

VisualAge Pachbase



RELATIONAL/SQL DATABASE DESCRIPTION

Version 3.0



VisualAge Pacbase



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Note

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Chapter 1. Introduction

Introduction to the Database Description 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 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.

Principles of Description

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 on-line screens data entry into the Database.

For the description of batch input, refer to the 'Developer's Procedures' manual.

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.

NOTE: If you use the VisualAge Pacbase WorkStation, refer to the 'WorkStation User Interface' guide which documents the corresponding windows.

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

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

Chapter 2. Use of the Function with SQL

Introduction

The Relational/SQL DBD function is used to manage relational/SQL databases with the SQL language and to generate (in on-line or batch mode) the Data Description Language (DDL) of the database block in order to create, alter or delete TABLESPACES, TABLES, VIEWS and INDEXES, using the information contained in the Database.

The Relational/SQL DBD Manual is not a technical training manual for database management.

In particular, you should be familiar with the SQL Data Description Language (DDL) and the Specifications Dictionary.

The purpose of this manual is to guide you through the description of a relational database in the Specifications Dictionary.

Use of Entities

When related to the DBD Description function, the Specifications Dictionary manages logical descriptions of the various external views which will be processed by programs.

The following entities are used:

.Data Elements,

.Segments,

.Database Blocks,

.Generation Elements and Options, Comments of Segments and Database Blocks, as well as Error Messages of Segments.

.Parameterized Input Aids.

TERMINOLOGICAL EQUIVALENTS BETWEEN RELATIONAL DBMS AND THE SYSTEM'S METAMODEL

A relational database is a set of physical environments (TABLESPACE, DBSPACE, SPACE, STORAGE-AREA, etc.; these environments will be referred as SPACES in this manual).

A Space is a set of Tables. A Table is a set of Columns.

A Database Block is a set of Segments; a Segment is a set of Data Elements.

This parallelism is illustrated in the following chart:

SQL OBJECT	EQUIVALENT
DATABASE	DATABASE BLOCK (TYPE OF BLOCK = 'Qx')
SPACE	BLOCK DESCRIPTION (-DR): 'P' TYPE LINE
TABLE	SEGMENT ON A 'T' TYPE LINE OR AN 'A' TYPE LINE FOR AN 'ALTER TABLE' (-DR)
VIEW	SEGMENT ON A 'V' TYPE LINE (-DR SCREEN)
COLUMN	DATA ELEMENT
INDEX	DATA ELEMENT OF A SEGMENT CALLED ON AN 'I' TYPE LINE (-DR SCREEN)
PRIMARY KEY	DATA ELEMENT OF A SEGMENT CALLED ON A 'K' TYPE LINE (-DR SCREEN)
FOREIGN KEY	DATA ELEMENT OF A SEGMENT CALLED ON A 'J' TYPE LINE (-DR SCREEN)
PACKAGE	DATA ELEMENT OF A SEGMENT CALLED ON A 'C' LINE (-DR SCREEN)
FUNCTION	DATA ELEMENT OF A SEGMENT CALLED ON A 'E' LINE (-DR SCREEN)
PROCEDURE	DATA ELEMENT OF A SEGMENT CALLED ON A 'Q' LINE (-DR SCREEN)
TRIGGER OR RULE	DATA ELEMENT OF A SEGMENT CALLED ON A 'R' LINE (-DR SCREEN)

GENERATION OF A DATABASE

A database is generated from a Database Block.

Taking into account all of the information in the Specifications Dictionary (logical level information) and according to the type of block, the DBD function ensures the generation of the Data Description Language (DDL); and it also generates the DDL for the Tables, Views, and Indexes according to the information provided on the Segment Description and Data Element Definition screens.

You may replace or complete the generated lines, using the Block's Generation Elements (-GG) lines, Generation Options (-GO) lines and Comments (-GC) lines.

IMPLEMENTATION

SQL commands are generated according to the input on the Database Block Description (-DR) screen, which includes the segment calls (which contain the descriptions of Tables and Views).

The Data Elements called in the Segments are used to generate the Index descriptions.

Tablespaces are also defined on this screen; they are described on Generation Elements (-GG) lines associated with the block description lines (-DRnnnGG, where 'nnn' = the description line number).

NOTE: Tablespaces are not generated for DB2/400, INGRES/SQL, INTEREL RDBC, INTEREL RFM, NON STOP SQL, INFORMIX, VAX/SQL, DB2/2, DB2/6000, SYBASE and SQL SERVER.

The following screens depend on the input on the Database Block Description (-DR) screen:

- Input of Data Element of Key (-DRnnnK) screen, used to consult and update the Primary and Foreign keys and to select the columns to be added or modified in a table.
- SQL Commands Generation (-GNnnn) screen, used to enter the information necessary for the generation of SQL commands (for ex., selection of the Columns to be added to a Table); the '-GNnnn' screen can also be accessed by entering a 'Q' in the ACTION CODE field of an 'nnn' description line on the -DR screen.
- Display of generated SQL commands once the 'ENTER' key has been pressed on the '-GN' screen.

On Generation Elements (-GG), Generation Options (-GO) and Comments (-GC) screens, virtual lines and P.I.A.'s facilitate user input.

Chapter 3. Column: Data Element

Column Definition (E.....)

Since a Column corresponds to a Data Element, it must be defined on a Data Element Definition screen accessed via the following CHOICE:

CH: E.....

ASSOCIATED LINES

Comments (-GC).

COLUMN NAME

A Column Name may be entered on the Segment Call of Elements (-CE) screen (see Chapter "TABLE OR VIEW: SEGMENT", Subchapter "TABLE OR VIEW DESCRIPTION"), or on an 'R'-type line on the Data Element Description (-D) screen (for further details please refer to Subchapter "COLUMN DESCRIPTION").

If a Column Name is entered on both screens, the one entered on the Segment Call of Elements (-CE) screen is the one taken into account.

If no Column Name is specified, the Data Element code will be used as the Column Name.

COLUMN FORMATS

The System generates the Column's format (type and length) from input in the INTERNAL FORMAT and USAGE fields on the Data Element Definition screen.

The following charts show the generated formats in relation to the formats entered on the Data Element's Definition screen for each type of database.

A CHAR(n) is generated for the System date formats (M, G, D, I, E, S, C, T, TS) which do not generate an SQL date format.

If you input a non-standard date format on the -D screen of the Data Element (on an E-type line), a DATE format is generated for ORACLE, SYBASE and SQL SERVER, and a DATETIME format is generated for INFORMIX.

DB2, SQL/DS

SQL FORMAT	FORMAT	USE	NOTES
CHAR(n)	X(n) with n<255	D	
VARCHAR(n)	X(n) with n<255	D	(see below)
LONG VARCHAR	X(n) with n>254	D	(see below)
SMALLINT	S9(n) with n<5	C	
INTEGER	S9(n) with n>4	C	
DECIMAL(n+m,m)	S9(n)V9(m)	3,1	use 1 for DB2 only
FLOAT	No format	W	

SQL FORMAT	FORMAT	USE	NOTES
DATE	M, G	D	
TIME	T	D	
TIMESTAMP	TS	D	
REAL	No format	F	DB2 only

DB2/2, DB2/6000

SQL FORMAT	FORMAT	USE	NOTES
CHAR(n)	X(n)	D	
VARCHAR(n)	X(n) with n<4001	D	(see below)
LONG VARCHAR	X(n) with n>4000	D	(see below)
SMALLINT	S9(n) with n<5	C or G	
INTEGER	S9(n) with n>4	C or G	
DECIMAL(n+m,m)	S9(n)V9(m)	3,1	
FLOAT	No format	W	
DATE	M, G	D	
TIME	T	D	
TIMESTAMP	TS	D	

ORACLE < V7

SQL FORMAT	FORMAT	USE	NOTES
CHAR(n)	X(n)	D	V5: n<241 V6: n<2001
LONG VARCHAR	X(n)	D	n<65536 (see below)
INTEGER	S9(n)	C,J,P,5,6	n<=4
NUMBER(n+m,m)	S9(n)V9(m)	T,Q,3,8,9	
FLOAT	No format	W	
DATE	D, I, E, S, C, M, G, T	D	

RDMS 1100

SQL FORMAT	FORMAT	USE
CHAR(n)	X(n)	D
DECIMAL (n+m+1,m)	S9(n)V9(m)	D,C,3,H

FROM VERSION 5RA4 ONWARDS

SQL FORMAT	FORMAT	USE
CHAR(n)	X(n)	D
DECIMAL (n+m+1,m)	S9(n)V9(m)	3, C
NUMERIC (n+m,m)	S9(n)V9(m) 9(n)V9(m)	H or D
FLOAT	No format	F COMP-1
DOUBLE PRECISION	No format	W COMP-2

ORACLE V7

SQL FORMAT	FORMAT	USE	NOTES
CHAR(n)	X(n)	D	n<2000 and key indic='C'
VARCHAR2(n)	X(n)	D	n<2000
VARCHAR(n)	X(n)	D	n<2000 and key indic='V'or'W'
LONG VARCHAR	X(n)	D	n<65536 and key indic='L'
INTEGER	S9(n)	C,J,P,5,6	
NUMBER(n+m,m)	S9(n)V9(m)	T,Q,3,8,9	
FLOAT	No format	W	
DATE	D, I, E, S, C, M, G, T	D	

DATACOM/DB

SQL FORMAT	FORMAT	USE	NOTES
CHAR(n)	X(n)	D	with n<32768
NUMERIC(n+m,n)	S9(n)V9(m)	D	
DECIMAL(n+m,n)	S9(n)V9(m)	3	
INTEGER	S9(n) 4<n<9	C	
SMALLINT	S9(n) with n<5	C	
DOUBLE PRECISION	No format	W	
DATE	M	D	
TIME	T	D	
TIMESTAMP	TS	D	

SQL/INGRES

SQL FORMAT	FORMAT	USAGE	NOTES
CHAR(n)	X(n)	D	n<2000
VARCHAR(n)	X(n)	D	n<2000 and key indic='V'
SMALLINT	S9(n)	C	n<5
INTEGER	S9(n)	C	n<9
	S9(n)	3	n<11
	S9(n)	D	n<11
FLOAT	no format	W	
	S9(n)	3	n>10
	S9(n,m)V9(m)	3	
	S9(n,m)V9(m)	C	
	S9(n,m)V9(m)	D	
FLOAT4	no format	F	

NON STOP SQL

SQL FORMAT	FORMAT	USE	NOTES
CHAR(n)	X(n)	D	n<4075
VARCHAR(n)	X(n)	D	V in -CE (see below)
DECIMAL(n+m,n)	S9(n)V9(m)	D, 1	
DECIMAL(n+m,n) Unsigned	9(n)V9(m)		
NUMERIC(n+m,n)	S9(n)V9(m)	C	
NUMERIC(n+m,n) Unsigned	9(n)V9(m)		
SMALLINT	S9(n)	C	n<5
SMALLINT Unsigned	9(n)		
INTEGER	S9(n)	C	n<10
INTEGER Unsigned	9(n)		
LARGEINT	S9(n)	C	n<19
DATE	M	D	Version C30
TIME	T	D	Version C30
TIMESTAMP	TS	D	Version C30

INTEREL RDBC

SQL FORMAT	FORMAT	USE	NOTES
CHAR(n)	X(n)	D	
VARCHAR(n)	X(n) with n<32000	D	V on '-CE' (see below)
LONG VARCHAR	X(n) with n=32000	D	V on '-CE' (see below)
SMALLINT	no format	0 (zero)	
INTEGER	no format	J	
DECIMAL(n+m,m)	S9(n)V9(m)	D,1	
REAL	No format	F	
DATE	E, M	D	
FLOAT	No format	W	

INTEREL RFM

SQL FORMAT	FORMAT	USE	NOTES
CHAR(n)	X(n)	D	n<4096
SMALLINT	S9(n)	0 (zero)	n<5
INTEGER(n)	S9(n)	J	4<n<10
DECIMAL(n+m,m)	S9(n)V9(m)	D	
FLOAT	-	W	
REAL	-	F	
DATETIME YEAR TO DAY	G	D	8 charac. format

SQL FORMAT	FORMAT	USE	NOTES
TIME	T	D	
TIMESTAMP	TS	D	

DB2/400

SQL FORMAT	FORMAT	USAGE	NOTES
CHAR(n)	X(n)	D	n<32766
SMALLINT	S9(n)V9(m) or S9(n) with n<5	C	
INTEGER	S9(n)V9(m) or S9(n) with 4<n<9	C	
DECIMAL	S9(n)V9(m) or S9(n)	3	
NUMERIC	S9(n)V9(m) or S9(n)	D	
REAL	No format entered	F	
DOUBLE PRECISION	No format entered	W	

FROM DB2/400 V2 ONWARDS

SQL FORMAT	FORMAT	USAGE	NOTES
DATE	M, G	D	
TIME	T	D	
TIMESTAMP	TS	D	

VAX/SQL

SQL FORMAT	FORMAT	USAGE	NOTES
CHAR(n)	X(n)	D	n<16384
VARCHAR(n)	X(n)	D	n<16384
SMALLINT	S9(n)	C	n<5
INTEGER	S9(n)	C	n<4<10
QUADWORD(n)	S9(n)	C	9<n
DECIMAL(n+m,m)	S9(n)V9(m)	3	
FLOAT	No format	W	
REAL	No format	F	

ALLBASE/SQL

SQL FORMAT	FORMAT	USAGE	NOTES
CHAR(n)	X(n)	D	n<3997
VARCHAR(n)	X(n)	D	n<3997 see -CE
SMALLINT	S9(n)	C	n<5
INTEGER	S9(n)	C	n<9
DECIMAL(n+m,m)	S9(n)V9(m)	3	

SQL FORMAT	FORMAT	USAGE	NOTES
DATE	M	D	
TIME	T	D	
DATETIME	TS	D	

INFORMIX-ESQL

SQL FORMAT	FORMAT	USAGE	NOTES
CHAR(n)	X(n)	D	n<32512
SMALLINT	S9(n) or 9(n)	C	n<5
INTEGER	S9(n) or 9(n)	C	n<9
DECIMAL(m,n)	S9(m-n)V9(n)	3, C	
NUMERIC(m,n)	S9(m-n)V9(n)	D	
REAL	No format	F	
FLOAT	No format	W	
DATE	M	D	
DATETIME	T	D	

SYBASE

SQL FORMAT	FORMAT	USAGE	NOTES
CHAR(n)	X(n)	D	n<255
VARCHAR(n)	X(n)	D	n<255
SMALLINT	S9(n) or 9(n)	C, G	n<5
INTEGER	S9(n) or 9(n)	C, G	n<9
NUMERIC(m,n)	S9(m-n)V9(n) or 9(m-n)V9(n)	D,3,1,X	
DECIMAL(n,m)	S9(n)V9(m)	C	
REAL	No format	F	
FLOAT	No format	W	
DATETIME	T, M, S, E, I, G	D-dff	

SQL SERVER

SQL FORMAT	FORMAT	USAGE	NOTES
CHAR(n)	X(n)	D	n<255
VARCHAR(n)	X(n)	D	n<255
SMALLINT	S9(n) or 9(n)	C, G	n<5
INTEGER	S9(n) or 9(n)	C, G	n<9
NUMERIC(m,n)	S9(m-n)V9(n) or 9(m-n)V9(n)	D,3,1,X	
DECIMAL(n,m)	S9(n)V9(m)	C	
REAL	No format	F	
FLOAT	No format	W	

SQL FORMAT	FORMAT	USAGE	NOTES
DATETIME	T, M, S, E, I, G	D-dff	

VARIABLE COLUMNS

In order to generate a variable Column, you must define a data element with an alphanumeric format X(n). On the data element call line on the Table Segment Call of Elements (-CE) screen, you indicate that it is a variable length field by entering a 'V' in the KEY INDICATOR FOR ACCESS OR SORT field.

The System generates:

.VARCHAR(n)

NOTE: This type of column is only generated for DB2, SQL/DS, INTEREL RDBC, NONSTOP SQL, ALLBASE/SQL, VAX SQL, DB2/2, DB2/6000, INGRES/SQL, SYBASE and SQL SERVER.

For DB2 and SQL/DS, if 'n' is greater than 254, the System generates:

.LONG VARCHAR.

For DB2/2 and DB2/6000, if 'n' is greater than 4000, the System generates:

.LONG VARCHAR.

Note that in the programs generated with the BATCH S.D. and ON-LINE S.D. functions, the corresponding 'Host Variables' are processed as variable alphanumeric strings.

RDMS 1100, DATACOM/DB and DB2/400:

Variable columns cannot be generated.

DB2, SQL/DS, DB2/2 and DB2/6000:

- value 'W' generates a VARCHAR,
- value 'L' generates a LONG VARCHAR.

ORACLE V5 and V6:

- value 'V' only generates a VARCHAR.
- value 'L' generates a LONG VARCHAR.
- value 'W' generates a VARCHAR.

ORACLE V7:

- value 'V' or 'W' generates a VARCHAR(n).
- field length<2000 and 'space' in key indicator generate a VARCHAR2(n).
- value 'L' generates a LONG VARCHAR.
- value 'C' generates a CHAR.

REQUIRED COLUMNS

On a Data Element call line on the Table Segment's '-CE' screen, you can specify a required Column (NOT NULL), or a required Column with default values, as follows:

In the PRESENCE INDICATOR field, enter:

'0' --> NOT NULL,
'P' --> NOT NULL WITH DEFAULT (for DB2, DB2/400,
 DATACOM/DB, DB2/2 and DB2/6000)
 DEFAULT (for INTEREL RDBC)
 DEFAULT SYSTEM (for NONSTOP SQL C30)

SQL/DS, ORACLE, NONSTOP SQL, VAX SQL (< V4), ALLBASE SQL, INFORMIX SQL, INGRES/SQL, SYBASE and SQL SERVER:

It is not possible to generate a (NOT NULL WITH) DEFAULT clause. Value 'P' is not recognized.

RDMS 1100:

It is not possible to generate required Columns (the value in the PRESENCE INDICATOR field is ignored).

VAX SQL V4:

In the PRESENCE INDICATOR field, enter:

'0' --> NOT NULL
'P' --> DEFAULT SPACE NOT NULL for a CHAR or VARCHAR
 Column.
 --> DEFAULT ZERO NOT NULL for a numeric type Column.


```

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!                               ENGLISH DOCUMENTATION LIBRARY                               *PDIE.DDDD.BMS.260!
!
! DATA ELEMENT CODE   1 REFCLI
!
! NAME.....:2  CUSTOMER REFERENCES
! TYPE.....:3  R
!
! INPUT FORMAT.....:5  X(30)                                LENGTH...: 30 !
! INTERNAL FORMAT....:6  X(30)                                USAGE : 7 D  LENGTH...: 30 !
! OUTPUT FORMAT.....:8  X(30)                                Z: 9        LENGTH...: 30 !
!
! EXPLICIT KEYWORDS...: 10
!
! PARENT ELEMENT.....: 11
!
!
!
!
! SESSION NUMBER.....: 0067          LIBRARY.....: BMS      LOCK.....:
!
! 0: C1 CH: Erefcli                    ACTION:
-----

```

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
1	6		DATA ELEMENT CODE (REQUIRED)
			Enter the mnemonic code which references the Data Element independently of any Data Structure, Report or Screen to which the Data Element might belong.
			There is no need to include a Report, Screen or Segment code in the Data Element code since the System does it automatically.
			This code consists of alphabetic or numeric characters only.
			Some Data Element codes are reserved by the System for use in Data Structures, Reports or Screens and cannot be defined in the Specifications Dictionary:
		SUITE	Prohibited. This code is reserved for the System for program generation.
		FILLER	Data Element that is used for the alignment of fields.
			Options of the BSD Function:
			Error Verification fields on transaction files:
		ENPR GRPR ERUT	Used for Data Element error verification. Used for Segment error verification. Used for user defined errors.
			For more information see DATA ELEMENT CODE on the Segment Call of Elements.
			For Reports:
		LIGNE	Reserved for the placement and alignment of the layout line. It is used only for a '00' structure.
		LSKP	Reserved usage only in the '00' Report Structure. See STRUCTURE NUMBER on the Report Call of Elements.
		SAUT	Reserved usage. This code is the counterpart of LSKP and used with the French version of the System.
			Options of the OLSD and Pacbench C/S (TUI Client) Functions:

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
	ERMSG	Data Element for the placement of the error message.
	LIERR	Reserved usage. This code is the counterpart of ERMSG and used with the French version of the System.
	PFKEY	Used to represent the programmable function keys.
	*PASWD	(IMS only): Used for passwords on a specific screen.
		For more information see DATA ELEMENT CODE OR SCREEN CODE TO CALL on the Call of Elements.
2	36	NAME OF DATA ELEMENT (REQUIRED IN CREAT)
		This name should be as explicit as possible. Words used here become implicit keywords (subject to limitations specified in the Character-Mode User Interface Guide, chapter 'Search for Instances', subchapter 'Searching by Keywords').
		This name appears in documentation and in Volumes each time the Data Element is used. It is also possible to list Data Elements sorted by name.
		In IMS: Use uppercase.
3	1	TYPE
	P	Property: Elementary piece of information defined at the conceptual level. Note: the FORMAT is optional.
	R	Real Data Element (Default value): elementary piece of information, defined at the Specifications Dictionary level.
		D.B.D. function: CODASYL elementary data, Relational column.
	A	ALIAS Data Element: This value is used in conjunction with the 'A*' value in the DATA STRUCTURE CODE IN GENER. DESCR. field with the 'DATA' PIA, causes the NAME OF DATA ELEMENT to be generated, rather than the standard element name.
4	10	INPUT FORMAT
		Not used with the DBD function.
5	10	Internal format
		Format normally used in system files (permanent, database and temporary files) and in screen input fields.
		Like the INPUT FORMAT, the INTERNAL FORMAT will be automatically used in the data Segment descriptions.
		For batch Programs, the user may select the format type on the Program Call of Data Structures (-CD) screen.
		It is also used (with the necessary transformations) in screen descriptions (input fields). (Refer to screen description in the 'On-Line Systems Development' Manual and 'Pacbench C/S: Business Logic and TUI Clients' (chapter 'TUI Clients')).
		The internal format must be coded like a COBOL picture (without print characters).
		The 'INTERNAL USAGE' clause is associated with this format.
		Data Elements that represent a date can be assigned a symbolic format:
		Display type formats (input):

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		D	Without century (DDMMYY or MMDDYY).
		C	With century (DDMMCCYY or MMDDCCYY).
			Internal type formats:
		I	Without century (YYMMDD).
		S	With century (CCYYMMDD).
			Extended type formats (output) (with slashes):
		E	Without century (DD/MM/YY or MM/DD/YY).
		M	With century (DD/MM/CCYY or MM/DD/CCYY).
		G	Gregorian format (CCYY-MM-DD).
		T	TIME format (HH:MM:SS).
		TS	TIMESTAMP format
			METHODOLOGY function: This field may be left blank for a property.
			For details on the use of the formats with the various types of database blocks, see the summary tables in chapter "Columns: Data Elements" of the "Relational SQL Database Description" Manual.
6	1		INTERNAL USAGE
			Corresponds to the COBOL 'USAGE' clause.
		D	DISPLAY (default option), all hardware. Required for data elements indicating dates.
		C	COMPUTATIONAL (binary), IBM or equivalent; COMPUTATIONAL-4 (binary), IBM SYSTEM 38; COMPUTATIONAL-4 IBM 3-15D, COMPUTATIONAL-6 ICL 2900.
		R	COMPUTATIONAL SYNCHRONIZED RIGHT, IBM or equivalent; This value is preferable to 'C' when binary data is aligned on even addresses, since corresponding COBOL statements are more efficient.
		B	COMPUTATIONAL-1 ICL 1900. BINARY-1 UNISYS 1100 associated with format 1(n).
		S	COMPUTATIONAL SYNCHRONIZED RIGHT ICL 1900.
		N	COMPUTATIONAL-4 aligned on a half-byte. You must add the complement if the length is uneven.
		P	COMPUTATIONAL-1 BULL 66, 6000 and DPS8.
		L	COMPUTATIONAL-1 SYNCHRONIZED RIGHT ICL 1900.
		Q	COMPUTATIONAL BULL 66, 6000 and DPS8.
		F	COMPUTATIONAL-1 IBM or equivalent. COMPUTATIONAL-9 BULL DPS7. COMPUTATIONAL-11 BULL 66 and DPS8. Relational DBD : floating point, simple precision.
		T	COMPUTATIONAL-3 PACKED SYNC. BULL 66 and DPS8.
		X	DISPLAY SIGN IS TRAILING SEPARATE CHARACTER.
		G	COMPUTATIONAL SYNCHRONIZED RIGHT ICL 2900 AND COMPUTATIONAL-5 MICROFOCUS.
		7	COMPUTATIONAL-5 ICL 2900.

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
	K	COMPUTATIONAL CDC. COMPUTATIONAL UNISYS 1100 (COBOL 85)
	M	COMPUTATIONAL-1 CDC.
	N	COMPUTATIONAL UNISYS-A
	O	COMPUTATIONAL-4 UNISYS 1100
	U	COMPUTATIONAL-1 UNISYS 1100.
	W	COMPUTATIONAL-2 UNISYS 1100. COMPUTATIONAL-12 BULL 66 and DPS8. RELATIONAL DBD : floating point, double precision.
	H	COMPUTATIONAL UNISYS 1100. BINARY UNISYS 1100 (COBOL 85)
	8	COMPUTATIONAL BULL 66 COBOL 74 and DPS8.
	9	COMPUTATIONAL-3 BULL 66 COBOL 74 DPS7 and DPS8.
	J	COMPUTATIONAL-6 BULL 66 COBOL 74 DPS7 and DPS8. REAL UNISYS-A.
	Y	DB-KEY BULL 66 DM4 and DPS8. POINTER IBM and MICROFOCUS.
	I	DISPLAY-1 Unisys 1100
	5	COMPUTATIONAL-1 BULL 64 66 MINI-6 COBOL 74 DPS7 DPS8
	6	COMPUTATIONAL-2 BULL 64 66 MINI-6 COBOL 74 DPS7 DPS8
	3	COMPUTATIONAL-3 IBM or equivalent. COMPUTATIONAL BULL 64 MINI-6 DPS7. COMPUTATIONAL-3 (packed decimal) IBM SYSTEM 38. PACKED-DECIMAL UNISYS 1100 (COBOL 85)
	0	COMPUTATIONAL-7 BULL 66 and DPS8.
	1	DISPLAY-1 NCR (signed extended decimal). DISPLAY SIGN LEADING SEPARATE - UNISYS 1100, DPS8, IBM, TANDEM, DPS7.
	4	DISPLAY-2 NCR (unsigned packed decimal).
	2	DISPLAY-2 BULL = DISPLAY, fields are compared in accordance with the "commercial collating sequence" and not in accordance with the standard BULL sequence.
	Z	In batch mode only: this option, which is only used with an output format, allows for the generation of a 'BLANK WHEN ZERO' clause with the Batch D.S. function.
		METHODOLOGY function: This field may be left blank for a property.
7	27	OUTPUT FORMAT
		Not used by the DBD function.
8	1	BLANK WHEN ZERO CLAUSE
		This field is not used when defining a data element used to generate a CODASYL elementary data element or a relational column.
9	55	EXPLICIT KEYWORDS

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
			This field allows you to enter additional (explicit) keywords. By default, keywords are generated from the instance's name (implicit keywords).
			Keywords must be separated by at least one space. Keywords have a maximum length of 13 characters which must be alphanumeric. However, '=' and '*' are reserved for special usage and are therefore ignored in keywords.
			Keywords are not case-sensitive: uppercase and lower-case letters are equivalent.
			NOTE: Characters bearing an accent and special characters can be declared as equivalent to an internal value in order to optimize the search of instances by keywords.
			You do that in the Administrator workbench, Users browser, Special Characters tab of the Parameters Specific Authorizations.
			A maximum of ten explicit keywords can be assigned to one entity.
			For more details, refer to the 'Character Mode User Interface' guide, chapter 'Search for Instances', subchapter 'Searching by Keywords'.
10	6		PARENT ELEMENT CODE
			Allows Data Elements sharing the same characteristics to be defined under different codes.
			If a parent Data Element is indicated, the Data Element takes on the characteristics of the parent by default. These can be modified at the child level.
			The parent Data Element must have been defined previously.

Column Description (E.....D)

A Column is described on a Data Element Description (-D) screen which is accessed via the following CHOICE:

CH: E.....D

COLUMN NAME

By default, the Column Name is the 6-character code of the data element. This default may be overridden by entering an 18-character Column Name on the Data Element Description (-D) screen with a TYPE OF LINE = 'R'.

The Column Name may also be entered on the Segment Call of Elements screen; in this case, it overrides any name entered on the Data Element Description (-D).

