independent of the DBMS in use. This allows the user to generate different descriptions from the same source.

1.2. PRINCIPLES OF DESCRIPTION

DESCRIPTION PRINCIPLES

In this manual, the entities and screens managed by VisualAge Pacbase are described in two parts:

- . An introductory comment explaining the purpose and the general characteristics of the entity or screen,
- . A detailed description of each screen, including the input fields for both on-line (screens) and batch (forms) data entry into the Database.

Since input screens and batch forms usually contain the same fields, their descriptions are often identical.

All on-line fields described in this manual are assigned an order number. These numbers are printed in bold italics on the screen examples which appear before the input field descriptions and allow for easy identification of a given field. The numbers are circled on the batch forms.

For certain descriptions, there may be slight differences between the screen and the corresponding batch form. This can be explained by the fact that batch mode is less flexible than on-line mode and often needs additional input fields for some indicators which already exist on the screen.

In addition, the user may find that the field sequence on a screen is different from the field sequence on the corresponding batch form. If that occurs, the numbers referencing the fields may not appear in ascending sequence on either the screen example or the batch form.

>>>> If you use the VisualAge Pacbase WorkStation, the graphical interface of the corresponding windows is described in the VisualAge Pacbase WorkStation Reference Manual.

NOTES: Each type of Database Block has a specific description. However, several Database Block types may use the same Batch Form.

As a result, fields on the Batch Form may have different meanings or may not be used, depending on the type of Database Block.

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2. USE OF THE FUNCTION

2.1. INTRODUCTION

INTRODUCTION

The TANDEM Database Description Manual is a reference manual and not a technical training manual.

It is therefore necessary to know TANDEM and the PACBASE-PACLAN-PACLAN/X SPECIFICATIONS DICTIONARY beforehand, and particularly the following concepts:

- . Data Elements
- . Segments
- . Parameterized Input Aid.

This manual provides you with a series of examples designed to guide the user through the description and generation of a TANDEM database.

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2.2. USE OF THE ENTITIES

USING THE ENTITIES

1. THE DICTIONARY FUNCTION

The function of the dictionary is to manage logical descriptions of all the external views that will be processed by the program.

The following entities are used:

- . Data Elements,
- . Database Blocks,
- . General Documentation of segments and database blocks,
- . Parameterized Input Aid.

2. TERMINOLOGICAL EQUIVALENTS BETWEEN PACBASE AND TANDEM

A TANDEM SCHEMA is a set of RECORDS, which themselves are sets of FIELDS (or ELEMENTS).

A PACBASE-PACLAN-PACLAN/X database block is a set of segments; each segment calls for data elements.

This parallelism is illustrated in the following chart:

| | |
|-----------------|------------------|
| ! TANDEM OBJECT | ! EQUIVALENT |
| ! Schema | ! Database block |
| ! Record | ! Segment |
| ! Field | ! Data Element |

Thus a TANDEM SCHEMA is compared to a Database Block,

a RECORD is compared to a Segment,

a FIELD is compared to a Data Element.

All the elements required by a TANDEM schema description are found in PACBASE-PACLAN-PACLAN/X. The SPECIFICATIONS DICTIONARY Reference Manual contains the descriptions of the Data Element and Segment entities.

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NOTES ON DATA ELEMENTS

- . PICTURE and USAGE: for a data element with a numeric format in DISPLAY mode, the numeric sign is considered as a separate character. When the data element is generated, a 'T' replaces 'S9'.
- . The Primary Key is generated for the data element marked by a 'U' in the Key column of the segment, except in cases where it is modified in the Parameterized Input Aid screen. See also chapter 'GENERATION OF A DATABASE BLOCK', sub-chapter 'General Documentation'.
- . The Secondary Keys are filled by the user, using the Parameterized Input Aids.

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3. TANDEM DATABASES

3.1. DEFINITION OF A DATABASE BLOCK (B)

DEFINITION OF A TANDEM BLOCK

A TANDEM schema is defined by a database block, which is accessed via the following input in the CHOICE field:

CH: B.....

The TANDEM database is defined by a code, a clear name and a specific TYPE whose value is 'TD'.

It is also possible to enter an external name associated with the database.

Since a block definition screen is common to all types of blocks, the (SCHEMA) "EXTERNAL NAME" area which is initially displayed is not re-displayed again after the screen has been sent.

