

NDB - Environment Setting

The Environment Setting facility of the Natural Tools for DB2 allows you to issue interactively special SQL statements.

For details on the SQL statements described in this section, see the relevant DB2 literature by IBM.

This section covers the following topics:

- Invoking the Environment Setting Facility
 - CONNECT
 - RELEASE
 - SET CONNECTION
 - SET CURRENT SQLID
 - SET CURRENT PACKAGESET
 - SET CURRENT DEGREE
 - SET CURRENT RULES
 - SET CURRENT OPTIMIZATION HINT
 - SET CURRENT LOCALE LC_CTYPE
 - SET CURRENT PATH
 - SET CURRENT PRECISION
 - SET CURRENT MAINTAINED TABLE TYPES FOR OPTIMIZATION
 - SET CURRENT PACKAGE PATH
 - SET CURRENT REFRESH AGE
 - SET CURRENT SCHEMA
 - SET CURRENT APPLICATION ENCODING SCHEME
 - SET ENCRYPTION PASSWORD
 - Display Special Registers
-

Invoking the Environment Setting Facility

 To invoke the Environment Setting facility

- Entering function code "S" on the Natural Tools for DB2 Main Menu.

The Environment Setting screen is displayed, which offers you the following functions:

Environment Setting - Functions

CO	Specifies and executes the SQL statement CONNECT.
RE	Specifies and executes the SQL statement RELEASE.
SC	Specifies and executes the SQL statement SET CONNECTION.
SS	Specifies and executes the SQL statement SET CURRENT SQLID.
SP	Specifies and executes the SQL statement SET CURRENT PACKAGESET.
SD	Specifies and executes the SQL statement SET CURRENT DEGREE.
SU	Specifies and executes the SQL statement SET CURRENT RULES.
SO	Specifies and executes the SQL statement SET CURRENT OPTIMIZATION HINT.
SL	Specifies and executes the SQL statement SET CURRENT LOCALE LC_CTYPE.
SA	Specifies and executes the SQL statement SET CURRENT PATH.
SE	Specifies and executes the SQL statement SET CURRENT PRECISION.
SM	Specifies and executes the SQL statement SET CURRENT MAINTAINED TABLE TYPE FOR OPTIMIZATION.
SB	Specifies and executes the SQL statement SET CURRENT PACKAGE PATH.
SF	Specifies and executes the SQL statement SET CURRENT REFRESH AGE.
SH	Specifies and executes the SQL statement SET CURRENT SCHEMA.
SN	Specifies and executes the SQL statement SET CURRENT APPLICATION ENCODING SCHEME.
SY	Specifies and executes the SQL statement SET ENCRYPTION PASSWORD.
SR	Displays the current values of the supported special registers.

CONNECT

To invoke the CONNECT function

- Enter function code "CO" on the Environment Setting screen.

The Connect screen is displayed:

```

14:23:29          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Connect -

>>---- CONNECT ---+-- _ -----+-----><
                    !                                     !
                    !                                     !
                    +-- _ --- TO ---- _____ ---+
                    !                                     !
                    !                                     !
                    +-- _ --- RESET -----+

Current Server Version _____

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

```

The CONNECT function connects the current application to a designated server. This server is the current server, which is displayed in the Current Server Version field.

On the Connect screen, you identify the current server by specifying a location name. The identified server must be known to the local DB2 subsystem.

RELEASE

To invoke the RELEASE function

- Enter function code "RE" on the Environment Setting screen.

The Release screen is displayed:

```

14:24:29          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Release -

>>--- RELEASE  -----+-----  _____  -----+-----><
                        !           location-name           !
                        !                                     !
                        +-- _ --- CURRENT -----+
                        !                                     !
                        !-- _ --- ALL SQL -----!
                        !                                     !
                        +-- _ --- ALL PRIVATE -----+

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

The RELEASE function places one or more connections in the release pending state.

SET CONNECTION

 **To invoke the SET CONNECTION function**

- Enter function code "SC" on the Environment Setting screen.

The Set Connection screen is displayed:

```

14:23:47          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Set Connection -

>>--- SET CONNECTION -----+-----  _____  -----+-----><
                        !           location-name           !

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

On the Set Connection screen, you identify a server by specifying a location name. The identified server must be known to the local DB2 subsystem.

SET CURRENT SQLID

▶ To invoke the SET CURRENT SQLID function

- Enter function code "SS" on the Environment Setting screen.

The Set Current SQLID screen is displayed:

```

14:23:47          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Set Current SQLID -

>>--- SET CURRENT SQLID = ----- _____ -----><
                                ( USER,
                                  string-constant )

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

```

The SET CURRENT SQLID function changes the value of the SQL authorization identifier. With SQL statements that use unqualified table names, DB2 uses the SQLID as an implicit table qualifier. This enables you to access identical tables with the same table name but with different creator names.

On the Set Current SQLID screen, you can replace the value of CURRENT SQLID by the value of the special register USER or by a string constant. The string constant can be up to 8 characters long.

