

JRH DB2I2 for DB2™ OS/390 & zOS

Installation Guide

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DB2I2 Installation Guide

System Installation

Transfer Unzipped PC files to Host

Please use the following appropriate Host File transfer option to upload these files:

For **Initial Installation** of DB2I2:

<u>PC file name</u>	<u>Host file transfer options</u>	
DB2I2U0	Fixed/LRECL=80/BLKSIZE=0/Binary	Space allocation(TRK,(15,1))
DB2I2U1	Fixed/LRECL=255/BLKSIZE=0/Binary	Space allocation(TRK,(150,5,30))
DB2I2U2	Fixed/LRECL=80/BLKSIZE=0/Binary	Space allocation(TRK,(180,5,40))
DB2I2U3	Fixed/LRECL=80/BLKSIZE=0/Binary	Space allocation(TRK,(45,5,5))

For **Migration** from previous release or evaluation copy of DB2I2:

<u>PC file name</u>	<u>Host file transfer options</u>
DB2I2U0	Fixed/LRECL=80/BLKSIZE=0/Binary
DB2I2U1	Fixed/LRECL=255/BLKSIZE=0/Binary
DB2I2U2	Fixed/LRECL=80/BLKSIZE=0/Binary
DB2I2U3	Fixed/LRECL=80/BLKSIZE=0/Binary

For **Fixes Apply** (When you receive FIXU1, FIXU2 or DB2I2U3 with DB2I2U1 and DB2I2U2):

<u>PC file name</u>	<u>Host file transfer options</u>
DB2I2U0	Fixed/LRECL=80/BLKSIZE=0/Binary
FIXU1	Fixed/LRECL=255/BLKSIZE=0/Binary
FIXU2	Fixed/LRECL=80/BLKSIZE=0/Binary
DB2I2U3	Fixed/LRECL=80/BLKSIZE=0/Binary

Use TSO RECEIVE to receive installation REXX from DB2I2U0

Go to ISPF command Shell and issue RECEIVE command to receive the DB2I2U0 file.

```

                                ISPF Command Shell
Enter TSO or Workstation commands below:

===> RECEIVE INDSN('tsoid.DB2I2U0')
```

After you press ENTER key, you should have the following displayed.

```

INMR901I Dataset JRHJ.DB2I2I from JRHJ on ????????
INMR906A Enter restore parameters or 'DELETE' or 'END' +
```

DB2I2 Installation Guide

Please enter the following and press ENTER key to receive the DB2I2U0.

The example below uses 'JRHJ.DB2I2.INSTALL.EXEC' as the receiving data set.

If you migrate from previous installation or applying fixes, make sure **use the same name to receive DB2I2U0**. For our example here 'JRHJ.DB2I2.INSTALL.EXEC', so that during the migration or fixes apply, DB2I2 will pick up setup information from previous installation. (Previous installation setup information is stored in a member called **INFO**)

```
dsn('JRHJ.DB2I2.INSTALL.EXEC')
```

```
.  
. .  
IGW01551I MEMBER FSETUP HAS BEEN LOADED  
IGW01551I MEMBER INST HAS BEEN LOADED  
IGW01551I MEMBER INSTALL HAS BEEN LOADED  
IGW01551I MEMBER MDB2I2P HAS BEEN LOADED  
IGW01551I MEMBER MDYNSORT HAS BEEN LOADED  
IGW01551I MEMBER MSSID HAS BEEN LOADED  
IGW01550I 9 OF 9 MEMBERS WERE LOADED  
IEB1056I RELEASED 1016K ADDITIONAL BYTES.  
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE  
INMR001I Restore successful to dataset 'JRHJ.DB2I2.INSTALL.EXEC'  
***
```

Execute Install REXX in DB2I2.INSTALL.EXEC to generate installation JCL

Uses the example above, you should do the following:

TSO EX 'JRHJ.DB2I2.INSTALL.EXEC(INSTALL)'

The following installation option screen is displayed which allows you to proceed the installation:

```
#MENU ----- DB2I2 for DB2/OS390 Installation Menu -----
Installation Option ==>

      I - Initial Installation                      DATE   - 99/12/01
      M - Migrates from previous Release of DB2I2  TIME    - 14:35
      F - Apply Fix                                USERID - JRHJ
      V - View/Maintain Activity Log

PF3=Exit  ENTER=To Process your Option selection
```