From the database block, PACBASE-PACLAN-PACLAN/X generates a DDL file which is used by the DDL compiler to create an 'FUP' file (physical description of the application database) and a 'DICT' file (required for the update of the TANDEM dictionary if this is to be used).

The compilation request for a schema, the opening of the dictionary and the creation of the 'FUP' file must be specified in the FRONT CARDS option as follows:

DDL/IN <schema name>/DICT <volume name>, FUP <f.name FUP> !

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DEFINITION OF A DATABASE BLOCK (B)

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```
-----  
!                SAMPLE DATABASE                *PDLB.NDOC.FTA.134!  
!  
! BLOCK DEFINITION.....: 1 BLOCTD                !  
!  
! NAME.....: ORDER FILE                2                !  
! TYPE.....: TD TANDEM SCHEMA        3                !  
! VERSION.....: 4                        !  
!  
! EXTERNAL NAME.....: 5                !  
!  
!  
! CONTROL CARDS..... FRONT: 6          BACK: 7        !  
!  
!  
! EXPLICIT KEYWORDS...: 8                !  
!  
!  
! SESSION NUMBER.....: 0133          LIBRARY.....: DCC    LOCK.....:    !  
!  
!  
! O: C1 CH: Bbloctd                ACTION:                !  
-----
```

| NUM | LEN | CLASS VALUE | DESCRIPTION OF FIELDS AND FILLING MODE |
|-----|-----|-------------|--|
| 1 | 6 | | BLOCK CODE (REQUIRED) One to six alphanumeric characters. |
| 2 | 36 | | NAME OF THE BLOCK (REQ. IN CREATION) This clear name should be as explicit as possible. Words used here become implicit keywords (subject to limitations specified in Subchapter "HOW TO BUILD THE THESAURUS", Chapter "KEYWORDS" in the SPECIFICATIONS DICTIONARY Reference Manual). |
| 3 | 2 | | TYPE OF BLOCK (REQ. IN CREATION) For hierarchical or network databases, it is not necessary, when creating a database block, to enter the definitive block type. The selection of a network or hierarchical structure is sufficient at this point. A specific "physical" type must be entered when generating the Data Description Language (DDL). TR SE Tree-like structure (hierarchical block). Group of sets (network block). HIERARCHICAL DATABASES - IMS/DL1 ----- DP DR Physical Database Description. Physical Database Description (same as 'DP', but only the data elements referenced as access keys in the segment description are generated in the 'FIELD.....' statements). DL PC IP IS PS Logical Database Description. PCB. Primary Index. Secondary Index. PSB (Assigned at creation. Cannot be modified at a later stage). RELATIONAL DATABASES ----- Q2 Q3 Q4 QA QB QC QG QI QN DB2 SQL SQL SERVER DB2/400 ALLBASE/SQL DB2/2 and DB2/6000 DATACOM/DB INGRES/SQL INFORMIX-ESQL NONSTOP SQL |

| NUM | LEN | CLASS VALUE | DESCRIPTION OF FIELDS AND FILLING MODE |
|-----|-----|----------------|---|
| | | QO | ORACLE (releases earlier than V6) |
| | | QP | ORACLE (from release V6 on) |
| | | QR | RDMS |
| | | QS | SQL/DS |
| | | QT | INTEREL RDBC |
| | | QU | INTEREL RFM |
| | | QV | VAX SQL |
| | | QY | SYBASE |
| | | DB | DB2 (It is recommended to use the Q2 type) |
| | | | NETWORK DATABASES ----- |
| | | | .CODASYL-DM4 (BULL 66 or DPS8): ----- |
| | | M1 | DDL schema, only elementary fields are generated, |
| | | M4 | DDL schema, only group fields are generated, |
| | | M2 | DMCL schema, |
| | | M3 | Sub-schema. |
| | | | .CODASYL-IDS2 (BULL 64 or DPS7): ----- |
| | | I1 | DDL schema, |
| | | I2 | DMCL schema, |
| | | I3 | SDDL sub-schema. |