PREREQUISITE

The data element must have been previously defined.

```

!-----!
!           ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.260!
! ELEMENT DESCRIPTION                   REFCLI CUSTOMER REFERENCE1 !
! 2 3      4 5 6                         7           !
! A LIN : T S VALUE   SIGNIFICANCE - DESCRIPTION !
! 100 : L              CUST. REF.          *** SQL NAME *** !
! 150 : P              LP-KCP ORDER NUMBER: 05179 !
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NUMEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
1	6	DATA ELEMENT CODE (REQUIRED)
2	1	ACTION CODE (REQUIRED)
	C	Creation of the line
	M	Modification of the line
	D	Deletion of the line
	A	Deletion of the line
	T	Transfer of the line
	B	Beginning of multiple deletion
	G	Multiple transfer
	?	Request for HELP documentation
	E or -	Inhibit implicit update
	X	Implicit update without upper/lowercase processing
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	Type of line
	blank	Value and/or description line.
		With a blank line type, descriptive text is assigned to the Data Element. This text includes all possible values and what they mean.
	D	DATA ELEMENT DEFAULT VALUE

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		One of the values entered can be referenced as the default value. When the value 'D' is entered on the Segment Call of Elements (-CE) screen in the TYPE : VALIDATION, UPDATE, VALUES field, this value is assigned as the initial value.
		SPECIAL TYPES (OLSD, Pacbench C/S, Pactables Functions)
	P	DATA ELEMENT PRESENTATION VALUE:
		The sample value is entered in the SIGNIFICANCE - DESCRIPTION field. This value is used when simulating a screen for documentary purposes.
	L	DATA ELEMENT SHORT LABEL: Maximum length: 18 characters. NOTE: This length may be shortened by explicitly entering a delimiter (see description of the DATA ELEMENT VALUE field). Default delimiter is 'E'.
	C	COLUMN LABEL:
		The Column Label is defined on a single line but may use up to three lines. A delimiter in the Column Label indicates a line skip. The Column Label length is that of its longest line. Maximum length = 18 characters, including delimiters. A Column Label must be delimited by at least one delimiter (default = '/'). NOTE: To change the default delimiter, enter its value left-justified in the DATA ELEMENT VALUE field (refer to the description of this field).
	F	CONVERSATIONAL FORMAT: Data Elements used in input and output on-line:
		For Date Data Elements, enter the one-character symbolic value that represents the desired format, in the DATA ELEMENT VALUE field. The system will display the format in the SIGNIFICANCE - DESCRIPTION field.
		For other Data Elements, enter the desired output format in the SIGNIFICANCE - DESCRIPTION field.
		For numeric Data Elements, a BLANK WHEN ZERO clause may be obtained by entering 'Z' following the format entered in the SIGNIFICANCE - DESCRIPTION field.
		T ... SIGNIFICANCE - DESCRIPTION
		F ... 9(4) Z
	O	Declaration of the OPERATION CODE values.
	I	Declaration of the ACTION CODE values.
		For values 'O' and 'I', see also the SKIP OR ACTION TYPE field, and refer to the 'On-Line Systems Development' Manual and to the 'Pacbench C/S: Business Logic and TUI Clients' Manual (chapter TUI Client).
		RELATIONAL DATABASES:
	R	This value generates the Data Element's relational name on 18 characters, which is entered in the SIGNIFICANCE - DESCRIPTION field.
		The relational name of a parent Data Element is not carried forward to the child Data Element.

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
			With TurboImage, this field generates an Item name different from the Data Element code. In this case only the first 16 characters are recognized.
		E	This value allows you to input non standard date format in the SIGNIFICANCE - DESCRIPTION field.
			The format indicated on the Data Element Definition screen must be X(n), with n < 28 (or n < 15 for an ORACLE Database for the automatic management of dates in ON-LINE SYSTEMS DEVELOPMENT and PACBENCH C/S).
			This format is taken into account: . in the SQL generation to generate DATE for ORACLE, SYBASE and SQL SERVER, and DATETIME for INFORMIX, NONSTOP SQL. . in the OLSD and Pacbench C/S generation for the SQL accesses (e.g. by generating the TOCHAR and TODATE functions for ORACLE). Non-standard dates are not controlled in the generated programs; only standard dates (types C, D, E, G, I, M, S) are controlled. Furthermore, the date operator (AD) cannot be applied to this non-standard format.
			The system controls only the elements of the format, and not the way you put them together (ex: MD will be rejected but MMMMMM and YY-DD/MM will be accepted).
			DATA ELEMENTS COMING FROM REVERSE ENGINEERING:
		S	The COBOL data-name(s) of the associated REVERSE Elements are generated in the SIGNIFICANCE - DESCRIPTION field.
			COBOL COPYBOOKS:
		A	For COPYBOOKS, when a variant Data Element is being used as an alias-type Element, the SIGNIFICANCE - DESCRIPTION field contains the SEGMENT CODE of the Segment in which the parent is called.
			ADABAS DATABASE:
		A	For a Data Element used in an Adabas Database. This enables you to enter the values for the generation of the Format-Buffer.
			LIST OF TURBOIMAGE CLASSES:
		T	Values of the TurboImage class list.
5	1		ACTION TYPE, JUMP, CONTINUATION
			This field is used to specify:
			Line skip or page skip (only taken into account when printing User Manuals and Volumes).
			Continuation of a value range when a value does not fit on a single line.
			Operation or Action Code (also see the TYPE OF LINE field).
			SKIP:
		blank or 1	New line.
		2	1 blank line + 1 new line.
		3 to 9	2 to 8 blank lines + 1 new line.
		*	Only in User Manuals ('U' entity) : Page skip.
			CONTINUATION OF A VALUE RANGE:

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		+	This value indicates a continuation of a value range if it cannot fit on a single line.
			ACTION (OLSD function and Pacbench C/S TUI Clients)
			Two categories of value according to the selected TYPE OF LINE:
			WITH TYPE OF LINE 'T':
		C	Creation.
		M	Modification.
		D	Deletion.
		X	Mod-4 (implicit update).
			WITH TYPE OF LINE 'O':
		A	Display.
		M	Update.
		S	Next screen.
		E	End of session.
		P	Same page.
		O	Call of another screen.
6	10		DATA ELEMENT VALUE
			This field is used to specify the authorized values of the data element.
			These values undergo automatic validation if they are entered as either numeric or alphanumeric literals (quotes for the latter),
			If the Data Element takes on a range of values, the range must be described as two values between parentheses and separated by at least a space. Inverted parentheses indicate that the given value is excluded from the range.
			EXAMPLES:
			('E' 'Z') : from E inclusive to Z inclusive,)0 100 (: from 0 exclusive to 100 exclusive.
			If the description of a value calls for several lines, the value must be entered on the first line.
			The values assigned to a parent Data Elements are automatically assigned to each one of its child Data Elements.
			OLSD FUNCTION & PACBENCH C/S
		*9	Numeric Data Element. This causes a COBOL NOT NUMERIC check to be generated.
		*B	Numeric Data Element: LEADING blanks are replaced by zeros.
		*Z	Numeric Data Element: ALL blanks are replaced by zeros.
		*A	Alphabetic Data Element: checks that all characters are alphabetic.
		*L	Alphabetic Data Element: checks that all characters are lowercase alphabetic..
		*U	Alphabetic Data Element: checks that all characters are uppercase alphabetic.

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		The system displays a decoded representation, in the SIGNIFICANCE - DESCRIPTION field.
		WITH TYPE OF LINE = 'F'
	I	Without century (picture x(6)): YYMMDD
	S	With century (picture x(8)): CCYYMMDD
	D	Without century (picture x(6)): MMDDYY or DDMMYY depending on the value entered in the DATE FORMAT IN GENERATED PROGRAMS field on the Library Def. screen.
	C	With century (picture x(8)): MMDDCCYY or DDMMCCYY depending on the value entered in the DATE FORMAT IN GENERATED PROGRAMS field on the Library Def. screen.
	G	With century (picture x(10)): CCYY-MM-DD in a Gregorian format.
		Date with slashes:
	E	Without century (picture x(8)): MM/DD/YY or DD/MM/YY.
	M	With century (picture x(10)): MM/DD/CCYY or DD/MM/CCYY
		WITH TYPE OF LINE = 'C':
		Enter the delimiter for the end of each Column label line (left-justified). Default value is '/'. WITH TYPE OF LINE = 'L':
		Enter the delimiter for the end of the short label, (left-justified). Default value is '£'. WITH TYPE OF LINE = 'O' OR 'I':
		When setting the value of the Operation and/or Action Codes via an element on the screen, enter the value that corresponds to the specific operation or action. NOTE: These values correspond to the internal operation and action codes as entered in the SKIP OR ACTION TYPE field.
	T	Time.
	TS	Timestamp.
		Concerning the use of the formats with the various types of database blocks, see the summary tables in chapter "Columns: Data Elements" of the "RELATIONAL/ SQL DATABASE DESCRIPTION" Reference Manual.
7	54	SIGNIFICANCE - DESCRIPTION
		The value entered here depends upon the value of the TYPE OF LINE field.
		With ' ', 'D', 'O', 'I': Enter a descriptive comment (optional).
		With 'L', 'C', or 'P': Enter the label (with delimiters as needed) or a presentation value.
		With 'A': Enter the SEGMENT CODE where the parent Data Element is called.
		With 'R': Enter the Relational Column name.
		With 'E': Enter the non-standard date format with one or several of the following elements:

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		. YY : year (YYYY with the century)
		. MM : month
		. MON : month's 3 first characters
		. DD : day
		. HH : hour 00 to 23 save for SQL Oracle : 00 to 12
		. HHAM or HHPM: hour 00 to 12 + am/pm indicator
		. HH24 : hour (00 to 23) for SQL Oracle
		. MI : minute
		. SS : second
		. FF : millisecond
		. delimiters / . : - blank
		For more information, refer to the DBMS documentation. For NONSTOP SQL: input of start field and end field.
		With 'F' (for Data Elements other than dates): Enter the output format (using standard COBOL syntax). Note: To generate a BLANK WHEN ZERO clause with numeric Data Elements, follow the format with a blank and a 'Z' (Example: 9(4) Z).
	\$OFF \$ON	When the Data Element Description is to be printed in a Document (with print option EO), the left-justified \$OFF command allows you to exclude from this printing the following Description lines. The explicit exclusion end command is \$ON, also left-justified, to be entered just after the last line to exclude from printing. WARNING: This exclusion is not effective when the Data Element Description lines appear in a generated online help. Only lines bearing the \$OFF and \$ON commands are excluded. For more information about the \$OFF and \$ON commands, refer to the "Personalized Documentation Manager" Manual.

Chapter 4. Table or View: Segment

Table or View Definition (S....)

A Table or View being similar to a Segment, it is defined on a Segment Definition screen, accessed via the CHOICE:

CH: S....

You specify that the Segment is a Table or View when calling it into the database block.

The external name of the Table or View may be entered in the CODE/VALUE OF RECORD TYPE ELEMENT field (between quotes) on the Segment Definition Screen.

The default for the external name is the SEGMENT CODE.

ASSOCIATED LINES

Comments (choice CH: -GC).

Generation Elements (choice CH: -GG).

Generation Options (choice CH: -GO).

Error Messages-Help (choice CH: -GE).

PREREQUISITE

The Data Structure must have been previously defined.

TABLE OR VIEW NAME PREFIXING

The name of a Table or View may be generated from different user input. They are taken into account by the DBD Description function in the following order of priority:

1. 27-character name entered on the Table or View segment call line in the block. For more information, you should refer to subchapter "TABLE OR VIEW DESCRIPTION".
2. 8-character name entered on the Segment Definition screen, in the CODE / VALUE OF RECORD TYPE ELEMENT field.
3. When no external name is specified, the assigned name is the Segment code.

DB2, SQL/DS, ALLBASE/SQL, INFORMIX-ESQL, DB2/2 AND DB2/6000: PREFIXING MODE

The presence of a period within the name conditions the prefixing mode:

- If the name is formatted as follows:

PREFIX.NAME

it will be processed as such by the System and the DBMS i.e. as explicitly prefixed by the user.

- If the name contains neither a period nor a prefix, the DBD function prefixes the name with the user's 8-character User Code. The DBMS will process it as such, i.e. as explicitly prefixed by the System.
- If the name is formatted as follows:
 .NAME
 the DBD function generates it without the period so that the DBMS ensures prefixing. In this case, the assigned prefix depends on the catalog update mode:
 - Within a TSO environment, via the interactive SQL application (SPUFI), the TSO LOGON is used as the prefix. In case of batch updating, the prefix is a parameter in the JOB.
 - Within a CICS or IMS environment, via the interactive application (-GN), the prefix depends on the SIGNON procedure and also on whether or not a Security System is in operation.
 EXAMPLES:
 - Under CICS with CSSN SIGNON, the prefix is the OPID associated with the USERID in the DFHSNT.
 - Under IMS with RACF and LOGON input, the prefix is the IMS LOGON.

ALLBASE/SQL and INFORMIX-ESQL follow the rules that apply to DB2.

NOTE: You can modify the prefixing mode by entering PREFIX = NO on an 'O'-type line in the 'Generation Options' screen (B.....GO). Then a name which contains neither a period nor a prefix will be generated as such, and a .NAME name will be generated prefixed by the user code.

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.260!
!                               1 2
! SEGMENT DEFINITION.....: DZ05
!
! NAME.....:3 FURNITURE
!
! OCCUR. OF SEGMENT IN TABLE:4
! EST. NUMBER OF INSTANCES...5
!
!
!
! VALUE OF RECORD TYPE ELEM.:6
! CODE OF ACTION CODE ELEM.:7
! PRESENCE.....: CR:           MO:           DE:
!                M4:           M5:           M6:
!
!
! EXPLICIT KEYWORDS...:8
!
! SESSION NUMBER.....: 0067           LIBRARY.....: BMS           LOCK.....:
!
!
! 0: C1 CH: S dz05                               ACTION:
-----

```

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		DATA STRUCTURE / SEGMENT CODE
1	2	DATA STRUCTURE CODE (REQUIRED)
		This code is made up of two alphanumeric characters. This is a logical code internal to the Database and therefore independent of the names used in Database Blocks and Programs.
2	2	Segment number (REQUIRED)
		The first character must be numeric and the second either numeric or alphabetic. However the second character can be alphabetic only if the first character is other than zero.
	00	For standard files:
		Used to indicate the common part of records in a file, located at the beginning of each record (Default).
		The control break sort keys, the record type and the keys of indexed files are contained in this Segment.
		A file does not necessarily have a common part.
		Records on files with only one type of record should be coded as a '00' Segment.
		With the Pactables function, this value is not allowed.
	01-99	Designates a specific Segment. The common part Data Elements are automatically concatenated with each specific part Segment. Although a data element may not be used twice in the same Segment, it may be used in both the common part and in one or more specific Segments (except data structures used as Tables).
3	36	SEGMENT NAME (REQUIRED IN CREAT)

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
			This name must be as explicit as possible because it is used in the automatic building of keywords, Words used here become implicit keywords (subject to limitations specified in the Character-Mode User Interface Guide, chapter 'Search for Instances', subchapter 'Searching by Keywords').
4	4	NUMER.	Occurrences of segment in table
			PURE NUMERIC FIELD
			BATCH SYSTEMS DEVELOPMENT:
			This is the amount of space reserved for a Segment in memory (USAGE OF DATA STRUCTURE 'T' or 'X', or RECORD TYPE = 3, or 4.
			For tables (USAGE OF DATA STRUCTURE 'T' or 'X'), the default value at generation time is 100.
			Pactables:
			This field is strictly for documentation purposes.
			PACBENCH C/S:
			The value entered in this field indicates the repetitive read or update capacity of the server which calls the Logical View. This capacity is expressed by a maximum number of repetitions. The Logical View can then be used as a repeated structure.
			NOTE: The use of a Logical View in a card layout does not exclude its use in a row layout. It is therefore strongly recommended to systematically fill in this field. Moreover, the entered value must be high enough to limit the exchanges between the client and the server.
5	9	NUMER.	Estimated number of instances
			PURE NUMERIC FIELD
			For the Batch Systems Development function, this field is used to specify the estimated number of occurrences for a segment in a database or in a standard file.
			For the METHODOLOGY function, this field is used for activity calculation on the record or set using the Segment (on-line only).
			For the DBD function, this field is used to specify the application number of an entity in a SOCRATE/CLIO Block.
6	10		CODE / VALUE OF RECORD TYPE ELEMENT
			For a Relational Table or View, this field is used to specify the external name between quotes.
			This field is not used to define a CODASYL record.
7	36		CODE OF ACTION CODE ELEMENT
			This field is not used to define a CODASYL record or a Relational Table or View.
8	55		EXPLICIT KEYWORDS
			This field allows you to enter additional (explicit) keywords. By default, keywords are generated from the instance's name (implicit keywords).

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		Keywords must be separated by at least one space. Keywords have a maximum length of 13 characters which must be alphanumeric. However, '=' and '*' are reserved for special usage and are therefore ignored in keywords.
		Keywords are not case-sensitive: uppercase and lower-case letters are equivalent.
		NOTE: Characters bearing an accent and special characters can be declared as equivalent to an internal value in order to optimize the search of instances by keywords.
		You do that in the Administrator workbench, Users browser, Special Characters tab of the Parameters Specific Authorizations.
		A maximum of ten explicit keywords can be assigned to one entity.
		For more details, refer to the 'Character Mode User Interface' guide, chapter 'Search for Instances', subchapter 'Searching by Keywords'.

Table or View Description (S...CE)

Since a Table or View is defined as a segment, it is described on the Segment Call of Elements Screen. This screen is accessed via the following input in the CHOICE field:

CH: S...CE

A Table or View description is composed of the list of its Columns. Since Columns are represented by Data Elements, the corresponding Data Elements are called into the segment.

Segments may also be called into Segments describing Relational Tables and Views.

Note: It is highly recommended to dedicate a Segment to only one type of future use.

PREREQUISITES

The Table or View and its Columns must have been previously defined.

ASSOCIATED LINES

Comments associated with each line (choice CH: -CEnnnGC).

Generation Elements associated with each line (choice CH: -CEnnnGG).

Error Messages - Help associated with each line (choice CH: -CEnnnGE).

where 'nnn' is the number of the call line.

NOTE ON VIEW SOURCE DESCRIPTIONS

The DB2 View Description (-DBE) screen enables you to specify the source (tables) of the Elements (Columns) called into Segments used as Views. This screen is accessed by entering '-DBE' in the CHOICE field from the Segment screen network. Once entered, these lines will be displayed on the Call of Elements Screen with "(-DBE)" as the DATA ELEMENT CODE and an asterisk (*) in the ACTION CODE field.

For more information, see Subchapter 'ADDITIONAL VIEW DESCRIPTION'.

NOTE: Data Elements which are used as group Elements or redefined, are not taken into account for the generation. A Data Element may be called only once in each Table or View, even if it is given different Column Names.

VIEW DESCRIPTION

A View can be described as follows:

- By calling Tables or Views, that is calling segments into another segment;
- By calling Columns via the DB2 VIEW DESCRIPTION (-DBE) screen (see Subchapter "DB2 VIEW DESCRIPTION").

COLUMN NAME GENERATION PRIORITIES

There are four different ways of specifying a Column Name. If all four methods are used, the Column Name is generated according to the following order of priority:

1. Column Name entered as an insertion to the system-generated (virtual) lines on the Generation Elements screen of the Block. (See chapter 'Database: Database Block', subchapter 'Generation Elements').
2. Column Name entered on the Call of Elements Screen for a Table or View, 'A*' followed by the Column Name (maximum 8 characters) in the UPDATE TARGET field.

EXAMPLE:

A LIN ELEM.	UPD/TRGET
100 COLNE1	A*COLUMN1

1. Column Name entered on a Data Element Description screen with TYPE OF LINE = 'R'.
2. Data Element 6-character code.

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.260!
!                               1 2                                     !
! SEGMENT CALL OF ELEMENTS DZ05 FURNITURE                               !
! 3 4   5   7   8 9 10 11 12 13 14   15   16                               !
! A LIN : ELEM. INT.FORM. U OCC GR K CMD456 CONT VALUE/SFC UPD/TRGET DOC LIBR!
! 100 : COCARA                                0                                0067!
! 110 : NUCOD                                  P      S      0                    0067!
! 120 : FOURNI                                0                                0067!
! * 125 : (-DBE)                                0                                0234!
! 200 : NUCLIE                                S      0                    0067!
! * 205 : (-DBE)                                0                                0234!
! 210 : DATE                                  0                                0067!
! 220 : RELEA                                  0                                0067!
! 230 : REFCLI                                V      S      0                    0067!
! * 235 : (-DBE)                                0                                0234!
! 240 : RUE                                    V      S      0                    0067!
! * 245 : (-DBE)                                0                                0234!
! 250 : COPOS                                  S      0                    0067!
! * 251 : (-DBE)                                0                                0234!
! 255 : VILLE                                  V      S      0                    0067!
! * 256 : (-DBE)                                0                                0234!
! 260 : CORESP                                V      S      0                    0067!
!      : NAME      : 6                                     !
!                                     !
! 0: C1 CH: -CE                                     !
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.260!
! SEGMENT CALL OF ELEMENTS DZ05 FOURNITURE                               !
!                               !                                       !
! A LIN : ELEM. INT.FORM. U OCC GR K CMD456 CONT VALUE/SFC UPD/TRGET DOC LIBR!
! 270 : REMISE                                                         0067!
! 280 : MATE                                                            V          A*MATERIEL 0067!
! 310 : PRIX1                                                           0067!
! 330 : HEURE                                                           0067!
! 340 : PRECIS                                                         S      0          0067!
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! :                                                                      !
! : NAME :                                                                !
! *** END ***                                                           !
! 0: C1 CH:                                                             !
-----

```

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		DATA STRUCTURE / SEGMENT CODE
1	2	DATA STRUCTURE CODE (REQUIRED)
		This code is made up of two alphanumeric characters. This is a logical code internal to the Database and therefore independent of the names used in Database Blocks and Programs.
2	2	Segment number (REQUIRED)
		The first character must be numeric and the second either numeric or alphabetic. However the second character can be alphabetic only if the first character is other than zero.
	00	For standard files:
		Used to indicate the common part of records in a file, located at the beginning of each record (Default).
		The control break sort keys, the record type and the keys of indexed files are contained in this Segment.
		A file does not necessarily have a common part.
		Records on files with only one type of record should be coded as a '00' Segment.
		With the Pactables function, this value is not allowed.
	01-99	Designates a specific Segment. The common part Data Elements are automatically concatenated with each specific part Segment. Although a data element may not be used twice in the same Segment, it may be used in both the common part and in one or more specific Segments (except data structures used as Tables).
3	1	ACTION CODE (REQUIRED)
	C	Creation of the line
	M	Modification of the line

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		D	Deletion of the line
		A	Deletion of the line
		T	Transfer of the line
		B	Beginning of multiple deletion
		G	Multiple transfer
		?	Request for HELP documentation
		E or -	Inhibit implicit update
		X	Implicit update without upper/lowercase processing
4	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.
5	6		DATA ELEMENT CODE
			ELEMENTARY DATA ELEMENT DEFINED IN THE DICTIONARY
			The Data Element automatically assumes the characteristics defined at the Specifications Dictionary level.
			If the Data Element is used as a group, its format depends on the characteristics of the elementary Elements that make up the group.
			If the group is used as a key (sort or access key), the composite format of the elementary Elements must be compatible with the format specified for the group.
			DATA ELEMENT NOT DEFINED IN THE DICTIONARY
			The name and/or format of undefined Data Elements must be indicated at the segment level.
			RESERVED DATA ELEMENT CODES
		SUITE	Prohibited. This code is reserved for the System for program generation.
		FILLER	Data Element that is used for the alignment of fields.
			OPTIONS OF THE BATCH SYSTEMS DEVELOPMENT FUNCTION
			These codes (when used) precede other entries made in this field, in the sequence described below.
		ENPR	Used to store Element error verifications in a transaction file. The length is $n + 1$ where $n =$ either the total number of elementary Elements in the file, or the number of elementary Elements in the '00' Segment added to the largest non-00 Segment. ("Largest" here means the most elementary Elements.) This depends upon the value entered in the RESERVED ERROR CODES IN TRANS FILE field on the Call of Data Structures (-CD) screen.
		GRPR	Used to store Segment error verifications. Its length is $n + 1$ where $n =$ the number of records.
		ERUT	Used to store error verifications for users.

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		Normally, these last three Data Elements are used in transaction files for error verification fields. When used in other types of files as "optional" Data Elements, they may be used as group fields whose generation may be invoked or suppressed according to the option selected in the RESERVED ERROR CODES IN TRANS. FILE field. (Note: this will affect the elementary Elements within the group as well.)
		CALLING DATA AGGREGATES
		A SEGMENT CODE or a Model Entity code (Relationship or Object in the METHODOLOGY function) can be entered in this field. The called data aggregate will be interpreted as if the individual Elements that make it up had been entered.
		The NO. OF ELEMENTARY ELEMENTS IN GROUP field is used to identify data aggregate calls.
		Enter the code at the location the elements are to be included in the Segment description.
		In O:C2, the level of 'nesting' is displayed in the Action Code (up to four levels).
		The number of authorized nesting levels varies according to the type of generator. Up to 4 nesting levels are authorized for data generation and PAF use.
		CONTINUATION LINES
		It is possible to create continuation lines. This may be necessary if there are many validations on a Data Element. In this case, leave the DATA ELEMENT CODE field blank, and use a LINE NUMBER value that sequentially follows that of the line where the Data Element code was entered.
6	18	NAME OF DATA ELEMENT
		It is not required for a Data Element which is not defined in the Data Dictionary.
		However, it is optional for a data aggregate or a FILLER.
		NOTE: For on-line entry of Data Elements that are not declared in the Dictionary, this field cannot be used to input more than one Data Element at a time. There is actually only one available field on this screen, whether for input or for display.
		To define an Element at the Segment level :
		- Enter the Element code (and possibly the format) on the -CE, line nnn,
		- On the 'name' line, repeat the line number (nnn), and indicate the name (18 characters maximum),
		- Use the C2 option to view the name and format.
		NOTE: If several undefined Data Elements have been defined in the Dictionary, only the name of the first Data Element will be displayed if the Choice 'CH:S.....CE' is used.
		To view the name of the Data Element CODEL, on line 130, for example, use the choice 'O: C2 CH: Sssss-CE130'. This will display the Data Elements called in the Segment 'ssss' from the line 130 on.
7	10	Data element internal format

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		It is required only in the following cases :
		- For an elementary Data Element not defined in the Dictionary (COBOL format),
		- For a group Data Element that is or belongs to a key; its length must be the sum of the lengths of its elementary Data Elements,
		- For a FILLER-type field.
		It is the internal format; input and output formats will be the same (but with usage Display). It is defined as on a Data Element Definition screen.
8	1	INTERNAL USE
		For Data Elements not defined in the Specifications Dictionary when the INTERNAL FORMAT OF DATA ELEMENT field has been given a value, enter the appropriate USAGE (default : 'D' for DISPLAY).
		For valid values, see the USAGE field on the Data Element Definition Screen.
9	3	OCCURRENCES (COBOL "OCCURS" CLAUSE)
		PURE NUMERIC FIELD
		This field represents the 'OCCURS' clause at an elementary Data Element level, or at a group level (Maximum of 3 levels).
		It can be changed into an 'OCCURS DEPENDING ON' clause by entering '***' in the UPDATE TARGET field, followed by the counter's Segment and Data Element codes.
		The COBOL restrictions on the OCCURS clause apply.
10	2	No. of elementary elements in group
		PSEUDO NUMERIC FIELD
	1 to 99	For group Data Elements, enter the number of elementary Elements that belong to the group (A Segment call is considered as an elementary Data Element).
		Groups may contain up to 99 elementary Elements. Group Elements may contain embedded groups however the total number of elementary Elements cannot exceed 99. (The group Data Element codes are not counted). The maximum number of levels of 'nesting' is 9.
		This field is also used to identify the entity called in the DATA ELEMENT CODE field as Methodology entities or previously defined Segments.
	*M **	Call of an Object or a Relationship. Call of a Segment.
	**	SQL DBD function: Call of a Segment into a view.
11	1	KEY INDICATOR FOR ACCESS OR SORT
		For Relational Tables or Views:
	blank	Fixed length Column (default value).
	V	Variable length Column,
	W	For DB2 SQL, SQL/DS, ORACLE, DB2/2 and DB2/6000, generation of a variable length column (VARCHAR).

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		L	For DB2 SQL, SQL/DS, ORACLE, DB2/2 and DB2/6000, generation of a LONG VARCHAR.
		C	For ORACLE V7, generation of a CHAR.
12	6		PRESENCE INDICATOR
			Only the first position of the field is used to specify the nature of a Column presence in a Table.
		blank	Optional Column:
			The Column is not required in update and as such will not always be filled in in READ-ACCESS mode. Programming a variable indicator for presence validation is therefore necessary. It is possible to add an optional Column in a Table via the ALTER command.
		O	NOT NULL Column:
			The Column is required in update and is always filled in in READ-ACCESS mode. Programming a variable indicator for presence validation is therefore not necessary. It is not possible to add a NOT NULL Column in a Table via the ALTER command.
			RDMS 1100: This value is not taken into account.
		P	NOT NULL WITH DEFAULT Column (DB2, DB2/400, DB2/2, DB2/6000 and DATACOM/DB), DEFAULT (INTEREL RDBC and RFM), DEFAULT SYSTEM (NONSTOP SQL C30).
			The Column is not required in update but will be initialized to zero or space by the DBMS. As such, it is always filled in in READ-ACCESS mode. It is not possible to add a (NOT NULL WITH) DEFAULT Column via the ALTER command.
			This value is not recognized by RDMS 1100 nor by NONSTOP SQL (Version C10).
13	4		SCHEMA SELECTION
		S	Indicates that the schema has been selected.
			The group and elementary Data Elements must belong to the same sub-schema. This schema must be entered on all the lines.
14	10		SELECTION INDICATOR
		O	Indicates the presence top in a schema.
15	10		UPDATE TARGET
		A*.....	You may specify a Column Name by entering 'A*' left-justified and followed by the desired name. This name cannot exceed 8 characters in length.
			This value will override the default of the DATA ELEMENT CODE or the value assigned on the Data Element Description screen (if any).
16	1		DOCUMENTATION INDICATOR
			This field is used in on-line mode only. It is a read-only field.
		*	A Comment, a Generation Element or an Error Message has been assigned to the element called on this line.
			Access to line nnn: -CEnnn, or -Dxnnn for a Database Block (with x = C, H or R depending on the Block type)

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
			To access the Comment, Generation Element or Error Message assigned to the called element, enter the access to line nnn followed (without blank) by GC (for Comment), GG (for Generation Element) or GE (for Error Message).

Additional View Description (S....DBE)

When Segments are used as Views, an additional screen is available in order to specify where the Columns making up the View come from.

This screen is accessed via the following input in the CHOICE field:

CH: -DBE

The lines entered on the Segment's Call of Elements (-CE) screen are displayed on the Additional View Description (-DBE) screen and cannot be modified there. These lines are identified by an asterisk (*) in the ACTION CODE field.

By inserting lines between the displayed lines, the source of the Column can be specified.

```
EXAMPLE:          A LIN : ELEM.
                   080 : COLUM1
                   100 : COLUM2
                   120 : COLUM3
                   140 : COLUM4
                   0: C1 CH: -CE
```

In order to specify the source of 'COLUM2', you must access the '-DBE' screen, and insert a line via an appropriate LINE NUMBER value, between the Element to describe (100 in this case) and the next element (120).

In the example below, we have selected a LINE NUMBER of 110. Enter the source of the Column in the format of 'ddsseeeee' where dds' = the SEGMENT CODE of the Table Segment and 'eeeeee' = the Column's DATA ELEMENT CODE.

```
A LIN : ELEM.          TAB/ELEM.
* 080 : COLUM1
* 100 : COLUM2
  110 :                XX10DATELA
* 120 : COLUM3
* 140 : COLUM4
0: C1 CH: -DBE
```

The source of 'COLUM2' is 'DATELA' of the 'XX10' Table.

NOTE: The identifier expected by the System is the DATA ELEMENT CODE of the Column and not an override like the value (beginning with '*A') entered on the Segment Call of Elements screen.

REMARK - CALLING SEGMENTS

When calling Segments into a View Segment the system automatically tracks the source of the Columns.

EXAMPLE:

View description: (Note: '**' identifies 'XX10' as a Segment.)

```
A LIN : ELEM.          GR
  100 : XX10          **
```

0: C1 CH: S VV55 CE

Table description:

```
A LIN : ELEM.
  100 : COLUM1
  120 : COLUM2
```

0: C1 CH: S XX10 CE

Without any Additional View Description (-DBE) specified, the system knows that the COLUM1 Column comes from COLUM1 in the XX10 Table, and that the COLUM2 Column comes from COLUM2 in the XX10 Table.

EXAMPLES OF SEGMENT CALLS

- When a View contains all the Columns of several Tables, instead of calling each Data Element individually into the View description, you can call the Table segments into the View segment (via the Call of Elements Screen) directly. No additional data is needed on the Additional View Description.
- For example, the View VV10 contains all the Columns of the Table XX10 plus the first Column (COLUM1) from Table XX20.

