

# NDB - Retrieval of System Tables

## **Important:**

Before you use the Retrieval of System Tables function, refer to LISTSQ and Explain Functions in the section Special Requirements for Natural Tools for DB2.

The DB2 system tables provide information on the contents of your DB2 system. The Retrieval of System Tables function enables you to:

- display information on DB2 objects without coding SQL queries;
- easily access related objects, such as indexes of a table.

The DB2 objects supported by the Retrieval of System Tables function are database, tablespace, table, index, column, plan, check constraints, statistic tables, package, and DBRM (database request module), as well as access rights to and relationships between these objects.

DB2 objects are presented in one of the following two ways:

- As selection lists, where all objects are of the same type, and where commands can be issued to display related objects.
- You can list databases, tables, plans, and packages by name. From the database listings, you can invoke listings of the tablespaces or tables of a database. From the table listing, you can invoke listings of the columns and indexes of a table. From the plan listing, you can invoke listings of the DBRMs of a plan, of the package list of a plan, of the tables and indexes used by a plan, and of the systems which are enabled or disabled for a plan. From the package listing, you can invoke listings of the tables and indexes used in a package and of the systems which are enabled or disabled for a package. From the database, table, plan, or package listings, you can also investigate who is authorized to access a DB2 object. In addition, the User Authorization menu enables you to list all existing access rights by user ID.
- As reports, which merely contain information on different types of DB2 objects, and where only browse commands can be issued.

Browsing of objects is performed with ISPF-like commands. The most important browse commands can also be issued via PF keys.

This section covers the following topics:

- Invoking the Retrieval of System Tables Function
- List Databases
- List Tablespaces
- List Plans
- List Packages
- List Tables
- User Authorizations
- List Statistic Tables

## Invoking the Retrieval of System Tables Function

### ► To invoke the Retrieval of System Tables function

- Enter function code "R" on the Natural Tools for DB2 Main Menu.

The Retrieval of System Tables screen is displayed:

```

16:31:56          ***** NATURAL TOOLS FOR DB2 *****
                     - Retrieval of System Tables -
                                         1999-09-30

      Code   Function           Parameter
      D     List Databases      Database
      K     List Packages        Collection, Name
      P     List Plans           Plan
      T     List Tables          Tbreator, Tbname
      U     User Authorizations
      S     Statistic Tables
      ?     Help
      .     Exit

      Code .. _    Database Name ..... _____
                     Package Collection .. _____
                     Package Name ..... _____
                     Plan Name ..... _____
                     Table Creator ..... _____
                     Table Name ..... _____

Command ===>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help             Exit                               Canc

```

The following functions are available:

Code	Description
D	Lists databases defined in the DB2 catalog.
K	Lists packages defined in the DB2 catalog.
P	Lists plans defined in the DB2 catalog.
S	Statistic tables.
T	Lists tables defined in the DB2 catalog.
U	Provides information on which user(s) can access which DB2 objects.

The following parameters must be specified as selection criteria:

Parameter	Description
Database Name	The name of the database to be listed. Asterisk notation (*) for range specification is possible. The Database Name parameter is relevant to the List Databases function only.
Package Collection	The collection of the package to be listed. Asterisk notation (*) for range specification is possible. The Package Collection parameter is relevant to the List Packages function only.
Package Name	The name of the package to be listed. Asterisk notation (*) for range specification is possible. The Package Name parameter is relevant to the List Packages function only.
Plan Name	The name of the plan to be listed. Asterisk notation (*) for range specification is possible. The Plan Name parameter is relevant to the List Plans function only.
Table Creator	The name of the creator of the table(s) to be listed. Asterisk notation (*) for range specification is possible. The Table Creator parameter is relevant to the List Tables function only.
Table Name	The name of the table to be listed. Asterisk notation (*) for range specification is possible. The Table Name parameter is relevant to the List Tables function only.

## List Databases

### ► To invoke the List Databases function

1. Enter function code "D" on the Retrieval of System Tables screen.
2. Specify the name of the database(s) to be listed.

If a value followed by an asterisk is specified, all databases defined in the DB2 catalog whose names begin with this value are listed.

If asterisk notation is specified only, all databases defined in the DB2 catalog are listed.