In all supported TP-monitor environments, the SQLID can then be kept across terminal I/Os until its resetting or the end of the session.

SET CURRENT PACKAGESET

▶ To invoke the SET CURRENT PACKAGESET function

- Enter function code "SP" on the Environment Setting screen.

The Set Current PACKAGESET screen is displayed:

```

09:39:07          ***** NATURAL TOOLS FOR DB2 *****          2006-04-18

                - Set Current Packageset -

>>--- SET CURRENT PACKAGESET = ----->

>+--- _ - USER -----+><
!
+--- _____ !
                (string-constant) !
                _____ -+
                (string-constant cont.)

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

The SET CURRENT PACKAGESET statement assigns a value to the special register CURRENT PACKAGESET.

On the Set Current PACKAGESET screen, you can replace the value of CURRENT PACKAGESET by the value of the special register USER or by a string constant of up to 18 characters.

SET CURRENT DEGREE

 **To invoke the SET CURRENT DEGREE function**

- Enter function code "SD" on the Environment Setting screen.

The Set Current Degree screen is displayed:

```

14:23:58          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Set Current Degree -

>>--- SET CURRENT DEGREE ----- ____ -----><
                                   ( 1 or ANY )

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

```

CURRENT DEGREE specifies the degree of parallelism for the execution of queries that are dynamically prepared by the application process.

SET CURRENT RULES

▶ To invoke the SET CURRENT RULES function

- Enter function code "SU" on the Environment Setting screen.

The Set Current Rules screen is displayed:

```

14:23:58          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Set Current Rules -

>>--- SET CURRENT RULES ----- ____ -----><
                                   ( DB2 or STD )

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

```

CURRENT RULES specifies whether certain SQL statements are executed in accordance with DB2 rules or the rules of the SQL standard.

SET CURRENT OPTIMIZATION HINT

▶ To invoke the SET CURRENT OPTIMIZATION HINT function

- Enter function code "SO" on the Environment Setting screen.

The Set Current Optimization Hint screen is displayed:

```

09:41:43          ***** NATURAL TOOLS FOR DB2 *****          2006-04-18
- Set Current Optimization Hint -

>>--- SET CURRENT OPTIMIZATION HINT ----->

>--- _____
              (string-constant)
_____ ----><
              (string-constant cont.)

Command ===>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Error Exit  Exec                               Canc

```

CURRENT OPTIMIZATION HINT specifies the user-defined optimization hint that DB2 should use to generate the access path for dynamic statements.

SET CURRENT LOCALE LC_CTYPE

▶ To invoke the SET CURRENT LOCALE LC_CTYPE function

- Enter function code "SL" on the Environment Setting screen.

The Set Current Locale LC_CType screen is displayed:


```

14:58:12          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
          - Set Current Locale LC_CType -

>>--- SET CURRENT LOCALE LC_CTYPE ----->
>----- _____ <----->
          (string-constant)

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

```

CURRENT LOCALE LC_CTYPE specifies the LC_CTYPE locale that will be used to execute SQL statements that use a built-in function that references a locale.

SET CURRENT PATH

To invoke the SET CURRENT PATH function

- Enter function code "SA" on the Environment Setting screen.

The Set Current Path screen is displayed:

```

09:42:09          ***** NATURAL TOOLS FOR DB2 *****          2006-04-18

          - Set Current Path -

>>- SET CURRENT PATH ----->

+-----<--( , )-----+
!                               !
>-++----- _ -----++><
!           (schema-name<,schema-name ,...>)           !
!                               !
+- _ ----- SYSTEM PATH -----+
!                               !
+- _ ----- USER -----+
!                               !
+- _ ----- CURRENT PATH -----+
!                               !
+- _ ----- CURRENT PACKAGE PATH -----+

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

CURRENT PATH specifies the SQL path used to resolve unqualified data type names and function names in dynamically prepared SQL statements.

SET CURRENT PRECISION

 **To invoke the SET CURRENT PRECISION function**

- Enter function code "SE" on the Environment Setting screen.

The Set Current Precision screen is displayed:

```

15:01:17          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Set Current Precision -

>>--- SET CURRENT PRECISION ----- DEC15 -----><
                    (DEC15,DEC31,15,31,
                     D15.1 - D15.9,D31.1 - D31.9)

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

```

CURRENT PRECISION specifies the rules to be used when both operands in a decimal operation have precisions of 15 or less.

SET CURRENT MAINTAINED TABLE TYPES FOR OPTIMIZATION

 To invoke the SET CURRENT MAINTAINED TABLE TYPES FOR OPTIMIZATION function

- Enter function code "SM" on the Environment Setting screen.

The Set Current Maintained Types for Optimization screen is displayed:

```

09:36:51          ***** NATURAL TOOLS FOR DB2 *****          2006-04-18
                    - Set Current Maintained Types -

>>--- SET CURRENT MAINTAINED TYPES --- SYSTEM -----><
                    ( ALL, NONE, SYSTEM or USER )

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

```

CURRENT MAINTAINED TABLE TYPES FOR OPTIMIZATION specifies a value that identifies the types of objects that can be considered to optimize the processing of dynamic SQL queries. This register contains a keyword representing table types.

