

Application Plan Maintenance

This section covers the following topics:

- Introduction
 - Invoking the Application Plan Maintenance Function
 - Commands and PF-Key Settings
 - Prepare Job Profile
 - Create DBRMs
 - Bind Plan
 - Rebind Plan
 - Free Plan
 - Bind Package
 - Rebind Package
 - Free Package
 - List JCL Function
 - Display Job Output
-

Introduction

The application plan maintenance part of the Natural Tools for DB2 is used to generate JCL code to:

- create database request modules (DBRMs) from your Natural programs,
- maintain DB2 application plans and packages from within your Natural environment.

Two modes of operation are available: fixed mode and free mode.

Fixed Mode

In fixed mode, maintenance screens with syntax graphs help you to specify the correct commands. Complete JCL members can be generated using predefined job profiles. You simply enter the required data in input maps. The data are checked to ensure that they comply with the correct syntax. Then JCL members are generated from these data. The members can be submitted directly by pressing PF4 (Submi). But you can also switch to free mode by pressing PF5 (Free).

Free Mode

Pressing PF5 in fixed mode invokes the free-mode editor, which can be used to modify JCL code generated in fixed mode, without the syntactical restrictions imposed. In free mode you can submit the JCL member currently in the source area by pressing PF4 (as in fixed mode).

Invoking the Application Plan Maintenance Function

▶ To invoke the Application Plan Maintenance function

- On the **Natural Tools for DB2 Main Menu**, enter function code A.

The **Application Plan Maintenance** menu is displayed:

```

16:14:02                ***** NATURAL TOOLS FOR DB2 *****                2009-10-30
                        - Application Plan Maintenance -

Code Function           Parameter

PP  Prepare Job Profile
CD  Create DBRMs        Lib
BI  Bind                Lib, Obj
RB  Rebind              Lib, Obj
FR  Free                Lib, Obj
LJ  List JCL            Lib, JCL
JO  Display Job Output  Node
?   Help
.   Exit

Code .. __ Object ..... _____
      Library ..... SAG_____
      JCL Member .. _____
      Node ..... 148

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

```

The following functions are available:

Code	Description
PP	Defines job profiles for DBRM creation and plan/package maintenance; see <i>Prepare Job Profile</i> .
CD	Generates JCL to create database request modules.
BI	Generates JCL to bind a plan or package.
RB	Generates JCL to rebind a plan or package.
FR	Generates JCL to free a plan or package.
LJ	Invokes the free-mode editor.
JO	Displays job output. Note: This function only applies if the Entire System Server is installed.

In addition, four parameters are available, which must be specified according to the selected function:

Parameter	Description
Object	Specifies whether to maintain a plan (PLAN or PL) or a package (PACKAGE or PK).
Library	Specifies the name of a Natural source library. All existing libraries except the ones beginning with SYS can be specified; a library must be specified for JCL maintenance. The library name is preset with your Natural user ID.
JCL Member	If a valid member name is specified, the corresponding JCL member is displayed. If a value is specified followed by an asterisk (*), all JCL members in the specified library whose names begin with this value are listed. If asterisk notation is specified only, a selection list of all JCL members in the specified library is displayed. If the JCL Member field is left blank, the empty free-mode editor screen is displayed.
Node	Specifies the number of the node to be used by the Entire System Server. The default number "148" can be overwritten.

Commands and PF-Key Settings

Within the maintenance screens in fixed mode, various windows can be invoked. These windows are accessed via 1-byte control fields.

 **To invoke a window**

- Enter S in the corresponding control field.

If the control field displays an X, data have already been entered in the corresponding window.

In addition, the following PF-key settings apply in fixed mode:

Key	Function
PF4	Generates JCL code and submits it.
PF5	Generates JCL code and enters free mode.
PF6	Scrolls to the top of a window.
PF7	Scrolls backwards in windows.
PF8	Scrolls forwards in windows.
PF9	Scrolls to the bottom of a window.
PF10	Either shows the previous screen (<) or displays a Natural Process Logon window (Logn).
PF11	Shows the next screen.

In free mode, JCL code can be edited and submitted. Editing of JCL code is done via edit and line commands; see *Editing within the Natural Tools for DB2*.

Generated JCL code is submitted by pressing PF4.

Apart from being submitted, JCL code can also be copied, listed, purged, retrieved from, or saved in a Natural library. All this is done via maintenance commands; see *Global Maintenance Commands*.