***** NATURAL TOOLS FOR DB2 *****						1999-09-30	
S 01 Row 0 of 25 Columns 001 059							
						Scroll ==> PAGE	
DATABASE	CREATOR	STOGROUP	BPOOL	DBID	CREATEDBY	ROSHARE	TIMESTAMP
** **** * top of data **** *							
__ DEMO	DEFAULT	SYSDEFLT	BPO0	269	DEFAULT	0001-01-01-0	
__ DEMODB	SAG2	SYSDEFLT	BPO0	273	SAG2	0001-01-01-0	
__ DEVELOP	SAG	DEVELOP	BPO0	260	SAG	0001-01-01-0	
__ ECHDB01	SAG2	SYSDEFLT	BPO0	272	SAG2	0001-01-01-0	
__ EFGDB	SAG	SYSDEFLT	BPO0	263	SAG	0001-01-01-0	
__ HBTUST	SAG2	SYSDEFLT	BPO0	275	SAG2	0001-01-01-0	
__ PLANTAB	SAG2	SYSDEFLT	BPO0	270	SAG2	0001-01-01-0	
__ Predict	SAG2	SYSDEFLT	BPO0	262	SAG2	0001-01-01-0	
__ QA	SAG2	SYSDEFLT	BPO0	265	SAG2	0001-01-01-0	
__ SAGDB04	SYSIBM	SYSDEFLT	BPO0	4	SYSIBM	0001-01-01-0	
__ SAGDB06	SYSIBM			6	SYSIBM	0001-01-01-0	
__ SAGDB07	SAG1	SYSDEFLT	BPO0	7	SAG1	0001-01-01-0	
__ SAGDDF	SAG1	SYSDEFLT	BPO0	257	SAG1	0001-01-01-0	
__ SAGRLST	SAG1	SYSDEFLT	BPO0	256	SAG1	0001-01-01-0	
__ SAG8D22A	SAG1	SAG8G220	BPO0	258	SAG1	0001-01-01-0	
__ SAG8D22P	SAG1	SAG8G220	BPO0	259	SAG1	0001-01-01-0	

Enter--PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---  
 Help      Exit      Rfind      -      +      <      >      Canc

## Commands Allowed on Databases

The following line commands are available on the database listing screen. Line commands are entered in front of the desired database(s):

Command	Description
I	Displays information on a database.
S	Selects a database to be used with main commands (see below).
U	Unselects a database.
AU	Displays information on access rights to a database.
TB	Displays all tables defined in a database.
TS	Displays all tablespaces defined in a database.

The listings of tables or tablespaces displayed as a result of the "TB" or "TS" command can be used for further processing, whereas the contents of the screens displayed as a result of the "AU" or "I" command are for information purposes only.

A list of all line commands available with the List Database function can be invoked as a window by entering the help character "?" in front of any of the listed databases.

The commands "AU", "TB", and "TS" can also be used as main commands. Main commands are entered in the command line of the database list screen and apply to all databases previously selected with the "S" line command.

A further main command is the INFO command, which is the equivalent of the "I" line command, but displays information on all previously selected databases. Instead of being displayed, all information resulting from the "I" or INFO commands can also be marked for printing. Even if already displayed, information can be printed by issuing the PRINT command.

***** NATURAL TOOLS FOR DB2 *****				1999-09-30
S 01 Row 0 of 25 Columns 001 059				
				Scroll ==> PAGE
DATABASE CREATOR	STOGROUP BPOOL	DBID	CREATEDBY ROSHARE	TIMESTAMP
I_ DEMO !				! 01-01-01-0
__ DEMO !	Select what to display			! 01-01-01-0
__ DEVE !				! 01-01-01-0
__ ECHD !				! 01-01-01-0
__ EFGD !	_ authorizations for database			! 01-01-01-0
__ HBUT !	_ tablespaces in database			! 01-01-01-0
__ PLAN !	_ tables in database			! 01-01-01-0
__ PRED !				! 01-01-01-0
__ QA !				! 01-01-01-0
__ SAGD !				! 01-01-01-0
__ SAGD !	Mark _ to print output			! 01-01-01-0
__ SAGD !				! 01-01-01-0
__ SAGD +-----				+ 01-01-01-0
__ SAGRLST SAG1	SYSDEFLT BP0	256	SAG1	0001-01-01-0
__ SAG8D22A SAG1	SAG8G220 BP0	258	SAG1	0001-01-01-0
__ SAG8D22P SAG1	SAG8G220 BP0	259	SAG1	0001-01-01-0
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---				
Help	Exit	Rfind	- + < >	Canc

A list of all main commands available with the List Database function can be invoked as a window by entering "?" in the command line of the database list screen.