SET CURRENT PACKAGE PATH

▶ To invoke the SET CURRENT PACKAGE PATH function

- Enter function code "SB" on the Environment Setting screen.

The Set Current Package Path screen is displayed:

```

09:37:22          ***** NATURAL TOOLS FOR DB2 *****          2006-04-18

                - Set Current Package Path -

>> - SET CURRENT PACKAGE PATH ----->

+-----< --( , )-----+
!                               !
> -++----- _ -----++><
!           (collection-id< ,collection-id,...> )           !
!                               !
+- _ ----- USER -----+
!                               !
+- _ ----- CURRENT PATH -----+
!                               !
+- _ ----- CURRENT PACKAGE PATH -----+

Command ===>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Error Exit  Exec                               Canc

```

CURRENT PACKAGE PATH specifies a value that identifies the path used to resolve references to packages that are used to execute SQL statements.

SET CURRENT REFRESH AGE

▶ To invoke the SET CURRENT REFRESH AGE function

- Enter function code "SF" on the Environment Setting screen.

The Set Current Refresh Age screen is displayed:

```

09:37:40          ***** NATURAL TOOLS FOR DB2 *****          2006-04-18

                - Set Current Refresh Age -

>> --- SET CURRENT REFRESH AGE ----- _____ -----><
                ( 0 or ANY/99999999999999.000000 )

Command ==>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Error Exit  Exec                               Canc

```

CURRENT REFRESH AGE specifies a timestamp duration value with a data type of DECIMAL.

SET CURRENT SCHEMA

▶ To invoke the SET CURRENT SCHEMA function

- Enter function code "SH" on the Environment Setting screen.

The Set Current Schema screen is displayed:

```

09:38:01          ***** NATURAL TOOLS FOR DB2 *****          2006-04-18

          - Set Current Schema -

>>- SET CURRENT SCHEMA ----->

>--+-----+<
!                (schema-name)                !
!                !                               !
+- _ ----- USER -----+
!                !                               !
+- _ ----- DEFAULT -----+
!                !                               !
+- -----+
                (string-constant)

Command ===>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Error Exit  Exec                               Canc

```

The CURRENT SCHEMA, or equivalently CURRENT_SCHEMA, special register specifies the schema name used to qualify unqualified database object references in dynamically prepared SQL statements.

SET CURRENT APPLICATION ENCODING SCHEME

 To invoke the SET CURRENT APPLICATION ENCODING SCHEME function

- Enter function code "SN" on the Environment Setting screen.

The Set Current Application Encoding Scheme screen is displayed:

```

09:38:21          ***** NATURAL TOOLS FOR DB2 *****          2006-04-18

          - Set Current Application Encoding Scheme -

>>--- SET CURRENT APPLICATION ENCODING SCHEME ----->

>----->
          ( ASCII, EBCDIC, UNICODE
          or 1 - 65533)

Command ==>

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
      Help  Error Exit  Exec                               Canc

```

CURRENT APPLICATION ENCODING SCHEME specifies which encoding scheme is to be used for dynamic statements. It allows an application to indicate the encoding scheme that is used to process data.

SET ENCRYPTION PASSWORD

To invoke the SET ENCRYPTION PASSWORD function

- Enter function code "SY" on the Environment Setting screen.

The Set Encryption Password screen is displayed:


```

15:18:07          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Display Special Registers -

Current
+Client_Acctng .....
+Client_ApplName .....
+Client_UserID .....
+Client_WrkStnName ....
  Appl.Encoding Scheme .. EBCDIC
  Date ..... 13.04.2006
  Degree ..... 1
  LC_CType .....
+Maintained Types ..... SYSTEM

  Member ..... DB28
+Optimization Hint .....

+Package Path .....

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

```

```

15:31:20          ***** NATURAL TOOLS FOR DB2 *****          2006-04-13
                    - Display Special Registers -

Current
+PackageSet .....

+Path ..... "SYSIBM", "SYSFUN", "SYSPROC", "GGS"

  Precision ..... DEC15
  Refresh Age .....
  Rules ..... DB2
+Schema ..... GGS

  Server ..... DAEFDB28
  SQLID ..... GGS
  Time ..... 15.31.20
  TimeStamp ..... 2006-04-13-15.31.20.948481
  TimeZone ..... 10000
  User ..... GGS

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

```

The Display Special Registers screen shows you the current values of the Special Registers of DB2 supported by Natural for DB2.

Fields, which are prefixed with a '+', may contain more data than displayed on the screen. You can display the full contents either when you position the cursor on the field (description or data) and press Enter, or when you enter the abbreviation of the field (which are the capital letters of the description) prefixed by the '+' sign in the command line. E.g. +PS shows a window with the full value of the Current Package Set.