Initial Installation

Choose option I-Initial Installation if this is the first time you try to install DB2I2 product.

```
#MENU ----- DB2I2 for DB2/OS390 Installation Menu -----
Installation Option ==>

      I - Initial Installation Check and          DATE   - 99/12/01
           JCL Generation                        TIME    - 14:36
      S - SSID setup                              USERID - JRHJ
      P - Set up $DB2I2P DB2I2 standard PROC
      D - Dynamic Sort Setup
      T - Dynamic STEPLIB

      Select S, P, D after you have finished I-Initial Installation
      process and all DB2I2 libraries have been created.

PF3=Exit  ENTER=To Process your Option selection
```

DB2I2 Installation Guide

Select option **I - Initial Installation check and JCL generation** to generate product installation JCL. The following screen is displayed to allow you to enter your environment specific information.

```
#INST-----DB2I2 for DB2/OS390 & UDB/zOS Installation Screen-----
DB2I2 PC Upload File 1 _____
DB2I2 PC Upload File 2 _____
DB2I2 PC Upload File 3 _____
DB2 Load Library _____
DB2 Exit Library _____
DB2 User Run Library _____
DB2 DBRM Library _____
DB2 StartUP Proc Library _____
DB2I2 CLIST Library _____
DB2I2 Other ISPF Library _____
DB2I2 Load Library _____
Installer TSOID _____
SYSADMIN ID _____
DB2 SubSystem ID _____

PF3=Exit ENTER=To Generate Installation JCL
```

Please enter all the fields and proceed to generate Installation JCL:

DB2I2U1 PC UPLOAD FILE 1
DB2I2U2 PC UPLOAD FILE 2
DB2 STARTUP PROCEDURE LIBRARY
DB2 LOAD LIBRARY
DB2 EXIT LIBRARY (If not applicable, use the same name as DB2 LOAD)
DB2 USER RUN LIBRARY (If not applicable, use the same name as DB2 LOAD)
DB2 DBRM LIBRARY (where the DSNTIAD and DSNTEP2 DBRMs located)
DB2I2 CLIST LIBRARY
DB2I2 OTHER ISPF LIBRARY
DB2I2 LOAD LIBRARY
Installer TSOID (Make sure the installer TSOID has minimum BINDADD authorization)
SYSADMIN ID
DB2 Sub-System ID

DB2I2 Installation Guide

The following is a sample of screen input:

```
#INST -----DB2I2 for DB2/OS390 & UDB/zOS Installation Screen -----
--
DB2I2 PC Upload File 1   JRHJ.DB2I2U1_____
DB2I2 PC Upload File 2   JRHJ.DB2I2U2_____
DB2I2 PC Upload File 3   JRHJ.DB2U2U3_____
DB2 Load Library         SYS1.PROD.SDSNLOAD_____
DB2 Exit Library         SYS1.PROD.SDSNLOAD_____
DB2 User Run Library     SYS1.PROD.SDSNLOAD_____
DB2 DBRM Library         SYS1.DBRMLIB_____
DB2 StartUP Proc Library SYS1.PROCLIB_____
DB2I2 CLIST Library      JRHJ.DB2I2.CLIST_____
DB2I2 Other ISPF Library JRHJ.DB2I2.LIB_____
DB2I2 Load Library       JRHJ.DB2I2.LOAD_____
Installer TSOID          JRHJ_____
SYSADMIN ID              JRHJ_____
DB2 SubSystem ID        DSN_____

PF3=Exit  ENTER=To Generate Installation JCL
```