## List Tablespaces

The function to list tablespaces is not part of the Retrieval of System Tables main menu.

### ► To list tablespaces

- Issue the "TS" command on the database listing screen only.

A tablespace listing screen is displayed.

16:35:07	***** NATURAL TOOLS FOR DB2 *****						1999-09-30
TABLESPACES IN DATABASE DB2DEMO	S 02 Row 0 of 2 Columns 032 075						
<hr/>							
=====							Scroll ==> PAGE
DATABASE NAME CREATOR BPOOL PGSIZE PARTITIONS NTABLES SEGSIZE LO							
** **** * top of data **** *							
__ DB2DEMO AUTOMOBI SAG BP0 4 0 1 0 A							
__ DB2DEMO EMPLOYEE SAG BP0 4 0 1 0 A							
** **** * bottom of data **** *							

## Commands Allowed on Tablespaces

The following line commands are available on the tablespace listing screen. Line commands are entered in front of the desired tablespace(s):

Command	Description
I	Displays information on a tablespace.
S	Selects a tablespace to be used with main commands.
U	Unselects a tablespace.
PT	Displays all partitions of a tablespace.
TB	Displays all tables defined in a tablespace.

The listings of tables displayed as a result of the "TB" command can be used for further processing, whereas the listings resulting from the "I" and "PT" commands are for information purposes only.

A list of all line commands available on the tablespace listing screen can be invoked as a window by entering the help character "?" in front of any of the listed tablespaces.

The commands "PT" and "TB" can also be used as a main commands entered on the command line of the tablespace listing screen. Main commands apply to all tablespaces previously selected with the "S" line command.

A further main command is the INFO command, which is the equivalent of the "I" line command, but displays information on all previously selected tablespaces. Instead of being displayed, all information resulting from the "I" or INFO commands can also be marked for printing. Even if already displayed, information can be printed by issuing the PRINT command.

```

16:35:07           ***** NATURAL TOOLS FOR DB2 *****
1999-09-30
TABLESPACES IN DATABASE DB2DEMO          S 02      Row 0 of 2 Columns 032 075
=====>                                         Scroll ===> PAGE
DATABASE NAME      CREATOR   BPOOL    PGSIZE PARTITIONS NTABLES SEGSIZE LO
** * * * * +-----+ * * * * * * * * *
__ DB2D !                                     !        0 A
__ DB2D !             Select what to display   !
__ DB2D !                                     !        0 A
** * * * * !                                     ! * * * * * * * * *
!                                     !
!                                     !
!                                     _ partitions of tablespace
!                                     _ tables      in tablespace
!
!
!
!
!
Mark _ to print output
!
+-----+ * * * * * * * * *

```

A list of all main commands available on the tablespace listing screen can be invoked as a window by entering the help character "?" in the command line of the screen.

## List Plans

To invoke the List Plans function, enter function code "P" on the Retrieval of System Tables screen. The name of the plan(s) to be listed must be specified. If a value followed by an asterisk is specified, all plans defined in the DB2 catalog whose names begin with this value are listed. If asterisk notation is specified only, all plans defined in the DB2 catalog are listed.

***** NATURAL TOOLS FOR DB2 *****								1999-09-30
PLAN *		S 01	Row 0 of 80 Columns 023 075	Scroll ==>	PAGE			
<b>=====</b>								
PLAN	CREATOR	VALIDATE	ISO ACQUIRE	REL VALID	OPER EXPLAIN		PLSIZE	
<b>*** **** top of data ***</b>								
__ CAFPLAN	SAG3	R	S U	C Y	Y N		2472	
__ SAGEDCL	SAG1	R	S U	C Y	Y N		1992	
__ SAGESPCS	SAG1	R	S U	C Y	Y N		1992	
__ SAGESPRR	SAG1	R	R U	C Y	Y N		1992	
__ SAGTIA22	SAG1	R	S U	C Y	Y N		1992	
__ SAG8BH22	SAG1	R	S U	C Y	Y N		2296	
__ SAG8CC22	SAG1	R	S U	C Y	Y N		4376	
__ SAG8IC22	SAG1	R	S U	C Y	Y N		4264	
__ SAG8SC22	SAG1	R	S U	C Y	Y N		2296	
__ SAGPLA	SAG	R	S U	C Y	Y N		2648	
__ TREPH01	SAG4	B	S U	C A	Y N		2168	
__ TREPLANC	SAG2	R	S U	C N	Y N		4560	
__ TREPLANG	SAG2	R	S U	C N	Y N		8976	
__ TREPLANO	SAG2	R	S U	C N	Y N		8976	
__ TREPLANT	SAG2	R	S U	C Y	Y N		2472	
__ TREPLAN1	SAG2	R	S U	C N	Y N		3248	