Prepare Job Profile

If you want to generate JCL to create a DBRM or to bind, free, or rebind a plan or package, you have to specify a job name, job cards, and the name of a job profile. Thus, you have to prepare the job profiles first. Once your job profiles are defined, you can always immediately select the corresponding function if you want to create a new DBRM or if you want to bind, free, or rebind an a plan or package using your predefined job profiles.

To define a job profile

1. On the **Natural Tools for DB2 Main Menu**, enter function code A.

The **Application Plan Maintenance** menu is displayed.

2. On the **Application Plan Maintenance** menu, invoke the **Prepare Job Profile** function by entering function code PP.

The **Prepare Job Profile** menu is displayed.

Prepare Job Profile Menu

```

16:14:33          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                   - Prepare Job Profile -

Code Function

      J   Default Job Cards
      D   Profile for Create DBRM Job
      P   Profile for DSN Jobs
      ?   Help
      .   Exit

Code .. _   Profile .. _____

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

Code	Description
J	Defines user-specific default job cards.
D	Defines job profiles for the DBRM creation function.
P	Defines job profiles for the plan or package maintenance functions.

In addition, the parameter `Profile` is available, which is relevant to function codes D and P only. With function code "J", `Profile` corresponds to `USER`.

Parameter	Description
<code>Profile</code>	<p>Specifies the name of an already existing job profile.</p> <p>If a valid profile name is specified, the free-mode editor with the specified job profile is invoked, where the profile can be modified and saved.</p> <p>If a value is specified followed by an asterisk (*), all existing job profiles whose names begin with this value are listed.</p> <p>If asterisk notation is specified only, a selection list of all existing job profiles is displayed.</p> <p>If the field is left blank, the corresponding fixed-mode profile screen is invoked, where a new job profile can be created. To save the new profile, you have to switch to free mode.</p>

Job profiles can be maintained (that is, copied, listed, purged, retrieved from, or saved in a Natural library) via maintenance commands; see *Global Maintenance Commands*.

Note:

Job profiles are saved on the Natural system file `FNAT`.

Default Job Cards

All jobs generated by the **Application Plan Maintenance** function require job cards. With the **Default Job Cards** function, you can define a default job card for each user. The default job cards apply to all function screens on which you can generate JCL. Default job cards can be invoked and modified on all these screens. Asterisk notation (*) can be used to select the desired job card from a list.

▶ To define a default job card

- On the **Prepare Job Profile** menu, enter function code J and press Enter.

The **Default Job Cards** screen is displayed.

```

16:14:33                ***** NATURAL TOOLS FOR DB2 *****                2009-10-30
                        - Default Job Cards -

Read, Save, List or Purge Default Job Cards _      User ID .. _____

Job Name ... _____
Job Cards ..
//          JOB _____
// _____
// _____
// _____
// _____

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

```

On this screen, you can create and save your user-specific job cards. To do so, you can also read (directly or from a list) and modify an already existing default job card. Existing job cards can be purged, too.

Note:

All other function screens used to specify jobs contain the same two fields - **Job Name** and **Job Cards** - as the **Default Job Cards** screen. Thus, it is possible to override the default job cards in each of these screens, too.

▶ To modify the job name

- Enter the new job name in the **Job Name** field and press Enter.

▶ To modify the job cards

- In the **Job Cards** field, enter an S and press Enter.

A window is displayed where you can modify all the job cards.

Profile for Create DBRM Job

The **Profile for Create DBRM Job** function enables you to define profiles for the **Create DBRMs** functions. Job profiles for DBRM creation consist of JCL which includes the following predefined set of substitution parameters:

Parameter	Description
@JOB CARDS	Is replaced by the job cards entered on the Create DBRMs screen (up to five lines). You can also code the job cards in the profile and omit the job cards modifier.
@COMMAND	Is replaced by the string <code>CREATE DBRM</code> .
@DBRMNAME	Is replaced by the name of the DBRM, which can be up to eight characters long.
@CREATE-DBRM	Is replaced by the command input for the static generation step. This parameter must be placed <i>after</i> the <code>//CMSYNIN</code> card and must comply with the Assembler naming conventions.
@COMMAN2	Is replaced by the string <code>MODIFY</code> .
@MODIFY	Is replaced by the command input for the static modification step.
@XR-START @XR-END	Both mark the JCL to contain the Natural Assembler XREF data; if no XREF option is specified, the JCL is deleted again.

To modify or rename a job profile for DBRM creation

1. On the **Prepare Job Profile** menu, invoke the **Profile for Create DBRM Job** function by entering function code D.
2. In the **Profile** field, specify a valid profile name and press Enter.

The free-mode editor containing the specified profile is invoked, where you can modify, save, and rename the displayed profile.

To create a job profile for DBRM creation

1. On the **Prepare Job Profile** menu, enter function code D.
2. Leave the **Profile** field blank, and press Enter.

The **Profile for Create DBRM Job** screen is invoked, which helps you in creating a new profile.