| | | | .CODASYL-IDMS: ----- |
| | | D0 | DDL schema (Release 10.0), |
| | | D1 | DDL schema, |
| | | D2 | DMCL schema, |
| | | D3 | Sub-schema, |
| | | D4 | Sub-schema (Release 5.7). |
| | | | .CODASYL-DMS (UNISYS 1100): ----- |
| | | S1 | DDL Schema, |
| | | S3 | Sub-schema. |
| | | | DDL TANDEM ----- |
| | | TD | TANDEM |
| | | | AS/400 PHYSICAL FILE ----- |

| NUM | LEN | CLASS VALUE | DESCRIPTION OF FIELDS AND FILLING MODE |
|-----|-----|-------------|--|
| | | PF | AS/400 Physical file (IBM SYS. 38) |
| | | LF | AS/400 Logical file (IBM SYS. 38). |
| | | TI | DDL TURBOIMAGE ----- TurboImage Database. DMSII DATABASE ----- |
| | | 20 | DMSII Database (DASDL) |
| 4 | 4 | | VERSION This field is not used. |
| 5 | 8 | | DATABASE BLOCK EXTERNAL NAME Necessary at generation time. This is the physical name of the System-generated DDL (Data Description Language) module. To obtain a list of blocks sorted by this external name, enter 'LEB' in the CHOICE field. For TurboImage, only the first six characters are processed. |
| 6 | 1 | | CONTROL CARDS IN FRONT OF BLOCK Necessary at generation time. Enter the one-character code that identifies the job control card to be inserted before the generated block. |
| 7 | 1 | | CONTROL CARDS IN BACK OF BLOCK Necessary at generation time. Enter the one-character code that identifies the job control card to be inserted after the generated block. |
| 8 | 55 | | EXPLICIT KEYWORDS This field allows the user to enter additional (explicit) keywords. By default, keywords are generated from an occurrence's clear name (implicit keywords). This field only exists on-line. In batch mode, keywords are entered on Batch Form 'G'. Keywords must be separated by at least one space. Keywords have a maximum length of 13 characters which |

| NUM | LEN | CLASS VALUE | <p>DESCRIPTION OF FIELDS AND FILLING MODE must be alphanumeric. However, '=' and '*' are reserved for special usage, and are therefore not permitted in keywords.</p> <p>Keywords are not case-sensitive: upper-case and lower-case letters are equivalent.</p> <p>NOTE: Characters bearing an accent and special characters can be declared as equivalent to an internal value in order to facilitate occurrence search by keywords.</p> <p>Refer to the Operations Manual - Part II "Administrator's Guide", Chapter "Database Management Utilities", Subchapter "PARM: Update of User Parameters".</p> <p>A maximum of ten explicit keywords can be assigned to one entity.</p> <p>For more details, refer to Chapter "KEYWORDS" Subchapter "BUILDING THE THESAURUS" in the SPECIFICATIONS DICTIONARY Reference Manual.</p> |
|-----|-----|----------------|--|
| | | | |

3.2. DESCRIPTION OF A DATABASE BLOCK (-DH)

DESCRIPTION OF A TANDEM DATABASE BLOCK

Since a TANDEM database can be assimilated to a network database, its description is accessed by the following choice:

CH: B.....DC

This description shows the list of records that make up the database.

Each record is called on a 'R'-type line. For each segment called, the name of the corresponding file must be specified.

ASSOCIATED LINES

Each line may be associated with general documentation lines accessed by the -DCnnnG choice, where 'nnn' is the line number.

The description screen of a TANDEM block is used by PACBASE-PACLAN-PACLAN/X to find out the logical information necessary to the generation of the block in source code. The line type specifies that the following "virtual" general documentation lines will be taken into account:

```
RECORD < RECORD NAME > .  
FILE IS < FILE NAME > .  
KEY-SEQUENCED .  
  ---> ELEMENT INSERTION BEGINING <---  
  ---> ELEMENT INSERTION END <---  
KEY IS < FIELD NAME > .
```

In case of block generation request, PACBASE-PACLAN-PACLAN/X uses these lines, replacing RECORD NAME with the code of the segment called on the line, FILE NAME with the name of the physical file, and FIELD NAME with the code of the data element marked by an 'U' in the Key column of the segment description.

```
-----  
!                               SAMPLE DATABASE                               *PDLB.NDOC.FTA.134!  
! BLOCK DESC. CODASYL SCHEMA  BLOCTD ORDER FILE                               !  
!                               1                                           !  
! A LIN : T      RECORD                               :      FILE                               !  
! 2 3 4      5                                       6                               !  
!   100 : R      CD05                               COMM.CD05                               !  
!   110 : R      CD10                               COMM.CD10                               !  
!   120 : R      CD20                               COMM.CD20                               !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
!       :                                           !  
! *** END ***                                           !  
! O: C1 CH: -DC                                           !  
-----
```

| NUM | LEN | CLASS VALUE | DESCRIPTION OF FIELDS AND FILLING MODE |
|-----|-----|-------------|--|
| 1 | 6 | | BLOCK CODE (REQUIRED) One to six alphanumeric characters. |
| 2 | 1 | | ACTION CODE |
| 3 | 3 | | LINE NUMBER PURE NUMERIC FIELD It is advisable to begin with line number '100' and then number in intervals of 20. This facilitates subsequent line insertions, as necessary. |
| 4 | 1 | R | TYPE OF DESCRIPTION LINE (REQUIRED) Record call line. |
| 5 | 4 | | TABLE OR VIEW (REQUIRED) This field contains the Segment code which corresponds to the called record. When the Database Block is generated, this code appears after the 'RECORD' clause. |
| 6 | 36 | | FILE NAME (REQUIRED) This field contains the name of the physical file which supports the data. When the Database Block is generated, this name appears after the 'FILE IS' clause. |

3.3. ON-LINE ACCESS COMMANDS

DATABASE BLOCKS: ON-LINE ACCESS

LISTS

| <u>CHOICE</u> ----- | <u>SCREEN</u> ----- | <u>UPD</u> --- |
|------------------------|---|-------------------|
| LCBaaaaaa | List of database blocks by code (starting with block 'aaaaaa'). | NO |
| LTBaabbbbb | List of database blocks by type (starting with type 'aa' and block 'bbbbbb'). | NO |
| LEBaaaaaaaa | List of database blocks by external name (starting with name 'aaaaaaaa'). | NO |

DESCRIPTION OF BLOCK 'aaaaaa'

| <u>CHOICE</u> ----- | <u>SCREEN</u> ----- | <u>UPD</u> --- |
|------------------------|--|-------------------|
| Baaaaaa | Definition of database block 'aaaaaa' | YES |
| BaaaaaaGbbb | General documentation for block 'aaaaaa' (starting with line 'bbb'). | YES |
| BaaaaaaATbbbbbb | Text assigned to block 'aaaaaa' (starting with text 'bbbbbb'). | NO |
| BaaaaaaX | X-references of block 'aaaaaa'. | NO |
| BaaaaaaXBbbbbbb | X-references of block 'aaaaaa' to PSB's (starting with PSB 'bbbbbb'). | NO |
| BaaaaaaXObbbbbbb | X-references of block 'aaaaaa' to screens (starting with screen 'bbbbbb'). | NO |
| BaaaaaaXObbbbbbbCSdddd | X-references of block 'aaaaaa' to the Call of Segments of screen 'bbbbbb' (starting with category 'c' and with segment 'dddd'). Note: 'c' is equal to & for the screen-top category. | NO |
| BaaaaaaXObbbbbbbWccddd | X-references of block 'aaaaaa' to the Work Areas of screen 'bbbbbb' (starting with work area 'cc', line number 'ddd'). | NO |
| BaaaaaaXQbbbbbb | List of entities linked to block 'aaaaaa' through user-defined relation- ship 'bbbbbb'. | NO |
| BaaaaaaXVvvvvvv | X-references of block 'aaaaaa' to volumes (starting with volume 'vvvvvv'). | NO |
| BaaaaaaXPbbbbbb | X-references of block 'aaaaaa' to programs (starting with program 'bbbbbb'). | NO |
| BaaaaaaXPbbbbbbWccddd | X-references of block 'aaaaaa' to Work Areas of program 'bbbbbb' (starting with work area 'cc', line number 'ddd'). | NO |

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ON-LINE ACCESS COMMANDS

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TANDEM DATABASE BLOCK DESCRIPTION

| <u>CHOICE</u> | <u>SCREEN</u> | <u>UPD</u> |
|------------------|---|------------|
| ----- | ----- | --- |
| BaaaaaaDCbbb | Description of TANDEM database block 'aaaaaa' (starting with line 'bbb'). | YES |
| BaaaaaaDCbbbGccc | General documentation of TANDEM data- base block 'aaaaaa' description line 'bbb' (starting with general document- ation line 'ccc'). | YES |

NOTES: After the first choice of type 'Baaaaaa', 'Baaaaaa' can be replaced with '-'.

All notations between parentheses are optional.

3.4. BATCH ACCESS COMMANDS

DATABASE BLOCKS: BATCH ACCESS

DEFINITION

Batch Form 'L1' is used to define a Database Block.

ACTION CODES

- C = Creation of a line in the library.
- M = Modification of a line.
- Blank = Creation or modification of a line, depending on its presence or absence in the library.
- X = Creation or modification with possible use of ampersands (&).
- D = Deletion of a line.
- B = Deletion of the database block and of its dependent lines.

DATABASE BLOCK DESCRIPTION

BATCH FORM

Batch Form 'L3' is used for the description of a CODASYL, DB2, or TANDEM Database Block.

ACTION CODES

- .C = Creation of a line in the library.
- .M = Modification of a line.
- .Blank = Creation or modification of a line, depending on its presence or absence in the library.
- .X = Creation or modification with possible use of ampersand (&).
- .D = Deletion of a line.
- .B = Deletion of the data base block lines starting from an including the indicated line number as well as the associated V3 lines.
- .R = End of multiple deletion following this line. If no R-type line appears after a B-type line, the deletion ends with the last line number of the Block.

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4. GENERATION OF A DATABASE BLOCK

4.1. GENERAL DOCUMENTATION

VIRTUAL GENERAL DOCUMENTATION

In on-line mode, the user may "dynamically" access the automatically generated lines. These lines are marked by a '*' action code and a '*VIRT' symbol in the LIB area. They make up the virtual general documentation.

COMPLEMENT TO THE GENERATED LINES

Using general documentation lines or Parameterized Input Aid the user specifies the physical characteristics of the TANDEM database and its components, as well as all the information about insertion modes.

The user can therefore create new lines, as well as modify or delete lines that have been automatically generated, in the following manner:

Virtual lines marked by a number:

- . Creation: by inserting a line at the desired place, using an appropriate line number;
- . Modification or deletion: by repeating the number of the line.

Example:

Consider the following virtual line:

```
A NLG : T COMMENTS  
* 100 : G RECORD < RECORD NAME > .
```

The user may delete this line:

```
A NLG : T COMMENTS  
100 : G
```

or modify it:

```
A NLG : T COMMENTS  
100 : G RECORD SS00 .
```

In both cases, he/she must use the number of the virtual line he/she wants to override.

The general documentation lines that the user wishes to have included in the generation must be marked by a 'G'-type line.

Example:

```
A NLG : T COMMENTS  
  
100 : G Block comments  
120 : G These lines will be inserted at the begining  
130 : G of the generated description
```

"OVERRIDE" OF A DATA ELEMENT

Insertion ranges:

The user must create line numbers included in those of the "Begining of insertion" and "End of insertion" boundaries.

To "override" a data element, the user must specify '<CORUB >' on the first line, and the new description on the following lines.

If he/she does not wish the new data element to appear, no line should be created after the first line.

At least six characters should be included between the boundaries.

Example:

```
A NLG : T COMMENTS  
  
* 100 : G RECORD < RECORD NAME > .  
* 200 : G FILE IS < FILE NAME > .  
* 300 : G KEY-SEQUENCED .  
* 400 : G ---> ELEMENT INSERTION BEGINING <---  
405 : G<NUCLIE>  
406 : G 10 NUCLIE PICTURE X(8).  
* 600 : G ---> ELEMENT INSERTIOM END <---  
* 700 : G KEY IS < FIELD NAME > .
```

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GENERAL DOCUMENTATION

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```
-----  
!                               SAMPLE DATABASE                               *PDLB.NDOC.FTA.134!  
! BLOCK DESC GENERAL DOC.           BLOCTD ORDER FILE                    100!  
!                                     !                                     !  
! A LIN : T COMMENT                                     LIB !  
! * 100 : G RECORD < RECORD NAME > .                   *VIRT !  
! * 200 : G FILE IS < FILE NAME > .                   *VIRT !  
! * 300 : G KEY-SEQUENCED .                             *VIRT !  
! * 400 :           ---> ELEMENT INSERTION BEGINING <--- *VIRT !  
! * 600 :           ---> ELEMENT INSERTION END <---    *VIRT !  
! * 700 : G KEY IS < FIELD NAME > .                   *VIRT !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! O: C1 CH: -DC100G                                     !  
-----
```


4.2. USE OF THE PARAMETERIZED INPUT AIDS

PARAMETERIZED INPUT AIDS

Input on General Documentation lines is facilitated by the use of the P.I.A. entity.