Enter--PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---

Help      Exit      Rfind      -      +      <      >      Canc

## Commands Allowed on Plans

The following line commands are available on the plan listing screen. Line commands are entered in front of the desired plan(s):

Command	Description
I	Displays information on a plan.
S	Selects a plan to be used with main commands.
U	Unselects a plan.
AU	Displays information on access rights to a plan.
DR	Displays all DBRMs contained in a plan.
IX	Displays all indexes used by a plan.
PK	Displays the package list of a plan.
SY	Displays the systems enabled or disabled for a plan.
TB	Displays tables used in a plan.

The listing displayed as a result of the "DR", "IX", "PK", or "TB" command can be used for further processing, whereas the contents of the screens displayed as a result of the "I", "AU", or "SY" command are for information purposes only.

A list of all line commands available with the List Plans function can be invoked as a window by entering the help character "?" in front of any of the listed plans.

The commands "AU", "DR", "IX", "PK", "SY", and "TB" can also be used as main commands, which are entered on the command line of the plan listing screen and apply to all plans previously selected with the "S" line command.

The INFO main command, which is the equivalent of the "I" line command, displays information on the DBRMs and their SQL statements contained in the plans previously selected. As with the List Database function, information resulting from the "I" or INFO commands can be printed, too.

***** NATURAL TOOLS FOR DB2 *****								1999-09-30
PLAN *		S 01	Row 0 of 80 Columns 023 075					
								Scroll ==> PAGE
PLAN	CREATOR	VALIDATE ISO ACQUIRE REL VALID OPER EXPLAIN						PLSIZE
** * * * *	-----	-----	-----	-----	-----	-----	-----	*****
I_ CAFP !								!
__ SAGE !		Select what to display						2472
__ SAGE !								1992
__ SAGE !		_ DBRMs of plan						1992
__ SAGT !		_ package list of plan						1992
__ SAG8 !		_ systems enabled or disabled for plan						2296
__ SAG8 !		_ tables referenced in plan						4376
__ SAG8 !		_ indexes used in plan						4264
__ SAG8 !		_ authorizations for plan						2296
__ SAGP !								2648
__ TREP !		Mark _ to print output						2168
__ TREP !								4560
__ TREP +-----								8976
__ TREPLANO SAG2	R	S U C N Y N						8976
__ TREPLANT SAG2	R	S U C Y Y N						2472
__ TREPLAN1 SAG2	R	S U C N Y N						3248
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---								
Help	Exit	Rfind	-	+	<	>	Canc	

A list of all main commands available with the List Plans function can be invoked as a window by entering the help character "?" in the command line of the plan list screen.

## DBRMs of Plan

If you issue the "DR" command on the plan listing screen, a list of all DBRMs bound into the selected plan(s) is displayed.

***** NATURAL TOOLS FOR DB2 *****						1999-09-30	
DBRMS OF PLAN SAGTEST			S 02	Row 0 of 3 Columns 033 075			
PLAN	DBRM	TIMESTAMP	CREATOR	TIME	DATE	PDS	NAME
** *****	*****	top of data *****					
__ SAGTEST	TEST1	148C251A108421E8	SAG	16:24:10	91-08-21	DB2.V230.D	
__ SAGTEST	TEST2	148C251A108421E8	SAG	16:42:42	91-08-21	DB2.V230.D	
__ SAGTEST	TEST3	148C251A108421E	SAG	16:54:15	91-08-21	DB2.V230.D	
** *****	*****	bottom of data *****					

## Commands Allowed on DBRMs

The following line commands are available on the DBRM listing screen. Line commands are entered in front of the desired DBRM(s):

Command	Description
I	Displays information on a DBRM.
S	Selects a DBRM to be used with main commands.
U	Unselects a DBRM.

A list of all line commands available on the DBRM listing screen can be invoked as a window by entering the help character "?" in front of any of the listed DBRMs.