```
A LIN : ELEM.          GR
  100 : XX10          **
  120 : COLUM1
* 122 : (-DBE)
0: C1 CH: S VV10 CE
A LIN : ELEM.          TAB/ELEM.
* 100 : XX10          **
* 120 : COLUM1
  122 :                XX20COLUM1
0: C1 CH: S VV10 DBE
```

In this example the View DATA ELEMENT CODE (COLUM1) could be different from the DATA ELEMENT CODE of its source.

USING THE SUB-SCHEMAS

It is possible to select the Data Elements called in the view, by indicating:

- A sub-schema number ranging from 0 to 9, or '**' in the '-DR' screen, in the KEY TYPE field. The '**' means that all Data Elements of the Segment (including the Segment Data Elements called in the Segment) belong to the View.
- In cases of selection by a number ranging from 0 to 9: the user must specify an 'S' (indication of sub-schema) on the Data Elements to be selected in the 'CONT' field of the '-CE' screen and an 'O' in the VALUE/SFC field on the umpteenth Column (n corresponding to the sub-schema number indicated on the '-DR' screen, O being 10).

IMPORTANT NOTE

For reasons of compatibility with batch and on-line generations, it is not possible to specify the sub-schema number on segment calls and group data elements.

In cases of sub-schema utilization, the '-DBE' lines that might be present are ignored.

USING SEGMENT CALLS

- If the KEY TYPE Data Element is blank, it is a View, described by '-DBE' lines. In this case, it is possible to call a Segment that will be considered as a Table. All the Data Elements of the Segment will be selected, without -DBE lines having to be entered.

IMPORTANT: There can be only one level of Segment call.

- If the KEY TYPE Data Element is entered, it is a View described by a selection of sub-schemas or of the entire Table. In case of first level call, this will be considered as a Table. The Segments called in the first Segment will have their Data Elements referenced in this Table, whatever the nesting level.

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.260!
! ADD'L VIEW DESCRIPTION : DZ05 FURNITURE                               !
! 3 4                               1 2                               5                               !
! A LIN : ELEM.                               TAB/ELEM. DOC LIBR!
! * 100 : COCARA                               0067!
! * 110 : NUCOD                               0067!
! * 120 : FOURNI                               0067!
!   125 :                               FF10FOURNI  0234!
! * 200 : NUCLIE                               0067!
!   205 :                               CC20NUCLIE  0234!
! * 210 : DATE                               0067!
! * 220 : RELEA                               0067!
! * 230 : REFCLI                               0067!
!   235 :                               CC20RAISOC  0234!
! * 240 : RUE                               0067!
!   245 :                               CC30RUE    0234!
! * 250 : COPOS                               0067!
!   251 :                               CC30COPOS  0234!
! * 255 : VILLE                               0067!
!   256 :                               CC30VILLE 0234!
! * 260 : CORESP                               0067!
!       : NAME      :                               !
!                               !
! 0: C1 CH: S dz05 DBE                               !
-----

```

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		DATA STRUCTURE / SEGMENT CODE
1	2	DATA STRUCTURE CODE (REQUIRED)
		This code is made up of two alphanumeric characters. This is a logical code internal to the Database and therefore independent of the names used in Database Blocks and Programs.
2	2	Segment number (REQUIRED)
		The first character must be numeric and the second either numeric or alphabetic. However the second character can be alphabetic only if the first character is other than zero.
	00	For standard files:
		Used to indicate the common part of records in a file, located at the beginning of each record (Default).
		The control break sort keys, the record type and the keys of indexed files are contained in this Segment.
		A file does not necessarily have a common part.
		Records on files with only one type of record should be coded as a '00' Segment.
		With the Pactables function, this value is not allowed.
	01-99	Designates a specific Segment. The common part Data Elements are automatically concatenated with each specific part Segment. Although a data element may not be used twice in the same Segment, it may be used in both the common part and in one or more specific Segments (except data structures used as Tables).
3	1	ACTION CODE (REQUIRED)
	C	Creation of the line
	M	Modification of the line

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		D	Deletion of the line
		A	Deletion of the line
		T	Transfer of the line
		B	Beginning of multiple deletion
		G	Multiple transfer
		?	Request for HELP documentation
		E or -	Inhibit implicit update
		X	Implicit update without upper/lowercase processing
4	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.
5	10		COLUMN SOURCE
			Enter the SEGMENT CODE of the Table segment and the DATA ELEMENT CODE to specify the source of the Column.
			Use the format: ddseeeee.
			In batch mode, this corresponds to the UPDATE TARGET field (columns 71 to 80).

Chapter 5. SQL Accesses

Implementation Made Easy

With the Pacbench C/S, O.L.S.D. and Batch Functions, you can implement SQL accesses easily (connect, disconnect, commit...), without having to code them entirely in procedural code. The generated code automatically adapts to the Block type.

CODING RULES

In Procedural Code lines (-P), you must enter one of the following operators in the OPERATOR field and the Block code in the OPERANDS field.

This is the list of accesses you can implement and the syntax you must follow:

```
CONNECT (or equivalent)      : SCC ccccc d
DISCONNECT (or equivalent)   : SDC ccccc d r
COMMIT                       : SCO ccccc d
ROLLBACK                     : SRO ccccc d
WHENEVER                     : SWH statement
cccccc: VA Pac code of the Block (6 characters)
d: value '2' if distributed database (e.g. Oracle, Sybase)
r: value 'R' for DISCONNECT with ROLLBACK.
The d and r indicators can be reversed.
```

Each statement can be written on more than one line (without operator on continuation lines). On these continuation lines, you can enter options available with some RDBMS (e.g. FORCE option in a COMMIT statement for Oracle).

Ex.: Coding a CONNECT statement to the Oracle BLOCOD Block:

```
OPE  OPERAND
SCC  BLOCOD 2
```

GENERATION RULES

In the Segment Calls (-CS for Pacbench/CS and OLSD, or -CD for the Batch Function), if you declare an SQL organization (ORGANIZATION field) and so a Block code (EXTERNAL NAME field), this organization has priority on the Block type indicated on the Bloc Definition.

In the Segment Calls, if the Block is indicated as being distributed, the accesses related to this Block will be generated as 'distributed'.

Unknown SQL statements are ignored.

END-EXEC is automatically generated and with the batch generator, it is always followed by a period.

Customized SQL Accesses

Introduction

WARNING: You must be familiar with the SQL syntax before customizing SQL accesses in VA Pac.

INTRODUCTION

With the Pacbench C/S, O.L.S.D. and Batch Functions, you can:

- add or replace clauses in the standardly generated access. To do so, you can modify the standard access or associate the standard access with a non-standard one.
- create a new SQL access by coding a non-standard access,
- implement extraction criteria which correspond to extraction methods.

The implementation of customized standard accesses is automatic or almost automatic whereas the implementation of non-standard accesses must be requested in procedural code.

So you choose between customizing a standard access or a non-standard one according to how often this access will be used in Screens and Programs.

With VA Pac, you write customized SQL accesses on the Generation Elements lines of a Segment (CH: S...GG) and implement them or ignore them in the Screens or Programs which use them. As a matter of fact you can choose to implement them in a given Screen but not in another one, or to implement only some of them... You are quite free to use them as you need.

A customized access is, for example, to select only the clients who put in an order which amounts to more than \$50.

Description

You describe customized accesses in the same way with the Pacbench C/S, O.L.S.D. and Batch Functions, on the Segment Generation Elements screen (S...GG).

On the first line, you enter the access you want to customize and on the following lines, you specify the part(s) of the access you want to modify or add.

FIRST LINE

Enter value 'G' in the LINE TYPE field.

In C2 option, the DESCRIPTION field contains 2 parts (tab from one to the next):

- in the first part, enter 'SQL' to indicate that you want to customize an SQL access.
- in the second part, enter the access type you want to customize. The access type is standard or non-standard.

STANDARD ACCESSES

The standard access types, which will be automatically implemented, are:

R : Select
 RU : Select for Update
 RA : Select (Pacbench C/S)
 W : Insert
 RW : Update
 D : Delete
 P : Open Cursor
 RN : Fetch
 DC : Declare Cursor
 CL : Close Cursor

NOTE: DC (Declare Cursor) standard access is not managed for SQL accesses where DC is generated in the Working Storage Section.

Example of the customization of the select standard access:

```
T DESCRIPTION
G SQL R
```

NON-STANDARD ACCESSES

A non-standard access must be coded on any one or two characters. This access can be:

- combined with a standard access if you want to modify only part of the standard access and leave the generator to manage the syntax. In this case you must enter the code of the standard access first and, after a blank, the code of the non-standard access.
- or used alone if you want to create an entirely new access. In this case you must describe this access entirely and implement it in procedural code. You must manage the syntax (punctuation, keyword...) entirely.

Example of the customization of a select non-standard access:

```
T DESCRIPTION
G SQL R1 RA
```

Example of the creation of a non-standard access which counts the number of records in the clients table.

```
T DESCRIPTION
G SQL CP
```

EXTRACTION METHODS (PACBENCH C/S)

An extraction method is a select access to a Business Component. So it is specific to Pacbench C/S.

Four access statements are required: Declare Cusor, Open, Fetch, Close.

You can then:

- partially describe only one customized access, by entering the 'EX' access type twice.
- or describe the four accesses entirely, by combining your customized accesses with each of the four accesses (DC, P, RN, CL).

Example of the declaration of the METHODNAME extraction method:

```
T DESCRIPTION
G SQL EX EX METHODNAME
```

Example of the customization of the METHODNAME four accesses:

```
T DESCRIPTION
G SQL D1 DC METHODNAME
G SQL 01 P METHODNAME
G SQL F1 RN METHODNAME
G SQL C1 CL METHODNAME
```

You must enter the method name in uppercase letters, from column 7, on 10 characters maximum.

FOLLOWING LINES

An SQL access is described by clauses (access statement, where, order...). Each clause is described by a keyword and data related to the keyword. From the second line onwards, you enter these keywords, which apply to the customization of both standard and non-standard accesses.

In the LINE TYPE field, enter value 'G'.

In the first part of the DESCRIPTION field, enter the keyword and in the second part, enter the parameters required for its operation.

The corresponding data will replace the data which would have been generated otherwise. If it must be added as a complement, enter 'ADD' before or after each keyword.

A keyword described on more than one line should not be repeated on each line.

KEYWORD	PARAMETERS
ACCESS	SQL Access
FROM	List of tables
ORDER	List of columns
COLUMN	List of columns and host-variables
WHERE	Selection criteria
PARAM	Additional parameters

See next paragraphs for a detailed explanation on each keyword.

The use of these keywords is illustrated in examples at the end of this subchapter and at the end of the chapter.

The generated format of date and variable Data Elements (e.g. CURDAT (current date) column entered as a parameter of the ORDER statement) varies according to the Block type.

PUNCTUATION RULES

The corresponding delimiter is automatically generated at the end of each line. If a column name and/or a host-variable name exceeds one line, indicate this line as being 'V'-type and continue on the next line ('G'-type line).

In this case, and if you enter a column name AND a host-variable name (with or without :-), you must code the host-variable on a new line.

On the other hand, if you code a host-variable AND its indicator under the form :- (without Segment code), you must code them on the same line.

The parameters associated with the COLUMN keyword have additional punctuation rules, which are detailed in the 'COLUMN' paragraph below.

1. ACCESS

Allows you to rewrite the clause of an access (SELECT, UPDATE, DELETE ...).

2. COLUMN

This keyword is followed by the list of columns.

These columns can be coded either in the SQL-Data Element form (in this case they are replaced during generation by their relational name) or directly under their relational name.

Each column can be followed, after one blank at least, by the code of the host variable (and indicator), coded either in the form ':-Data Element code' (during generation, the Segment code defined on the -CS screen (Screen Segment code) will be inserted before the :-Data Element code), or under the name of the host variable.

If the host variable is not coded in an access where it is required, it will be generated with the Screen Segment code and the Data Element indicated in the column (in the SQL-Data Element code form, if not the code of the host variable must be indicated).

Specific punctuation rules:

If the column and host-variable names exceed one line, you can use one or more 'V'-type lines but only for the host-variable name; the column name is entered on one line only.

For the UPDATE statement ('RW') of the COLUMN keyword, the host-variable and its indicator must be coded on the same line whatever their input format.

3. FROM

This keyword is followed by the list of tables. At generation time, FROM is either transformed into INTO or remains FROM according to the access type.

4. WHERE

Allows you to indicate the selection criteria. The column names can be coded in the 'SQL-Data Element code' form and the host variables and indicators in the ':-Data Element code' form.

5. ORDER

Allows you to indicate the Order By.

Same principle as WHERE for coding the column names.

6. PARAM

Allows you to code additional parameters such as COUNT, HAVING, ... The ADD keyword is not necessary.

Same principle as WHERE for coding the column names.

EXAMPLES:

Customization of a select non-standard access to select a client number higher than or equal to the requested number. You modify the WHERE clause only but you do not want to modify the standard access directly because this selection applies to few Screens only. So you enter:

```
T DESCRIPTION
G SQL      RB RA
G WHERE   SQL-NOTJ >= :-NOTJ
```

Creation of a non-standard access to count the number of records in the clients table. In this case it is really a specific need. So you describe a new access in the following way:

```
T DESCRIPTION
G SQL      CP
G ACCESS  SELECT COUNT (*)
G          INTO :WWCA-COUNTER
G FROM    PTB0.CLIENT
```

EXTRACTION METHODS

If an extraction method is specified in the selection request, the selection of the occurrence list is performed according to one or more criteria.

You can:

- describe only one 'EX' customized access with the required clauses:

```
T DESCRIPTION
G SQL      EX EX METHODNAME
G WHERE   ...
G ORDER  ...
```

- or entirely describe the four customized accesses, and specify the clauses for each one:

```
T DESCRIPTION
G SQL      D1 DC METHODNAME
description...
G SQL      O1 P  METHODNAME
description...
G SQL      F1 RN METHODNAME
description...
G SQL      C1 CL METHODNAME
description...
```

See also the information included in the 'Developer's Documentation - eBusiness series: Business Logic', chapter 'Business Component'.

OPTION

The option UPPER=NO, entered on an O-type line, inhibits the lowercase/uppercase conversion of values entered between two literal delimiters (the delimiter is defined at the Library level).

RESTRICTIONS

The syntax of SQL statements is not implemented on RDMS blocks ('R' organization).

The prefixing rule is not applied. The table name is kept as it is and the period located at the beginning is deleted if it exists.

WARNING: In the case of program-macro and macro-macro overlaps, the lines generated from the Generation Elements screen (CH: S....GG) cannot be deleted.

Implementation

PACBENCH C/S AND O.L.S.D. FUNCTIONS

O.L.S.D. Prerequisite: customized SQL accesses are taken into account if the PACSQL option has been entered on the -O Dialogue Complement.

All accesses are generated in function 80.

- Customized standard accesses

Customized standard accesses are automatically generated with the customization entered on the Segment's Generation Elements lines (S....GG).

On the other hand, if you want to ignore the customization of standard accesses, you must specify it in the O.....P lines.

- Non-standard accesses

To implement non-standard accesses, you must specifically call them in the O.....P lines.

NOTE: Standard accesses are ignored for R (SQL RDMS) and 2 (DB2 without generated access) organizations but you can request the implementation of non-standard accesses.

CODING

You code the implementation (or non-implementation) of customized accesses in a sub-function dependent on function 80.

You must enter *C in the CONDITION TYPE OR S.F. STRUCTURE field and the Segment code in the CONDITION FOR EXECUTION field.

- To ignore the customization of a standard access, you must enter the standard access code after the Segment code.
- To implement a non-standard access, you have two possibilities:
 - If you enter the standard access code before the non-standard access code, the customization of the non-standard access will be generated in the standard processing of the F80 function.
 - On the other hand if you enter the non-standard access code alone (without specifying any standard access), the customization of the non-standard access will be generated in a specific sub-function of function F80. It will then

constitute a user function unknown to the generator, so you will have to describe and manage it in procedural code entirely.

Examples of coding in -P :

LVTY CONDITION

```
10*C SS00 R      the customized select standard access
                  entered on S SS00 GG will be ignored

10*C SS00 R R1   the R1 select non-standard access entered
                  on S SS00 GG will be implemented and will
                  complete the automatically generated read
                  processing of SS00 Segment.

10*C SS00 R1     the R1 select non-standard access entered
                  on S SS00 GG will be implemented and
                  generated in a specific function
                  F80-SS00-R1.
```

- Extraction Methods (Pacbench C/S)

If you described an 'EX' customized access, you must call this access explicitly. So you create a sub-function which depends on function 80 and enter *C in the CONDITION TYPE OR S.F. STRUCTURE field and the Segment code in the CONDITION FOR EXECUTION field. You must also enter EX and the method name in uppercase letters.

Examples of the implementation of the METHODNAME extraction method in -P:

LVTY CONDITION

```
10*C SS00 EX METHODNAME
```

If you described four customized accesses (DC, P, RN, CL), you must implement these four accesses in function 80 (same coding as with 'EX' access, except that 'EX' is replaced by 'D1', 'O1', 'R1', 'C1').

Implementation of the four customized accesses in -P:

LVTY CONDITION

```
10*C SS00 D1 METHODNAME
10*C SS00 O1 METHODNAME
10*C SS00 F1 METHODNAME
10*C SS00 C1 METHODNAME
```

For more details, refer to the 'Developer's Documentation eBusiness series: Business Logic', chapter 'Business Component'.

In the Batch Function, customized accesses can be implemented only if the Program -CD contains a Block code in the EXTERNAL NAME field and an organization in the ORGANIZATION field.

You must explicitly call each customized access you want to generate in the Program procedural code lines (P.....P). In the OPERATOR field, enter 'SQL' and in the OPERANDS field, enter:

- the Segment code in the Program
- the Segment code in the Library if it is different from the Segment code in the Program,
- the access type:
 - If you specify the standard access before the non-standard access, the customization of the non-standard access will complement the standard access.

- On the other hand if you specify only the non-standard access without specifying a standard access, the customization of the non-standard access will be taken into account. It will constitute a user function unknown to the generator. You will have to describe and manage it in procedural code entirely.

The customization of a select standard access from Segment SS00 (Segment code in Program: PGSG) will be specified in the following way:

```
OPE OPERANDS
SQL PGSG SS00 R
```

The customization of a select non-standard access from Segment SS00 (Segment code in Program: PGSG) will be specified in the following way:

```
OPE OPERANDS
SQL PGSG SS00 R R1
```

Examples

EXAMPLE OF CUSTOMIZED ACCESSES

In the following example, two standard accesses have been customized: the select access and the update access.

```

-----
!                                ENGLISH DOCUMENTATION LIBRARY          *PDMB.DDDD.BMS.241!
! GENERATION ELEMENTS FOR SEGMENT   PI00                               !
!                                                                           !
! A LIN : T DESCRIPTION                                               LIBR.!
!  100 : G SQL                R1 R                                   *DCC!
!  110 : G WHERE ADD           AND SQL-PILNAM LIKE W-PILNAM         *DCC!
!  120 : G SQL                W1 RW                                  *DCC!
!  125 : G ACCESS              UPDATE                                *DCC!
!  200 : G COLUMN              SQL-QUSAM                             *DCC!
!  205 : G                     SQL-DAQUA                             *DCC!
!  210 : G WHERE ADD           SQL-COQUA > 'A'                       *DCC!
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
!   :                                                                    !
! O: C1 CH: SPI00 GG                                               !
-----

```

EXAMPLE OF AN EXTRACTION METHOD

The following example shows extraction methods, named 'CUSTNAME' and 'TOWN'.

The first screen shows their writing in the CN10 Segment's Generation Elements lines.

The second screen shows their implementations in the CLCNT Screen Procedural Code lines.


```
-----
!           ENGLISH DOCUMENTATION LIBRARY           *PDMB.DDDD.BMS.241!
! GENERATION ELEMENTS FOR SEGMENT   CN10           !
!
! A LIN : T DESCRIPTION                               LIBR.!
! 100 : G SQL                    EX EX CUSTNAME      *DCC!
! 110 : G WHERE                   CUSTOMER_NUMBER >= :7-WW00-CUSTNB *DCC!
! 120 : G                          AND CUSTNA >= :7-WW00-CUSTNA  *DCC!
! 125 : G                          ORDER BY CUSTOMER_NUMBER      *DCC!
! 200 : G SQL                    EX EX TOWN          *DCC!
! 205 : G WHERE                   TOWN = 'PARIS'        *DCC!
! 210 : G                          ORDER BY CUSTOMER_ NUMBER     *DCC!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! 0: C1 CH: SCN10 GG
-----
```

Chapter 6. Database Blocks

Database Definition (B.....)

A Database is defined through a Database Block, accessed via the following input in the CHOICE field:

CH: B.....

The block is defined with a code, a name and a specific TYPE:

Q2: for DB2 blocks,

Q3: for SQL SERVER blocks,

Q4: for DB2/400 blocks,

QA: for ALLBASE/SQL blocks,

QB: for DB2/2 and DB2/6000 blocks,

QC: for DATACOM/DB blocks,

QG: for INGRES/SQL blocks,

QI: for INFORMIX-ESQL blocks.

QN: for NONSTOP SQL blocks,

QO: for ORACLE blocks, releases earlier than V6,

QP: for ORACLE blocks, from release V6 on,

QR: for RDMS 1100 blocks,

QS: for SQL/DS blocks,

QT: for INTEREL RDBC blocks,

QU: for INTEREL RFM blocks,

QV: for VAX SQL blocks,

QY: for SYBASE blocks.

The external name of the database is normally specified via an input in the DATABASE BLOCK EXTERNAL NAME field.

The EXTERNAL NAME OF THE SCHEMA field is not used for TYPE OF BLOCK 'Qx'. Therefore once 'Qx' is entered, the field will no longer appear on the screen.

ASSOCIATED LINES

Generation Elements (-GG).

The physical information necessary to generate the database is entered on the Generation Elements lines associated with the Block, in order to complement the logical information entered on the Database Block Definition.

Generation Options (-GO)

In this screen, you specify options such as the prefixing mode, the generation of COMMIT...

Comments (-GC)

In this screen, you enter comments on the Database Block or on the objects it calls.

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.254!
!                               1
! BLOCK DEFINITION.....:    Q2BLOC
!
! NAME.....:2 DB2 EXAMPLE
! TYPE.....:3 Q2 D.B.2 SQL
! VERSION.....:4
!
!
! EXTERNAL NAME.....: EXTQ2DB2    5
!
!
! CONTROL CARDS..... FRONT: 6        BACK: 7
!
! EXPLICIT KEYWORDS...: 8
!
!
! SESSION NUMBER.....: 0067          LIBRARY.....: BMS    LOCK.....:
!
!
! 0: C1 CH: B q2b1oc                                ACTION:
-----

```

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
1	6	BLOCK CODE (REQUIRED)
		One to six alphanumeric characters.
2	36	NAME OF THE BLOCK (REQUIRED IN CREAT)
		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 (REQUIRED IN CREAT)
		For hierarchical or network databases, it is not required, 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	Physical Database Description.
	DR	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	Logical Database Description.
	PC	PCB.
	IP	Primary Index.
	IS	Secondary Index.

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
	PS	PSB (Assigned at creation. Cannot be modified at a later stage).
		RELATIONAL DATABASES
	Q2	DB2 SQL
	Q3	SQL SERVER
	Q4	DB2/400
	QA	ALLBASE/SQL
	QB	DB2/2 and DB2/6000
	QC	DATAKOM/DB
	QG	INGRES/SQL
	QI	INFORMIX-ESQL
	QN	NONSTOP SQL
	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

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		TD	TANDEM
			AS/400 PHYSICAL FILE
		PF	AS/400 Physical file (IBM SYS. 38)
		LF	AS/400 Logical file (IBM SYS. 38).
			DDL TURBOIMAGE
		TI	TurboImage Database.
			DMSII DATABASE
		20	DMSII Database (DASDL)
4	4		VERSION NUMBER
			Version number of the database system.
		2000	DB2/400 : Version 2
		3000	NONSTOP SQL: Version C30
		4000	VAX SQL : Version 4.0
		5000	RDMS 1100 : Version 5RA4
		7000	ORACLE : V7
		Blank	Other systems, all versions.
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	8		EXTERNAL NAME OF THE SCHEMA
			This field is only used for SE-type blocks (Group of Sets) and for CODASYL Blocks. Otherwise, it is not displayed.
			This is necessary at generation time if the block is a SUB-SCHEMA or a DMCL.
			This is the physical name of the schema to which the given block is attached.
			This field is not used if the block is a schema.
7	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.
8	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.
9	55		EXPLICIT KEYWORDS
			This field allows you to enter additional (explicit) keywords. By default, keywords are generated from the instance's name (implicit keywords).

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
			Keywords must be separated by at least one space. Keywords have a maximum length of 13 characters which must be alphanumeric. However, '=' and '*' are reserved for special usage and are therefore ignored in keywords.
			Keywords are not case-sensitive: uppercase and lower-case letters are equivalent.
			NOTE: Characters bearing an accent and special characters can be declared as equivalent to an internal value in order to optimize the search of instances by keywords.
			You do that in the Administrator workbench, Users browser, Special Characters tab of the Parameters Specific Authorizations.
			A maximum of ten explicit keywords can be assigned to one entity.
			For more details, refer to the 'Character Mode User Interface' guide, chapter 'Search for Instances', subchapter 'Searching by Keywords'.

Database Description (B.....DR)

A relational database is described on a Database Block Description screen accessed via the following input in the CHOICE field:

CH: B.....DR

The description is the list of Objects which make up the database.

Seven different SQL RECORD TYPES are available on this screen. They appear in the logical order of their creation.

```
.SPACE          -----> P
.TABLE          -----> T
.VIEW           -----> V
.INDEX          -----> I
.ALTER TABLE   -----> A
.PRIMARY KEY    -----> K
.FOREIGN KEY    -----> J
```

BLOCKS / OBJECTS	P	T	V	I	A	K	J
Q2	Y	Y	Y	Y	Y	Y	Y
Q3	-	Y	Y	Y	Y	Y	Y
Q4	-	Y	Y	Y	Y	-	-
QC	Y	Y	Y	Y	Y	Y	Y
QG	-	Y	Y	Y	-	-	-
QN	-	Y	Y	Y	Y	-	-
QO	Y	Y	Y	Y	Y	-	-
QP	Y	Y	Y	Y	Y	Y	Y
QR	Y	Y	Y	Y	Y	-	-

BLOCKS / OBJECTS	P	T	V	I	A	K	J
QB	-	Y	Y	Y	Y	-	-
QS	Y	Y	Y	Y	Y	Y	Y
QT	-	Y	Y	Y	Y	-	-
QU	-	Y	Y	Y	Y a	-	-
QV	-	Y	Y	Y	Y	-	-
QA	Y b	Y	Y	Y	Y	Y	Y
QI	-	Y	Y	Y	Y	Y	Y
QY	-	Y	Y	Y	Y	Y	Y
DB	Y	Y	Y	Y	Y	Y	Y

NOTE:

1. column add-on only
2. For ALLBASE/SQL, 'P' Spaces are assimilated to DBfilesets.

Objects are related to the Space which precedes them. An 'Alter Table' must follow the Table it modifies. An Index must follow the Table to which it is related.

It is not possible to create an Index associated with a View; the generated 'CREATE INDEX' command will be rejected when the catalog is updated.

For RDMS and ALLBASE/SQL, the Primary Key is not generated by an I line; it is included in the generation of the Table that precedes it (T line).

The type of Index, Primary key or Foreign key may not be modified: these lines must be deleted, then created with another type.

The table code entered on Index, Primary key or Alter lines may not be modified.

Some objects are specifically taken into account in Oracle V7, Ingres/SQL, SYBASE and SQL SERVER:

For Oracle V7: Package, Function, Procedure and Trigger.

For Ingres/SQL: Procedure and Rule.

```
.PACKAGE -----> C (function and procedure package;
                      The difference between the Package
                      BODY and its definition is made
                      clear by a 'B' in the key type)

.FUNCTION -----> E
.PROCEDURE-----> Q
.TRIGGER -----> R for ORACLE V7, SYBASE, SQL SERVER
.or RULE -----> R for INGRES/SQL
                      (Its activation depends on the key
                      type: A: AFTER or B: BEFORE;
                      The segment code references its
                      action table)
```

GENERATION ELEMENTS

The Database Description (-DR) screen provides the System with the logical information needed to generate DDL statements. The SQL RECORD TYPE causes

system-generated 'virtual' lines to be incorporated; these lines are displayed and updated on Generation Elements (-GG) lines related to Database Block Description lines.

NOTE: On I-type lines, a + sign indicates that keys have been specified for this call (-K). If an * character appears at the end of the line, it means that -GG lines are associated to the Object called (-DRnnnGG).