Its systematic use guarantees standardized description and documentation patterns as well as cross-references management.

For further details on P.I.A.'s, please refer to the corresponding chapter in the SPECIFICATIONS DICTIONARY Reference Manual.

The reader will find examples of General Documentation lines entered on P.I.A. description lines in Chapter 'EXAMPLE OF GENERATED DESCRIPTION'.

4.3. GENERATION - PRINT (BATCH AND ON-LINE)

GENERATION AND/OR PRINTING

The generation and printing of Database Blocks is requested on-line on the Generation and Print Commands screen (CH: GP) or in batch mode on Batch Form 'Z'.

LISTS

LTB Lists all database blocks of the libraries from the selected sub-network, sorted by type.
.C1 OPTION: Without keywords,
.C2 OPTION: With explicit keywords.

LCB Identical to 'LTB' but sorted by code.

LEB Identical to 'LTB' but sorted by external name.

It is possible to request a list of Database Blocks related by keyword(s). The corresponding command must be accompanied by a continuation line, on which the keywords used as selection criteria are indicated (refer to the USER'S Reference Manual). The list is sorted by code.

LKB Same as 'LCB' but sorted by keyword.
Option 'C2' cannot be used.

DESCRIPTION

DTB Description of the database block whose code is indicated in the entity field, description of all database blocks if the field is not entered. In the latter case, it is possible to request the descriptions of all blocks of a given type, by specifying it in the printing request.

GENERATION OPTION

GCB Generation of a Database Block whose code must be indicated.
Same printing option as for DTB.

| | | |
|--------------------------------------|------|----|
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5. EXEMPLE OF GENERATED DESCRIPTION

| |
|----------------------------------|
| EXEMPLE OF GENERATED DESCRIPTION |
| INTRODUCTION TO THE EXAMPLE |

| |
|---|
| 5 |
| 1 |

5.1. INTRODUCTION TO THE EXAMPLE

PRESENTATION OF THE EXAMPLE

The purpose of this chapter is to present the user with a comprehensive view of the various steps that will enable him to generate a TANDEM block, and to supply further information about the way PACBASE-PACLAN-PACLAN/X uses the data.

The example presented for this purpose is not exhaustive since it does not show all the possibilities available with the function.

It includes the main screens used in a block generation, as well as the generated program itself.

5.2. PACBASE-PACLAN-PACLAN/X SCREENS

```
-----  
!                SAMPLE DATABASE                *PDLB.NDOC.FTA.134!  
!  
! BLOCK DEFINITION.....: 1 BLOCTD                !  
!  
! NAME.....: ORDER FILE                2                !  
! TYPE.....: TD TANDEM SCHEMA        3                !  
! VERSION.....: 4                        !  
!  
! EXTERNAL NAME.....: 5                        !  
!  
!  
! CONTROL CARDS..... FRONT: 6            BACK: 7        !  
!  
!  
! EXPLICIT KEYWORDS..: 8                        !  
!  
!  
! SESSION NUMBER.....: 0133            LIBRARY.....: DCC    LOCK.....:    !  
!  
!  
! O: C1 CH: Bbloctd                        ACTION:        !  
-----
```

EXAMPLE OF GENERATED DESCRIPTION
PACBASE-PACLAN-PACLAN/X SCREENS

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5
2

```
-----  
!                      SAMPLE DATABASE                                *PDLB.NDOC.FTA.134!  
! BLOCK DESC. CODASYL SCHEMA  BLOCTD ORDER FILE                      !  
!                                1                                      !  
! A LIN : T      RECORD      :      FILE                            !  
! 2  3  4        5          6                                      !  
! 100 : R      CD05          COMM.CD05                            !  
! 110 : R      CD10          COMM.CD10                            !  
! 120 : R      CD20          COMM.CD20                            !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
!      :                                          !  
! *** END ***                                                    !  
! O: C1 CH: -DC                                                !  
-----
```

EXAMPLE OF GENERATED DESCRIPTION
PACBASE-PACLAN-PACLAN/X SCREENS

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2

```
-----  
!                               SAMPLE DATABASE                               *PDLB.NDOC.FTA.134!  
! BLOCK DESC GENERAL DOC.          BLOCTD ORDER FILE                      100!  
!                               !  
! A LIN : T COMMENT                                     LIB !  
! * 100 : G RECORD < RECORD NAME > .                    *VIRT !  
! * 200 : G FILE IS < FILE NAME > .                    *VIRT !  
! * 300 : G KEY-SEQUENCED .                            *VIRT !  
! * 400 :          ---> ELEMENT INSERTION BEGINING <--- *VIRT !  
! * 600 :          ---> ELEMENT INSERTION END <---     *VIRT !  
! * 700 : G KEY IS < FIELD NAME > .                    *VIRT !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! :                                                     !  
! O: C1 CH: -DC100G                                     !  
-----
```