The only main command that applies to DBRMs is the INFO command, which is the equivalent of the "I" line command, but displays information on all previously selected DBRMs. Instead of being displayed, all information resulting from the "I" or INFO commands can also be marked for printing. Even if already displayed, information can be printed by issuing the PRINT command.

```

16:40:56          ***** NATURAL TOOLS FOR DB2 *****
DBRMS OF PLAN SAGTEST           S 02      Row 0 of 3 Columns 033 075
====>                                         Scroll ==> PAGE
PLAN      DBRM      TIMESTAMP      CREATOR    TIME      DATE      PDS NAME
** * * * * +-----+*****+
I_ SAGT !                                     ! DB2.V230.D
__ SAGT !             Select what to display ! DB2.V230.D
__ SAGT !                                     ! DB2.V230.D
** * * * * !                                     ! DB2.V230.D
!                                     !
!                                     _ Plans referencing DBRM !
!                                     _ SQL statements of DBRM !
!
!
!
!
Mark _ to print output !
!
+-----+*****+

```

## Indexes Used in Plan

If you issue the "IX" command on either the plan listing screen or the table listing screen, a list of all indexes used in the selected plan(s) or table(s) is displayed.

16:40:56	***** NATURAL TOOLS FOR DB2 *****	1999-09-30
INDEXES OF PLAN SAGTEST	S 02	Row 0 of 3 Columns 033 075
=====		Scroll ==> PAGE
CREATOR INDEX NAME	CREATOR TABLE NAME	COLCOUNT UNIQUE
** **** * top of data **** *	**** *	**** *
__ SAGCRE XDEPT1	SAGCRE DEPT	1 P
__ SAGCRE XEMP1	SAGCRE EMP	1 P
__ SAGCRE XEMP2	SAGCRE EMP	1 D
** **** * bottom of data **** *	**** *	**** *

## Commands Allowed on Indexes

The following line commands are available on the index listing screen. Line commands are entered in front of the desired index(es):

Command	Description
I	Displays information on an index.
S	Selects an index to be used with main commands.
U	Unselects an index.
CO	Displays all columns of an index.
PT	Displays the partitions of an index.

The listings of columns displayed as a result of the "CO" or "PT" command cannot be used for further processing. Like the display resulting from the "I" command, they are for information purposes only.

A list of all line commands available on the index listing screen can be invoked as a window by entering the help character "?" in front of any of the listed indexes.

The commands "CO" and "PT" can be used as main commands, too, and entered in the command line of the index listing screen. If so, all columns of all indexes previously selected with the "S" line command are displayed.

A further main command is the INFO command, which is the equivalent of the "I" line command, but displays information on all previously selected indexes. Instead of being displayed, all information resulting from the "I" or INFO commands can also be marked for printing. Even if already displayed, information can be printed by issuing the PRINT command.

```

16:40:56      ***** NATURAL TOOLS FOR DB2 *****
INDEXES OF PLAN SAGTEST          1999-09-30
                                         S 02      Row 0 of 3 Columns 033 075
=====>                                         Scroll ==> PAGE
      CREATOR   INDEX NAME           CREATOR   TABLE NAME     COLCOUNT UNIQUE
** **** +-----+ * ****
I_ SAGC !
__ SAGC !           Select what to display       ! 1 P
__ SAGC !
** *** !           !                                ! 1 D
!           _ columns of index        !
!           _ portions of index       !
!           _ plans using index     !
!           _ packages using index  !
!           !                                !
!           !                                !
!           !                                !
!           !                                !
!           !                                !
+-----+           Mark _ to print output       !
+-----+

```

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help Exit Rfind - + < > Canc

A list of all main commands available on the index listing screen can be invoked as a window by entering the help character "?" in the command line of the screen.

## Package List of Plan

If you issue the "PK" command on the plan listing screen, a list of all entries in the package list of the selected plan(s) is displayed.

16:40:56	***** NATURAL TOOLS FOR DB2 *****	1999-09-30
PACKAGE LIST FOR PLAN SAGTEST	S 02	Row 0 of 3 Columns 033 075
=====		Scroll ==> PAGE
PLANNAMN LOCATION	COLLID	NAME SEQNO TIMESTAMP
** **** top of data		*****
__ SAGTEST	SAGCOLLECTION	*
__ SAGTEST	SAG_STATTEST	*
** **** bottom of data		*****

### Commands Allowed on Package List Entries

The following line commands are available on the package list screen. Line commands are entered in front of the desired package list entry:

Command	Description
I	Displays information on a package list entry.
S	Selects a package list entry to be used with main commands.
U	Unselects a package list entry.
PK	Displays all packages of a package list entry.