```

-----
!                                ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.254!
! RELATIONAL BLOCK DESCRIP. 1 Q2BLOC DB2 EXAMPLE                            !
! 2 3   4 5                               6       7   8                               !
! A LIN : T EXTERNAL NAME                   TABLE CODE   KEY GEN                LIBR.!
!      :      :                               VIEW         TY  CDE                !
!   080 : P ESP1-TABLE-Q2BLOC                :             C                   0067!
!   100 : T DODZ05                           DZ05             C                   0067!
!   110 : K                                   DZ05             C * +                0048!
!   130 : V VUDZ05S3                         DZ05             3   C                   0058!
!   200 : T DODZ10                           DZ10             C *                   0067!
!   210 : I INDZ10                           DZ10             C   +                0048!
!   220 : J CEXISTF  DZ05                    DZ10             C   C                   0048!
!   300 : T                                   F010             C                   0067!
!   350 : V VUDZ09DBE                       DZ09             C                   0067!
!   360 : V VUDZ09S4                         DZ09             4   C                   0048!
!      :      :                               :             :                   !
!      :      :                               :             :                   !
!      :      :                               :             :                   !
!      :      :                               :             :                   !
!      :      :                               :             :                   !
!      :      :                               :             :                   !
!      :      :                               :             :                   !
!      :      :                               :             :                   !
!      :      :                               :             :                   !
!      :      :                               :             :                   !
! *** END ***                               !                               !
! 0: C1 CH: B q2b1oc DR                    !                               !
-----

```

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
1	6	BLOCK CODE
		One to six alphanumeric characters.
2	1	ACTION CODE
	C	Creation of the line
	M	Modification of the line
	D	Deletion of the line
	A	Deletion of the line
	T	Transfer of the line
	B	Beginning of multiple deletion
	G	Multiple transfer
	?	Request for HELP documentation
	E or -	Inhibit implicit update
	X	Implicit update without upper/lowercase processing
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	SQL RECORD TYPE
	P	Tablespace (except for INTEREL RDBC, INTEREL RFM, INGRES/SQL, DB2/400, VAX/SQL, NONSTOP SQL, INFORMIX, SYBASE and SQL SERVER)
	T	Table For ALLBASE/SQL, when a Primary Key or Foreign Key is defined in the Table (T line type) creation, the closing bracket must be entered on the line 690 of the -DRnnnGG screen.

NUM	LEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
		V	View
		I	Index
		A	Alter Table: Column updating
		K	RDMS 1100, ALLBASE/SQL: Primary Key (Processed with the generation of the table that precedes it.)
			DB2, DATACOM/DB, INFORMIX-ESQL, SQL/DS, ORACLE V6 and V7, DB2/2, DB2/6000, SYBASE and SQL SERVER: Primary key (Processed with the generation through an ALTER TABLE command.)
		J	DB2, DATACOM/DB, SQL/DS, ORACLE V6 and V7, INFORMIX, SYBASE and SQL SERVER: Foreign key (Processed with the generation through an ALTER TABLE command.)
			ALLBASE/SQL: Foreign Key (Processed with the generation of the table that precedes it.)
		C	Package (ORACLE V7 only)
		E	Function (ORACLE V7 only)
		Q	Procedure (ORACLE V7, INGRES, SYBASE, SQL SERVER and INFORMIX)
		R	ORACLE V7, SYBASE and SQL SERVER: Trigger
			INGRES/SQL: Rule
5	27		DATABASE OBJECT EXTERNAL NAME
			It is the name used by the end-user.
			It is prohibited for a Primary Key (K-type line, DB2, DB2/2, DB2/6000 or DATACOM/DB).
			It is required for a Tablespace (P-type line).
			For all other objects, this name may be defined at several levels.
			The priority, at generation time, will be as follows:
			- the external name defined here (-DR),
			- or the one defined in the CODE OF RECORD TYPE ELEMENT field on the Segment Definition screen, defining the corresponding object.
			- or the code of the Segment defining the corresponding object.
			For a Foreign Key (J-type line), two separate codes are required: the constraint name (8 char. maxi) and the Segment code of the reference Table.
6	4		TABLE OR VIEW CODE
			On a T, V or A-type line, this field contains the code of the Segment which represents the Columns of the Table or View.
			On an I, K or J-type line, this field contains the code of the Segment which supports the key.
			On a P-type line, this field must be left blank.
7	1		KEY TYPE
		U	On an I-type line: This value is entered in order to generate the UNIQUE command. Value '0' corresponds to sub-schema '10'.

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
	0-9	On a V-type line: View of the sub-schema Data Element selection in the Segment. Value 0 corresponds to the sub-schema 10.
	*	All Data Elements of the Segment are included in the View.
	R C S	On a J-type line: Restrict (default value for DB2-type Databases only) Cascade (DB2, SQL/DS, DB2/2, DB2/6000 and ORACLE V7 only) S: Set null (DB2, SQL/DS, DB2/2 and DB2/6000 only)
	B BLANK	On a C-type line (ORACLE V7): Indicates the package type. BODY package standard package
	A B	On a R-type line: Indicates where the trigger or the rule starts to operate: After Before
8	1	TYPE OF GENERATED TRANSACTION
		This field is entered in order to generate the following SQL commands: CREATE, ALTER, and DROP.
	C	CREATE Default value when the corresponding line is created. (No other value may be entered on A-type lines).
	M	ALTER (Except for SQL/400 and INGRES/SQL) Only taken into account for on-line generation through the '-GN' screen. Not allowed on K and J-type lines, except for DATACOM, where a K-type line generates an ALTER TABLE ADD PRIMARY KEY command.
	D	Cancellation: generation of a DROP command. For J (Foreign Key) and K (Primary Key) lines, a DROP PRIMARY KEY or DROP FOREIGN KEY command is generated in an ALTER TABLE command.
	Blank	No generation (-GN); no generation through the GPRT procedure with option 'C2'.

Input of Key or 'Alter Table' (-DRnnnK)

The Input of Data Element of Key screen is used to select the Columns making up the Table key or the Columns selected in an Alter Table.

It is accessed via the following CHOICE:

B.....DRnnnK

where 'nnn' is the line number of a Block Description line whose type is I, K, A or J.

This screen may also be obtained by positioning the cursor on the desired description line and pressing the relevant PFkey (standard PF9).

INDEX COLUMNS (I):

The Input of Data Element of Key screen displays the list of Data Elements called into the Segment specified on the corresponding I- or K-Type Block Description line.

The Columns making up the key are selected by entering a KEY RANK NUMBER from 1 to 16; the numbering sequence cannot contain gaps and must begin with 1, which corresponds to the major sort criterion.

To erase the value of this field, the user enters a non-blank alphabetic character.

The SORT ORDER field indicates the sort order: the possible values are A for ascending order, D for descending order, and a blank (no sort DDL command will be generated and the default DBMS command will be used).

A window on the right side of the screen displays the configuration of the key.

ALTER TABLE COLUMNS (A)

The Input of Data Element of Key screen displays the list of Data Elements called into the Segment specified on the corresponding A-Type Block Description line.

The Columns are selected by entering a RANK NUMBER from 1 to 16; the numbering sequence cannot contain gaps and must begin with 1, which corresponds to the major sort criterion.

To erase the value of this field, the user enters a non-blank alphabetic character.

The ORDER field indicates the modification type : values are Blank for column adding (default value), D or A deletion and M for modification.

DATABASES	blank	M	A or D
DB2 - DB2/6000	X		
ORACLE V7	X	X	
DATACOM	*	*	*
NONSTOP	X		
RDMS	*	*	*
SQL/DS	X		
INTEREL RDBC	X		X
INTEREL RFM	X		
VAX/SQL	*	*	*
ALLBASE	X		
INFORMIX	X	X	X

'*' indicates that the three modification types can be used simultaneously.

'X' indicates that the three modification types must be used separately.

NOTE: For SQL/400 and INGRES/SQL, it is not possible to create A-type line (ALTER TABLE).

COMPOSITION OF PRIMARY KEYS AND FOREIGN KEYS (K, J)

The Data Elements of the called Segment are displayed: you can select Data Elements by entering a generation rank number in front of them.

The rank number is comprised between 1 and 16 and must not include any gap.
The ORDER field is ignored.

NOTE: If a Data Element used as a key is called in a Segment, it must be cancelled as a key before being cancelled in the Segment.

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.260!
! INPUT OF DATA ELEMENTS 1     QCBLOC DATACOM/DB EXAMPLE           700 !
!                               DZ10                               !
!                               2  3                               !
!                               RANK ORDER                       ! COLUMN ! LIBR.!
! COCARA                               ! QTMLI  A  ! 0067 !
! NUCOM                                03      ! FOURNP M  ! 0067 !
! FOURNP                               02  M   ! NUCOM   ! 0067 !
! QTMLI                                01  A   ! QTMCO   D  ! 0067 !
! QTMCO                                04  D   ! INFOR   ! 0067 !
! INFOR                                05      !         ! 0067 !
!                                     !         !      !
!                                     !         !      !
!                                     !         !      !
!                                     !         !      !
!                                     !         !      !
!                                     !         !      !
!                                     !         !      !
!                                     !         !      !
!                                     !         !      !
!                                     !         !      !
! *** END ***                       !         !      !
! O: C1 CH: -DR210K                 !         !      !
-----

```

NUMLEN	CLASS VALUE	DESCRIPTION OF FIELDS AND FILLING MODE
1	6	BLOCK CODE
		One to six alphanumeric characters.
2	2	RANK
		KEY DEFINITION -----
	1-16	This field is used to indicate the rank of the Elements making up the Table key (Primary , Foreign Keys or Index). The rank is selected by entering a number from '1' to '16' in this field.
		The selection must begin with '1', which is the major sort criterion, and cannot include gaps.
		ALTER TABLE ----- It is also used to indicate columns taken into account for the modification of a Table, by indicating the generation order of the ALTER requests. The Elements are selected by entering a number from '1' to '16' in this field.
		The selection must begin with '1', and cannot include gaps.
		In order to reset this field to blank, enter a non- numeric character.
3	1	SORT ORDER OR MODIFICATION TYPE
		KEY DEFINITION -----
	A D Blank	The Column is sorted in ascending order. The Column is sorted in descending order. Default value: no DDL sort command is generated.
		ALTER TABLE -----
	Blank	Default value : the Column is to be added.
	A or D	The Column is to be deleted.
	M	The Column is to be modified.

Generation Elements and Options

The Database Block Definition screen provides the System with the logical information necessary for source language generation.

The physical information is indicated on the Generation Elements (-GG) lines of the Block.

The Database Block Description (-DR) screen provides the logical information necessary for the generation of the DDL of the Spaces, Tables, Views and Indexes.

The associated physical information is entered on Generation Elements lines associated with each description line (-DRnnnGG).

Virtual lines and P.I.A.'s facilitate entry of the physical information.

Generation Elements lines to be taken into account during generation must have the value 'G' in the TYPE OF LINE field.

NOTE: Generation Elements lines are only taken into account for the generation of 'CREATE' and 'ALTER TABLE' commands generated through the '-DR' screen from 'A' type lines.

MANAGEMENT OF OPTIONS

To specify options, create an O-type line in the Generation Options screen of a Database Block (B.....GO). On this line, you can set options which modify the prefixing, generate 'COMMIT' order, or prevent the automatic transformation of lowercase letters into uppercase letters.

- Prefixing: to modify the standard prefixing, enter PREFIX = NO. For explanation, refer to Chapter "TABLE OR VIEW: SEGMENT", Sub-chapter "TABLE OR VIEW DEFINITION", paragraphs related to the prefixing.
- Generation of 'COMMIT' orders: to generate 'COMMIT' orders, enter COMMIT = YES. A 'COMMIT' order will be generated after each cancellation ('DROP' order generated) of SQL objects. In the same stream, you can then cancel and re-create the same object.
- Uppercase and lowercase management: to modify the standard management, enter UPPER = NO. Lowercase letters will no be transformed into uppercase letters after generation.

GENERATED LINES

The System automatically displays lines on the Generation Elements screens, in order to guide you when you enter the Block's physical information. These lines are identified by an asterisk in the ACTION CODE field and '*VIRT' or '*GUID' in the LIB field. Collectively, these lines are called 'virtual' lines.

The lines identified by '*VIRT' are generated.

The lines identified by '*GUID' must be created to be taken into account at generation time. To do this, the '*' must be deleted if input is entered on the line, or if no input is necessary, an explicit ACTION CODE ('C' or 'X') must be used.

The physical characteristics of a Database and the elements which compose it are entered on the Generation Elements (-GG) screen via Parameterized Input Aids, Virtual lines, and user modifications, as needed.

You may create new lines or modify the 'virtual' lines generated by the DBD function.

Virtual lines are identified by a generated LINE NUMBER:

To create additional lines, insert a line with an appropriate LINE NUMBER at the desired place.

To modify an existing virtual line, repeat the LINE NUMBER of that line and enter a modification of the line.

A 'G' entered in the TYPE OF LINE field means that the lines are to be taken into account at generation time.

EXAMPLE: Insertion of lines

```
A LIN : T DESCRIPTION
* 100 : G CREATE TABLE (EXTERNAL NAME) IN DATABASE-NAME
  160 : G These two lines will be inserted right after
  170 : G the CREATE statement
* 200 : G      ---> COLUMN INSERTION BEGINNING <---
* 300 : G      ---> COLUMN INSERTION END <---
```

A semi-colon (;) is generated before the inserted line if it begins in position 1 of the COMMENT field.

OVERRIDING COLUMNS

INSERTIONS:

The generated 'Virtual' lines indicate where to place the insertion lines via "--> COLUMN INSERTION BEGINNING <--" and "--> COLUMN INSERTION END <--". Use LINE NUMBERS that fall between the LINE NUMBER values assigned to these lines.

To override the Column's pre-defined values, you identify the Column by its DATA ELEMENT CODE left-justified between a 'less than' sign (<) and a 'greater than' sign (>). The two delimiters must be six positions apart (example: <LIBFO >). values. After identifying the Column, you enter the desired values, beginning in column 2.

To complete the generated data, you enter, after <LIBFO >, a space and the 'ADD' keyword, followed by the desired data. Enter the end mark on the column declaration line because it will not be automatically generated.

EXAMPLE: Modification of a Column format:

```
A LIN : T DESCRIPTION
* 100 : G CREATE TABLE (EXTERNAL NAME) IN DATABASE-NAME
* 200 : G      ---> COLUMN INSERTION BEGINNING <---
  210 : G <LIBFO >
  215 : G      DO10LIBFO  FLOAT
* 300 : G      ---> COLUMN INSERTION END <---
```

In this case, the name will be "DO10LIBFO", the format will be "FLOAT".

NOTES:

- This method cannot be used to delete a Column.
- For DB2, the comma (separator) is generated at the end of each line. In order to avoid this generation, a '&' must be inserted after the last non-blank character of the line.

'SOURCE' COLUMNS

INSERTIONS:

To insert a Column into a Table, the same technique as above is used : the start and end of the insertion area is indicated above: the start and end of the insertion area is indicated on the Virtual lines. LINE NUMBERS that fall between the start and end LINE NUMBERS are appropriate for this data.

In order to override a source Column of a Column in a View the user must create a 'G'-type line formatted as follows <FFNN-DELCO >, FFNNDELCO being the code entered in the SOURCE COLUMN field (labelled TAB/ELEM.) on the '-DBE' screen.

EXAMPLE:

```
A LIN : T DESCRIPTION
* 100 : G CREATE VIEW (VIEW NAME)
* 200 : G      ---> COLUMN INSERTION BEGINNING <---
* 300 : G      ---> COLUMN INSERTION END <---
* 400 : G AS SELECT ALL
* 500 : G      ---> SOURCE COLUMN INSERTION BEGINNING <---
  550 : G <FFNN-DELCO >
  560 : G 'X'
* 600 : G      ---> SOURCE COLUMN INSERTION END <---
* 700 : G FROM (SOURCE TABLES NAME)
```

You must manage the Source Table (after the FROM clause).

INSERTION OF 'LABELS' AND 'COMMENTS'

At the time of generation, the labels and comments of the Tables and Columns are, by default, the codes and names entered on the definition screens. However you can replace them by labels and comments you enter on the comments lines of the Table or the View.

- Insertion of Labels

You can enter labels only in the DB2, SQL/DS and DB2/400 database blocks, on the -GC screen of lines T and V.

The maximum length of labels is 30 characters. You must leave the LINE TYPE blank and enter the '+LAB' command in column 1, followed by the label in the case of a Table or View, or followed by <DELCO > and the label in the case of a Column.

If you have modified the same object several times on the -GC screen, only the last modification line will be taken into account.

- Insertion of Comments

You can enter comments only in the DB2, SQL/SD, DB2/400, ORACLE, VAX/SQL and NONSTOP/SQL database blocks, in the -GC screen of lines T, V (except for VAX/SQL), and I (only for VAX/SQL and NONSTOP/SQL).

You must leave the LINE TYPE blank and enter the '+COM' command in column 1, followed by the comments in the case of a Table, View or Index, or by <DELCO > and the comments in the case of a Column.

You can enter the comments on several lines. At the time of generation, a maximum length of 254 characters, which varies according to the SQL in use, will be taken into account.

EXAMPLE: Insertion of labels and comments:

```
A LIN : T DESCRIPTION
900 : +LAB NEW LABEL OF THE TABLE
910 : +LAB <DELCO > NEW LABEL OF THE COLUMN
920 : +COM NEW COMMENTS OF THE TABLE
930 : +COM <DELCO> NEW COMMENTS OF THE COLUMN
```

SQL Procedures

SQL PROCEDURES: CROSS-REFERENCES

When describing the PACKAGE (C), FUNCTION (E), PROCEDURE(Q) and TRIGGER or Rule (R) objects in the -GG associated to the object line, you can obtain automatic cross-references by using the dash character ('-'). The dash character is only considered as a logical sign and can not be used in names.

You may need:

- . local data, which is prefixed by PLQ-
- . column data, which is prefixed by SLQ-

A cross-reference can be performed on a 6-character Data Element. Longer names can however be used with a '_' character. Branching is then performed on the first part:

ex: PLQ-DATEL_COMPLEMENT.

Chapter 7. Examples of Generation Elements Screens

DB2

GENERATION ELEMENTS: DB2

This sub-chapter presents the Generation Elements (-GG) lines of a DB2 block ('Q2').

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).


```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      Q2BLOC2                          080!
!
! A LIN : T DESCRIPTION                                               LIB !
! * 150 : G CREATE TABLESPACE (NAME) IN DATABASE-NAME              *VIRT!
! * 200 : G USING STOGROUP _____                                *GUID!
! * 300 : G     PRIQTY _____                                  *GUID!
! * 400 : G     SECQTY _____                                  *GUID!
! * 500 : G     ERASE NO                                          *GUID!
! * 600 : G     LOCKSIZE ANY                                       *GUID!
! * 700 : G     BUFFERPOOL _____                             *GUID!
! * 800 : G     CLOSE YES                                          *GUID!
! * 900 : G     DSETPASS _____                                *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR080GG
-----

```

```
-----  
!          ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.254!  
! GENERATION ELEMENTS FOR BLOCK      Q2BLOC2           200!  
!  
! A LIN : T DESCRIPTION                               LIB !  
! * 150 : G CREATE TABLE (NAME)                     *VIRT!  
! * 200 :      ---> COLUMNS INSERTION BEGINNING <--- *VIRT!  
! * 400 :      ---> COLUMNS INSERTION END <---       *VIRT!  
! * 500 : G      IN (DATABASE.TABLESPACE)            *VIRT!  
!  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
! : !  
!  
! 0: C1 CH: -DR200GG !  
-----
```



```

-----
!                               ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      Q2BLOC2                          130!
!
! A LIN : T DESCRIPTION                                               LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                                  *VIRT!
! * 200 :      ----> COLUMNS INSERTION BEGINNING <----             *VIRT!
! * 400 :      ----> COLUMNS INSERTION END <----                   *VIRT!
! * 450 : G AS SELECT ALL                                           *VIRT!
! * 500 :      ----> SOURCE COLUMNS INSERTION BEGINNING <----      *VIRT!
! * 700 :      ----> SOURCE COLUMNS INSERTION END <----           *VIRT!
! * 800 : G FROM (SOURCE TABLES NAME)                               *VIRT!
! * 850 : G WHERE                                                    *GUID!
! * 900 : G GROUP BY                                                 *GUID!
! * 950 : G HAVING                                                    *GUID!
! * 980 : G WITH CHECK OPTION                                        *GUID!
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! O: C1 CH: -DR130GG                                               !
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      Q2BLOC2                          210!
!
! A LIN : T DESCRIPTION                                               LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                             *VIRT!
! * 200 : G ON (TABLE NAME)                                          *VIRT!
! * 300 :      ----> COLUMNS INSERTION BEGINNING <----            *VIRT!
! * 400 :      ----> COLUMNS INSERTION END <----                  *VIRT!
! * 500 : G USING STOGROUP _____                                *GUID!
! * 650 : G ERASE           NO                                       *GUID!
! * 700 : G SUBPAGES       4                                         *GUID!
! * 750 : G BUFFERPOOL
! * 800 : G CLOSE          YES                                       *GUID!
! * 900 : G DSETPASS      _____                                *GUID!
!
! :
! :
! :
! :
! :
! :
! O: C1 CH: -DR210GG
-----

```

```

-----
!                   ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.260!
! GENERATION ELEMENTS FOR BLOCK      Q2BLOC2                 370!
!                                                                !
! A LIN : T DESCRIPTION                                      LIB !
! * 150 : G ALTER TABLE (NAME)                           *VIRT!
! * 200 :           ---> COLUMNS INSERTION BEGINNING <--- *VIRT!
! * 400 :           ---> COLUMNS INSERTION END <---       *VIRT!
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! :                                                         !
! *** END ***                                             !
! 0: C1 CH: -DR370GG                                      !
-----

```

SQL SERVER

GENERATION ELEMENTS: SQL SERVER

This subchapter presents the Generation Elements (-GG) lines of an SQL SERVER block ('QR').

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).

```
-----  
!                ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.254!  
! GENERATION ELEMENTS FOR BLOCK      Q3BLOC              100!  
!  
! A LIN : T DESCRIPTION                                LIB !  
! * 150 : G CREATE TABLE (NAME)                      *VIRT!  
! * 200 :      ---> COLUMNS INSERTION BEGINNING <--- *VIRT!  
! * 400 :      ---> COLUMNS INSERTION END <---      *VIRT!  
! * 420 : G      ON _____                        *VIRT!  
!  
!      :  
!  
!      :  
!  
!      :  
!  
!      :  
!  
!      :  
!  
!      :  
!  
!      :  
!  
!      :  
!  
!      :  
!  
!  
!  
!  
!  
! O: C1 CH: -DR100GG  
-----
```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      Q3BLOC                          130!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                               *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                *VIRT!
! * 450 : G AS SELECT ALL                                         *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---   *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---        *VIRT!
! * 800 : G FROM (SOURCE TABLES NAME)                           *VIRT!
! * 850 : G WHERE                                                 *GUID!
! * 900 : G WITH CHECK OPTION                                     *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR130GG
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      Q3BLOC                          210!
!
! A LIN : T DESCRIPTION                                             LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                          *VIRT!
! * 200 : G ON (TABLE NAME)                                       *VIRT!
! * 300 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                *VIRT!
! * 420 : G WITH FILLFACTOR = _                                    *GUID!
! * 440 : G IGNORE_DUP_KEY                                         *GUID!
! * 450 : G SORTED_DATA                                           *GUID!
! * 460 : G IGNORE_DUP_ROW / ALLOW_DUP_ROW                       *GUID!
! * 500 : G ON _____                                         *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR210GG
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.260!
! GENERATION ELEMENTS FOR BLOCK      Q3BLOC                          110!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G ALTER TABLE (NAME)                                    *VIRT!
! * 180 : G ADD                                                    *VIRT!
! * 190 : G CONSTRAINT (CONSTRAINT NAME)                          *VIRT!
! * 195 : G PRIMARY KEY                                           *VIRT!
! * 196 : G NONCLUSTERED                                          *GUID!
! * 200 : ---> COLUMNS INSERTION BEGINNING <---                 *VIRT!
! * 400 : ---> COLUMNS INSERTION END <---                         *VIRT!
! * 500 : G WITH FILLFACTOR = _                                    *GUID!
! * 550 : G ON _____                                          *GUID!
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! *** END ***                                                    !
! O: C1 CH: -DR110GG                                             !
-----

```

DB2/400

GENERATION ELEMENTS: DB2/400

This sub-chapter presents the Generation Elements (-GG) lines of a DB2/400 Block ('Q4').

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).


```

-----
!                               ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK   Q4BLOC                               100!
!
! A LIN : T DESCRIPTION                                               LIB !
! * 150 : G CREATE TABLE (NAME)                                    *VIRT!
! * 200 :   ---> COLUMNS INSERTION BEGINNING <---                *VIRT!
! * 400 :   ---> COLUMNS INSERTION END <---                      *VIRT!
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
!   :                                                              !
! O: C1 CH: -DR100GG                                               !
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      Q4BLOC                          130!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                               *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---           *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT!
! * 450 : G      AS SELECT ALL                                    *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---   *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---        *VIRT!
! * 800 : G      FROM (SOURCE TABLES NAME)                     *VIRT!
! * 850 : G      WHERE                                           *GUID!
! * 900 : G      GROUP BY                                         *GUID!
! * 950 : G      HAVING                                           *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR130GG
-----

```

```

-----
!                          ENGLISH DOCUMENTATION LIBRARY        *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      Q4BLOC                      210!
!                                                                           !
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G  CREATE (UNIQUE) INDEX (NAME)                       *VIRT!
! * 200 : G      ON (TABLE NAME)                                *VIRT!
! * 300 :      ----> COLUMNS INSERTION BEGINNING <----        *VIRT!
! * 400 :      ----> COLUMNS INSERTION END <----              *VIRT!
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! :                                                                           !
! O: C1 CH: -DR210GG                                           !
-----

```

DATAKOM/DB

GENERATION ELEMENTS: DATAKOM/DB

This sub-chapter presents the Generation Elements (-GG) lines of a DATAKOM/DB block ('QC').

They are called by the -DRnnnGG command, nnn being a line number found in the block description (-DR).

```

-----
!                ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QCBLOC                    !
!                                                                    !
! A LIN : T DESCRIPTION                                          LIB !
! * 150 : G CREATE SCHEMA AUTHORIZATION (AUTH-ID)              !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
!     :                                                                 !
! 0: C1 CH: B qcbloc GG                                         !
-----

```



```

-----
!          ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QCBLOC                100!
!
! A LIN : T DESCRIPTION                                  LIB !
! * 150 : G CREATE INDEX (NAME)                          *VIRT!
! * 200 :         ON (TABLE NAME)                        *VIRT!
! * 300 :         ----> COLUMNS INSERTION BEGINNING <---- *VIRT!
! * 400 :         ----> COLUMNS INSERTION END <----    *VIRT!
!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!
! O: C1 CH: -DR210GG
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QCBLOC                          130!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                               *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---            *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                  *VIRT!
! * 450 : G      AS SELECT ALL                                     *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---     *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---          *VIRT!
! * 800 : G      FROM (SOURCE TABLES NAME)                       *VIRT!
! * 850 : G      WHERE                                             *GUID!
! * 900 : G      GROUP BY                                          *GUID!
! * 950 : G      HAVING                                           *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR130GG
-----

```



```

-----
!                   ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QCBLOC                      220!
!
! A LIN : T DESCRIPTION                                          LIB !
! * 150 : G ALTER TABLE (NAME)                                 *VIRT!
! * 180 : G      ADD FOREIGN KEY                                *VIRT!
! * 200 :      ----> COLUMNS INSERTION BEGINNING <----       *VIRT!
! * 400 :      ----> COLUMNS INSERTION END <----             *VIRT!
! * 450 : G      REFERENCES (TABLE NAME)                       *VIRT!
! * 700 : G      CONSTRAINT (CONSTRAINT NAME)                 *VIRT!
!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!
! O: C1 CH: -DR220GG
-----

```

INGRES/SQL

GENERATION ELEMENTS: INGRES/SQL

This subchapter presents the Generation Elements (-GG) lines of an INGRES/SQL ('QG') Block.

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QGBLOC                          100!
!
! A LIN : T DESCRIPTION                                             LIB !
! * 150 : G CREATE TABLE (NAME)                                  *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT!
! * 420 : G WITH                                                  *VIRT!
! * 440 : G STRUCTURE=_____                                     *GUID!
! * 460 : G LOCATION=_____                                     *GUID!
! * 480 : G NOJOURNALING                                         *GUID!
! * 490 : G NODUPPLICATES                                       *GUID!
! * 500 : G KEY=_____                                           *GUID!
! * 520 : G FILLFACTOR=____                                       *GUID!
! * 540 : G MINPAGES=____                                         *GUID!
! * 550 : G MAXPAGES=____                                         *GUID!
! * 560 : G LEAFFILL=_____                                       *GUID!
! * 570 : G NONLEAFFIL=_____                                       *GUID!
! * 580 : G COMPRESSION=_____                                       *GUID!
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
! O: C1 CH: -DR100GG                                             !
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QGBLOC                            130!
!
! A LIN : T DESCRIPTION                                               LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                                   *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---                *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                       *VIRT!
! * 450 : G      AS SELECT                                           *GUID!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---        *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---              *VIRT!
! * 800 : G      FROM (SOURCE TABLES NAME)                          *VIRT!
! * 850 : G      WHERE                                               *GUID!
! * 950 : G      WITH CHECK OPTION                                    *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR130GG
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QGBLOC                          210!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                          *VIRT!
! * 200 : G ON (TABLE NAME)                                       *VIRT!
! * 300 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT!
! * 420 : G WITH                                                  *VIRT!
! * 440 : G STRUCTURE=_____                                     *GUID!
! * 500 : G KEY=_____                                           *GUID!
! * 520 : G FILLFACTOR=____                                       *GUID!
! * 540 : G MINPAGES=____                                          *GUID!
! * 550 : G MAXPAGES=____                                          *GUID!
! * 560 : G LEAFFILL=____                                          *GUID!
! * 570 : G NONLEAFFIL=____                                        *GUID!
! * 580 : G COMPRESSION=_____                                    *GUID!
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! :                                                                 !
! O: C1 CH: -DR210GG                                             !
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QGBLOC                        500!
!
! A LIN : T DESCRIPTION                               LIB !
! * 010 : G CREATE PROCEDURE (PROCEDURE NAME)          *VIRT!
! * 020 :      ----> PARAMETERS INSERTION <----       *VIRT!
! * 100 : G AS                                           *GUID!
! * 150 : G BEGIN                                       *GUID!
! * 990 : G END                                         *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR500GG
-----

```

```

-----
!                                ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.255!
! GENERATION ELEMENTS FOR BLOCK      QGBLOC                          550!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 010 : G CREATE RULE (RULE NAME) AFTER                        *VIRT!
! * 015 : G DELETE FROM                                          *GUID!
! * 025 : G INSERT INTO                                          *GUID!
! * 035 : UPDATE (_____) OF                                      *GUID!
! * 040 : G (TABLE NAME)                                         *GUID!
! * 050 : G REFERENCING OLD AS _____ NEW AS _____      *GUID!
! * 070 : G WHERE                                               *GUID!
! * 100 : G EXECUTE PROCEDURE _____                        *GUID!
! * 110 : ---> PARAMETERS INSERTION <---                          *VIRT!
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
!      :                                                         !
! O: C1 CH: -DR550GG                                           !
-----

```

SQL/DS

GENERATION ELEMENTS: SQL/DS

This subchapter presents the Generation Elements (-GG) lines of an SQL/DS block ('QS' type).

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).

```
-----  
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!  
! GENERATION ELEMENTS FOR BLOCK      QSBLOC                         080!  
!                                                                           !  
! A LIN : T DESCRIPTION                                             LIB !  
! * 150 : G ACQUIRE PRIVATE DBSPACE NAMED (NAME)                 *VIRT!  
! * 200 : G   NHEADER = ____                                     *GUID!  
! * 300 : G   PAGES = ____                                       *GUID!  
! * 400 : G   PCTINDEX = ____                                       *GUID!  
! * 500 : G   PCTFREE = ____                                        *GUID!  
! * 600 : G   LOCK = ____                                           *GUID!  
! * 700 : G   STORPOOL = ____                                       *GUID!  
! :                                                                    :  
! :                                                                    :  
! :                                                                    :  
! :                                                                    :  
! :                                                                    :  
! :                                                                    :  
! :                                                                    :  
! :                                                                    :  
! :                                                                    :  
! :                                                                    :  
! 0: C1 CH: -DR080GG                                              !  
-----
```



```

-----
!             ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QSBLOC          350!
!
! A LIN : T DESCRIPTION                      LIB !
! * 150 : G  CREATE VIEW (VIEW NAME)         *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <--- *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---     *VIRT!
! * 450 : G      AS SELECT                      *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <--- *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <--- *VIRT!
! * 800 : G      FROM (SOURCE TABLES NAME)    *VIRT!
! * 850 : G      WHERE                          *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR350GG
-----

```

```

-----
!                   ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QSBLOC                   210!
!                                                                     !
! A LIN : T DESCRIPTION                                     LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                   *VIRT!
! * 200 : G ON (TABLE NAME)                                 *VIRT!
! * 300 :         ---> COLUMNS INSERTION BEGINNING <---   *VIRT!
! * 400 :         ---> COLUMNS INSERTION END <---         *VIRT!
! * 500 : G PCTFREE = _____                            *GUID!
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
! O: C1 CH: -DR210GG                                          !
-----

```

```

-----
!                          ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QSBLOC                            700!
!
! A LIN : T DESCRIPTION                                          LIB !
! * 150 : G ALTER TABLE (NAME)                                 *VIRT!
! * 180 : G          ADD PRIMARY KEY                           *VIRT!
! * 200 :           ---> COLUMNS INSERTION BEGINNING <---      *VIRT!
! * 400 :           ---> COLUMNS INSERTION END <---           *VIRT!
!
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!       :
!
! *** END ***
! O: C1 CH: -DR110GG
-----

```

NONSTOP SQL

GENERATION ELEMENTS: NONSTOP SQL

This sub-chapter presents the Generation Elements (-GG) lines of a NONSTOP SQL Block ('QN').