And the result JCL returned from option selection.

```
***** ***** Top of Data *****
000001 //JOBCARD - Enter you jobcard information here
000002 //
000003 //
000004 /** -----+
000005 /**          D B 2 I 2          I N S T A L L A T I O N   J C L          +
000006 /**                               By JRH GoldenState Software Inc.          +
000007 /**                               (C) Copyrighted 1997-2006          +
000008 /** -----+
000009 /** Please use ISPF CHANGE ALL for the following replacement
000010 /** before the installation
000011 /** EX. C 'SYS1.PROD.SDSNLOAD 'SYS1.SDSNLOAD' ALL
000012 /** =====+
000013 /** DB2I2 PC UPLOAD FILE 1   JRHJ.DB2I2U1
000014 /** DB2I2 PC UPLOAD FILE 2   JRHJ.DB2I2U2
000015 /** DB2 LOAD LIB             SYS1.PROD.SDSNLOAD
000016 /** DB2 EXIT LIB             SYS1.PROD.SDSNLOAD
000017 /** DB2 USER RUN LIB         SYS1.PROD.SDSNLOAD
000018 /** DB2 DBRM LIB FOR DSNTIAD  SYS1.DBRMLIB
000019 /** DB2 STARTUP PROC LIB     SYS1.PROCLIB
Command ==>                               Scroll ==> CSR
```

Migrate from previous Installation

Choose M-Migration if you try to migrate from a previous installation.

```
#MENU ----- DB2I2 for DB2/OS390 Migration Screen -----  
  
Existing DB2I2U0  
Installation  
REXX EXEC Library      JRHJ.DB2I2.INSTALL.EXEC _____  
  
PF3=Exit  ENTER=To Process Migration
```

Please enter the **previous DB2I2U0 REXX EXEC library name** here to allow installation procedure to copy all system setup files for you. The same installation screen like the one with initial installation option is displayed with all the information copy from previous installation. You can make any changes for the new installation on this screen. After you have done the changes and press Enter key to generate the Migration JCL.

```
#INST ----- DB2I2 for DB2/OS390 Installation Screen -----  
  
DB2I2 PC Upload File 1  JRHJ.DB2I2U1_____   
DB2I2 PC Upload File 2  JRHJ.DB2I2U2_____   
DB2I2 PC Upload File 3  JRHJ.DB2U2U3_____   
DB2 Load Library        SYS1.PROD.SDSNLOAD_____   
DB2 Exit Library        SYS1.PROD.SDSNLOAD_____   
DB2 User Run Library    SYS1.PROD.SDSNLOAD_____   
DB2 DBRM Library        SYS1.DBRMLIB_____   
DB2 StartUP Proc Library SYS1.PROCLIB_____   
DB2I2 CLIST Library    JRHJ.DB2I2.CLIST_____   
DB2I2 Other ISPF Library JRHJ.DB2I2.LIB_____   
DB2I2 Load Library    JRHJ.DB2I2.LOAD_____   
Installer TSOID         JRHJ_____   
SYSADMIN ID             JRHJ_____   
DB2 SubSystem ID        DSN_____   
  
PF3=Exit  ENTER=To Generate Installation JCL
```

Please make a copy of the following files before proceed:

- **DB2I2 CLIST Library**
- **DB2I2 Other ISPF Library**
- **DB2I2 Load Library**

Fixes Apply from previous Installation

Choose F-Apply Fixes if you try to apply fixes from a previous installation.

```
#MENUF ----- DB2I2 for DB2/OS390 Migration Screen -----

Existing DB2I2U0
Installation
REXX EXEC Library      JRHJ.DB2I2.INSTALL.EXEC _____

PF3=Exit  ENTER=To Process Migration
```

Please enter the **previous DB2I2U0 REXX EXEC library name** here to allow installation procedure to copy all system setup files for you. The same installation screen like the one with initial installation option is displayed with all the information copy from previous installation. You can make any changes only to the PC upload files 1, 2 and 3. After you have done the changes and press Enter key to generate the Apply Fixes JCL.

```
#INSTF -----DB2I2 for DB2/OS390 & UDB/zOS Installation Screen -----
---
DB2I2 PC Upload File 1  JRHJ.FIXU1_____
DB2I2 PC Upload File 2  JRHJ.FIXU2_____
DB2I2 PC Upload File 3  JRHJ.DB2U2U3_____
DB2 Load Library        SYS1.PROD.SDSNLOAD_____
DB2 Exit Library        SYS1.PROD.SDSNLOAD_____
DB2 User Run Library    SYS1.PROD.SDSNLOAD_____
DB2 DBRM Library        SYS1.DBRMLIB_____
DB2 StartUP Proc Library SYS1.PROCLIB_____
DB2I2 CLIST Library    JRHJ.DB2I2.CLIST_____
DB2I2 Other ISPF Library JRHJ.DB2I2.LIB_____
DB2I2 Load Library     JRHJ.DB2I2.LOAD_____
Installer TSOID         JRHJ_____
SYSADMIN ID            JRHJ_____
DB2 SubSystem ID       DSN_____

PF3=Exit  ENTER=To Generate Installation JCL
```