```

16:15:18          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                   - Profile for Create DBRM Job -

+----- NATURAL Parameters -----+
! Name of Batch NATURAL      : _____ !
! NATURAL Parameter         : _____ !
! STEPLIB DD                : _         !
+----- Precompile Parameters -----+
! DBRMLIB DD                : _____ !
! STEPLIB DD                : _         !
+----- Ass-Nat-Xref-Library -----+
! CMWKF02 DD                : _____ !
+-----+

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

```

▶ To save the newly created job profile

- Switch to free mode by pressing PF5.

Profile for DSN Jobs

The **Profile for DSN Jobs** function enables you to define profiles for the **Bind**, **Rebind**, and **Free** functions. The same profiles can be used for each of the three functions.

Profiles for DSN jobs consist of JCL which includes the following predefined set of substitution parameters:

Parameter	Description
@JOBCARDS	Is replaced by the current job cards; you can also code the job cards in the profile and omit the job cards modifier.
@DSNCMD	Is replaced by the command input for the bind, rebind or free function.
@PLANNAME	For the bind function, it is replaced by the name of the plan or package. For the rebind and free functions, it is set to blank.
@COMMAND	Is replaced by the string BIND, REBIND or FREE, respectively.

▶ To modify or rename a profile for DSN jobs

1. On the **Prepare Job Profile** menu, enter function code P.
2. In the **Profile** field, specify a valid profile name, and press Enter.

The free-mode editor containing the specified profile is invoked, where you can modify, save, and rename the displayed profile

▶ **To create a new profile for DSN jobs**

1. On the Prepare Job Profile menu, enter function code P.
2. Leave the **Profile** field blank, and press Enter.

The **Profile for DSN Jobs** screen is invoked, which helps you in creating a new profile for DSN jobs.

```

16:15:18          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Profile for DSN Jobs -

  DB2 System .. _____          Retries .. ____

+-----+-----+ Steplibs for DSN Jobs -----+
!  STEPLIB      DD          : _____ !
!                : _____ !
!                : _____ !
!                : _____ !
!                : _____ !
+-----+-----+

+-----+-----+ DBRM Libraries for Bind -----+
!  DBRMLIB      DD          : _____ !
!                : _____ !
!                : _____ !
!                : _____ !
!                : _____ !
+-----+-----+

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

```

▶ **To save the newly created job profile**

- Switch to free mode by pressing PF5.

Loading Job Profiles

Job profiles for DBRM creation and plan/package maintenance are loaded from the dataset CMWKF01 in batch mode.

▶ **To load a job profile**

1. Logon to library SYSDB2.
2. In the command line, issue the command LOADPROF.

The **Load Job Profiles** menu is displayed.

```

16:53:20          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Load Job Profiles -

                                Code Function
                                -----
                                D  Load Profile for Create DBRM
                                B  Load Profile for DSN Jobs
                                .  Exit
                                -----
Code .. _  Profile .. _____
           Replace .. N

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

```

The following functions are available:

Code	Description
D	Serves to load job profiles for DBRM creation.
B	Serves to load job profiles for plan or package maintenance.

The following parameters apply:

Parameter	Description
Profile	Specifies the name of the profile to be loaded. This parameter must be specified.
Replace	Specifies whether it is to be replaced or not if a profile with the specified name already exists.
	Y An already existing profile is replaced.
	N An already existing profile is <i>not</i> replaced. This parameter is optional; the default setting is N.

Unloading Job Profiles

Job profiles for DBRM creation and plan/package maintenance are unloaded and written to the dataset CMWKF01 in batch mode.

To unload a job profile

1. Logon to library SYSDB2.
2. In the command line, issue the command UNLDPROF.

The **Load Job Profiles** menu is displayed.