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).

```
-----  
!          ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.256!  
! GENERATION ELEMENTS FOR BLOCK          QNBLOC          100!  
!  
! A LIN : T DESCRIPTION          LIB !  
! * 150 : G CREATE TABLE (NAME)          *VIRT!  
! * 200 :          ---> COLUMNS INSERTION BEGINNING <---          *VIRT!  
! * 400 :          ---> COLUMNS INSERTION END <---          *VIRT!  
! * 500 : G CATALOG (CATALOG-NAME)          *GUID!  
! * 550 : G ORGANIZATION KEY SEQUENCED          *GUID!  
! * 600 : G PARTITION          *GUID!  
! * 650 : G SECURE          *GUID!  
!  
! :  
!  
! :  
!  
! :  
!  
! :  
!  
! :  
!  
! :  
!  
! :  
!  
! :  
!  
!  
!  
!  
! 0: C1 CH: -DR100GG  
-----
```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.256!
! GENERATION ELEMENTS FOR BLOCK      QNBLOC                          130!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                               *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---            *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                  *VIRT!
! * 450 : G AS SELECT ALL                                         *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---    *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---          *VIRT!
! * 800 : G FROM (SOURCE TABLES NAME)                            *VIRT!
! * 850 : G WHERE                                                  *GUID!
! * 900 : G FOR PROTECTION                                         *GUID!
! * 950 : G CATALOG (NOM-CATALOGUE)                                *GUID!
! * 960 : G SECURE                                                *GUID!
! * 970 : G WITH CHECK OPTION                                     *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR130GG
-----

```

```
-----  
!               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.256!  
! GENERATION ELEMENTS FOR BLOCK      QNBLOC              210!  
!  
! A LIN : T DESCRIPTION                                LIB !  
! * 150 : G CREATE (UNIQUE) INDEX (NAME)              *VIRT!  
! * 200 : G ON (TABLE NAME)                           *VIRT!  
! * 300 :      ----> COLUMNS INSERTION BEGINNING <---- *VIRT!  
! * 400 :      ----> COLUMNS INSERTION END <----     *VIRT!  
! * 500 : G CATALOG (CATALOG-NAME)                    *GUID!  
! * 550 : G KEYTAG (KEY-IDENTIFIER)                   *GUID!  
! * 600 : G PARTITION                                  *GUID!  
!  
! :  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
! 0: C1 CH: -DR210GG  
-----
```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.260!
!  GENERATION ELEMENTS FOR BLOCK      QNBLOC                                700!
!
!  A LIN : T DESCRIPTION                                                    LIB !
! * 150 : G ALTER TABLE (NAME)                                           *VIRT!
! * 200 :      ----> COLUMNS INSERTION BEGINNING <----                 *VIRT!
! * 400 :      ----> COLUMNS INSERTION END <----                         *VIRT!
!
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!
! *** END ***
! 0: C1 CH: -DR700GG
-----

```

ORACLE (V5, V6 and V7)

GENERATION ELEMENTS: ORACLE

This subchapter presents the Generation Elements (-GG) lines of an ORACLE Block (QO and QP types).

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).

```

-----
!           ENGLISH DOCUMENTATION LIBRARY             *PDIE.DDDD.BMS.256!
! GENERATION ELEMENTS FOR BLOCK       QOBLOC             080!
!
! A LIN : T DESCRIPTION                               LIB !
! * 150 : G CREATE SPACE (NAME)                      *VIRT!
! * 200 : G DATAPAGES (INITIAL __ ,INCREMENT __,     *GUID!
! * 300 : G MAXEXTENTS ____ ,PCTFREE __)            *GUID!
! * 400 : G INDEXPAGES INITIAL __ ,INCREMENT __,     *GUID!
! * 500 : G MAXEXTENTS ____ )                      *GUID!
! * 600 : G PARTITION (NAME)                       *GUID!
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! O: C1 CH: -DR080GG                                !
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!                ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QOBLOC                 100!
!
! A LIN : T DESCRIPTION                                  LIB !
! * 150 : G CREATE TABLE (NAME)                         *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---    *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---          *VIRT!
! * 500 : G      (SPACE-NAME)                            *VIRT!
! * 600 : G      PCTFREE ___                             *GUID!
! * 650 : G      CLUSTER _____                     *GUID!
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! O: C1 CH: -DR100GG
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!           ENGLISH DOCUMENTATION LIBRARY      *PDIE.DDDD.BMS.256!
! GENERATION ELEMENTS FOR BLOCK      QOBLOC          350!
!
! A LIN : T DESCRIPTION                      LIB !
! * 150 : G  CREATE VIEW (VIEW NAME)          *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <--- *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <--- *VIRT!
! * 450 : G    AS SELECT                      *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING<--- *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <--- *VIRT!
! * 800 : G    FROM (SOURCE TABLES NAME)     *VIRT!
! * 850 : G    WHERE                          *GUID!
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! O: C1 CH: -DR350GG
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!                 ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.257!  
! GENERATION ELEMENTS FOR BLOCK      QOBLOC                 510!  
!  
! A LIN : T DESCRIPTION                                           LIB !  
! * 150 : G  ALTER TABLE (NAME)                                   *VIRT!  
! * 200 :          ---> COLUMNS INSERTION BEGINNING <---      *VIRT!  
! * 400 :          ---> COLUMNS INSERTION END <---             *VIRT!  
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! *** END ***                                                  !  
! 0: C1 CH: -DR510GG                                           !  
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!           ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.256!
! GENERATION ELEMENTS FOR BLOCK           QPBLOC           080!
!
! A LIN : T DESCRIPTION                               LIB !
! * 150 : G CREATE TABLESPACE (NAME)                 *VIRT!
! * 200 : G DATAFILE _____                       *GUID!
! * 300 : G   DEFAULT STORAGE ( INITIAL _____    NEXT _____ *GUID!
! * 310 : G                                       MINEXTENTS __ MAXEXTENTS __ *GUID!
! * 320 : G                                       PCTINCREASE __  )          *GUID!
! * 400 : G   ONNLGE                                   *GUID!
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! O: C1 CH: -DR080GG                                !
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-----  
!               ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.257!  
! GENERATION ELEMENTS FOR BLOCK       QPBLOC               200!  
!  
! A LIN : T DESCRIPTION                                LIB !  
! * 150 : G CREATE TABLE (NAME)                       *VIRT!  
! * 200 :           ---> COLUMNS INSERTION BEGINNING <--- *VIRT!  
! * 400 :           ---> COLUMNS INSERTION END <---      *VIRT!  
! * 500 : G TABLESPACE (TABLESPACE-NAME)               *VIRT!  
! * 600 : G PCTFREE _____ PCTUSED _____          *GUID!  
! * 650 : G INITRANS _____ MAXTRANS _____        *GUID!  
! * 700 : G STORAGE ( INITIAL _____ NEXT _____   *GUID!  
! * 710 : G MINIXTENTS ____ MAXEXTENTS ____             *GUID!  
! * 720 : G PCTINCREASE ____ )                          *GUID!  
! * 800 : G CLUSTER _____                          *GUID!  
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! O: C1 CH: -DR200GG                                     !  
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!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.256!
! GENERATION ELEMENTS FOR BLOCK      QPBLOC                          210!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                          *VIRT!
! * 200 : G ON (TABLE NAME)                                       *VIRT!
! * 300 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT!
! * 500 : G CLUSTER _____ *GUID!
! * 550 : G INITRANS _____ MAXTRANS _____ *GUID!
! * 600 : G TABLESPACE (TABLESPACE NAME ) *GUID!
! * 700 : G STORAGE ( INITIAL _____ NEXT _____ *GUID!
! * 710 : G MINEXTENTS _____ MAXEXTENTS _____ *GUID!
! * 720 : G PCTINCREASE _____ ) *GUID!
! * 800 : G PCTFREE _____ *GUID!
! * 850 : G NOSORT _____ *GUID!
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! O: C1 CH: -DR210GG
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!                               ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.257!  
! GENERATION ELEMENTS FOR BLOCK          QPBLOC                           510!  
!  
! A LIN : T DESCRIPTION                                                    LIB !  
! * 150 : G ALTER TABLE (NAME)                                           *VIRT!  
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---                     *VIRT!  
! * 400 :      ---> COLUMNS INSERTION END <---                            *VIRT!  
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! *** END ***                                                             !  
! O: C1 CH: -DR510GG                                                    !  
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!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.256!
! GENERATION ELEMENTS FOR BLOCK      V7BLOC                          080!
!
! A LIN : T DESCRIPTION                                              LIB !
! * 150 : G CREATE TABLESPACE (NAME)                               *VIRT!
! * 200 : G DATAFILE _____                                     *GUID!
! * 300 : G   DEFAULT STORAGE ( INITIAL ____ NEXT _____       *GUID!
! * 310 : G                                MINEXTENTS __ MAXEXTENTS __  *GUID!
! * 320 : G                                PCTINCREASE __   )         *GUID!
! * 400 : G   ONNLGE                                              *GUID!
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! O: C1 CH: -DR080GG
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!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      V7BLOC                          200!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE TABLE (NAME)                                  *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                *VIRT!
! * 500 : G TABLESPACE (TABLESPACE-NAME)                        *VIRT!
! * 600 : G PCTFREE _____ PCTUSED _____                *GUID!
! * 650 : G INITRANS _____ MAXTRANS _____                *GUID!
! * 700 : G STORAGE ( INITIAL _____ NEXT _____          *GUID!
! * 710 : G MINIXTENTS _____ MAXEXTENTS _____              *GUID!
! * 720 : G PCTINCREASE _____ )                             *GUID!
! * 800 : G CLUSTER _____                                    *GUID!
! * 810 :      ---> NEW PARAMETERS (V7)                          *VIRT!
! * 820 : G DISABLE CONSTRAINT _____                       *GUID!
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! O: C1 CH: -DR200GG
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!                               ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.256!
! GENERATION ELEMENTS FOR BLOCK      V7BLOC                            350!
!
! A LIN : T DESCRIPTION                                               LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                                  *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---                *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                       *VIRT!
! * 450 : G      AS SELECT                                           *GUID!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING<---          *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---              *VIRT!
! * 800 : G      FROM (SOURCE TABLES NAME)                          *VIRT!
! * 850 : G      WHERE                                               *GUID!
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! O: C1 CH: -DR350GG                                                !
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!                ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.256!
! GENERATION ELEMENTS FOR BLOCK          V7BLOC                      210!
!
! A LIN : T DESCRIPTION                                          LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                        *VIRT!
! * 200 : G ON (TABLE NAME)                                     *VIRT!
! * 300 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                *VIRT!
! * 500 : G CLUSTER _____ *GUID!
! * 550 : G INITRANS _____ MAXTRANS _____ *GUID!
! * 600 : G TABLESPACE (TABLESPACE NAME ) *GUID!
! * 700 : G STORAGE ( INITIAL _____ NEXT _____ *GUID!
! * 710 : G MINEXTENTS _____ MAXEXTENTS _____ *GUID!
! * 720 : G PCTINCREASE _____ ) *GUID!
! * 800 : G PCTFREE _____ *GUID!
! * 850 : G NOSORT _____ *GUID!
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! O: C1 CH: -DR210GG
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!                   ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!  
! GENERATION ELEMENTS FOR BLOCK      V7BLOC                       560!  
!  
! A LIN : T DESCRIPTION                                  LIB !  
! * 010 : G CREATE OR REPLACE (BODY) PACKAGE (PACKAGE NAME) AS *VIRT!  
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! O: C1 CH: -DR560GG  
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!                          ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      V7BLOC                      580!
!
! A LIN : T DESCRIPTION                                       LIB !
! * 010 : G CREATE OR REPLACE FUNCTION (FUNCTION NAME)       *VIRT!
! * 020 :           ---> ARGUMENTS INSERTION <---          *VIRT!
! * 090 : G      RETURN _____                          *GUID!
! * 100 : G      AS                                          *GUID!
! * 150 : G      BEGIN                                       *GUID!
! * 990 : G      END                                         *GUID!
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! 0: C1 CH: -DR580GG
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!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      V7BLOC                               630!
!
! A LIN : T DESCRIPTION                                                  LIB !
! * 010 : G   CREATE OR REPLACE PROCEDURE (PROCEDURE NAME)           *VIRT!
! * 020 :          ----> ARGUMENTS INSERTION <----                    *VIRT!
! * 100 : G     AS                                                    *GUID!
! * 150 : G     BEGIN                                                *GUID!
! * 990 : G     END                                                    *GUID!
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! O: C1 CH: -DR630GG
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!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      V7BLOC                          650!
!
! A LIN : T DESCRIPTION                                             LIB !
! * 010 : G CREATE TRIGGER (TRIGGER NAME)      BEFORE/AFTER      *VIRT!
! * 030 : G DELETE OR INSERT OR UPDATE          *GUID!
! * 040 : G ON (TABLE NAME)                    *GUID!
! * 050 : G REFERENCING OLD AS _____ NEW AS _____ *GUID!
! * 060 : G FOR EACH ROW                       *GUID!
! * 070 : G WHEN                               *GUID!
! * 100 : G DECLARE                            *GUID!
! * 150 : G BEGIN                              *GUID!
! * 990 : G END                                *GUID!
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! *** END ***                                           !
! O: C1 CH: -DR650GG                                     !
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RDMS

GENERATION ELEMENTS: RDMS

This subchapter presents the Generation Elements (-GGG) lines of an RDMS Block ('QR').

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).

```
-----  
!           ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!  
! GENERATION ELEMENTS FOR BLOCK          QRBLOC          080!  
!  
! A LIN : T DESCRIPTION                          LIB !  
! * 150 : G CREATE STORAGE-AREA (NAME)          *VIRT!  
! * 300 : G          FOR SCHEMA          (NAME)    *VIRT!  
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! O: C1 CH: -DR080GG  
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!                                ENGLISH DOCUMENTATION LIBRARY                                *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QRBLOC                                              100!
!
! A LIN : T DESCRIPTION                                LIB !
! * 150 : G CREATE PERMANENT TABLE (NAME)                                *VIRT!
! * 200 : G        IN                      (SCHEMA NAME.STORAGE-AREA NAME) *VIRT!
! * 250 :        ---> COLUMNS INSERTION BEGINNING <---                *VIRT!
! * 450 :        ---> COLUMNS INSERTION END <---                    *VIRT!
! * 600 : G        PRIMARY KEY  (NAME)          IS (COLUMN NAME)        *VIRT!
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! O: C1 CH: -DR100GG
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!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QRBLOC                          130!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                               *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---           *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT!
! * 450 : G AS SELECT ALL                                         *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---    *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---          *VIRT!
! * 800 : G FROM (SOURCE TABLES NAME)                            *VIRT!
! * 850 : G WHERE                                                  *GUID!
! * 900 : G GROUP BY                                              *GUID!
! * 950 : G HAVING                                                *GUID!
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! O: C1 CH: -DR130GG
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!                                ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QRBLOC                               210!
!                                                                            !
! A LIN : T DESCRIPTION                                                  LIB !
! * 150 : G CREATE INDEX          (NAME)                                *VIRT!
! * 200 : G      ON                (TABLE NAME)                          *VIRT!
! * 300 :      ---> COLUMNS INSERTION BEGINNING <---                 *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                         *VIRT!
!     :                                                                    !
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! O: C1 CH: -DR210GG                                                    !
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!                   ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QTBLOC                !
!                   !                                       !
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE DATABASE (NAME)                               *VIRT!
! * 200 : G AS PERMANENT = _____ BYTES                       *GUID!
! * 300 : G      ,SPOOL = _____ BYTES                        *GUID!
! * 400 : G      ,ACCOUNT = '_____'                              *GUID!
! * 500 : G      ,NO FALLBACK PROTECTION                          *GUID!
! * 600 : G      ,DUAL BEFORE JOURNAL                             *GUID!
! * 700 : G      ,DEFAULT JOURNAL TABLE = _____           *GUID!
!                   :                                           !
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! 0: C1 CH: -GG                                              !
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!                  ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!  
! GENERATION ELEMENTS FOR BLOCK      QTBLOC                   100!  
!  
! A LIN : T DESCRIPTION                                LIB !  
! * 150 : G CREATE TABLE (NAME)                        *VIRT!  
! * 160 : G      ,NO FALLBACK PROTECTION                *GUID!  
! * 170 : G      ,DUAL BEFORE JOURNAL                   *GUID!  
! * 180 : G      ,WITH JOURNAL TABLE = _____       *GUID!  
! * 200 :          ----> COLUMNS INSERTION BEGINNING <---- *VIRT!  
! * 400 :          ----> COLUMNS INSERTION END <----   *VIRT!  
! * 500 : G UNIQUE PRIMARY INDEX (_____)                *GUID!  
! * 600 : G      ,UNIQUE INDEX (_____)                  *GUID!  
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! O: C1 CH: -DR100GG                                     !  
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!                                ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QTBLOC                               130!
!                                                                            !
! A LIN : T DESCRIPTION                                                  LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                                     *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---                *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                        *VIRT!
! * 450 : G AS                                                            *VIRT!
! * 460 : G LOCKING TABLE _____ FOR EXCLUSIVE MODE              *GUID!
! * 480 : G SELECT                                                        *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---                *VIRT!
! * 800 : G FROM (SOURCE TABLES NAME)                                  *VIRT!
! * 850 : G WHERE                                                         *GUID!
! :                                                                           !
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! O: C1 CH: -DR130GG                                                    !
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!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK   QT Bloc                              210!
!                               !                                     !
! A LIN : T DESCRIPTION                                LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                *VIRT!
! * 200 :         ---> COLUMNS INSERTION BEGINNING <---  *VIRT!
! * 400 :         ---> COLUMNS INSERTION END <---       *VIRT!
! * 500 : G      ON (TABLE NAME)                        *VIRT!
!       :                                              !
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! O: C1 CH: -DR210GG                                         !
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!                               ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK       QTBL0C                          700!
!
! A LIN : T DESCRIPTION                                               LIB !
! * 150 : G ALTER TABLE (NAME)                                       *VIRT!
! * 200 :           ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :           ---> COLUMNS INSERTION END <---                 *VIRT!
!           :                                                         :
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!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
!           :                                                         :
! *** END ***                                                         :
! O: C1 CH: -DR700GG                                                 !
-----

```

INTEREL RFM

GENERATION ELEMENTS: INTEREL RFM

This subchapter presents the Generation Elements (-GG) lines of an INTEREL RFM Block ('QU').

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).

```
-----  
!                          ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.257!  
! GENERATION ELEMENTS FOR BLOCK      QUBLOC                        100!  
!  
! A LIN : T DESCRIPTION                                            LIB !  
! * 150 : G CREATE TABLE (NAME)                                *VIRT!  
! * 160 : G VOLUME                                              *VIRT!  
! * 200 :           ----> COLUMNS INSERTION BEGINNING <----   *VIRT!  
! * 400 :           ----> COLUMNS INSERTION END <----        *VIRT!  
!  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
! :                                                                !  
!  
! O: C1 CH: -DR100GG                                             !  
-----
```

```

-----
!           ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.257!
! GENERATION ELEMENTS FOR BLOCK      QUBLOC                      130!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                             *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT!
! * 450 : G      AS                                             *GUID!
! * 480 : G      SELECT                                         *GUID!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---   *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---        *VIRT!
! * 800 : G      FROM (SOURCE TABLES NAME)                    *VIRT!
! * 850 : G      WHERE                                          *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR130GG
-----

```



```

-----
!          ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.258!
! GENERATION ELEMENTS FOR BLOCK      QVBLOC                                !
!                                                                              !
! A LIN : T DESCRIPTION                                                   LIB !
! * 150 : G CREATE SCHEMA AUTHORIZATION ----- *VIRT!
! * 160 : FILENAME (NAME)                                             *VIRT!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: B qvbloc GG
-----

```

```

-----
!              ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.258!
! GENERATION ELEMENTS FOR BLOCK      QVBLOC              100!
!
! A LIN : T DESCRIPTION                                  LIB !
! * 150 : G CREATE TABLE (NAME)                        *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---  *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---        *VIRT!
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
!   :                                                    !
! O: C1 CH: -DR100GG                                   !
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.258!
! GENERATION ELEMENTS FOR BLOCK      QVBLOC                          130!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                               *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---           *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT!
! * 450 : G      AS SELECT ALL                                     *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---    *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---         *VIRT!
! * 800 : G      FROM (SOURCE TABLES NAME)                     *VIRT!
! * 850 : G      WHERE                                           *GUID!
! * 900 : G      GROUP BY                                         *GUID!
! * 950 : G      HAVING                                           *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR130GG
-----

```

```

-----
!           ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.258!
! GENERATION ELEMENTS FOR BLOCK      QVBLOC                210!
!
! A LIN : T DESCRIPTION                                 LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)               *VIRT!
! * 200 : G ON (TABLE NAME)                            *VIRT!
! * 300 :          ----> COLUMNS INSERTION BEGINNING <---- *VIRT!
! * 400 :          ----> COLUMNS INSERTION END <----   *VIRT!
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
!      :                                               !
! O: C1 CH: -DR210GG                                     !
-----

```



```

-----
!                ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.477!
! GENERATION ELEMENTS FOR BLOCK      QABLOC                    !
!                                                                    !
! A LIN : T DESCRIPTION                                          LIB !
! * 150 : G START DBE '(NAME)' MULTI NEW                       *VIRT !
! * 200 : G DUAL LOG                                           *GUID !
! * 300 : G BUFFER = ____                                       *GUID !
! * 400 : G LANG = _____                                    *GUID !
! * 500 : G TRANSACTION = _____                            *GUID !
! * 600 : G DBEFILE0 DBEFILE _____                          *GUID !
! * 650 : G WITH PAGES = ____                                    *GUID !
! * 660 : G NAME = '_____'                                       *GUID !
! * 700 : G LOG DBEFILE _____ AND _____                *GUID !
! * 750 : G WITH PAGES = ____                                    *GUID !
! * 760 : G NAME = '_____' AND '_____'                          *GUID !
! :                                                                !
! :                                                                !
! :                                                                !
! :                                                                !
! :                                                                !
! :                                                                !
! :                                                                !
! :                                                                !
! :                                                                !
! :                                                                !
! :                                                                !
! O: C1 CH: B qabloc GG                                         !
-----

```



```
-----
!                   ENGLISH DOCUMENTATION LIBRARY                   *PDIE.DDDD.BMS.477!
! GENERATION ELEMENTS FOR BLOCK      QABLOC                          100!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE PUBLIC TABLE (NAME)                           *VIRT !
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---            *VIRT !
! * 400 :      ---> COLUMNS INSERTION END <---                   *VIRT !
! * 500 : G PRIMARY KEY (_____) CONSTRAINT _____            *VIRT !
! * 600 : G FOREIGN KEY (____) REFERENCES ____ CONSTRAINT ____   *VIRT !
! * 700 : G UNIQUE HASH ON (_____,_____) PAGES = ____           *GUID !
! * 720 : G HASH ON CONSTRAINT _____ PAGES = ____           *GUID !
! * 740 : G CLUSTERING ON CONSTRAINT _____                  *GUID !
! * 800 : G IN (DBEFILESET)                                       *VIRT !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
!      :                                                            !
! 0: C1 CH: -DR100GG                                             !
-----
```



```

-----
!               ENGLISH DOCUMENTATION LIBRARY        *PDIE.DDDD.BMS.477!
! GENERATION ELEMENTS FOR BLOCK      QABLOC                       130!
!
! A LIN : T DESCRIPTION                                         LIB  !
! * 150 : G CREATE VIEW (VIEW NAME)                               *VIRT !
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT !
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT !
! * 450 : G AS SELECT                                           *VIRT !
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---   *VIRT !
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---        *VIRT !
! * 800 : G FROM (SOURCE TABLES NAME)                         *VIRT !
! * 850 : G WHERE                                               *GUID !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
!   :                                                               !
! O: C1 CH: -DR130GG                                           !
-----

```

```

-----
!                ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.477!
! GENERATION ELEMENTS FOR BLOCK      QABLOC                        210!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                          *VIRT !
! * 200 : G      ON (TABLE NAME)                                  *VIRT !
! * 300 :      ----> COLUMNS INSERTION BEGINNING <----         *VIRT !
! * 400 :      ----> COLUMNS INSERTION END <----                *VIRT !
!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!
! O: C1 CH: -DR210GG
-----

```



```

-----
!                   ENGLISH DOCUMENTATION LIBRARY                 *PDIE.DDDD.BMS.477!
! GENERATION ELEMENTS FOR BLOCK          QIBLOC                   !
!                                                                            !
! A LIN : T DESCRIPTION                                             LIB !
! * 150 : G   CREATE DATABASE (NAME)                              *VIRT !
! * 200 : G       WITH LOG IN " _____ "                      *GUID !
! * 300 : G         MODE ANSI                                      *GUID !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
!   :                                                                 !
! O: C1 CH: B qibloc GG                                           !
-----

```

```

-----
!                ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.477!
! GENERATION ELEMENTS FOR BLOCK      QIBLOC                      100!
!
! A LIN : T DESCRIPTION                                          LIB !
! * 150 : G CREATE TABLE (NAME)                                *VIRT !
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---         *VIRT !
! * 400 :      ---> COLUMNS INSERTION END <---                *VIRT !
! * 700 : G      WITH NO LOG                                    *GUID !
! * 800 : G      IN _____                                   *VIRT !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! :                                                              !
! O: C1 CH: -DR100GG                                          !
-----

```

```
-----  
!           ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.477!  
! GENERATION ELEMENTS FOR BLOCK      QIBLOC                      110!  
!  
! A LIN : T DESCRIPTION                                  LIB  !  
! * 150 : G ALTER TABLE (NAME)                          *VIRT !  
! * 180 : ADD CONSTRAINT UNIQUE                          *VIRT !  
! * 200 : ---> COLUMNS INSERTION BEGINNING <---        *VIRT !  
! * 400 : ---> COLUMNS INSERTION END <---              *VIRT !  
! * 700 : CONSTRAINT (CONSTRAINT NAME)                  *VIRT !  
!  
! :  
!  
! :  
!  
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!  
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! :  
!  
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!  
!  
!  
!  
! 0: C1 CH: -DR110GG  
-----
```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.477!
! GENERATION ELEMENTS FOR BLOCK      QIBLOC                                130!
!
! A LIN : T DESCRIPTION                                                    LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                                       *VIRT !
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---                       *VIRT !
! * 400 :      ---> COLUMNS INSERTION END <---                             *VIRT !
! * 450 : G      AS SELECT                                                  *VIRT !
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---               *VIRT !
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---                     *VIRT !
! * 800 : G      FROM (SOURCE TABLES NAME)                                 *VIRT !
! * 850 : G      WHERE                                                       *GUID !
! * 900 : G      WITH CHECK OPTION                                          *GUID !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
!      :                                                                    !
! O: C1 CH: -DR130GG                                                       !
-----

```

```

-----
!           ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.477!
! GENERATION ELEMENTS FOR BLOCK     QIBLOC                210!
!
! A LIN : T DESCRIPTION                                LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                *VIRT !
! * 200 : G      ON (TABLE NAME)                        *VIRT !
! * 300 :      ----> COLUMNS INSERTION BEGINNING <---- *VIRT !
! * 400 :      ----> COLUMNS INSERTION END <----      *VIRT !
!
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! :                                                     !
! 0: C1 CH: -DR210GG                                 !
-----

```

DB2/2 AND DB2/6000

GENERATION ELEMENTS: DB2/2 AND DB2/6000

This subchapter presents the Generation Elements (-GG) lines of a DB2/2 or DB2/6000 Block.

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).


```

-----
!                          ENGLISH DOCUMENTATION LIBRARY      *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      QBBLOC                          200!
!
! A LIN : T DESCRIPTION                                  LIB !
! * 150 : G  CREATE TABLE (NAME)                            *VIRT!
! * 200 :        ---> COLUMNS INSERTION BEGINNING <---        *VIRT!
! * 400 :        ---> COLUMNS INSERTION END <---              *VIRT!
! * 500 : G      IN (DATABASE.TABLESPACE)                    *VIRT!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR200GG
-----

```

```

-----
!           ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      QBBLOC                130!
!
! A LIN : T DESCRIPTION                                LIB !
! * 150 : G CREATE VIEW (VIEW NAME)                   *VIRT!
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---  *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---        *VIRT!
! * 450 : G      AS SELECT ALL                         *VIRT!
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <--- *VIRT!
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---  *VIRT!
! * 800 : G      FROM (SOURCE TABLES NAME)           *VIRT!
! * 850 : G      WHERE                                 *GUID!
! * 900 : G      GROUP BY                             *GUID!
! * 950 : G      HAVING                               *GUID!
!      :                                             !
!      :                                             !
!      :                                             !
!      :                                             !
!      :                                             !
!      :                                             !
!      :                                             !
!      :                                             !
!      :                                             !
!      :                                             !
! O: C1 CH: -DR130GG                                !
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      QBBLOC                          210!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                          *VIRT!
! * 200 : G ON (TABLE NAME)                                       *VIRT!
! * 300 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                *VIRT!
! * 500 : G USING STOGROUP _____                             *GUID!
! * 650 : G ERASE          NO                                     *GUID!
! * 700 : G SUBPAGES      4                                     *GUID!
! * 750 : G BUFFERPOOL                                         *GUID!
! * 800 : G CLOSE         YES                                   *GUID!
! * 900 : G DSETPASS     _____                             *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR210GG
-----

```

```
-----
!               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.260!
! GENERATION ELEMENTS FOR BLOCK      QBBLOC              370!
!
! A LIN : T DESCRIPTION                                LIB !
! * 150 : G ALTER TABLE (NAME)                       *VIRT!
! * 200 :       ---> COLUMNS INSERTION BEGINNING <--- *VIRT!
! * 400 :       ---> COLUMNS INSERTION END <---      *VIRT!
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
!   :
! *** END ***
! O: C1 CH: -DR370GG
!
-----
```

SYBASE

GENERATION ELEMENTS: SYBASE

This subchapter presents the Generation Elements (-GG) lines of a SYBASE Block ('QR').