EXAMPLE OF GENERATED DESCRIPTION
PACBASE-PACLAN-PACLAN/X SCREENS

PAGE

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5
2

```
-----  
!                               SAMPLE DATABASE                               *PDLB.NDOC.FTA.134!  
! SEGMENT CALL OF ELEMENTS CD05 ORDERS INFORMATION                          !  
!                                                                           !  
! A LIN : ELEM.  INT.FORM.  U OCC GR K CMD456 CONT VALUE/SFC  UPD/TRGET DOC  LIBR. !  
! 100 : NUCLIE                                U                                0002 !  
! 110 : DATE                                    0002 !  
! 120 : RELEA                                    0002 !  
! 130 : REFCLI                                    0002 !  
! 140 : RUE                                       0002 !  
! 150 : COPOS                                    0002 !  
! 155 : VILLE                                    0002 !  
! 160 : CORRES                                    0002 !  
! 170 : REMIS                                    0002 !  
! 180 : MATE                                       0002 !  
! 185 : LANGU                                       0002 !  
! 190 : FILLER X(5)          D                                0002 !  
! :                                                                           !  
! :                                                                           !  
! :                                                                           !  
! :                                                                           !  
! : NAME      :                                                                           !  
! *** END ***                                                                           !  
! O: C1 CH: Scd05CE                                                                           !  
-----
```


EXAMPLE OF GENERATED DESCRIPTION
PACBASE-PACLAN-PACLAN/X SCREENS5
2

```
-----  
!                               SAMPLE DATABASE                               *PDLB.NDOC.FTA.134!  
! SEGMENT CALL OF ELEMENTS CD10 ORDER LINE                               !  
!                               !  
! A LIN : ELEM.  INT.FORM. U OCC GR K CMD456 CONT VALUE/SFC UPD/TRGET DOC LIBR. !  
!   100 : QTMAC                               U                               0002 !  
!   110 : QTMAL                                                             0002 !  
!   120 : INFOR                                                             0002 !  
!   130 : ADFOU                                                             0002 !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   :                                           !  
!   : NAME      :                                           !  
! *** END ***                                           !  
! O: C1 CH: Scd10CE                                           !  
-----
```

```

-----
!               APPLICATION TANDEM                   *PDLB.NDOC.FTA.134!
! SEGMENT CALL OF ELEMENTS CD20 PRINT REQUEST                    !
! :                                                               !
! A LIN  : ELEM.  INT.FORM.  U OCC GR K CMD456  CONT VALUE/SFC  UPD/TRGET  DOC LIB !
! . 100  : EDIT                   U                                 *DCC!
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! : NAME :
! *** END ***
! O: C1 CH: Scd20 CE
-----

```

5.3. GENERATED BLOCK

```
RECORD CD05.  
FILE IS COMM.CD05.  
KEY-SEQUENCED.  
  10 NUCLIE PICTURE 9(8).  
  10 DATE PICTURE X(6).  
  10 RELEA PICTURE X(3).  
  10 REFCLI PICTURE X(30).  
  10 RUE PICTURE X(40).  
  10 COPOS PICTURE X(5).  
  10 VILLE PICTURE X(20).  
  10 CORRES PICTURE X(25).  
  10 REMIS PICTURE T9(03)V9(02).  
  10 MATE PICTURE X(8).  
  10 LANGU PICTURE X.  
  10 FILLER PICTURE X(5).  
KEY IS NUCLIE.  
END  
RECORD CD10.  
FILE IS COMM.CD10.  
KEY-SEQUENCED.  
  10 QTMAC PICTURE 99.  
  10 QTMAL PICTURE 99.  
  10 INFOR PICTURE X(35).  
  10 ADFOU PICTURE X(100).  
KEY IS QTMAC.  
END  
RECORD CD20.  
FILE IS COMM.CD20.  
KEY-SEQUENCED.  
  10 EDIT PICTURE X.  
KEY IS EDIT.  
END
```