```

16:53:20          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                      Load Job Profiles

Code Function

      D   Unload Profile for Create DBRM
      B   Unload Profile for DSN Jobs
      .   Exit

Code .. _   Profile .. _____

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

```

The following functions are available:

Code	Description
D	Unloads job profiles for DBRM creation.
B	Unloads job profiles for plan or package maintenance.

The following parameter applies:

Parameter	Description
Profile	Specifies the name of the profile to be unloaded. This parameter must be specified.

Create DBRMs

To create a DBRM, you have to generate JCL for DBRM creation.

To create a DBRM

1. On the **Application Plan Maintenance** menu, enter function code CD, and press Enter.

The **Create DBRM** screen is displayed where, in addition to a job name, your user-specific default job cards, and the desired job profile, you can specify all necessary information for the CREATE DBRM and MODIFY commands; see also *Generation Procedure: CMD CREATE Command* and *Modification Procedure: CMD MODIFY Command* in the section *Preparing Programs for Static Execution*.

```

16:15:44          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Create DBRM -

Job Name ... DBRMJOB_          Job Cards .. X          Profile ..EXDBRM__

>>-- CREate DBRM -- DBRM1___ -- USing --- _ -- PREDict DOCumentation --->
                    +-- _ -- INput Data -----+

>+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+- With XRef - _____ -+      +- LIBrary - _____ -+      +- FS - ____ -+
      ( NO, YES, FORCE )          !                ( ON, OFF )

>-----+-----+-----+-----+-----+-----+-----+-----+-----+----->
      +---- _ --- NAT Library , NAT Member +-----+-----+
                                   + , excl.Member-+

>>-----+-----+-----+-----+-----+-----+-----+-----+-----+----->
                                   +- _ - XRef -+

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

```

2. In the **Job Name** field, a valid job name must be specified. If you only want to change the name of the job, you can do this using the **Job Name** field, too.
3. Via the **Job Cards** field, you can override your default job cards. To do so, enter an S in the **Job Cards** field.

A window containing your job cards is displayed.

An "X" in the **Job Cards** field indicates that job cards for DBRM creation are defined. A blank **Job Cards** field indicates that no job cards are defined.

4. In the **Profile** field, you can specify the name of a valid job profile for DBRM creation. If a value is specified followed by an asterisk (*), all existing job profiles whose names begin with this value are listed. If asterisk notation is specified only, a selection list of all available job profiles is displayed.
5. If you use the **INput Data** option, a window is displayed, where you have to specify the Natural libraries and programs (members) to be contained in the DBRM.

```

16:15:44          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Create DBRM -

Job Name ... DBRMJOB_          Job Cards .. X          Profile .. EXDBRM_

>>-- CREate DBRM -- DBRM1____ -- USIng ---- _ -- PREDict DOcumentation ---->
                    +--- _ -- INput DATA -----+

>+-----+-----+-----+-----+-----+-----+-----+-----+----->
+- With XRef - _____ +- LIBrary - _____ +- FS - ____ +-
      ( NO, YES, FORCE )          !          ( ON, OFF )

>-----+-----+-----+-----+-----+-----+-----+-----><
      +---- S ! NAT Library,NAT Member,excl.Member 1 / 2 !
          !     Test____ , PROG1____ , _____ !
          !     Test____ , P*_______ , PROG1____ !
>>-----+-----+-----+-----+-----+-----+-----+-----><
          !     _____ , _____ , _____ !
          !     _____ , _____ , _____ !
          !     _____ , _____ , _____ !
Command ==>          !
Enter-PF1---PF2---P +-----+-----+-----+-----+ F11--PF12---
      Help      Exit  Submi Free -- - + ++          Canc

```

In the third column of the above window, you can specify a program that is to be excluded from the DBRM; this is possible only if you specify an asterisk (*) with the program name in the second column.

Within the window, you can scroll using PF6 (--), PF7 (-), PF8 (+), or PF9 (++)

The generated JCL code can be either edited and/or saved in free mode by pressing PF5 (Free), or submitted immediately by pressing PF4 (Submi).

Bind Plan

To generate JCL to bind a plan, you have to invoke the **Bind** function. All parameters necessary to bind a plan are entered on four screens, which show the syntax of the DB2 BIND PLAN command.

To generate JCL to bind a plan

1. On the **Application Plan Maintenance** menu, enter function code BI.

In the **Object** field, enter PLAN or PL, and press Enter.

The first **Bind Plan** screen is displayed, where all necessary information must be specified.

5. Pressing PF11 (Next) takes you to a second **Bind Plan** screen, where you can specify further options of the DB2 BIND command.

A keyword is generated by entering its first letter in the corresponding input field; the default values are highlighted.