They are called by the -DRnnnGG command, nnn being a line number found in the Block description (-DR).


```
-----  
!                ENGLISH DOCUMENTATION LIBRARY                *PDIE.DDDD.BMS.254!  
! GENERATION ELEMENTS FOR BLOCK      QYBLOC                      130!  
!  
! A LIN : T DESCRIPTION                                          LIB !  
! * 150 : G CREATE VIEW (VIEW NAME)                             *VIRT!  
! * 200 :      ---> COLUMNS INSERTION BEGINNING <---          *VIRT!  
! * 400 :      ---> COLUMNS INSERTION END <---                *VIRT!  
! * 450 : G      AS SELECT ALL                                   *VIRT!  
! * 500 :      ---> SOURCE COLUMNS INSERTION BEGINNING <---   *VIRT!  
! * 700 :      ---> SOURCE COLUMNS INSERTION END <---        *VIRT!  
! * 800 : G      FROM (SOURCE TABLES NAME)                    *VIRT!  
! * 850 : G      WHERE                                          *GUID!  
! * 900 : G      WITH CHECK OPTION                             *GUID!  
!  
!           :                                                  !  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
!  
! O: C1 CH: -DR130GG                                          !  
-----
```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY          *PDIE.DDDD.BMS.254!
! GENERATION ELEMENTS FOR BLOCK      QYBLOC                          210!
!
! A LIN : T DESCRIPTION                                             LIB !
! * 150 : G CREATE (UNIQUE) INDEX (NAME)                          *VIRT!
! * 200 : G ON (TABLE NAME)                                       *VIRT!
! * 300 :      ---> COLUMNS INSERTION BEGINNING <---           *VIRT!
! * 400 :      ---> COLUMNS INSERTION END <---                 *VIRT!
! * 420 : G WITH FILLFACTOR = _                                    *GUID!
! * 440 : G IGNORE_DUP_KEY                                         *GUID!
! * 450 : G SORTED_DATA                                           *GUID!
! * 460 : G IGNORE_DUP_ROW / ALLOW_DUP_ROW                       *GUID!
! * 500 : G ON _____                                         *GUID!
!      :
!      :
!      :
!      :
!      :
!      :
!      :
! O: C1 CH: -DR210GG
-----

```

```

-----
!                               ENGLISH DOCUMENTATION LIBRARY           *PDIE.DDDD.BMS.260!
! GENERATION ELEMENTS FOR BLOCK      QYBLOC                          110!
!
! A LIN : T DESCRIPTION                                           LIB !
! * 150 : G ALTER TABLE (NAME)                                *VIRT!
! * 180 : G ADD                                                  *VIRT!
! * 190 : G CONSTRAINT (CONSTRAINT NAME)                       *VIRT!
! * 195 : G PRIMARY KEY                                         *VIRT!
! * 196 : G NONCLUSTERED                                       *GUID!
! * 200 : ---> COLUMNS INSERTION BEGINNING <---              *VIRT!
! * 400 : ---> COLUMNS INSERTION END <---                      *VIRT!
! * 500 : G WITH FILLFACTOR = _                                  *GUID!
! * 550 : G ON _____                                        *GUID!
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! :                                                               !
! *** END ***                                                  !
! O: C1 CH: -DR110GG                                           !
-----

```

Chapter 8. Block Generation

DDL Generation (B.....GN)

The DDL is generated according to the logical information specified via:

- Data Elements and Segments which define Tables, Views and Columns,
- Block Definition and Description, which define Databases, Spaces and Indexes;

and the physical information entered on the Generation Elements lines associated with the Block Definition and Description lines.

The generated DDL is displayed on-line on the SQL Commands Generation (-GN) screen, accessed via the following CHOICE:

CH: B.....GN

for the Database generation, or

CH: B.....GNnnn

for the generation of the object described on line 'nnn' of the Database Block Description (-DR) screen.

The -GNnnn screen can also be accessed by entering a 'Q' in the ACTION CODE field on the corresponding Block Description line; this Action Code cannot be used if the THE TYPE OF GENERATED TRANSACTION field (-DR screen) is blank.

On the first screen, you must indicate the TYPE and the EXTERNAL NAME (for Databases and Tablespace); or the SEGMENT code (for Tables, Views or Indexes).

This information is automatically displayed when this screen is accessed via the CHOICE '-GNnnn' or the ACTION CODE 'Q'.

The TYPE OF GENERATED TRANSACTION value entered on the Block Description screen is also displayed.

Pressing the 'ENTER' key causes the generation of the corresponding DDL, which is then displayed on-line.

From the -GN screen, the -GN of another object may be accessed by entering:

- for Spaces:
the TYPE and EXTERNAL NAME fields,
- for Tables, Views and Indexes:
the TYPE and SEGMENT code fields.

For example, to obtain the -GN screen of a Table calling the Segment DDSS, you enter 'T' in the TYPE field and 'DDSS' in the SEGMENT field.

NOTE: The -GN command can only generate SQL objects PACKAGE (C), FUNCTION (E), PROCEDURE (Q), TRIGGER or RULE (R) in batch procedure.

For the generation procedure:

- local data is not taken into account.
- column data: the Data Element code is replaced by its relational name.

GENERATION OF 'ALTER' COMMANDS

ALTER TABLE commands are generated for 'T' and 'J' lines. To modify a Table, it is necessary to modify its description, i.e. the description of the corresponding Segment.

ALTER commands may only be generated through the -GN screen.

They are executed in two steps:

- Once the -GN screen corresponding to the Table is displayed, press the 'ENTER' key.
- The full description is then displayed: you must select the Table Columns for which an ALTER command is to be generated by entering a 'C' in the SELECTION (SEL.) field (see the screen examples which follow). For ORACLE, the value 'M' is used to generate 'MODIFY' commands.

Depending on the type of line, there are three ways of specifying an ALTER TABLE command:

- ALTER TABLE on the 'T' and 'J' lines for Primary and Foreign Keys.
- ALTER TABLE on the 'A' lines for a Column update; in this case, the columns must be specified through -DR...K.
- ALTER TABLE on the 'T' lines, with the 'M' transaction code; in this case, the generation is performed in two stages.

NOTES: ALTER commands ON THE 'T' lines with the 'M' transaction code can only be generated on the '-GN' screens. They cannot be generated through the GPRT procedure.

ALTER commands are not taken into account for DB2/400 ('Q4') Blocks.


```

-----
!              ENGLISH DOCUMENTATION LIBRARY             *PDIE.DDDD.BMS.260!
! INPUT OF DATA ELEMENTS 1  QCBLOC DATACOM/DB EXAMPLE              700 !
!                  DZ10                                         !
!              2   3                                         !
!              RANK ORDER                                     !    COLUMN    !    LIBR.    !
!  COCARA                                     !  QTMLI     A  !    0067    !
!  NUCOM                                       !  FOURNP    M  !    0067    !
!  FOURNP                                      !  NUCOM     !    0067    !
!  QTMLI                                       !  QTMCO     D  !    0067    !
!  QTMCO                                       !  INFOR     !    0067    !
!  INFOR                                       !          !    0067    !
!                                     !          !          !
!                                     !          !          !
!                                     !          !          !
!                                     !          !          !
!                                     !          !          !
!                                     !          !          !
!                                     !          !          !
!                                     !          !          !
!                                     !          !          !
! *** END ***                                     !          !          !
! 0: C1 CH: -DR210K                               !          !          !
-----

```

Catalog Updating

The generated DDL may be used to update the DB2 catalog on-line.

This immediately ensures consistency between the catalog and the database description.

On the SQL Commands Generation (-GN) screen, when all input is entered, the following message is displayed:

CATALOG UPDATE Y/N:

On-line updating of the DB2 catalog may thus be requested by entering a 'Y' (for 'YES') in the input field following the message.

(Refer to the OPERATIONS Manual for details on the catalog updating program.)

DB2 AUTHORIZATIONS

SQL users need to be granted some authorizations for the following reasons:

1. When the user creates a Table, he is considered as its "owner". His code is then used as the prefix in the Table's name.
2. The user may work on a Table he has not created, provided its owner has granted him the corresponding authorization.

There are three different kinds of Table prefixing:

- A. Explicit prefixing,
- B. Prefixing via the USERID,
- C. Prefixing via DB2 USER.

There are two ways of generating Tables and updating the DB2 Catalog.

FIRST MODE: Batch generation via the GPRT procedure.

In cases A and B, the TSO LOGON used to update the DB2 Catalog must have authorization on the Tables corresponding to the prefix and the USERID.

In case C, the TSO LOGON is the prefix.

SECOND MODE: On-line updating.

On-line updating of the DB2 Catalog via the transaction (CICS or IMS/DC) necessitates some caution as to the organization and the granting of the System and DB2 authorizations.

The user is identified differently depending on whether he works under CICS or IMS/DC and whether or not a Security system is being used. For more information please refer to the Subchapter "TABLE OR VIEW DEFINITION".

If the Table is prefixed (cases A and B), the user identified by DB2 must be granted the corresponding authorization by this Table's owner, i.e. via the prefix.

If the Table is not prefixed (case C), the user's identifier is used as the prefix.

Chapter 9. Access Commands

On-Line Access Commands

LISTS		
CHOICE	SCREEN	UPD
-----	-----	---
LCBaaaaaa	List of Database Blocks by code (starting with block 'aaaaaa').	NO
LNBaaaaaa	List of Database Blocks by name (starting with block 'aaaaaa').	NO
LTBaabbbbb	List of Database Blocks by type (starting with type 'aa' and Database Block 'bbbbbb').	NO
LEBaaaaaaaa	List of Database Blocks by external name (starting with name 'aaaaaaaa').	NO
DESCRIPTION OF BLOCK 'aaaaaa'		
CHOICE	SCREEN	UPD
-----	-----	---
Baaaaaa	Definition of Database Block 'aaaaaa'	YES
BaaaaaaCR	Instances linked to Database Block 'aaaaaa' through User Relations.	YES
BaaaaaaGCbbb	Comments for Database Block 'aaaaaa' (starting with line 'bbb').	YES
BaaaaaaGGbbb	Generation Elements for Database Block 'aaaaaa' (starting with line 'bbb').	YES
BaaaaaaGObbb	Generation Options for Database Block 'aaaaaa' (starting with line 'bbb').	YES
BaaaaaaATbbbbbb	Text Assigned to Database Block 'aaaaaa' (starting with text 'bbbbbb').	NO
BaaaaaaX	Cross-references of Database Block 'aaaaaa'.	NO
BaaaaaaXBbbbbbb	Cross-references of Database Block 'aaaaaa' to PSB's (starting with PSB 'bbbbbb').	NO
BaaaaaaXObbbbbbb	Cross-references of Database Block 'aaaaaa' to Screens (starting with Screen 'bbbbbb').	NO
BaaaaaaXObbbbbbbCSdddd	Cross-references of Database 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	Cross-references of Database Block 'aaaaaa' to the Work Areas of Screen 'bbbbbb' (starting with Work Area 'cc', line number 'ddd').	NO

BaaaaaaXQbbbbbb	List of occurrences linked to Database Block 'aaaaaa' through User-Defined Relation (starting with Relation 'bbbbbb').	NO
BaaaaaaXVvvvvvv	Cross-references of Database Block 'aaaaaa' to Volumes (starting with Volume 'vvvvvv').	NO
BaaaaaaXPbbbbbb	Cross-references of Database Block 'aaaaaa' to Programs (starting with Program 'bbbbbb').	NO
BaaaaaaXPbbbbbbWccddd	Cross-references of Database Block 'aaaaaa' to Work Areas of Program 'bbbbbb' (starting with Work Area 'cc', line number 'ddd').	NO

LIST OF RELATIONAL/SQL OBJECTS

CHOICE	SCREEN	UPD
-----	-----	---
LTStddss	List of Relational/SQL Objects by type and code (starting with with type 't', code 'ddss').	NO
LESteeeeeeeeeeee	List of Relational/SQL Objects by type and external name (starting with type 't' and external name 'eeeeeeeeeeee'). Note: If the external name is indicated on the Segment definition, it is not taken into account in the list.	NO

RELATIONAL/SQL DATABASE BLOCK DESCRIPTION

CHOICE	SCREEN	UPD
-----	-----	---
BaaaaaaDRbbb	Description of Relational/SQL Block 'aaaaaa' (starting with line 'bbb').	YES
BaaaaaaDRbbbGCccc	Comments on Relational/SQL Database Block 'aaaaaa' description line 'bbb' (starting with Comments line 'ccc').	YES
BaaaaaaDRbbbGGccc	Generation Elements of Relational/SQL Block 'aaaaaa' description line 'bbb' (starting with line 'ccc').	YES
BaaaaaaDRbbbK	Building of Relational/SQL key 'K' on description line 'bbb' of Block 'aaaaaa'.	YES
BaaaaaaGN	Generation of SQL commands for Relational/SQL block 'aaaaaa'.	YES
BaaaaaaGNnnn	Generation of SQL commands for the Object defined on description line 'nnn' of Block 'aaaaaa'.	YES

NOTE: After the first choice of type 'Baaaaaa', 'Baaaaaa' can be replaced with '-'. All notations between parentheses are optional.

All notations between parentheses are optional.

CROSS-REFERENCES OF DATA ELEMENTS USED IN SQL KEYS

CHOICE	SCREEN	UPD
-----	-----	---
EaaaaaaXK	X-references of Data Element 'aaaaaa' to the key of relational /SQL database blocks.	NO

LIST OF RELATIONAL INTEGRITY CONSTRAINTS

<u>CHOICE</u>	<u>SCREEN</u>
-----	-----
SbbbbCNaaaaa	List of integrity constraints of Segment 'bbbb', starting with block 'a' or 'aaa'.

Generation and/or Printing

Lists and description reports on Database Blocks may be obtained by entering certain commands on-line on the Generation and Print Commands (GP) screen. The COMMANDS FOR PRINT REQUEST are listed below.

LISTS

LCB: List of all database blocks, sequenced by their codes.

C1 OPTION: Without explicit printed keywords,

C2 OPTION: With explicit printed keywords.

LEB: List of database blocks, sequenced by external names, without explicit printed keywords.

LTB: List of database blocks, sequenced by their types.

C1 OPTION: Without explicit printed keywords,

C2 OPTION: With explicit printed keywords.

LKB: List of all database blocks, by keywords.

After typing LKB, a selection field (SEL:) enables the user to choose implicit ('L') or explicit ('M') keywords, or both (' ').

Keywords are entered on a continuation line.

LTS: List of SQL objects by codes,

LES: List of SQL objects by external names.

DESCRIPTION

DTB: Definition, description and general documentation for the database block entered in the ENTITY CODE field. If no code is specified, ALL occurrences of the Database Block entity type are listed.

A Type selection is requested by entering the desired TYPE CODE field.

C1 OPTION: Provides definition, description, general documentation, and X-references,

C2 OPTION: With assigned text.

GENERATION OPTION

GSQ: Generation of the DDL for the block whose code is entered in the ENTITY CODE field;

- C1 Option: Generation of Creation DDL (CREATE DATABASE and CREATE of all the objects of the block);
- C2 Option: Generation of the DDL according to the TYPE OF TRANSACTION TO GENERATE field (-DR screen).

NOTE: ALTER commands may only be generated on-line through the -GN screen.

- C3 Option: Generation of the LABEL command for DB2, SQL/DS, and SQL400 Databases.
- C4 Option: Generation of the COMMENT command for DB2, SQL/DS, SQL400, ORACLE, VAX/SQL, and NONSTOP/SQL Databases.

The date, time and session number will appear on the first line of the generated program.

FLS: Flow control of the block. You may specify a generation environment (PEI module), control card options, and parameters (as needed).

Chapter 10. Examples

Common Screens

This chapter shows examples of generated Blocks.

For all the Block types, you will find an example of a Table generation, of an Index generation and of a View generation.

For all the Blocks which accept it, you will also find an example of a Space generation.

This subchapter shows the screens which are common to all the Block types: the requests for a Space generation, for an Index generation and for a View generation as well as the description of the Segments used to generate these objects. As you will see in the subchapter specific to each Block type, each Block description includes three identical lines (line 100 for a Table creation, line 210 for an Index creation and line 350 for a View creation).

This subchapter shows, in the order:

- the request to generate a Table from Segment DZ05, indicated on line 100 of the Block description,
- the description of Segment DZ05,
- the request to generate an Index from Segment DZ10, indicated on line 210 of the Block description,
- the description of Segment DZ10,
- the Index composition,
- the request to generate a View from Segment DZ09, indicated on line 350 of the Block description,
- the description of Segment DZ09.

However, the results of these generation requests vary according to the Block type. So they are presented in the subchapters specific to each Block type.


```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.201!
! SEGMENT CALL OF ELEMENTS : DZ05 STOCK                                     !
!                                                                           !
! A LIN : ELEM. INT.FORM U OCC GR I CMD456 CONT  VALUE/SFC  UPD/TRGET  DOC  LIBR.!
! 100 : COCARA X          D          0          S    0          0067!
! 110 : NUCOD  S9(3)     C          P          S    0          0067!
! 120 : FOURNI X(3)      D          V          S    0          0067!
! 200 : NUCLIE X(8)      D          V          S    0          0067!
! 255 : VILLE  X(20)     D          V          S    0          0067!
! 260 : CORESP X(256)   D          V          S    0          0067!
! 270 : REMISE S9(4)V99  3          V          A*MATERIEL 0067!
! 280 : MATE   X(8)      D          V          A*MATERIEL 0067!
! 310 : DATED  X(10)     D          V          A*MATERIEL 0067!
! 330 : HEURE  T          D          V          A*MATERIEL 0067!
! 340 : PRECIS TS        D          V          A*MATERIEL 0067!
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! :                                                                    !
! : NAME :                                                                !
! *** END ***                                                            !
! O: C2 CH: S dz05 CE                                                    !
-----

```



```

-----
!                                     ENGLISH LIBRARY                                     *PDMB.DDDD.BMS.197!
! INPUT OF DATA ELEMENTS                                                     210 !
! INDZ10                                DZ10                                         !
!
!                                     RANK ORDER                                     !     COLUMN     !     LIBR. !
! COCARA                                !     FOURNP     !     0067 !
! NUCOM                                02  A    !     NUCOM      A    !     0067 !
! FOURNP                                01      !     QTMLI      !     0067 !
! QTMLI                                03      !                  !     0067 !
! QTMCO                                !                  !     0067 !
! INFOR                                !                  !     0067 !
!
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!
! *** END ***
! O: C1 CH: -DR210K
-----

```



```

-----
!                                     ENGLISH LIBRARY                            *PDMB.DDDD.BMS.197!
! SQL COMMANDS GENERATION                                                    !
!                                     !                                     !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V      PREFIX        :                                     !
!               CREATE VIEW                                              !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
!                                     !                                     !
! *** END ***                                                                !
! O: C1 CH: -GN350                                                           !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.201!
! SEGMENT CALL OF ELEMENTS : DZ09 INTERN. STOCK                               !
!                                                                           !
! A LIN : ELEM.  INT.FORM U OCC GR I CMD456 CONT VALUE/SFC UPD/TRGET DOC  LIBR.!
!   110 : F010                               **                               0067!
! 1 090 : CLEFO                                D                               0067!
! 1 100 : FOURNI X(3)  D          U          S    0                               0067!
! 1 110 : MATE  X(8)  D          S 000 000000                               0067!
! 1 120 : RELEA X(3)  D          1                               LIVRABLE 0067!
! 1 130 : LANGU X      D          1                               0067!
! 1 140 : QTMAS S9(4) C          2                               0067!
! 1 150 : QTMAM S9(4) C          2                               0067!
! 1 160 : LIBFO X(20) D          3                               0067!
! 1 200 : DATE  M      D          S    0                               0067!
! 1 210 : HEURE T      D          S    0                               0067!
! 1 999 : FILLER XX   D          0                               0067!
!   120 : COMMEN X    D          0                               0067!
! * 130 : (-DBE)                                           !
! :                                                         !
! :                                                         !
! :                                                         !
! : NAME :                                                 !
! :                                                         !
! 0: C2 CH: S dz09 CE                                     !
-----

```

DB2

DB2 EXAMPLE

The purpose of this subchapter is to show the specific screens of a DB2-type Block ('Q2BLOC' code).

You will find, in the order:

- the Block description,
- the request to generate a Space, from line 080 of the Block description,
- the result of the generation of this Space,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.258!
! RELATIONAL BLOCK DESCRIPT.  Q2BLOC DB2 EXAMPLE                               !
!                                                                           !
! A LIN : T EXTERNAL NAME          TABLE CODE      KEY GEN          LIBR.!
!      :                               VIEW          TY  CDE           !
!  080 : P ESP1-TABLE-Q2BLOC              DZ05              C              0067!
!  100 : T DODZ05                          DZ05              C              0067!
!  110 : K                                  DZ05              C              0048!
!  130 : V VUDZ05S3                        DZ05              3  C              0058!
!  200 : T DODZ10                          DZ10              C              0067!
!  210 : I INDZ10                          DZ10              C              0048!
!  220 : J CEXISTF  DZ05                   DZ10              C  C              0048!
!  300 : T                                  F010              C              0067!
!  350 : V VUDZ09DBE                       DZ09              C              0067!
!  360 : V VUDZ09S4                         DZ09              4  C              0048!
!  370 : A                                  F010              C              0256!
!      :                                                                           !
!      :                                                                           !
!      :                                                                           !
!      :                                                                           !
!      :                                                                           !
!      :                                                                           !
!      :                                                                           !
! *** END ***                                                                    !
! 0: C1 CH: BQ2BLOC DR                                                            !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.197!
! SQL COMMANDS GENERATION      Q2BLOC DB2 EXAMPLE                               !
!                               !                                               !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                               !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                               !
!                               !                                               !
! CREATE TABLE PDCL.DODZ05                                           !
! (COCARA      CHAR      (00001)    NOT NULL,                               !
! NUCOD        SMALLINT                               NOT NULL WITH DEFAULT,   !
! FOURNI       CHAR      (00003),                               !
! NUCLIE       CHAR      (00008),                               !
! VILLE        VARCHAR   (00020),                               !
! CORESP       LONG VARCHAR,                               !
! REMISE       DECIMAL   (00006, 02),                               !
! MATERIEL     VARCHAR   (00008),                               !
! DATED        CHAR      (00010),                               !
! HEURE        TIME,                               !
! PRECIS       TIMESTAMP)                                           !
!   IN EXTQ2DB2.ESP1-TABLE-Q2BLOC                                       !
! ;                                                                       !
!                               !                                               !
! *** END ***                                                         !
! O: C1 CH: -GN100                                                    !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.197!
! SQL COMMANDS GENERATION      Q2BLOC DB2 EXAMPLE                          !
!                               !                                             !
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                             !
! TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                         !
!                               !                                             !
! CREATE INDEX PDCL.INDZ10                                             !
! ON PDCL.DODZ10                                             !
! (FOURNP                                             !
! NUCOM          ASC ;                                             !
! LIVRABLE      )                                             !
! ;                                             !
!                                             !
!                                             !
!                                             !
!                                             !
!                                             !
!                                             !
! *** END ***                                             !
! O: C1 CH: -GN210                                             !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.197!
! SQL COMMANDS GENERATION      Q2BLOC DB2 EXAMPLE                          !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                        !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                      !
!                               !                                             !
! CREATE VIEW PDCL.VUDZ09DBE                                           !
! (CLEFO                                             ,                       !
!  FOURNI                                             ,                       !
!  MATE                                              ,                       !
!  RELEA                                             ,                       !
!  LANGU                                             ,                       !
!  QTMAS                                             ,                       !
!  QTMAM                                             ,                       !
!  LIBFO                                             ,                       !
!  DATE                                              ,                       !
!  HEURE                                             ,                       !
!  FILLER                                            ,                       !
!  COMMEN                                           )                       !
! AS SELECT                                                                 !
! PDCL.FOUR.CLEFO                                             ,                       !
! PLEASE ENTER TO CONTINUE                                          !
! O: C1 CH: -GN350                                               !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.197!
! SQL COMMANDS GENERATION      Q2BLOC DB2 EXAMPLE                          !
!                               !                                             !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! PDCL.FOUR.FOURNI                                     ,                          !
! PDCL.FOUR.MATE                                       ,                          !
! PDCL.FOUR.RELEA                                       ,                          !
! PDCL.FOUR.LANGU                                       ,                          !
! PDCL.FOUR.QTMAS                                       ,                          !
! PDCL.FOUR.QTMAM                                       ,                          !
! PDCL.FOUR.LIBFO                                       ,                          !
! PDCL.FOUR.DATE                                       ,                          !
! PDCL.FOUR.HEURE                                       ,                          !
! PDCL.FOUR.FILLER                                       ,                          !
! PDCL.DODZ05.COCARA                                     ,                          !
!FROM PDCL.FOUR                                     ,                          !
!      PDCL.DODZ05                                     ,                          !
!;                                                     !
!                                                     !
! *** END ***                                         !
! O: C1 CH:                                           !
-----

```

SQL SERVER

SQL SERVER EXAMPLE

The purpose of this subchapter is to show the specific screens of an SQL SERVER-type Block ('Q3BLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.   Q3BLOC SQL SERVER EXAMPLE                       !
!                               !                                               !
! A LIN : T EXTERNAL NAME          TABLE VIEW      KEY GEN          LIBR.!
!      :                               CODE          TY  CDE           !
! 100 : T DODZ05                    DZ05          C                0067!
! 130 : V VUDZ05S3                  DZ05          3  C                0058!
! 200 : T DODZ10                    DZ10          C                0067!
! 210 : I INDZ10                    DZ10          C                0048!
! 300 : T                            F010          C                0067!
! 350 : V VUDZ09DBE                 DZ09          C                0067!
! 360 : V VUDZ09S4                  DZ09          4  C                0048!
! 510 : A ADDTABLE                  DZ05          C                0213!
! 700 : T EXTERNAL-PI00             PI00          C                0219!
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
! *** END ***                       !                                               !
! O: C1 CH: BQ3BLOC DR              !                                               !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      Q3BLOC SQL SERVER EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                               !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                       !
!                               !                                             !
! CREATE TABLE DODZ05                                             !
! (COCARA      CHAR      (00001)    NOT NULL,                               !
!  NUCOD       SMALLINT                               NULL,                               !
!  FOURNI      CHAR      (00003)    NULL,                               !
!  NUCLIE      CHAR      (00008)    NULL,                               !
! *** CORESP FIELD LENGTH >      00255 NOT TAKEN INTO ACCOUNT           !
!  VILLE       VARCHAR   (00020)    NULL,                               !
!  REMISE      NUMERIC   (00006,02) NULL,                               !
!  MATERIEL    VARCHAR   (00008)    NULL,                               !
!  DATED       DATETIME                               NULL,                               !
!  HEURE       DATETIME                               NULL,                               !
!  PRECIS      CHAR      (00026)    NULL)                               !
! ;                                                                 !
!                               !                                             !
! *** END ***                                                     !
! O: C1 CH: -GN100                                               !
-----

```

```
-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      Q3BLOC SQL SERVER EXAMPLE                       !
!                               !
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                               !
! TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                       !
!                               !
! CREATE INDEX INDZ10                                           !
! ON DODZ10                                                    !
! (FOURNP                                                    !
! NUCOM              ASC ;                                     !
! LIVRABLE           )                                       !
! ;                                                            !
!                                                               !
!                                                               !
!                                                               !
!                                                               !
! *** END ***                                                 !
! O: C1 CH: -GN210                                           !
-----
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      Q3BLOC SQL SERVER EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! CREATE VIEW VUDZ09DBE                                             !
! (CLEFO                                             ,                       !
!  FOURNI                                             ,                       !
!  MATE                                             ,                       !
!  RELEA                                             ,                       !
!  LANGU                                             ,                       !
!  QTMAS                                             ,                       !
!  QTMAM                                             ,                       !
!  LIBFO                                             ,                       !
!  DATE                                             ,                       !
!  HEURE                                             ,                       !
!  FILLER                                           ,                       !
!  COMMEN                                           )                       !
! AS SELECT                                             !
! FOUR.CLEFO                                             ,                       !
! PLEASE ENTER TO CONTINUE                                     !
! 0: C1 CH:                                             !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      Q3BLOC SQL SERVER EXAMPLE                       !
!                               !                                               !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                             !
! TYPE         : V                                           !
!                               CATALOG UPDATE Y/N :                             !
!                               !                                               !
! FOUR.FOURNI                                     ,                             !
! FOUR.MATE                                       ,                             !
! FOUR.RELEA                                       ,                             !
! FOUR.LANGU                                       ,                             !
! FOUR.QTMAS                                       ,                             !
! FOUR.QTMAM                                       ,                             !
! FOUR.LIBFO                                       ,                             !
! FOUR.DATE                                       ,                             !
! FOUR.HEURE                                       ,                             !
! FOUR.FILLER                                       ,                             !
! DODZ05.COCARA                                     ,                             !
! FROM FOUR                                     ,                             !
!       DODZ05                                     ,                             !
! ;                                               !
! *** END ***                                     !
! O: C1 CH:                                       !
-----

```

SQL/400

SQL/400 EXAMPLE

The purpose of this subchapter is to show the specific screens of an SQL/400-type Block ('Q4BLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.   Q4BLOC SQL/400 EXAMPLE                       !
!                               !                                             !
! A LIN : T EXTERNAL NAME        TABLE CODE   KEY GEN           LIBR.!
!      :                          VIEW         TY  CDE            !
!  100 : T DODZ05                 DZ05          C                0067!
!  130 : V VUDZ05S3               DZ05          3  C                0058!
!  200 : T DODZ10                 DZ10          C                0067!
!  210 : I INDZ10                 DZ10          C                +  0048!
!  300 : T                         F010          C                0067!
!  350 : V VUDZ09DBE              DZ09          C                0067!
!  360 : V VUDZ09S4               DZ09          4  C                0048!
!  700 : T EXTERNAL-PI00          PI00          C                0219!
!      :                          !                                             !
!      :                          !                                             !
!      :                          !                                             !
!      :                          !                                             !
!      :                          !                                             !
!      :                          !                                             !
!      :                          !                                             !
!      :                          !                                             !
! *** END ***                      !                                             !
! O: C1 CH: BQ4BLOC DR             !                                             !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      Q4BLOC SQL/400 EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                                !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                            !
!                               !                                              !
! CREATE TABLE DODZ05                                           !
! (COCARA      CHAR      (00001)    NOT NULL,                            !
!  NUCOD       SMALLINT                                NOT NULL WITH DEFAULT,        !
!  FOURNI     CHAR      (00003),                                           !
!  NUCLIE     CHAR      (00008),                                           !
!  VILLE      CHAR      (00020),                                           !
!  CORESP     CHAR      (00256),                                           !
!  REMISE     DECIMAL   (00006, 02),                                       !
!  MATERIEL   CHAR      (00008),                                           !
!  DATED      CHAR      (00010),                                           !
!  HEURE      TIME,                                           !
!  PRECIS     TIMESTAMP)                                                  !
! ;                                                                    !
!                               !                                              !
! *** END ***                                                       !
! O: C1 CH: -GN100                                                  !
-----