The listing of packages as a result of the "PK" command can be used for further processing, whereas the display resulting from the "I" command is for information purposes only.

A list of all line commands available with a package list can be invoked as a window by entering the help character "?" in front of any of the listed entries.

The command "PK" can also be used as main command, which is entered in the command line of the above screen and applies to all package list entries previously selected with the "S" line command.

## List Packages

To invoke the List Packages function, enter function code "K" on the Retrieval of System Tables screen. The collection and name of the package(s) to be listed can be specified. If a value followed by an asterisk is specified, all packages defined in the DB2 catalog whose collections/names begin with this value are listed. If asterisk notation is specified only, all packages defined in the DB2 catalog are listed.

***** NATURAL TOOLS FOR DB2 *****						1999-09-30
						S 01 Row 34 of 65 Columns 041 075
						Scroll ==> PAGE
PACKAGE *.*	NAME	CONTOKEN	CONTOKEN (HEX)	OWNER	CREATOR	
====>						
__ COLLID	SAGQVPLN	? 1?F	148C409316C67344	SAG	SAG	
__ SAGQCATV	SAGQVPPA	?k ? ??	149270680F77E030	SAG	SAG	
__ SAGQCATV	SAGQVRAS	? ??=?	148C409B09097E28	SAG	SAG	
__ SAGQCATV	SAGQVREL	? ??y0	148C409C06DFA8F0	SAG	SAG	
__ SAGQCATV	SAGQVREV	? ? ?v?	148CDFAD16A51FA0	SAG	SAG	
__ SAGQCATV	SAGQVRIL	? s ?B	148C40A20329C2A0	SAG	SAG	
__ SAGQCATV	SAGQVROO	? ? A y	148CDFAF03C18EA8	SAG	SAG	
__ SAGQCATV	SAGQVSACA	? u??S	148C40A409DEE2B4	SAG	SAG	
__ SAGQCATV	SAGQVSQL	? ???	148C40AB001D3F30	SAG	SAG	
__ SAGQCATV	SAGQVSTM	? ? 7q	148C40AD078CF798	SAG	SAG	
__ SAGQCATV	SAGQVSTO	? ? ?	148C40B409681E68	SAG	SAG	
__ SAGQCATV	SAGQVTAB	? ? +U	148C40B61F024EE4	SAG	SAG	
__ SAGQCATV	SAGQVTAS	? ? d	148C40B80874FF84	SAG	SAG	
__ SAGQCATV	SAGQVTBA	? ? ?	148C40BB1854EC0C	SAG	SAG	
__ SAGQCATV	SAGQVTBC	? ?d ?	148C40BD1684EC14	SAG	SAG	
__ SAGQCATV	SAGQVTBP	? ?	148C40BF07AE9DBC	SAG	SAG	
__ SAGQCATV	SAGQVTBS	? ??	148C40CA0349287C	SAG	SAG	

Enter--PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
 Help      Exit      Rfind      -      +      <      >      Canc

## Commands Allowed on Packages

The following line commands are available on the package listing screen. Line commands are entered in front of the desired package(s):

Command	Description
I	Displays information on a package.
S	Selects a package to be used with main commands.
U	Unselects a package.
AU	Displays information on access rights to a package.
IX	Displays all indexes used by a package.
SY	Displays all systems enabled or disabled for a package.
TB	Displays all tables used by a package.

The listings of indexes or tables displayed as a result of the "IX" or "TB" command can be used for further processing, whereas the displays resulting from the "AU", "SY", or "I" command are for information purposes only.

A list of all line commands available with the List Packages function can be invoked as a window by entering the help character "?" in front of any of the listed packages.

The commands "AU", "IX", "SY", and "TB" can also be used as main commands, which are entered in the command line of the table listing screen and apply to all tables previously selected with the "S" line command.

The INFO main command, which is the equivalent of the "I" line command, displays information on all tables previously selected. All information resulting from the "I" or INFO commands can also be printed.