Please make a copy of the following files before proceed:

- ***DB2I2 CLIST Library if FIXU1 exist***
- ***DB2I2 Other ISPF Library if FIXU2 exist***
- ***DB2I2 Load Library if DB2I2U3 exist***

Submit generated JCL to install all DB2I2 libraries

Execution condition code should be zero for all installation steps except STEP04, which could be a 4.

The following steps are for initial installation JCL:

- STEP00: Allocate All DB2I2 Libraries (For initial installation only)
- STEP01: Copy Installation REXX Exec To DB2I2.INST.CLIST
- STEP02: execute DB2I2.INST.CLIST installation REXX exec to install REXX/CLIST library
- STEP03: execute DB2I2.INST.CLIST installation REXX exec to install other ISPF libraries
- STEP04: Bind package & Plan for execution and Grant plan access

Please repeat job step STEP04 for each of the DB2 sub-system which you want to use DB2I2.

For Migration option, additional steps are generated to copy and restore system setup files:

- STEP00: Allocate All DB2I2 Libraries
Comment out the STEP00 if you migrate from previous release and choose to use the same name for the DB2I2 REXX/CLIST library, ISPF library and load library.
- **STEP001: Copy Existing system files setup (for Migration only)**
- STEP01: Copy Installation REXX Exec To DB2I2.INST.CLIST
- STEP02: execute DB2I2.INST.CLIST installation REXX exec to install REXX/CLIST library
- STEP03: execute DB2I2.INST.CLIST installation REXX exec to install other ISPF libraries
- **STEP031: Restore Existing system files setup (for Migration only)**
- STEP04: Bind package & Plan for execution and Grant plan access
- STEP05: IEBCOPY DSNTIAD, DSNTPE2 and DSNTIAUL from db2 user library to db2i2.load

For Fixes Apply option, only the necessary steps related to the fixes apply are generated:

- STEP00: Allocate All DB2I2 Libraries

Receive load modules from DB2I2U3

Go to ISPF command Shell and issue RECEIVE command to receive the DB2I2U3 file into the newly created DB2I2.LOAD file from step 3.

```
ISPF Command Shell
Enter TSO or Workstation commands below:

===> RECEIVE INDSN('tsoid.DB2I2U3')
```

After you press ENTER key, you should have the following displayed.

```
INMR901I Dataset JRHJ.TEST.LOAD3 from JRHJ on ????????
INMR906A Enter restore parameters or 'DELETE' or 'END' +
```

Please enter the following and press ENTER key to receive the DB2I2U3 into DB2I2 LOAD library.

The example below using 'JRHJ.DB2I2.LOAD' as the DB2I2 LOAD library name.

```
dsn('JRHJ.DB2I2.LOAD')
```

```
.
.
.
IGW01550I 3 OF 3 MEMBERS WERE LOADED
IEB1056I RELEASED 1016K ADDITIONAL BYTES.
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE
INMR001I Restore successful to dataset 'JRHJ.DB2I2.LOAD'
***
```

Set up all system files

You do not have to the following setup if you are migrating from previous installation.