```



```
-----
!                                ENGLISH LIBRARY                                *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION          Q4BLOC SQL/400 EXAMPLE                        !
!
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                               !
! TYPE         : I                                             !
!              CATALOG UPDATE Y/N :                                          !
!
! CREATE INDEX INDZ10                                           !
! ON DODZ10                                                  !
! (FOURNP                                             ,
!  NUCOM              ASC ;
!  LIVRABLE           )
! ;
!
!
!
!
!
!
!
!
!
! *** END ***
! 0: C1 CH: -GN210
!
-----
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      Q4BLOC SQL/400 EXAMPLE                          !
!                               !                                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                            !
!                               !                                               !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                               !
!  FOURNI     ,                                               !
!  MATE       ,                                               !
!  RELEA     ,                                               !
!  LANGU     ,                                               !
!  QTMAS     ,                                               !
!  QTMAM     ,                                               !
!  LIBFO     ,                                               !
!  DATE      ,                                               !
!  HEURE     ,                                               !
!  FILLER    ,                                               !
!  COMMEN    )                                               !
! AS SELECT                                           !
! FOUR.CLEFO      ,                                               !
! PLEASE ENTER TO CONTINUE                               !
! O: C1 CH: -GN350                                       !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      Q4BLOC SQL/400 EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                           !
! TYPE         : V                                           !
!                               CATALOG UPDATE Y/N :                       !
!                               !                                             !
! FOUR.FOURNI                                     ,                           !
! FOUR.MATE                                       ,                           !
! FOUR.RELEA                                       ,                           !
! FOUR.LANGU                                       ,                           !
! FOUR.QTMAS                                       ,                           !
! FOUR.QTMAM                                       ,                           !
! FOUR.LIBFO                                       ,                           !
! FOUR.DATE                                       ,                           !
! FOUR.HEURE                                       ,                           !
! FOUR.FILLER                                       ,                           !
! DODZ05.COCARA                                     ,                           !
! FROM FOUR                                     ,                           !
!         DODZ05                                     ,                           !
! ;                                               !
!                                               !
! O: C1 CH:                                       !
-----

```

ALL BASE SQL

ALL BASE SQL EXAMPLE

The purpose of this subchapter is to show the specific screens of an ALL BASE SQL-type Block ('QABLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.  QABLOC ALL BASE EXAMPLE                          !
!                                                                           !
! A LIN : T EXTERNAL NAME          TABLE CODE      KEY GEN          LIBR.!
!      :                               VIEW          TY  CDE          !
! 100 : T DODZ05                    DZ05          C                0067!
! 200 : T                            DZ10          C                0058!
! 210 : I INDZ10                     DZ10          C                0067!
! 300 : T                            F010          C                0048!
! 350 : V VUDZ09S4                  DZ09          C                0067!
! 400 : T                            CD20          C                0067!
! 500 : T                            ME00          C                0048!
! 700 : A                            DZ05          C      +          0219!
! 800 : T EXTERNAL-PI00             PI00          C                !
! 805 : K EXTKEY                    PI00          C      +          !
!      :                               !
!      :                               !
!      :                               !
!      :                               !
!      :                               !
!      :                               !
! *** END ***                        !
! O: C1 CH: BQABLOC DR                !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QABLOC ALL BASE EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                             !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                         !
!                               !                                             !
! CREATE PUBLIC TABLE PDCL.DODZ05                                         !
! (COCARA      CHAR      (00001)      NOT NULL,                             !
!  NUCOD       SMALLINT,                                             !
!  FOURNI      CHAR      (00003),                                         !
!  NUCLIE      CHAR      (00008),                                         !
!  VILLE       VARCHAR   (00020),                                         !
!  CORESP      VARCHAR   (00256),                                         !
!  REMISE      DECIMAL   (00006, 02),                                     !
!  MATERIEL    VARCHAR   (00008),                                         !
!  DATED       CHAR      (00010),                                         !
!  HEURE       TIME,                                             !
!  PRECIS      DATETIME)                                             !
! ;                                                                     !
!                               !                                             !
! *** END ***                                                         !
! O: C1 CH: -GN100                                                    !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QABLOC ALL BASE EXAMPLE                          !
!                               !                                                !
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                                !
! TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                               !
!                               !                                                !
! CREATE INDEX PDCL.INDZ10                                           !
! ON PDCL.DZ10                                                       !
! (FOURNP                                                         !
!   NUCOM                   ASC ;                                       !
!   LIVRABLE                  )                                           !
! ;                                                                    !
!                               !                                                !
!                               !                                                !
!                               !                                                !
!                               !                                                !
!                               !                                                !
!                               !                                                !
!                               !                                                !
!                               !                                                !
! *** END ***                                                        !
! O: C1 CH: -GN210                                                  !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QABLOC ALL BASE EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! CREATE VIEW PDCL.VUDZ09S4                                             !
! (CLEFO                                             ,                       !
!  FOURNI                                             ,                       !
!  MATE                                             ,                       !
!  RELEA                                             ,                       !
!  LANGU                                             ,                       !
!  QTMAS                                             ,                       !
!  QTMAM                                             ,                       !
!  LIBFO                                             ,                       !
!  DATE                                             ,                       !
!  HEURE                                             ,                       !
!  FILLER                                             ,                       !
!  COMMEN                                             )                       !
! AS SELECT                                             !
! PDCL.FOUR.CLEFO                                             ,                       !
! PLEASE ENTER TO CONTINUE                                             !
! O: C1 CH: -GN350                                             !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QABLOC ALL BASE EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! PDCL.FOUR.FOURNI                                             ,          !
! PDCL.FOUR.MATE                                             ,          !
! PDCL.FOUR.RELEA                                             ,          !
! PDCL.FOUR.LANGU                                             ,          !
! PDCL.FOUR.QTMAS                                             ,          !
! PDCL.FOUR.QTMAM                                             ,          !
! PDCL.FOUR.LIBFO                                             ,          !
! PDCL.FOUR.DATE                                             ,          !
! PDCL.FOUR.HEURE                                             ,          !
! PDCL.FOUR.FILLER                                             ,          !
! PDCL.DODZ05.COCARA                                             ,          !
! FROM PDCL.FOUR                                             ,          !
!     PDCL.DODZ05                                             ,          !
! ;                                                               !
! *** END ***                                                  !
! O: C1 CH:                                                    !
-----

```

DBD/2

DB2/2 EXAMPLE

The purpose of this subchapter is to show the specific screens of a DB2/2-type Block ('QBBLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.


```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIP.   QBBLOC DB2/2 EXAMPLE                               !
!                               !                               !
! A LIN : T EXTERNAL NAME      TABLE CODE   KEY GEN      LIBR.!
!       :                       VIEW         TY  CDE        !
!   100 : T DODZ05             DZ05         C              0067!
!   110 : K                    DZ05         C              0058!
!   130 : V VUDZ05S3          DZ05         3  C              0067!
!   200 : T DODZ10            DZ10         C              0048!
!   210 : I INDZ10            DZ10         C              0067!
!   220 : J CEXISTF  DZ05     DZ10         C  C              0067!
!   300 : T                    F010         C              0048!
!   350 : V VUDZ09DBE         DZ09         C      +        0219!
!   360 : V VUDZ09S4         DZ09         4  C              !
!   370 : A                    F010         C      +        !
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
! *** END ***                  !                               !
! O: C1 CH: BQBBLOC DR        !                               !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QBBLOC DB2/2 EXAMPLE                          !
!                               !                                             !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                             !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! CREATE TABLE PDCL.DODZ05                                             !
! (COCARA      CHAR      (00001)    NOT NULL,                             !
!  NUCOD       SMALLINT                                     NOT NULL WITH DEFAULT, !
!  FOURNI     CHAR      (00003),                                         !
!  NUCLIE     CHAR      (00008),                                         !
!  VILLE      VARCHAR   (00020),                                         !
!  CORESP     VARCHAR   (00256),                                         !
!  REMISE     DECIMAL   (00006, 02),                                     !
!  MATERIEL   VARCHAR   (00008),                                         !
!  DATED      CHAR      (00010),                                         !
!  HEURE      TIME,                                             !
!  PRECIS     TIMESTAMP)                                             !
! ;                                                                    !
!                               !                                             !
! *** END ***                                                         !
! O: C1 CH: -GN100                                                    !
-----

```

```
-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
!  SQL COMMANDS GENERATION       QBBLOC DB2/2 EXAMPLE                       !
!                               !
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                            !
! TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                        !
!                               !
! CREATE INDEX PDCL.INDZ10                                           !
! ON PDCL.DODZ10                                                    !
! (FOURNP                                              ,                !
!  NUCOM              ASC ;                                       !
!  LIVRABLE           )                                          !
! ;                                                                !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
! *** END ***                                                       !
! 0: C1 CH: -GN210                                                  !
-----
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QBBLOC DB2/2 EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE VIEW PDCL.VUDZ09DBE                                             !
! (CLEFO                                             ,                          !
!  FOURNI                                             ,                          !
!  MATE                                             ,                          !
!  RELEA                                             ,                          !
!  LANGU                                             ,                          !
!  QTMAS                                             ,                          !
!  QTMAM                                             ,                          !
!  LIBFO                                             ,                          !
!  DATE                                             ,                          !
!  HEURE                                             ,                          !
!  FILLER                                           ,                          !
!  COMMEN                                           )                          !
! AS SELECT                                             !
! PDCL.FOUR.CLEFO                                             ,                          !
! PLEASE ENTER TO CONTINUE                                             !
! O: C1 CH: -GN350                                             !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QBBLOC DB2/2 EXAMPLE                          !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! PDCL.FOUR.FOURNI                                     ,                          !
! PDCL.FOUR.MATE                                       ,                          !
! PDCL.FOUR.RELEA                                       ,                          !
! PDCL.FOUR.LANGU                                       ,                          !
! PDCL.FOUR.QTMAS                                       ,                          !
! PDCL.FOUR.QTMAM                                       ,                          !
! PDCL.FOUR.LIBFO                                       ,                          !
! PDCL.FOUR.DATE                                       ,                          !
! PDCL.FOUR.HEURE                                       ,                          !
! PDCL.FOUR.FILLER                                       ,                          !
! PDCL.DODZ05.COCARA                                     ,                          !
! FROM PDCL.FOUR                                     ,                          !
!         PDCL.DODZ05                                     ,                          !
! ;                                                     !
! *** END ***                                          !
! O: C1 CH:                                           !
-----

```

DATACOM/DB

DATACOM/DB EXAMPLE

The purpose of this subchapter is to show the specific screens of a DATACOM/DB-type Block ('QCBLOC' code).

You will find, in the order:

- the Block description,
- the request to generate a Space, from line 080 of the Block description,
- the result of the generation of this Space,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.  QCBLOC DATACOM/DB EXAMPLE                       !
!                                                                           !
! A LIN : T EXTERNAL NAME          TABLE CODE   KEY GEN          LIBR.!
!       :                          VIEW          TY  CDE           !
!   080 : P ESP1-TABLE-QCBLOC      DZ05         C                   0067!
!   100 : T DODZ05                  DZ05         C                   0058!
!   130 : V VUDZ05S3                DZ05         3    C                   0067!
!   200 : T DODZ10                  DZ10         C                   0067!
!   210 : I INDZ10                  DZ10         C                   0067!
!   220 : J CEXISTF  DZ05           DZ10         C                   0048!
!   300 : T                          F010         C                   0219!
!   350 : V VUDZ09DBE              DZ09         C                   !
!   360 : V VUDZ09S4              DZ09         4    C                   !
!       :                          !                               !
!       :                          !                               !
!       :                          !                               !
!       :                          !                               !
!       :                          !                               !
!       :                          !                               !
!       :                          !                               !
! *** END ***                      !                               !
! O: C1 CH: BQCBLOC DR             !                               !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QCBLOC EXEMPLE DATCOM/DB                       !
!                               !                                               !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                               !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                               !
!                               !                                               !
! CREATE TABLE DODZ05                                           !
! (COCARA      CHAR      (00001)    NOT NULL,                               !
! NUCOD        SMALLINT                               NOT NULL WITH DEFAULT,   !
! FOURNI       CHAR      (00003),                               !
! NUCLIE       CHAR      (00008),                               !
! VILLE        CHAR      (00020),                               !
! CORESP       CHAR      (00256),                               !
! REMISE       DECIMAL   (00006,02),                               !
! MATERIEL     CHAR      (00008),                               !
! DATED        CHAR      (00010),                               !
! HEURE        TIME,                                           !
! PRECIS       TIMESTAMP,                                       !
! ;                                                       !
!                               !                                               !
! *** END ***                                               !
! O: C1 CH: -GN100                                           !
-----

```

```
-----  
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!  
! SQL COMMANDS GENERATION      QCBLOC DATACOM/DB EXAMPLE                       !  
!                               !  
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                               !  
! TYPE        : I                                             !  
!                               CATALOG UPDATE Y/N :                               !  
!                               !  
! CREATE INDEX INDZ10                                         !  
! ON DODZ10                                                  !  
! (FOURNP                                               ,                               !  
! NUCOM                                               ,                               !  
! LIVRABLE                                           )                               !  
! ;                                                       !  
!                                                       !  
!                                                       !  
!                                                       !  
!                                                       !  
!                                                       !  
! *** END ***                                             !  
! 0: C1 CH: -GN210                                         !  
-----
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QCBLOC DATACOM/DB EXAMPLE                      !
!                               !                                              !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                               !
!  FOURNI     ,                                               !
!  MATE       ,                                               !
!  RELEA     ,                                               !
!  LANGU     ,                                               !
!  QTMAS     ,                                               !
!  QTMAM     ,                                               !
!  LIBFO     ,                                               !
!  DATE      ,                                               !
!  HEURE     ,                                               !
!  FILLER    ,                                               !
!  COMMEN    )                                               !
! AS SELECT                                           !
! FOUR.CLEFO      ,                                               !
! PLEASE ENTER TO CONTINUE                                     !
! O: C1 CH: -GN350                                           !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QCBLOC DATACOM/DB EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                             !
! TYPE         : V                                           !
!                               CATALOG UPDATE Y/N :                             !
!                               !                                             !
! FOUR.FOURNI                                     ,                             !
! FOUR.MATE                                       ,                             !
! FOUR.RELEA                                       ,                             !
! FOUR.LANGU                                       ,                             !
! FOUR.QTMAS                                       ,                             !
! FOUR.QTMAM                                       ,                             !
! FOUR.LIBFO                                       ,                             !
! FOUR.DATE                                       ,                             !
! FOUR.HEURE                                       ,                             !
! FOUR.FILLER                                       ,                             !
! DODZ05.COCARA                                     ,                             !
! FROM FOUR                                     ,                             !
!     DODZ05                                     ,                             !
! ;                                               !
! *** END ***                                     !
! O: C1 CH:                                       !
-----

```

INGRES

INGRES EXAMPLE

The purpose of this subchapter is to show the specific screens of an INGRES-type Block ('QGBLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.  QGBLOC INGRES EXAMPLE                          !
!                                                                           !
! A LIN : T EXTERNAL NAME           TABLE CODE   KEY GEN           LIBR.!
!      :                               VIEW        TY  CDE            !
!  100 : T DODZ05                    DZ05        C                    0067!
!  130 : V VUDZ05S3                  DZ05        3  C                    0058!
!  200 : T DODZ10                    DZ10        C                    0067!
!  210 : I INDZ10                    DZ10        C                    0067!
!  300 : T                            F010        C                    0067!
!  350 : V VUDZ09DBE                 DZ09        C                    0048!
!  360 : V VUDZ09S4                 DZ09        4  C                    0219!
!  800 : T EXTERNAL-PI00            PI00        C                    0219!
!      :                               :                               !
!      :                               :                               !
!      :                               :                               !
!      :                               :                               !
!      :                               :                               !
!      :                               :                               !
!      :                               :                               !
!      :                               :                               !
! *** END ***                        !
! O: C1 CH: BQGBLOC DR                !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QGBLOC INGRES EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                               !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE TABLE DODZ05                                           !
! (COCARA      CHAR      (00001)    NOT NULL,                          !
!  NUCOD       SMALLINT,                                             !
!  FOURNI      CHAR      (00003),                                       !
!  NUCLIE      CHAR      (00008),                                       !
!  VILLE       VARCHAR   (00020),                                       !
!  CORESP      VARCHAR   (00256),                                       !
!  REMISE      FLOAT,                                             !
!  MATERIEL    VARCHAR   (00008),                                       !
!  DATED       CHAR      (00010),                                       !
!  HEURE       CHAR      (00008),                                       !
!  PRECIS      CHAR      (00026))                                       !
! ;                                                                    !
!                               !                                              !
! *** END ***                                                       !
! O: C1 CH: -GN100                                                 !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QGBLOC INGRES EXAMPLE                          !
!                               !
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                               !
! TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !
! CREATE INDEX INDZ10                                           !
! ON DODZ10                                                    !
! (FOURNP                                                    !
!  NUCOM              ASC ;                                     !
!  LIVRABLE           )                                       !
! ;                                                            !
!
!
!
!
!
!
!
!
!
!
! *** END ***
! O: C1 CH: -GN210
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QGBLOC INGRES EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                              !
!  FOURNI     ,                                              !
!  MATE       ,                                              !
!  RELEA     ,                                              !
!  LANGU     ,                                              !
!  QTMAS     ,                                              !
!  QTMAM     ,                                              !
!  LIBFO     ,                                              !
!  DATE      ,                                              !
!  HEURE     ,                                              !
!  FILLER    ,                                              !
!  COMMEN    )                                              !
! AS SELECT                                           !
! FOUR.CLEFO      ,                                              !
! PLEASE ENTER TO CONTINUE                               !
! O: C1 CH: -GN350                                       !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QGBLOC INGRES EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                           !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! FOUR.FOURNI                                     ,                            !
! FOUR.MATE                                       ,                            !
! FOUR.RELEA                                       ,                            !
! FOUR.LANGU                                       ,                            !
! FOUR.QTMAS                                       ,                            !
! FOUR.QTMAM                                       ,                            !
! FOUR.LIBFO                                       ,                            !
! FOUR.DATE                                       ,                            !
! FOUR.HEURE                                       ,                            !
! FOUR.FILLER                                       ,                            !
! DODZ05.COCARA                                     ,                            !
! FROM FOUR                                         ,                            !
!           DODZ05                                     ,                            !
! ;                                                  !
! *** END ***                                       !
! O: C1 CH:                                         !
-----

```

INFORMIX

INFORMIX EXAMPLE

The purpose of this subchapter is to show the specific screens of an INFORMIX-type Block ('QIBLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.   QIBLOC INFORMIX EXAMPLE                       !
!                               !                                             !
! A LIN : T EXTERNAL NAME      TABLE CODE   KEY GEN      LIBR.!
!       :                       VIEW          TY  CDE       !
!   100 : T DODZ05             DZ05         C              0067!
!   130 : V VUDZ05S3          DZ05         3    C              0058!
!   200 : T DODZ10            DZ10         C              0067!
!   210 : I INDZ10            DZ10         C              0067!
!   300 : T                   F010         C              0067!
!   350 : V VUDZ09DBE         DZ09         C              0048!
!   360 : V VUDZ09S4          DZ09         4    C              0219!
!   700 : T EXTERNAL-PI00     PI00         C              0219!
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
! *** END ***                                                         !
! O: C1 CH: BQIBLOC DR                                               !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QIBLOC INFORMIX EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                             !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                       !
!                               !                                             !
! CREATE TABLE PDCL.DODZ05                                             !
! (COCARA      CHAR      (00001)          NOT NULL,                       !
!  NUCOD       SMALLINT,                                             !
!  FOURNI     CHAR      (00003),                                         !
!  NUCLIE     CHAR      (00008),                                         !
!  VILLE      CHAR      (00020),                                         !
!  CORESP     CHAR      (00256),                                         !
!  REMISE     DECIMAL   (00006,02),                                       !
!  MATERIEL   CHAR      (00008),                                         !
!  DATED      DATETIME YEAR TO HOUR,                                       !
!  HEURE      CHAR      (00008),                                         !
!  PRECIS     CHAR      (00026))                                         !
! ;                                                                 !
!                               !                                             !
! *** END ***                                                         !
! O: C1 CH: -GN100                                                    !
-----

```

```

-----
!                ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION    QIBLOC INFORMIX EXAMPLE          !
!
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                !
! TYPE         : I      !
!               CATALOG UPDATE Y/N :                           !
!
! CREATE INDEX PDCL.INDZ10                                     !
! ON PDCL.DODZ10                                               !
! (FOURNP                                                       !
!  NUCOM                ASC  ;                                   !
!  LIVRABLE              )                                       !
! ;                                                               !
!
!
!
!
!
!
!
!
! *** END ***
! O: C1 CH: -GN210
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QIBLOC INFORMIX EXAMPLE                       !
!                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !
! CREATE VIEW PDCL.VUDZ09DBE                                             !
! (CLEFO      ,                                             !
!  FOURNI     ,                                             !
!  MATE       ,                                             !
!  RELEA     ,                                             !
!  LANGU     ,                                             !
!  QTMAS     ,                                             !
!  QTMAM     ,                                             !
!  LIBFO     ,                                             !
!  DATE      ,                                             !
!  HEURE     ,                                             !
!  FILLER    ,                                             !
!  COMMEN    )                                             !
! AS SELECT                                       ,                                             !
! FOUR.CLEFO                                     ,                                             !
! PLEASE ENTER TO CONTINUE                       !
! O: C1 CH: -GN350                               !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QIBLOC INFORMIX EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! PDCL.FOUR.FOURNI                                             ,          !
! PDCL.FOUR.MATE                                             ,          !
! PDCL.FOUR.RELEA                                             ,          !
! PDCL.FOUR.LANGU                                             ,          !
! PDCL.FOUR.QTMAS                                             ,          !
! PDCL.FOUR.QTMAM                                             ,          !
! PDCL.FOUR.LIBFO                                             ,          !
! PDCL.FOUR.DATE                                             ,          !
! PDCL.FOUR.HEURE                                             ,          !
! PDCL.FOUR.FILLER                                             ,          !
! PDCL.DODZ05.COCARA                                             ,          !
! FROM PDCL.FOUR                                             ,          !
!     PDCL.DODZ05                                             ,          !
! ;                                                                 !
! *** END ***                                                 !
! O: C1 CH:                                                 !
-----

```

NONSTOP SQL

NONSTOP SQL EXAMPLE

The purpose of this subchapter is to show the specific screens of a NONSTOP SQL-type Block ('QNBLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIP.   QNBLOC NONSTOP EXAMPLE                       !
!                               !                                             !
! A LIN : T EXTERNAL NAME      TABLE CODE   KEY GEN      LIBR.!
!      :                       VIEW          TY  CDE         !
!  100 : T DZ05                 DZ05          C             0067!
!  130 : V VUDZ04S3             DZ04          3    C             0058!
!  200 : T DODZ10               DZ10          C             0067!
!  210 : I INDZ10               DZ10          C             0067!
!  300 : T                       F010          C             0067!
!  350 : V VUDZ09DBE            DZ09          C             0048!
!  360 : V VUDZ09S4             DZ09          4    C             0219!
!  800 : T EXTERNAL-PI00        PI00          C             0219!
!      :                       !                                             !
!      :                       !                                             !
!      :                       !                                             !
!      :                       !                                             !
!      :                       !                                             !
!      :                       !                                             !
!      :                       !                                             !
!      :                       !                                             !
!      :                       !                                             !
! *** END ***                   !                                             !
! O: C1 CH: BQNBLOC DR          !                                             !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QNBLOC NONSTOP EXAMPLE                        !
!                               !                                             !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                            !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                        !
!                               !                                             !
! CREATE TABLE DZ05                                             !
! (COCARA      CHAR      (00001)          NOT NULL,                    !
!  NUCOD       SMALLINT          SIGNED    DEFAULT SYSTEM,            !
!  FOURNI      CHAR      (00003),                                             !
!  NUCLIE      CHAR      (00008),                                             !
!  VILLE       VARCHAR    (00020),                                             !
! *** REMISE INVALID USAGE                                             *** !
!  CORESP      VARCHAR    (00256),                                             !
!  MATERIEL    VARCHAR    (00008),                                             !
!  DATED       DATETIME YEAR TO HOUR,                                         !
!  HEURE       TIME,                                                         !
!  PRECIS      TIMESTAMP)                                                    !
! ;                                                                           !
!                                                                           !
! *** END ***                                                           !
! O: C1 CH: -GN100                                                       !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QNBLOC NONSTOP EXAMPLE                          !
!                               !
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                                !
! TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !
! CREATE INDEX INDZ10                                          !
! ON DODZ10                                                  !
! (FOURNP                                                ,
!  NUCOM          ASC ;
!  LIVRABLE       )
! ;
!
!
!
!
!
!
!
!
! *** END ***
! O: C1 CH: -GN210
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QNBLOC NONSTOP EXAMPLE                          !
!                               !                                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                            !
!                               !                                               !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                               !
! FOURNI     ,                                               !
! MATE       ,                                               !
! RELEA     ,                                               !
! LANGU     ,                                               !
! QTMAS     ,                                               !
! QTMAM     ,                                               !
! LIBFO     ,                                               !
! DATE      ,                                               !
! HEURE     ,                                               !
! FILLER    ,                                               !
! COMMEN    )                                               !
! AS SELECT                                     ,                                               !
! FOUR.CLEFO                                     ,                                               !
! PLEASE ENTER TO CONTINUE                          !
! O: C1 CH: -GN350                                  !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QNBLOC NONSTOP EXAMPLE                       !
!                               !                                           !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                           !
! TYPE         : V                                           !
!                               CATALOG UPDATE Y/N :                         !
!                               !                                           !
! FOUR.FOURNI                                     ,                           !
! FOUR.MATE                                       ,                           !
! FOUR.RELEA                                       ,                           !
! FOUR.LANGU                                       ,                           !
! FOUR.QTMAS                                       ,                           !
! FOUR.QTMAM                                       ,                           !
! FOUR.LIBFO                                       ,                           !
! FOUR.DATE                                       ,                           !
! FOUR.HEURE                                       ,                           !
! FOUR.FILLER                                       ,                           !
! DODZ05.COCARA                                     ,                           !
! FROM FOUR                                         ,                           !
!         DODZ05                                     ,                           !
! ;                                                                 !
! *** END ***                                       !
! O: C1 CH:                                       !
-----

```

ORACLE (<V6)

ORACLE EXAMPLE

The purpose of this subchapter is to show the specific screens of an ORACLE-type Block ('QOBLOC' code).

You will find, in the order:

- the Block description,
- the request to generate a Space, from line 080 of the Block description,
- the result of the generation of this Space,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.   QOBLOC ORACLE EXAMPLE                       !
!                               !                                             !
! A LIN : T EXTERNAL NAME      TABLE CODE   KEY GEN      LIBR.!
!       :                       VIEW         TY  CDE        !
!   080 : P ESP1-TABLE-QOBLOC   DZ05         C              0067!
!   100 : T DODZ05              DZ05         C              0058!
!   130 : V VUDZ05S3            DZ05         3  C              0067!
!   200 : T DODZ10              DZ10         C              0067!
!   210 : I INDZ10              DZ10         C              0067!
!   300 : T                     F010         C              0048!
!   350 : V VUDZ09DBE           DZ09         C              0219!
!   360 : V VUDZ09S4            DZ09         4  C              0219!
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
!       :                       !                                             !
! *** END ***                   !                                             !
! O: C1 CH: BQOBLOC DR         !                                             !
-----

```



```
-----
!                               ENGLISH LIBRARY                                *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QOBLOC ORACLE EXAMPLE                        !
!                               !                                             !
! SEGMENT      :              EXTERNAL NAME : ESP1-TABLE-QOBLOC            !
! TYPE         : P                                                    !
!                               CATALOG UPDATE Y/N :                        !
!                               !                                             !
! CREATE SPACE ESP1-TABLE-QOBLOC                                           !
! ;                                                                           !
!                                                                           !
!                                                                           !
!                                                                           !
!                                                                           !
!                                                                           !
!                                                                           !
!                                                                           !
!                                                                           !
! *** END ***                                                            !
! O: C1 CH:                                                                !
-----
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QOBLOC ORACLE EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                             !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE TABLE DODZ05                                           !
! (COCARA      CHAR      (00001)    NOT NULL,                          !
! NUCOD        INTEGER,                                             !
! FOURNI       CHAR      (00003),                                       !
! NUCLIE       CHAR      (00008),                                       !
! VILLE        VARCHAR   (00020),                                       !
! CORESP       LONG VARCHAR,                                           !
! REMISE       NUMBER    (00006,02),                                       !
! MATERIEL     VARCHAR   (00008),                                       !
! DATED        DATE,                                             !
! HEURE        DATE,                                             !
! PRECIS       CHAR      (00026))                                       !
! ;                                                                    !
!                               !                                              !
! *** END ***                                                    !
! O: C1 CH: -GN100                                               !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION        QOBLOC ORACLE EXAMPLE                          !
!                               !                                               !
! SEGMENT      : DZ10   EXTERNAL NAME : INDZ10                                !
! TYPE         : I                                           !
!                               CATALOG UPDATE Y/N :                            !
!                               !                                               !
! CREATE INDEX INDZ10                                           !
! ON DODZ10                                                    !
! (FOURNP                                                    !
!   NUCOM              ASC ;                                     !
!   LIVRABLE           )                                       !
! ;                                                            !
!                                                               !
!                                                               !
!                                                               !
!                                                               !
! *** END ***                                                  !
! 0: C1 CH: -GN210                                           !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QOBLOC ORACLE EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                              !
!  FOURNI     ,                                              !
!  MATE       ,                                              !
!  RELEA     ,                                              !
!  LANGU     ,                                              !
!  QTMAS     ,                                              !
!  QTMAM     ,                                              !
!  LIBFO     ,                                              !
!  DATE      ,                                              !
!  HEURE     ,                                              !
!  FILLER    ,                                              !
!  COMMEN    )                                              !
! AS SELECT                                           !
! FOUR.CLEFO      ,                                              !
! PLEASE ENTER TO CONTINUE                               !
! O: C1 CH: -GN350                                       !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QOBLOC ORACLE EXAMPLE                          !
!                               !                                               !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                             !
! TYPE         : V                                           !
!                               CATALOG UPDATE Y/N :                             !
!                               !                                               !
! FOUR.FOURNI                                     ,                             !
! FOUR.MATE                                       ,                             !
! FOUR.RELEA                                       ,                             !
! FOUR.LANGU                                       ,                             !
! FOUR.QTMAS                                       ,                             !
! FOUR.QTMAM                                       ,                             !
! FOUR.LIBFO                                       ,                             !
! FOUR.DATE                                       ,                             !
! FOUR.HEURE                                       ,                             !
! FOUR.FILLER                                       ,                             !
! DODZ05.COCARA                                     ,                             !
! FROM FOUR                                     ,                             !
!       DODZ05                                     ,                             !
! ;                                               !
! *** END ***                                     !
! O: C1 CH:                                       !
-----

```

ORACLE V7

ORACLE V7 EXAMPLE

The purpose of this subchapter is to show the specific screens of an ORACLE V7-type Block ('QPBL0C' code).