11:06:11	***** NATURAL TOOLS FOR DB2 *****				1999-09-30
PACKAGE *.*	S 01 Row 34 of 65 Columns 041 075				
=====	Scroll ==> PAGE				
__ COLLID	NAME	CONTOKEN	CONTOKEN (HEX)	OWNER	CREATOR
i_ SAGQ +-----				+ SAG	
__ SAGQ !				! SAG	
__ SAGQ !	Select what to display			! SAG	
__ SAGQ !				! SAG	
__ SAGQ !	- systems enabled or disabled for package			! SAG	
__ SAGQ !	- tables referenced in package			! SAG	
__ SAGQ !	- indexes used in package			! SAG	
__ SAGQ !	- statements of package			! SAG	
__ SAGQ !	- authorizations on package			! SAG	
__ SAGQ !				! SAG	
__ SAGQ !				! SAG	
__ SAGQ !	Mark _ to print output			! SAG	
__ SAGQ !				! SAG	
__ SAGQ +-----				+ SAG	
__ SAGQCATV	SAGQVTBC	?	?d ? 148C40BD1684EC14	SAG	SAG
__ SAGQCATV	SAGQVTBP	?	? 148C40BF07AE9DBC	SAG	SAG
__ SAGQCATV	SAGQVTBS	?	? 148C40CA0349287C	SAG	SAG
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---					
Help	Exit	Rfind	- + < >	Canc	

A list of all main commands available with the List Packages function can be invoked as a window by entering the help character "?" in the command line of the packages list screen.

## List Tables

### ► To invoke the List Tables function

- Enter function code "T" on the Retrieval of System Tables screen.

The creator and name of the table(s) to be listed can be specified.

If a value followed by an asterisk is specified, all tables defined in the DB2 catalog whose creator/name begins with this value are listed.

If asterisk notation is specified only, all tables defined in the DB2 catalog are listed.

CREATOR TABLE NAME		TYPE	COLCOUNT	KEYCOLS	RECLEN	DATABASE	TSNAME
** ***** top of data *****							
__ SAGCRE	ACT	T	3	1	38	SAG8D22A	ACT
__ SAGCRE	DEPT	T	4	1	59	SAG8D22A	SAG8S2
__ SAGCRE	EACT	T	5	0	54	SAG8D22A	SAG8S2
__ SAGCRE	EDEPT	T	6	0	75	SAG8D22A	SAG8S2
__ SAGCRE	EEMP	T	16	0	123	SAG8D22A	SAG8S2
__ SAGCRE	EEPA	T	8	0	52	SAG8D22A	SAG8S2
__ SAGCRE	EMP	T	14	1	107	SAG8D22A	SAG8S2
__ SAGCRE	EMPPROJECT	T	6	0	36	SAG8D22A	EMPPRO
__ SAGCRE	EPROJ	T	10	0	86	SAG8D22A	SAG8S2
__ SAGCRE	EPROJACT	T	7	0	45	SAG8D22A	SAG8S2
__ SAGCRE	PROJ	T	8	1	70	SAG8D22A	PROJ
__ SAGCRE	PROJACT	T	5	3	29	SAG8D22A	PROJAC
__ SAGCRE	TCONA	T	5	0	4056	SAG8D22P	SAG8S2
__ SAGCRE	TDSPTXT	T	3	0	91	SAG8D22P	SAG8S2
__ SAGCRE	TOPTVAL	T	11	0	354	SAG8D22P	SAG8S2
__ SAGCRE	VACT	V	3	0	0	SAG8D22A	ACT

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---  
 Help      Exit      Rfind      -      +      <      >      Canc

## Commands Allowed on Tables

The following line commands are available on the table listing screen. Line commands are entered in front of the desired table(s):

Command	Description
I	Displays information on a table.
S	Selects a table to be used with main commands.
U	Unselects a table.
AU	Displays information on access rights to a table.
CO	Displays all columns of a table.
IX	Displays all indexes on a table.
CC	Checks constraints.

The listings of indexes displayed as a result of the "IX" command can be used for further processing, whereas the listings of columns resulting from the "CO" command, as well as the displays resulting from the "AU" or "I" command, are for information purposes only.

A list of all line commands available with the List Tables function can be invoked as a window by entering the help character "?" in front of any of the listed tables.

The commands "AU", "CO", and "IX" can also be used as main commands, which are entered in the command line of the table listing screen and apply to all tables previously selected with the "S" line command.