```

16:17:05          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Bind Plan -

>-----+-----+-----+-----+-----+-----+-----+-----+-----+----->
!                                     ! !                                     ! !                                     !
+- _____ --( PREPARE )-+ +- FLAG --( _ )-+ +- EXPLAIN --( ____ )-+
( NODDEFER or DEFER)          ( I, W, E or C)          ( YES or NO )
>-----+-----+-----+-----+-----+-----+-----+-----+----->
!                                     ! !                                     ! !                                     !
+- VALIDATE ( ____ )-+ +- ISOLATION ( __ )-+ +- CACHESIZE ( ____ )+
( RUN or BIND )          ( RR, UR or CS )          ( 0 - 4096 )
>-----+-----+-----+-----+-----+-----+-----+-----+----->
!                                     ! !                                     !
+--- ACQUIRE --( _____ )-+ +--- RELEASE --( _____ )-+
( USE or ALLOCATE )          ( COMMIT or DEALLOCATE )
>-----+-----+-----+-----+-----+-----+-----+-----+----->
!                                     ! !                                     !
+- CURRENTSERVER ( _____ )-+ +--- CURRENTDATA ( ____ )-+
location-name                ( NO or YES )

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

```

Pressing PF10 (Prev) takes you back to the previous screen.

6. Pressing PF11 (Next) takes you to a third **Bind Plan** screen, where you can again specify further options of the DB2 BIND command.

```

16:17:18          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Bind Plan -

>-----+-----+-----+-----+-----+-----+-----+-----+----->
!                                     !                                     !
+--- ACTION --+---- _ (REPLACE) --+-----+-----+-----+-----+
!                                     !                                     +--- _ RETAIN --+ !
+---- _ (ADD) -----+-----+-----+-----+
>-----+-----+-----+-----+-----+-----+-----+-----+----->
!                                     !                                     !
+--- DYNAMICRULES - _ ( RUN or BIND ) -----+-----+-----+-----+
>-----+-----+-----+-----+-----+-----+-----+-----+-----><
!                                     !                                     !
+--+- _ - ENABLE ----- ( * ) -----+-----+-----+-----+-----+
!                                     ! +>- DLIBATCH- _ -(con.-names)-+
+- _ - ENABLE ---+ _ -(con.-types)-+ +>- CICS ---- _ -(applids)-----+
+- _ - DISABLE --+ +>- IMSBMP -- _ -(imsids)-----+
+>- IMSMPP -- _ -(imsids)-----+

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

```

7. Pressing PF11 (Next) takes you to a fourth **Bind Plan** screen, where you can again specify further options of the DB2 BIND command.

```

16:17:38          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Bind Plan -

>-----+-----+-----+-----+-----+-----+-----+-----+----->
!                                     !                                     !                                     !
+-- DEGREE  ---  ___  -----+         +-- SQLRULES  ---  ___  -----+
                    ( 1 or ANY )                ( DB2 or STD )

>-----+-----+-----+-----+-----+-----+-----+-----+----->
!                                     !
+-- DISCONNECT  -----+-----  _ - ( EXPLICIT ) -----+-----+-----+
                    +-----  _ - ( AUTOMATIC ) -----+
                    +-----  _ - ( CONDITIONAL) -----+

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

```

8. The generated JCL code can be either edited and/or saved in free mode by pressing PF5 (Free), or submitted immediately by pressing PF4 (Submi).

Rebind Plan

To generate JCL to rebind a plan, you have to invoke the **Rebind** function. All parameters necessary to rebind a plan are entered in three screens, which show the syntax of the DB2 REBIND PLAN command.

To generate JCL to rebind a plan

1. On the **Application Plan Maintenance** menu, enter function code RB.

In the **Object** field, enter PLAN or PL, and press Enter.

The first **Rebind Plan** screen is displayed, where all necessary information must be specified.


```

19:17:55          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Rebind Plan -

Job Name ... FREEJOB_          Job Cards .. X          Profile .. EXBIND1_

>>- REBIND PLAN ----->

>--(plan names)- X --+-----+-----+-----+-----+----->
!          !!          !!          !
+-- (*) -- _ -----+--+ OWNER ( _____ )-+ +- QUALIFIER ( _____ )-+
                    auth-id          qualifier-name

>--+-----+-----+-----+-----+----->
!          !          !
+-- PKLIST ---- _ --(+-----+collection-id.package-id)---+
!          +-location-name--+          !
+-- NOPKLIST -- _ -----+-----+-----+-----+-----+

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

```

2. Apart from the specifications to be made in the **Job Name**, **Job Cards**, and **Profile** fields, you have to specify the names of the plans to be rebound in a window. If you specify asterisk notation (*), all existing plans are rebound.
3. Pressing PF11 (Next) takes you to a second **Rebind Plan** screen, where you can specify further options of the DB2 REBIND command.

A keyword is generated by entering its first letter in the corresponding input field; the default values are highlighted.