Setup SSID for each DB2 subsystem

Use the option **S - SSID setup** to edit the member **SSID** in the DB2I2 CLIST library. The SSID member contains one line for each DB2 sub-system. There are 2 default SSID entries shipped with the product. They are as follows:

<u>SSID</u>	<u>DB2LOAD</u>	<u>DB2EXIT</u>	<u>DB2USER</u>	<u>SYSAFF</u>	<u>DB2_VERSION</u>	<u>CATALOG_TABLE_PREFIX</u>	<u>DSNTIAD</u>	<u>DSNTEP2</u>	<u>DSNTIAUL</u>
<u>DSNDB06_VCATNAME</u>	<u>LOCATION</u>	<u>MIXED</u>	<u>UNITO</u>	<u>UNITW</u>	<u>UNITOU</u>	<u>UNITWU</u>	<u>MODELDCB</u>		
DSN1	SYS1.SDSNLOAD	SYS1.SDSNLOAD	SYS1.SDSNLOAD	NONE	5	SYSIBM*	DB2I2A	DB2I2A	DSNTIAUL
TDB2		NONE	N	SYSDA	SYSDA	SYSDA			

- SSID** DB2 sub-system ID
- DB2PROC** DB2 startup procedure library
- DB2LOAD** DB2 system load library
- DB2EXIT** DB2 system exit library. This is where usually the DSNZPARM located. Use the same name as DB2LOAD here if your shop do not use DB2EXIT library.
- DB2USER** DB2 system user library. (The library usually contains some updateable load module such as DSNTIAUL and DSNTIAD). Use the same name as DB2LOAD here if your shop do not use DB2USER library.
- SYSAFF** System affinity. Specify NONE if you do not want DB2I2 to generate sysaff on the generated Output JCL.
- Catalog Table Prefix** DB2 catalog table prefix. Default is SYSIBM. Please refer to installation reference for the usage of this with the mirror db2 catalog tables.
- DSNTIAD, DSNTEP2, and DSNTIAUL** enter the DB2 plan name for the IBM provided DSNTIAD, DSNTEP2, and DSNTIAUL programs. To support the remote execution, DB2I2 has bound both DSNTIAD and DSNTEP2 into collection DB2I2A. If you want to use other plan name for these fields, make sure the plan name you use support the remote package. (Bind the plan with *.collectionID.packagename)
- DSNDB06_VCATNAME** enter the DSNDB06 VSAM catalog prefix.
- LOCATION** Location name. Use the names defined in the SYSIBM.SYSLOCATIONS table for DB2 V4 or SYSIBM.LOCATIONS FOR DB2 V5. Enter NONE if your shop does not install DDF or location is not defined.
- MIXED** enter Y if your DB2 environment allows MIXED data. Enter N if only BIT data and SBSCS Allowed.
- UNITO** Enter UNIT device for the DB2I2 command output files. The default if not specify is SYSDA.
- UNITW** Enter UNIT device for the DB2I2 command work files. The default if not specify is SYSDA.
- UNITOU** Enter UNIT device for the generated DB2 utility JCL output files. DB2I2 uses this device name in the filed of SYSREC, SYSCOPY, SYSPUNCH and others output files for various DB2 utility. The default if not specify is SYSDA.
- UNITWU** Enter UNIT device for the generated DB2 utility JCL work files. DB2I2 uses this device name in the filed of SYSUT1, SORTOUT, SYSMAP, SORTWK and others work files for various DB2 utility. The default if not specify is SYSDA.
- MODELDCB** Enter model DCB information for generated DB2 utility work files.

DO NOT delete the heading line from this SSID file.

* Please refer C. Post installation performance enhance for the prefix information in this field. Default is SYSIBM.

Setup SORT dynamic allocation for generated utility JCL

Use **D - Dynamic Sort Setup** option to edit the member **\$DYNSORT** in the DB2I2 LIB library if you want use the sort dynamic allocation feature for the generated DB2 utility jobs. Remove **\$DYNSORT** from the DB2I2.LIB library if you do not want to use the sort dynamic allocation feature.