The INFO main command, which is the equivalent of the "I" line command, displays information on all tables previously selected. All information resulting from the "I" or INFO commands can also be printed.

```

16:42:58          ***** NATURAL TOOLS FOR DB2 *****
1999-09-30
TABLE SAG*.*
S 01   Row 34 of 361 Columns 036 075
====>           Scroll ==> PAGE
CREA +-----+ ASE TSNAME
** *** ! ! *****
I_ SAGC ! ! 22A ACT
__ SAGC ! ! 22A SAG8S2
__ SAGC ! ! 22A SAG8S2
__ SAGC ! _ columns of table/view _ referential constraints ! 22A SAG8S2
__ SAGC ! _ synonyms of table/view _ authorized users ! 22A SAG8S2
__ SAGC ! _ plans using table/view ! 22A SAG8S2
__ SAGC ! _ packages using table/view _ indexes of table ! 22A SAG8S2
__ SAGC ! _ views using table/view _ columns of indexes ! 22A EMPPRO
__ SAGC ! _ base tables of view _ plans using indexes ! 22A SAG8S2
__ SAGC ! _ definition of view _ packages using indexes ! 22A SAG8S2
__ SAGC ! _ check conditions of table ! 22A PROJ
__ SAGC ! ! 22A PROJAC
__ SAGCR!       Mark _ to print output !D22P SAG8S2
__ SAGCR+-----+D22P SAG8S2
__ SAGCRE    TOPTVAL      T      11      0      354 SAG8D22P SAG8S2
__ SAGCRE    VACT        V      3      0      0 SAG8D22A ACT

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Help     Exit      Rfind      -      +      <      >      Canc

```

A list of all main commands available with the List Tables function can be invoked as a window by entering the help character "?" in the command line of the table listing screen.

# User Authorizations

## ► To invoke the User Authorization function

- Enter function code "U" on the Retrieval of System Tables screen.

The Retrieval of User Authorizations menu is displayed:

```

16:44:51          ***** NATURAL TOOLS FOR DB2 *****
                     - Retrieval of User Authorizations -

                                         Code  Function           Parameter
                                         C    Column   Authorizations Grantee
                                         D    Database Authorizations Grantee
                                         K    Package  Authorizations Grantee
                                         P    Plan     Authorizations Grantee
                                         R    Resource Authorizations Grantee
                                         T    Table    Authorizations Grantee
                                         U    User     Authorizations Grantee
                                         ?    Help
                                         .    Exit

                                         Code .. _  Grantee .. _____
                                         Command ==>
                                         Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
                                         Help          Exit                         Canc

```

The following functions are available:

Code	Description
C	Displays the columns which can be accessed by the specified grantee.
D	Displays the databases which can be accessed by the specified grantee.
K	Displays the packages which can be accessed by the specified grantee.
P	Displays the plans which can be accessed by the specified grantee.
R	Displays the resources which can be accessed by the specified grantee.
T	Displays the tables which can be accessed by the specified grantee.
U	Displays the system privileges of the specified grantee.

The following parameter must be specified:

Parameter	Description
Grantee	A list of all existing DB2 objects of the specified object type to which the specified grantee has access is displayed.

## List Statistic Tables

### ► To invoke the List Statistic Tables function

- Enter function code "S" on the Retrieval of System Tables screen.

The Retrieval of Statistic Tables menu is displayed:

```

16:38:47          ***** NATURAL TOOLS FOR DB2 *****
                     - Retrieval of Statistic Tables -           1999-06-27

          Code  Function                  Parameter
          C   List SYSCOLSTATS      Creator, Name
          D   List SYSCOLDISTSTATS  Creator, Name
          I   List SYSINDEXSTATS   Index Owner, Name
          T   List SYSTABSTATS     Creator, Name
          ?   Help
          .   Exit

          Code .. _   Index Owner ..... _____
                         Index Name ..... _____
                         Table Creator ..... _____
                         Table Name ..... _____

Command ==>
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12--
      Help             Exit                               Canc

```

The following functions are available:

Code	Description
C	Displays the partitioned statistics for columns in a partitioned table space.
D	Displays the distribution of the values of the first column of a partitioned index.
I	Displays the statistics for a partitioned index.
T	Displays the statistics for a partitioned table space.

The following parameters must be specified:

Parameter	Description
Table Creator	The name of the creator of the table for which the statistics are to be displayed.
Table Name	The name of the table for which the statistics are to be displayed.
Index Owner	The name of the owner of the index for which the index statistics are to be displayed.
Index Name	The name of the index for which the index statistics are to be displayed.