You will find, in the order:

- the Block description,
- the request to generate a Space, from line 080 of the Block description,
- the result of the generation of this Space,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.
- the request to alter a Table, from line 510 of the Block description.
- the result of the Alter Table,

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.  QPBLOC ORACLE V7 EXAMPLE                               !
!                                                                                               !
! A LIN : T EXTERNAL NAME          TABLE CODE      KEY GEN          LIBR.!
!      :                               VIEW          TY  CDE          !
!   080 : P ESP1-TABLE-QPBLOC          DZ05          C          0067!
!   100 : T DODZ05                     DZ05          C          0058!
!   130 : V VUDZ05S3                   DZ05          3  C          0067!
!   200 : T DODZ10                     DZ10          C          0048!
!   210 : I INDZ10                     DZ10          C          0067!
!   300 : T                             F010          C          0067!
!   350 : V VUDZ09DBE                  DZ09          C          0048!
!   360 : V VUDZ09S4                   DZ09          4  C          0213!
!   510 : A ADDTABLE                   DZ05          C          0219!
!   700 : T EXTERNAL-PI00              PI00          C          0219!
!   805 : K                             PI00          C          0219!
!   810 : E FONCTION                   C          C          0219!
!      :                               !
!      :                               !
!      :                               !
!      :                               !
! *** END ***                               !
! O: C1 CH: BQPLOC DR                               !
-----

```



```

-----
!                     ENGLISH LIBRARY                           *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION   QPBLOC ORACLE V7 EXAMPLE             !
!                                                                    !
! SEGMENT      :          EXTERNAL NAME : ESP1-TABLE-QPBLOC      !
! TYPE         : P                                             !
!                CATALOG UPDATE Y/N :                               !
!                                                                    !
! CREATE TABLESPACE ESP1-TABLE-QPBLOC                          !
! ;                                                               !
!                                                                    !
!                                                                    !
!                                                                    !
!                                                                    !
!                                                                    !
!                                                                    !
!                                                                    !
! *** END ***                                                  !
! 0: C1 CH:                                                     !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QPBLOC ORACLE V7 EXAMPLE                      !
!                               !                                             !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                             !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! CREATE TABLE DODZ05                                             !
! (COCARA      VARCHAR2    (00001)    NOT NULL,                          !
!  NUCOD       INTEGER,                                             !
!  FOURNI      VARCHAR2    (00003),                                       !
!  NUCLIE      VARCHAR2    (00008),                                       !
!  VILLE       VARCHAR    (00020),                                       !
!  CORESP      VARCHAR    (00256),                                       !
!  REMISE      NUMBER      (00006,02),                                       !
!  MATERIEL    VARCHAR    (00008),                                       !
!  DATED       DATE,                                               !
!  HEURE       DATE,                                               !
!  PRECIS      VARCHAR2    (00026))                                       !
! TABLESPACE ESP1-TABLE-QPBLOC                                         !
! ;                                                                       !
!                               !                                             !
! *** END ***                                                         !
! O: C1 CH: -GN100                                                    !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QPBLOC ORACLE V7 EXAMPLE                          !
!                               !
! SEGMENT      : DZ10      EXTERNAL NAME : INDZ10                                !
! TYPE         : I                                               !
!                               CATALOG UPDATE Y/N :                          !
!                               !
! CREATE INDEX INDZ10                                           !
! ON DODZ10                                                  !
! (FOURNP                                                    !
!   NUCOM                ASC ;                                !
!   LIVRABLE              )                                !
! ;                                                          !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
! *** END ***                                               !
! O: C1 CH: -GN210                                         !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QPBLOC ORACLE V7 EXAMPLE                       !
!                               !                                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                               !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                               !
!  FOURNI     ,                                               !
!  MATE       ,                                               !
!  RELEA     ,                                               !
!  LANGU     ,                                               !
!  QTMAS     ,                                               !
!  QTMAM     ,                                               !
!  LIBFO     ,                                               !
!  DATE      ,                                               !
!  HEURE     ,                                               !
!  FILLER    ,                                               !
!  COMMEN    )                                               !
! AS SELECT                                           !
! FOUR.CLEFO      ,                                               !
! PLEASE ENTER TO CONTINUE                               !
! O: C1 CH: -GN350                                       !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QPBLOC ORACLE V7 EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! FOUR.FOURNI                                     ,                             !
! FOUR.MATE                                       ,                             !
! FOUR.RELEA                                       ,                             !
! FOUR.LANGU                                       ,                             !
! FOUR.QTMAS                                       ,                             !
! FOUR.QTMAM                                       ,                             !
! FOUR.LIBFO                                       ,                             !
! FOUR.DATE                                       ,                             !
! FOUR.HEURE                                       ,                             !
! FOUR.FILLER                                       ,                             !
! DODZ05.COCARA                                     ,                             !
! FROM FOUR                                     ,                             !
!       DODZ05                                     ,                             !
! ;                                               ,                             !
! *** END ***                                     ,                             !
! O: C1 CH:                                     ,                             !
-----

```



```
-----
!                               ENGLISH LIBRARY                 *PDMB.D801.BMS.259!
! SQL COMMANDS GENERATION      QPBLOC ORACLE V7 EXAMPLE      !
!                               !                               !
! SEGMENT      : DZ05     EXTERNAL NAME :                   !
! TYPE         : A                               !
!               CATALOG UPDATE Y/N :                   !
! ALTER TABLE DZ05                                           !
!                                                               !
!                                                               !
!                                                               !
!                                                               !
!                                                               !
!                                                               !
! 0: C1 CH:                                                    !
-----
```

RDMS

RDMS EXAMPLE

The purpose of this subchapter is to show the specific screens of an RDMS-type Block ('QRBLOC' code).

You will find, in the order:

- the Block description,
- the request to generate a Space, from line 080 of the Block description,
- the result of the generation of this Space,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.   QRBLOC RDMS EXAMPLE                               !
!                               !                               !
! A LIN : T EXTERNAL NAME           TABLE CODE       KEY GEN           LIBR.!
!       :                               VIEW           TY  CDE           !
!   080 : P ESP1-TABLE-QRBLOC                DZ05                C                0067!
!   100 : T DZ05                             DZ10                C                0058!
!   200 : T DODZ10                           DZ10                C                0067!
!   210 : I INDZ10                           DZ10                C                + 0067!
!   300 : T F010                              F010                C                0067!
!   350 : V VUDZ09DBE                       DZ09                C                0048!
!   360 : V VUDZ09S4                       DZ09                4  C             0219!
!   700 : T EXTERNAL-PI00                   PI00                C                0219!
!   805 : K EXTKEY                           PI00                C                + 0219!
!       :                               !                               !
!       :                               !                               !
!       :                               !                               !
!       :                               !                               !
!       :                               !                               !
!       :                               !                               !
! *** END ***                               !                               !
! O: C1 CH: BQRBLOC DR                       !                               !
-----

```



```
-----!
!          ENGLISH LIBRARY                                *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION    QRBLOC RDMS EXAMPLE        !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! SEGMENT   :          EXTERNAL NAME : ESP1-TABLE-QRBLOC !
! TYPE      : P                                !
!          CATALOG UPDATE Y/N :                  !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! CREATE STORAGE-AREA ESP1-TABLE-QRBLOC                !
! FOR SCHEMA EXTQRBLC                                   !
! ;                                                    !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !
! *** END ***                                          !
! 0: C1 CH:                                           !
-----!
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QRBLOC RDMS EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                            !
! TYPE         : T                                             !
!              CATALOG UPDATE Y/N :                                     !
!                               !                                              !
! CREATE TABLE DZ05                                           !
! IN EXTQRBLC.ESP1-TABLE-QRBLOC                                  !
! COLUMNS ARE COCARA      : CHARACTER (00001) NOT NULL ,          !
!                       NUCOD      : DECIMAL (00004)              ,          !
!                       FOURNI     : CHARACTER (00003)            ,          !
!                       NUCLIE     : CHARACTER (00008)            ,          !
!                       VILLE      : CHARACTER (00020)            ,          !
!                       CORESP     : CHARACTER (00256)            ,          !
!                       REMISE     : DECIMAL (00007.02)           ,          !
!                       MATERIEL   : CHARACTER (00008)            ,          !
!                       DATED      : CHARACTER (00010)            ,          !
!                       HEURE      : CHARACTER (00008)            ,          !
!                       PRECIS     : CHARACTER (00026)            ,          !
! ;                                                                !
! *** END ***                                                  !
! O: C1 CH: -GN100                                           !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QRBLOC RDMS EXAMPLE                           !
!                               !                                               !
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                               !
! TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                               !
!                               !                                               !
! CREATE INDEX INDZ10                                           !
! ON DODZ10                                                    !
! (FOURNP                                                    !
!   NUCOM                ASC ;                               !
!   LIVRABLE              )                               !
! ;                                                           !
!                               !                                               !
!                               !                                               !
!                               !                                               !
!                               !                                               !
!                               !                                               !
!                               !                                               !
!                               !                                               !
!                               !                                               !
! *** END ***                                                 !
! O: C1 CH: -GN210                                           !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QRBLOC RDMS EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                              !
! FOURNI     ,                                              !
! MATE       ,                                              !
! RELEA     ,                                              !
! LANGU     ,                                              !
! QTMAS     ,                                              !
! QTMAM     ,                                              !
! LIBFO     ,                                              !
! DATE      ,                                              !
! HEURE     ,                                              !
! FILLER    ,                                              !
! COMMEN    )                                              !
! AS SELECT                                     ,                          !
! FOUR.CLEFO                                     ,                          !
! PLEASE ENTER TO CONTINUE                          !
! O: C1 CH: -GN350                                  !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QRBLOC RDMS EXAMPLE                          !
!                               !                                             !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                           !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! FOUR.FOURNI                                     ,                          !
! FOUR.MATE                                       ,                          !
! FOUR.RELEA                                       ,                          !
! FOUR.LANGU                                       ,                          !
! FOUR.QTMAS                                       ,                          !
! FOUR.QTMAM                                       ,                          !
! FOUR.LIBFO                                       ,                          !
! FOUR.DATE                                       ,                          !
! FOUR.HEURE                                       ,                          !
! FOUR.FILLER                                       ,                          !
! DODZ05.COCARA                                     ,                          !
! FROM FOUR                                     ,                          !
!       DODZ05                                     ,                          !
! ;                                               !
! *** END ***                                     !
! O: C1 CH:                                       !
-----

```

SQL/DS

SQL/DS EXAMPLE

The purpose of this subchapter is to show the specific screens of an SQL/DS-type Block ('QSBLOC' code).

You will find, in the order:

- the Block description,
- the request to generate a Space, from line 080 of the Block description,
- the result of the generation of this Space,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.  QSBLOC SQL/DS EXAMPLE                               !
!                                                                           !
! A LIN : T EXTERNAL NAME          TABLE CODE      KEY GEN          LIBR.!
!      :                               VIEW          TY  CDE           !
!   080 : P ESP1-TABLE-QSBLOC      DZ05             C             0067!
!   100 : T DODZ05                  DZ05             C             0058!
!   110 : K                          DZ05             C             0067!
!   130 : V VUDZ05S3                DZ05             3  C             0067!
!   200 : T DODZ10                  DZ10             C             0067!
!   210 : I INDZ10                  DZ10             C             + 0048!
!   220 : J CEXISTF  DZ05           DZ10             C  C             0219!
!   300 : T                          F010             C             0219!
!   350 : V VUDZ09DBE               DZ09             C             0219!
!   360 : V VUDZ09S4                DZ09             4  C             !
!   700 : T EXTERNAL-PI00           PI00             C             !
!   805 : K                          PI00             C             +  !
!      :                               !
!      :                               !
!      :                               !
! *** END ***                               !
! O: C1 CH: BQSBLOC DR                               !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QSBLOC SQL/DS EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ05   EXTERNAL NAME : DODZ05                               !
! TYPE         : T                                           !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE TABLE PDCL.DODZ05                                           !
! (COCARA      CHAR      (00001)      NOT NULL,                          !
! NUCOD        SMALLINT,                                              !
! FOURNI       CHAR      (00003),                                         !
! NUCLIE       CHAR      (00008),                                         !
! VILLE        VARCHAR   (00020),                                         !
! CORESP       LONG VARCHAR,                                             !
! REMISE       DECIMAL   (00006, 02),                                       !
! MATERIEL     VARCHAR   (00008),                                         !
! DATED        CHAR      (00010),                                         !
! HEURE        TIME,                                                  !
! PRECIS       TIMESTAMP)                                              !
!   IN EXQSBLOC.ESP1-TABLE-QSBLOC                                         !
! ;                                                                           !
!                                                                           !
! *** END ***                                                           !
! O: C1 CH: -GN100                                                     !
-----

```

```

-----
!          ENGLISH LIBRARY                                *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QSBLOC SQL/DS EXAMPLE      !
!                               !                          !
! SEGMENT      : DZ10   EXTERNAL NAME : INDZ10           !
! TYPE         : I                                           !
!                               CATALOG UPDATE Y/N :      !
!                               !                          !
! CREATE INDEX PDCL.INDZ10                                   !
! ON PDCL.DODZ10                                           !
! (FOURNP                                               , !
! NUCOM             ASC ;                                  !
! LIVRABLE          )                                     !
! ;                                                       !
!                                                         !
!                                                         !
!                                                         !
!                                                         !
! *** END ***                                             !
! 0: C1 CH: -GN210                                         !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QSBLOC SQL/DS EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE VIEW PDCL.VUDZ09DBE                                             !
! (CLEFO      ,                                              !
!  FOURNI     ,                                              !
!  MATE       ,                                              !
!  RELEA     ,                                              !
!  LANGU     ,                                              !
!  QTMAS     ,                                              !
!  QTMAM     ,                                              !
!  LIBFO     ,                                              !
!  DATE      ,                                              !
!  HEURE     ,                                              !
!  FILLER    ,                                              !
!  COMMEN    )                                              !
! AS SELECT                                             !
! PDCL.FOUR.CLEFO ,                                              !
! PLEASE ENTER TO CONTINUE                                             !
! 0: C1 CH: -GN350                                             !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QSBLOC SQL/DS EXAMPLE                          !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! PDCL.FOUR.FOURNI                                     ,                          !
! PDCL.FOUR.MATE                                       ,                          !
! PDCL.FOUR.RELEA                                       ,                          !
! PDCL.FOUR.LANGU                                       ,                          !
! PDCL.FOUR.QTMAS                                       ,                          !
! PDCL.FOUR.QTMAM                                       ,                          !
! PDCL.FOUR.LIBFO                                       ,                          !
! PDCL.FOUR.DATE                                       ,                          !
! PDCL.FOUR.HEURE                                       ,                          !
! PDCL.FOUR.FILLER                                       ,                          !
! PDCL.DODZ05.COCARA                                     ,                          !
! FROM PDCL.FOUR                                     ,                          !
!         PDCL.DODZ05                                     ,                          !
! ;                                                                                          !
! *** END ***                                          !
! O: C1 CH:                                          !
-----

```

INTEREL RDBC

INTEREL RDBC EXAMPLE

The purpose of this subchapter is to show the specific screens of an INTEREL RDBC-type Block ('QTBLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!               ENGLISH LIBRARY                        *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.  QTBLOC INTEREL RDBC EXAMPLE  !
!
! A LIN : T EXTERNAL NAME          TABLE CODE      KEY GEN          LIBR.!
!      :                      VIEW                TY  CDE           !
!   100 : T DODZ05                  DZ05          C             0067!
!   200 : T DODZ11                  DZ11          C             0058!
!   210 : I INDZ10                  DZ10          C             0067!
!   300 : T                          F011          C             0067!
!   350 : V VUDZ09DBE               DZ09          C             0067!
!   360 : V VUDZ08S4                DZ08          4 C            0048!
!   800 : T EXTERNAL-PI00           PI00          C             0219!
!      :                               :             :             !
!      :                               :             :             !
!      :                               :             :             !
!      :                               :             :             !
!      :                               :             :             !
!      :                               :             :             !
!      :                               :             :             !
!      :                               :             :             !
!      :                               :             :             !
!      :                               :             :             !
! *** END ***
! O: C1 CH: BQTBLOC DR
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QTBLOC INTEREL RDBC EXAMPLE                      !
!                               !                                             !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                               !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! CREATE TABLE DODZ05                                           !
! /* NUCOD INVALID USAGE                                         */      !
! (COCARA      CHAR      (00001)    NOT NULL,                          !
!  FOURNI     CHAR      (00003),                                         !
!  NUCLIE     CHAR      (00008),                                         !
!  VILLE      VARCHAR   (00020),                                         !
! /* REMISE INVALID USAGE                                         */      !
! CORESP      VARCHAR   (00256),                                         !
! MATERIEL    VARCHAR   (00008),                                         !
! DATED       CHAR      (00010),                                         !
! HEURE       CHAR      (00008),                                         !
! PRECIS      CHAR      (00026))                                         !
! ;                                                                    !
!                               !                                             !
! *** END ***                                                    !
! O: C1 CH: -GN100                                              !
-----

```

```
-----  
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!  
! SQL COMMANDS GENERATION      QTBLOC INTEREL RDBC EXAMPLE                      !  
!                               !  
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                                !  
! TYPE        : I                                             !  
!                               CATALOG UPDATE Y/N :                          !  
!                               !  
! CREATE INDEX INDZ10                                         !  
! ON DODZ10                                                  !  
! (FOURNP                                                  !  
!   NUCOM              ASC ;                                  !  
!   LIVRABLE          )                                     !  
! ;                                                         !  
!                                                         !  
!                                                         !  
!                                                         !  
!                                                         !  
!                                                         !  
! *** END ***                                              !  
! O: C1 CH: -GN210                                         !  
-----
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QTBLOC INTEREL RDBC EXAMPLE                      !
!                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                             !
!  FOURNI     ,                                             !
!  MATE       ,                                             !
!  RELEA      ,                                             !
! /* QTMAS   INVALID USAGE                                     */ !
! /* QTMAM   INVALID USAGE                                     */ !
!  LANGU     ,                                             !
!  LIBFO     ,                                             !
!  DATE      ,                                             !
!  HEURE     ,                                             !
!  FILLER    ,                                             !
!  COMMEN    )                                             !
! AS                                                 !
! SELECT                                           !
! PLEASE ENTER TO CONTINUE                               !
! O: C1 CH: -GN350                                     !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QTBLOC INTEREL RDBC EXAMPLE                      !
!                               !                                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                               !
!                               !                                               !
! FOUR.CLEFO           ,                                               !
! FOUR.FOURNI          ,                                               !
! FOUR.MATE            ,                                               !
! FOUR.RELEA           ,                                               !
! FOUR.LANGU           ,                                               !
! FOUR.LIBFO           ,                                               !
! FOUR.DATE            ,                                               !
! FOUR.HEURE           ,                                               !
! FOUR.FILLER         ,                                               !
! DODZ05.COCARA       ,                                               !
! FROM FOUR           ,                                               !
!     DODZ05          ,                                               !
! ;                                                           !
! *** END ***                                               !
! O: C1 CH:                                                 !
-----

```

INTEREL RFM

INTEREL RFM EXAMPLE

The purpose of this subchapter is to show the specific screens of an INTEREL RFM-type Block ('QUBLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.   QUBLOC INTEREL RFM EXAMPLE                       !
!                               !                                               !
! A LIN : T EXTERNAL NAME          TABLE CODE      KEY GEN          LIBR.!
!      :                               VIEW          TY  CDE           !
! 100 : T DODZ05                    DZ05         C                0067!
! 200 : T DODZ11                    DZ11         C                0058!
! 210 : I INDZ10                    DZ10         C                0067!
! 300 : T                            F011         C                0067!
! 350 : V VUDZ09DBE                 DZ09         C                0067!
! 360 : V VUDZ08S4                 DZ08         4 C                0048!
! 800 : T EXTERNAL-PI00            PI00         C                0219!
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
!      :                               !                                               !
! *** END ***                       !                                               !
! O: C1 CH: BQUBLOC DR              !                                               !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QUBLOC INTEREL RFM EXAMPLE                      !
!                               !                                               !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                                !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                               !
! CREATE TABLE DODZ05                                           !
! -- NUCOD INVALID USAGE                                         !
! (COCARA      CHAR      (00001)    NOT NULL,                          !
! FOURNI       CHAR      (00003),                                       !
! NUCLIE       CHAR      (00008),                                       !
! VILLE        CHAR      (00020),                                       !
! -- REMISE INVALID USAGE                                         !
! CORESP       CHAR      (00256),                                       !
! MATERIEL     CHAR      (00008),                                       !
! DATED        CHAR      (00010),                                       !
! HEURE        CHAR      (00008),                                       !
! PRECIS       CHAR      (00026))                                       !
! ;                                                                    !
!                               !                                               !
! *** END ***                                                    !
! O: C1 CH: -GN100                                              !
-----

```



```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
!  SQL COMMANDS GENERATION      QUBLOC INTEREL RFM EXAMPLE                    !
!                               !
!  SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                             !
!  TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !
!  CREATE INDEX INDZ10                                           !
!  ON DODZ10                                                    !
!  (FOURNP                                                       !
!  NUCOM                    ASC ;                                 !
!  LIVRABLE                  )                                   !
!  ;                                                            !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
!  *** END ***                                                  !
!  0: C1 CH: -GN210                                            !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QUBLOC INTEREL RFM EXAMPLE                      !
!                               !                                             !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                             !
! CREATE VIEW VUDZ09DBE                                             !
! (CLEFO      ,                                             !
!  FOURNI     ,                                             !
!  MATE       ,                                             !
!  RELEA     ,                                             !
!  -- QTMAS   INVALID USAGE                                         !
!  -- QTMAM   INVALID USAGE                                         !
!  LANGU     ,                                             !
!  LIBFO     ,                                             !
!  DATE      ,                                             !
!  HEURE     ,                                             !
!  FILLER    ,                                             !
!  COMMEN    )                                             !
! AS                                             !
! SELECT                                             !
! PLEASE ENTER TO CONTINUE                                         !
! O: C1 CH: -GN350                                             !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QUBLOC INTEREL RFM EXAMPLE                       !
!                               !                                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                             !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                             !
!                               !                                               !
!                               !                                               !
! FOUR.CLEFO           ,                                               !
! FOUR.FOURNI          ,                                               !
! FOUR.MATE            ,                                               !
! FOUR.RELEA           ,                                               !
! FOUR.LANGU           ,                                               !
! FOUR.LIBFO           ,                                               !
! FOUR.DATE            ,                                               !
! FOUR.HEURE           ,                                               !
! FOUR.FILLER          ,                                               !
! DODZ05.COCARA        ,                                               !
! FROM FOUR           ,                                               !
!     DODZ05           ,                                               !
! ;                                                             !
! *** END ***                                                 !
! O: C1 CH:                                                   !
-----

```

VAX SQL

VAX SQL EXAMPLE

The purpose of this subchapter is to show the specific screens of a VAX/SQL-type Block ('QVBLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.

```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIP.   QVBLOC VAX SQL EXAMPLE                               !
!                               !                               !
! A LIN : T EXTERNAL NAME      TABLE CODE   KEY GEN      LIBR.!
!       :                       VIEW         TY  CDE        !
!   100 : T DODZ05             DZ05        C              0067!
!   200 : T DODZ11             DZ11        C              0058!
!   210 : I INDZ10             DZ10        C      +      0067!
!   300 : T                    F011        C              0067!
!   350 : V VUDZ09DBE          DZ09        C              0067!
!   360 : V VUDZ08S4           DZ08        4  C      0048!
!   800 : T EXTERNAL-PI00      PI00        C              0219!
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
!       :                       !                               !
! *** END ***                  !                               !
! O: C1 CH: BQVBLOC DR        !                               !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QVBLOC VAX SQL EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                                !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE TABLE DODZ05                                           !
! (COCARA      CHAR      (00001)    NOT NULL,                          !
! NUCOD        SMALLINT,                                             !
! FOURNI       CHAR      (00003),                                       !
! NUCLIE       CHAR      (00008),                                       !
! VILLE        VARCHAR   (00020),                                       !
! CORESP       VARCHAR   (00256),                                       !
! REMISE       DECIMAL   (00006, 02),                                     !
! MATERIEL     VARCHAR   (00008),                                       !
! DATED        CHAR      (00010),                                       !
! HEURE        CHAR      (00008),                                       !
! PRECIS       CHAR      (00026))                                       !
! ;                                                                    !
!                               !                                              !
! *** END ***                                                       !
! O: C1 CH: -GN100                                                 !
-----

```

```
-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QVBLOC VAX SQL EXAMPLE                        !
!                               !
! SEGMENT      : DZ10    EXTERNAL NAME : INDZ10                            !
! TYPE         : I                                             !
!                               CATALOG UPDATE Y/N :                       !
!                               !
! CREATE INDEX INDZ10                                           !
! ON DODZ10                                                    !
! (FOURNP                                                    !
!  NUCOM              ASC ;                                     !
!  LIVRABLE           )                                       !
! ;                                                            !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
!                               !
! *** END ***                                                 !
! O: C1 CH: -GN210                                           !
-----
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QVBLOC VAX SQL EXAMPLE                          !
!                               !                                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                               !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                               !
!  FOURNI     ,                                               !
!  MATE       ,                                               !
!  RELEA     ,                                               !
!  LANGU     ,                                               !
!  QTMAS     ,                                               !
!  QTMAM     ,                                               !
!  LIBFO     ,                                               !
!  DATE      ,                                               !
!  HEURE     ,                                               !
!  FILLER    ,                                               !
!  COMMEN    )                                               !
! AS SELECT                                           !
! FOUR.CLEFO                                           !
! PLEASE ENTER TO CONTINUE                                  !
! O: C1 CH: -GN350                                         !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QVBLOC VAX SQL EXAMPLE                       !
!                               !                                             !
! SEGMENT      : DZ09   EXTERNAL NAME : VUDZ09DBE                           !
! TYPE         : V                                           !
!                               CATALOG UPDATE Y/N :                         !
!                               !                                             !
! FOUR.FOURNI  !                                             !
! FOUR.MATE    !                                             !
! FOUR.RELEA   !                                             !
! FOUR.LANGU   !                                             !
! FOUR.QTMAS   !                                             !
! FOUR.QTMAM   !                                             !
! FOUR.LIBFO   !                                             !
! FOUR.DATE    !                                             !
! FOUR.HEURE   !                                             !
! FOUR.FILLER  !                                             !
! DODZ05.COCARA !                                             !
! FROM FOUR    !                                             !
!           ,   !                                             !
!           DODZ05 !                                             !
! ;                                                     !
! *** END ***                                           !
! O: C1 CH:                                             !
-----

```

SYBASE

SYBASE EXAMPLE

The purpose of this subchapter is to show the specific screens of a SYBASE-type Block ('QYBLOC' code).

You will find, in the order:

- the Block description,
- the result of a Table generation, from line 100 of the Block description,
- the result of an Index generation, from line 210 of the Block description,
- the result of a View generation, from line 350 of the Block description.

The generation requests and the Segment descriptions from which generation was performed are shown in the 'Common Screens' subchapter in this chapter.


```

-----
!                               ENGLISH LIBRARY                               *PDMB.D801.BMS.259!
! RELATIONAL BLOCK DESCRIPT.  QYBLOC SYBASE EXAMPLE                               !
!                                                                           !
! A LIN : T EXTERNAL NAME          TABLE CODE      KEY GEN          LIBR.!
!      :                               VIEW          TY  CDE           !
! 100 : T DODZ05                    DZ05          C                   0067!
! 130 : V VUDZ05S3                  DZ05          3    C                   0058!
! 200 : T DODZ10                    DZ10          C           +          0067!
! 210 : I INDZ10                    DZ10          C                   0067!
! 300 : T                            F010          C                   0067!
! 350 : V VUDZ09DBE                 DZ09          C                   0048!
! 360 : V VUDZ09S4                  DZ09          4    C                   0219!
! 510 : A ADDTABLE                  DZ05          C                   !
! 700 : T EXTERNAL-PI00             PI00          C                   !
!      :                               !
!      :                               !
!      :                               !
!      :                               !
!      :                               !
!      :                               !
!      :                               !
! *** END ***                               !
! O: C1 CH: BQYBLOC DR                               !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QYBLOC SYBASE EXAMPLE                          !
!                               !                                              !
! SEGMENT      : DZ05    EXTERNAL NAME : DODZ05                               !
! TYPE         : T                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !                                              !
! CREATE TABLE DODZ05                                           !
! (COCARA      CHAR      (00001)    NOT NULL,                          !
!  NUCOD       SMALLINT                                NULL,                          !
!  FOURNI      CHAR      (00003)    NULL,                               !
!  NUCLIE      CHAR      (00008)    NULL,                               !
! /* CORESP FIELD LENGTH >      00255 NOT TAKEN INTO ACCOUNT      */    !
!  VILLE       VARCHAR   (00020)    NULL,                               !
!  REMISE      NUMERIC   (00006,02) NULL,                               !
!  MATERIEL    VARCHAR   (00008)    NULL,                               !
!  DATED       DATETIME                                NULL,                          !
!  HEURE       DATETIME                                NULL,                          !
!  PRECIS      CHAR      (00026)    NULL)                               !
! ;                                                                    !
!                               !                                              !
! *** END ***                                                    !
! O: C1 CH: -GN100                                              !
-----

```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QYBLOC SYBASE EXAMPLE                          !
!                               !
! SEGMENT      : DZ10   EXTERNAL NAME : INDZ10                                !
! TYPE         : I                                           !
!                               CATALOG UPDATE Y/N :                            !
!                               !
! CREATE INDEX INDZ10                                          !
! ON DODZ10                                                  !
! (FOURNP                                                  !
!   NUCOM              ASC ;                                !
!   LIVRABLE           )                                    !
! ;                                                         !
!                                                         !
!                                                         !
!                                                         !
!                                                         !
! *** END ***                                              !
! O: C1 CH: -GN210                                         !
-----

```

```
-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QYBLOC SYBASE EXAMPLE                        !
!                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                          !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                          !
!                               !
! CREATE VIEW VUDZ09DBE                                           !
! (CLEFO      ,                                             !
!  FOURNI     ,                                             !
!  MATE       ,                                             !
!  RELEA     ,                                             !
!  LANGU     ,                                             !
!  QTMAS     ,                                             !
!  QTMAM     ,                                             !
!  LIBFO     ,                                             !
!  DATE      ,                                             !
!  HEURE     ,                                             !
!  FILLER    ,                                             !
!  COMMEN    )                                             !
! AS SELECT                                           !
! FOUR.CLEFO                                           !
! PLEASE ENTER TO CONTINUE                               !
! O: C1 CH: -GN350                                       !
-----
```

```

-----
!                               ENGLISH LIBRARY                               *PDMB.DDDD.BMS.198!
! SQL COMMANDS GENERATION      QYBLOC SYBASE EXAMPLE                          !
!                               !                                               !
! SEGMENT      : DZ09    EXTERNAL NAME : VUDZ09DBE                            !
! TYPE         : V                                             !
!                               CATALOG UPDATE Y/N :                            !
!                               !                                               !
! FOUR.FOURNI                                     !                               !
! FOUR.MATE                                       !                               !
! FOUR.RELEA                                     !                               !
! FOUR.LANGU                                     !                               !
! FOUR.QTMAS                                     !                               !
! FOUR.QTMAM                                     !                               !
! FOUR.LIBFO                                     !                               !
! FOUR.DATE                                      !                               !
! FOUR.HEURE                                    !                               !
! FOUR.FILLER                                    !                               !
! DODZ05.COCARA                                 !                               !
! FROM FOUR                                     !                               !
!      DODZ05                                  !                               !
! ;                                             !                               !
! *** END ***                                  !                               !
! O: C1 CH:                                    !                               !
-----

```




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