```

16:18:15          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Rebind Plan -

>--+-----+-----+-----+-----+----->
!          !          !          !          !
+-- _____ --( PREPARE )-+ +- FLAG --( _ )-+ +- EXPLAIN --( ____ )-+
( NODDEFER or DEFER)          ( I, W, E or C)          ( YES or NO )
>--+-----+-----+-----+-----+----->
!          !          !          !
+-- VALIDATE ( ____ )-+ +- ISOLATION ( __ )-+ +- CACHESIZE ( ____ )+
( RUN or BIND )          ( RR, CS or UR )          ( 0 - 4096 )
>--+-----+-----+-----+-----+----->
!          !          !
+--- ACQUIRE --( _____ )-----+ +--- RELEASE --( _____ )-----+
( USE or ALLOCATE )          ( COMMIT or DEALLOCATE )
>--+-----+-----+-----+-----+----->
!          !          !
+-- CURRENTSERVER ( _____ )-+ +--- CURRENTDATA ( ____ )-+
                    location-name          ( NO or YES )

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

```



```

16:19:35          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Free Plan -

Job Name ... FREEJOB_          Job Cards .. X          Profile .. EXBIND1_

>>----- FREE PLAN -----+---(plan name)--- X -----+----->
                           !                               !
                           +----- (*) ----- _ -----+

>-----+-----+-----+-----+-----+-----+-----+----->
                           !                               !
                           +--- FLAG -----( _ )-----+
                               (I, W, E or C)

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

```

2. Apart from the specifications to be made in the **Job Name**, **Job Cards**, and **Profile** fields, all parameters necessary to free a plan are entered in a screen showing the syntax of the DB2 FREE PLAN command. The names of the plans to be freed are entered in a window. If you specify asterisk notation (*), all plans are freed.
3. The generated JCL code can be either edited and/or saved in free mode by pressing PF5 (Free), or submitted immediately by pressing PF4 (Submi).

Bind Package

Packages can be bound with the Bind function of the **Application Plan Maintenance** menu. All parameters necessary to bind a package are entered on three screens, which show the syntax of the DB2 BIND PACKAGE command.

To generate JCL to bind a package

1. On the **Application Plan Maintenance** menu, enter function code "BI".

In the Object field, enter PACKAGE or PK, and press Enter.

The first **Bind Package** screen is displayed, where all necessary information must be specified.


```

16:20:05          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Bind Package -

>-----+-----+-----+-----+-----+-----+-----+----->
!           !           !           !
+- SQLERROR ( _____ )-+           +- FLAG --( _ )-+
  ( NOPACKAGE or CONTINUE )           ( I, W, E or C )
>-----+-----+-----+-----+-----+-----+----->
!           !           !           !
+- EXPLAIN --( ____ )-+           +- VALIDATE ( ____ )-+
  ( NO or YES )           ( RUN or BIND )
>-----+-----+-----+-----+-----+-----+----->
!           !           !           !
+- ISOLATION ( ____ )-+           +- RELEASE -( _____ )-+
  ( RR, RS, CS, UR or NC )           ( COMMIT or DEALLOCATE )
>-----+-----+-----+-----+-----+-----+----->
!           !           !           !
+- CURRENTDATA ( ____ )-+           +- DYNAMICRULES --( ____ )-+
  ( NO or YES )           ( RUN or BIND )

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

```

Pressing PF10 (Prev) takes you back to the previous screen.

- Pressing PF11 (Next) takes you to a third **Bind Package** screen, where you can again specify further options of the DB2 BIND command.

