

Retrieval of System Tables

Important:

Before you use the Retrieval of System Tables function, refer to the section Retrieval and Explain Functions.

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, 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 *****          1999-09-30
                   - Retrieval of System Tables -

                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.

```

16:32:24          ***** NATURAL TOOLS FOR DB2 *****          1999-09-30
DATABASES *                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 BP0      269  DEFAULT      0001-01-01-0
__ DEMODB   SAG2          SYSDEFLT BP0      273  SAG2           0001-01-01-0
__ DEVELOP  SAG          DEVELOP  BP0      260  SAG           0001-01-01-0
__ ECHDB01  SAG2          SYSDEFLT BP0      272  SAG2           0001-01-01-0
__ EFGDB    SAG          SYSDEFLT BP0      263  SAG           0001-01-01-0
__ HBUTST   SAG2          SYSDEFLT BP0      275  SAG2           0001-01-01-0
__ PLANTAB  SAG2          SYSDEFLT BP0      270  SAG2           0001-01-01-0
__ Predict  SAG2          SYSDEFLT BP0      262  SAG2           0001-01-01-0
__ QA       SAG2          SYSDEFLT BP0      265  SAG2           0001-01-01-0
__ SAGDB04  SYSIBM       SYSDEFLT BP0      4    SYSIBM        0001-01-01-0
__ SAGDB06  SYSIBM       SYSDEFLT BP0      6    SYSIBM        0001-01-01-0
__ SAGDB07  SAG1         SYSDEFLT BP0      7    SAG1          0001-01-01-0
__ SAGDDF   SAG1         SYSDEFLT BP0      257  SAG1          0001-01-01-0
__ 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

```

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.

```

16:32:24          ***** NATURAL TOOLS FOR DB2 *****          1999-09-30
DATABASES *          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 +-----+-----+-----+-----+-----+-----+
__ 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
====>                                          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
====>
          DATABASE NAME          CREATOR  BPOOL          PGSIZE PARTITIONS NTABLES SEGSIZE LO
** **** +-----+-----+-----+-----+-----+-----+-----+-----+
__ DB2D !                               !           0 A
__ DB2D !          Select what to display !           0 A
** **** !                               ! *****
!                               !
!                               !
!          _ partitions of tablespace !
!          _ tables      in tablespace !
!                               !
!                               !
!          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 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.

```

16:37:59          ***** 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
** ***** top of data *****
___ 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.

```

16:37:59          ***** 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_ CAFPP !                                     !          2472
__ SAGE !           Select what to display          !          1992
__ 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 +-----+-----+-----+-----+-----+-----+-----+-----+
__ 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.

```

16:40:56          ***** NATURAL TOOLS FOR DB2 *****          1999-09-30
DBRMS OF PLAN SAGTEST                S 02      Row 0 of 3 Columns 033 075
====>                               Scroll ==> PAGE
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 *****          1999-09-30
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
** **** !          !*****
!          !
!          _ Plans referencing DBRM          !
!          _ SQL statements of DBRM          !
!          !
!          !
!          Mark _ to print output          !
!          !
+-----+-----+-----+-----+-----+-----+

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

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
====>
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 *****          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
** **** +-----+-----+-----+-----+-----+-----+-----+-----+
I_ SAGC !          !          !          !          !          !          !
__ SAGC !          Select what to display          !          !          !
__ SAGC !          !          !          !          !          !          !
** **** !          !          !          !          !          !          !
          !          _ 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
  PLANNAME LOCATION          COLLID          NAME          SEQNO  TIMESTAMP
** ***** top of data *****
__ SAGTEST          SAGCOLLECTION          *          1  1997-09-30-
__ SAGTEST          SAG_STATTEST          *          2  1997-09-30-
** ***** 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.

```

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
___ SAGQCATV          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          SAGQVSCA  ? u??S 148C40A409DDEE2B4 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 +-----+
__ SAGQ !
__ SAGQ !          Select what to display          ! SAG
__ SAGQ !
__ 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 !
__ SAGQ !          Mark _ to print output          ! SAG
__ SAGQ !
__ SAGQ +-----+
__ 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.

```

16:42:58          ***** NATURAL TOOLS FOR DB2 *****          1999-09-30
TABLE SAG*.*          S 01   Row 34 of 361 Columns 036 075
====>
          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  EMPPROJACT  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!          !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 *****          1999-09-30
                  - 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 *****          1999-06-27
                   - Retrieval of Statistic Tables -

                   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.