```

16:20:18          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Bind Package -

>--+-----+-----+-----+-----+-----+-----+-----+----->
!           !           !           !
+- ACTION +- _ (REPLACE) +-+-----+-----+-----+-----+-----+
!           + REPLVER - _ +- !           +- DEGREE - ____ -----+
!           (version-id) !           ( 1 or ANY )
+- _ (ADD) -----+

>--+-----+-----+-----+-----+-----+-----+-----+-----><
!           !
+--+ _ - ENABLE ----- ( * ) -----+-----+-----+-----+-----+
!           ! +--> DLIBATCH- _ -(con.-names)-+
+- _ - ENABLE ---+ _ -(con.-types)-+ +--> CICS ---- _ -(applids)-----+
+- _ - DISABLE +- +--> IMSBMP -- _ -(imsids)-----+
+--> IMSMPP -- _ -(imsids)-----+
+--> REMOTE -- _ -(loc/lu-name)+

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

```

- The generated JCL code can be either edited and/or saved in free mode by pressing PF5 (Free), or submitted immediately by pressing PF4 (Submi).

Rebind Package

A package can be rebound with the **Rebind** function of the **Application Plan Maintenance** menu. All parameters necessary to rebound a package are entered in two screens, which show the syntax of the DB2 REBIND PACKAGE command

▶ To generate JCL to rebind a package

1. On the **Application Plan Maintenance** menu, enter function code RB.

In the **Object** field, enter PACKAGE or PK, and press Enter.

The first Rebind Package screen is displayed, where all necessary information must be specified.

```

16:20:55          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Rebind Package -

Job Name ... FREEJOB_          Job Cards .. X          Profile .. EXBIND2_

>>- REBIND PACKAGE ----->

>+--- _ ----- (*) -----+>
!
+--- _ -(+-----+collection-id.package-id-+-----)+
      +-location-name.-+          +-.(version-id)-+

>-----+-----+-----+----->
          !          !!          !
          +- OWNER ( _____ )-+ +- QUALIFIER ( _____ )-+
                    auth-id          qualifier-name

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

2. Apart from the specifications to be made in the **Job Name**, **Job Cards**, and **Profile** fields, you have to specify the names of the packages to be rebound in a window. If you specify asterisk notation (*), all locally existing packages are rebound.
3. Pressing PF11 (Next) takes you to a second **Rebind Package** screen, where you can specify further options of the DB2 REBIND command.

A keyword is generated by entering its first letter in the corresponding input field; the default values are highlighted.

```

16:21:21          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Rebind Package -

>-----+-----+-----+-----+----->
          !           !           !           !
        +- FLAG -----( _ )---+           +- DEGREE --( ____ )--+
          ( I, W, E or C)                ( 1 or ANY )

>-----+-----+-----+-----+----->
          !           !           !           !
        +- EXPLAIN --( ____ )--+         +- VALIDATE ( ____ )--+
          ( NO or YES )                  ( RUN or BIND )

>-----+-----+-----+-----+----->
          !           !           !           !
        +- ISOLATION ( _ )---+         +- RELEASE -( _____ )--+
          ( RR, RS, CS, UR or NC )       ( COMMIT or DEALLOCATE )

>-----+-----+-----+-----+----->
          !           !           !           !
        +- CURRENTDATA ( ____ )--+     +- DYNAMICRULES -( ____ )--+
          ( NO or YES )                  ( RUN OR BIND )

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

Pressing PF10 (Prev) takes you back to the previous screen.

- Pressing PF11 (Next) takes you to a third **Rebind Package** screen, where you can again specify further options of the DB2 REBIND command.

```

16:21:38          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Rebind Package -

>--+-----+-----+-----+-----+----->
          !                                           !
        +--+ _ - ENABLE ----- (*) -----+--+
          !                                           !
        +- _ - ENABLE ---+ _ -(con.-types)+ +--> DLIBATCH- _ -(con.-names)+
        +- _ - DISABLE +-                               +--> CICS ---- _ -(applids)-----+
                                                +--> IMSBMP -- _ -(imsids)-----+
                                                +--> IMSMPP -- _ -(imsids)-----+
                                                +--> REMOTE -- _ -(loc/lu-name)+

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

- The generated JCL code can be either edited and/or saved in free mode by pressing PF5 (Free), or submitted immediately by pressing PF4 (Submi).

Free Package

A package can be freed with the **Free Package** function of the **Application Plan Maintenance** menu.

▶ To generate JCL to free a package

1. On the **Application Plan Maintenance** menu, enter function code FR.

In the **Object** field, enter PACKAGE or PK, and press Enter.

The Free Package screen is displayed, where all necessary information must be specified.

```

16:22:05          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                    - Free Package -

Job Name ... FREEJOB_          Job Cards .. X          Profile .. EXBIND2_

>>-- FREE PACKAGE ----->
>---+ _ ----- (*) ----->
!
+ _ --(-+-----+collection-id.+----- (*) -----+)---+
          +location-name.+          +package-id+-----++
                                   +.---- (*) ----+
                                   +.(version-id)+

>-----+-----+-----><
          !          !
          +--- FLAG -----( _ )-----+
                                   ( I, W, E or C )

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

```

2. Apart from the specifications to be made in the **Job Name**, **Job Cards**, and **Profile** fields, all parameters necessary to free a package are entered in a screen showing the syntax of the DB2 FREE PACKAGE command. The names of the packages to be freed are entered in a window. If you specify asterisk notation (*), all local packages are freed.
3. The generated JCL code can be either edited and/or saved in free mode by pressing PF5 (Free), or submitted immediately by pressing PF4 (Submi).

List JCL Function

The **List JCL** function serves to invoke the free-mode editor via the **Application Plan Maintenance** menu.

▶ To invoke the List JCL function

1. On the **Application Plan Maintenance** menu, enter function code LJ.

- If you leave the **JCL Member** field blank and press Enter, the empty free-mode editor is invoked.
- If you specify a value followed by an asterisk, or specify asterisk notation only and press Enter, a list of JCL members is displayed for selection.
- If you specify a valid member name and press Enter, the invoked free-mode editor contains the corresponding JCL.

```

16:18:18          ***** NATURAL TOOLS FOR DB2 *****                2009-10-30
APM - free mode    TESTLIB(TESTPLAN)      S 01- -----Columns 001 072
=====>                                               Scroll ===>  PAGE
***** ***** top of data *****
00001 //BINDJOB   JOB TESTPLAN,CLASS=K,MSGCLASS=X
00002 //*****
00003 //* EXAMPLE JOB PROFILE FOR BIND, FREE AND REBIND          *
00004 //*                                                    *
00005 //* BIND PLAN                                              *
00006 //*****
00007 //BINDJOB   EXEC PGM=IKJEFT01,DYNAMNBR=20,REGION=4096K
00008 //STEPLIB   DD DSN=DB2.Vnnn.DSNLOAD,DISP=SHR
00009 //DBRMLIB   DD DSN=DB2.Vnnn.DBRMLIB.DATA,DISP=SHR
00010 //SYSTSPRT   DD SYSOUT=*
00011 //SYSPRINT   DD SYSOUT=*
00012 //SYSUDUMP   DD SYSOUT=*
00013 //SYSTSIN    DD *
00014 DSN SYSTEM (DB2)
00015     BIND PLAN (PLAN1)
00016     MEMBER ( DBRM1)
00017 END

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

Within the free-mode editor, JCL members can be copied, listed, purged, retrieved from, or saved in a Natural library. All this is done via maintenance commands; see *Global Maintenance Commands*.

2. Press PF4 (Submi) to submit JCL code listed in the editor, press PF5 (Fix) to switch to fixed mode.

Display Job Output

The **Display Job Output** function can be used to display the output of a JCL member.

Note:

The Display Job Output function is available only if the Entire System Server is installed.

 **To display the output of a JCL member**

1. On the **Application Plan Maintenance** menu, enter function code JO.

In the Node field, the default node number (148) for Entire System Server can be modified.

A screen is displayed, where you can specify the desired job name and job number, as well as the numbers of the SYSOUT types.

```

16:20:05          ***** NATURAL TOOLS FOR DB2 *****          2009-10-30
                   - Application Plan Maintenance -

Job Name ..... _____
Job Number ..... _____
Sysout Type ..... _____ ( CC,JL,SI,SM,SO      )
Sysout Number ... _____ ( Sysout file number )
Node ..... 148

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

```

2. In the **Job Name** field, a valid job name can be specified.
 - If you specify a value followed by an asterisk (*), or specify asterisk (*) notation only, a list of job output members is displayed for selection. In a job output member selection list, you can mark an output member with either B to display the member only, or L to display a list of all the job output's SYSOUT datasets, which in turn can be marked with B for display.
 - If you leave the **Job Name** field blank, you must specify a job number.
3. In the **Job Number** field, you can specify a unique job number. Only if a unique job number has been specified, specifications can be made in the **Sysout Type** and **Sysout Number** fields, too.
4. In the **Sysout Type** field, you can specify the type of SYSOUT dataset of the job with the specified job number to be displayed. The following codes apply:

Code	SYSOUT Type
CC	Condition Code
JL	Job Listing
SI	System Input
SM	System Message
SO	System Output

5. In the **Sysout Number** field, you can specify a file number to display a specific SYSOUT dataset of the type specified in the Sysout type field.

If you leave the **Sysout Number** field blank, all SYSOUT datasets of the specified type are displayed.