Setup Batch PROC to execute the DB2i2 in batch mode

Use **P - Set up \$DB2I2P DB2I2 standard PROC** option to edit the member **\$DB2I2P** in the DB2I2.LIB library. Makes changes to these **underline fields: SYS1.ISPMLIB, SYS1.ISPPLIB, and SYS1.ISPTLIB** to your shop standard ISPF MLIB, PLIB and TLIB library.

```
//DB2I2P   EXEC PGM=IKJEFT1B,REGION=0M
//SYSPROC DD DSN=<DBACLIST>,DISP=SHR
//ISPSLIB DD DSN=<DBALIB>,DISP=SHR
//ISPMLIB DD DISP=SHR,DSN=SYS1.ISPMLIB
//ISPPLIB DD DISP=SHR,DSN=SYS1.ISPPLIB
//ISPTLIB DD UNIT=SYSDA,SPACE=(TRK,(1,1,5),RLSE),
//          DCB=(LRECL=80,BLKSIZE=0,RECFM=FB,DSORG=PO)
//          DD DISP=SHR,DSN=SYS1.ISPTLIB
//ISPPROF DD UNIT=SYSDA,SPACE=(TRK,(1,1,5),RLSE),
//          DCB=(LRECL=80,BLKSIZE=0,RECFM=FB,DSORG=PO)
//ISPLOG  DD UNIT=SYSDA,SPACE=(CYL,(1,1),RLSE)
//SYSTSPRT DD SYSOUT=*
//SYSTSIN DD DSN=<DBALIB>(DB2I2BST),DISP=SHR
```

After you complete Step 1 through Step 7, you have successfully completed the system installation of the DB2I2 software.

Please read the following section for the user setup. To invoke DB2I2, Please issue the following:

TSO EX 'db2i2.clist(DB2I2STA)'

Setup Dynamic STEPLIB

Use T – **Dynamic STEPLIB** option to edit the sample dynamic STEPLIB exit routine, which allows DB2I2 to invoke your Dynamic STEPLIB routine during user login to Db2I2 or issue SSID command to switch between different DB2 sub-systems.

Skip this option if your shop do not want to use dynamic STEPLIB.

```

/* REXX -----
DYNLIB: Sample routine for Dynamically Allocate STEPLIB
Description: Every time when you logon to DB2I2 or issue SSID command
            this routine will be invoked and passed with
            3 parameters:
            DSNLOAD, DSNEXIT and DSNRUN.
            You can call one of your dynamic STEPLIB routine
            to allocate or switch different STEPLIBS.
            You can use one of the shareware STEPLIB to dynamically
            allocate or switch STEPLIB.

            Here is the information of STEPLIB:

            http://members.rogers.com/mvs-jes2/

----- */
Parse Arg dsnload dsnexit dsnuser
x=MSG("off")
/* ----- */
/* To Activate Call to dynamicall STEPLIB routine:          */
/* 1. Remove the line below, and                             */
/* 2. Make the modification to the routine name STEPLIB     */
/* ----- */
Return 0 /* <----- Remove this line
          +----- Change STEPLIB
          3
          V
          ----- */
Address TSO "STEPLIB DA("dsnload","dsnexit","dsnuser")"
Return rc

```

User Setup

The first time when you execute the DB2I2STA command , you should see the following screen:

```

Command ==> DB2I2 command                               Scroll ==> CSR
***** ***** Top of Data *****
==MSG> /* -----*/
==MSG> /*          DB2I2  DB2 Catalog Interface Tool Box    */
==MSG> /*          By JRH Golden State Software Inc.      */
==MSG> /*          © Copyrighted 1997-2004                */
==MSG> /* -----*/
=NOTE= ** Please use 1. ISPF KEYS command to setup Hotkey for DB2I2
=NOTE= **          F4 key is a good candidate to assign to DB2I2
=NOTE= **          2. DB2I2 command SSID to setup DB2 Sub-System ID
=NOTE= **          3. DB2I2 command JOB CARD to setup Jobcard
=NOTE= *** Use DB2I2 command HELP to display any DB2I2 command Syntax
..... . line object
***** ***** Bottom of Data *****

```

Please follow the user setup steps below in sequence:

Setup ISPF Key for DB2I2 command

Use ISPF **KEYS** command to setup PF key for **DB2I2**. F4 key, which does not have a default value, is a good PF key to assign to DB2I2 command.

Once you setup this PF key, you can then process any of the DB2I2 command by pressing the designated PF key.

The instructions below explains the sequence how to execute a DB2I2 command:

- Enter DB2I2 command on the command line field
- Enter line object on the regular ISPF edit line
- Press preset PF key to invoke the DB2I2 command

Setup sub-system ID with SSID DB2I2 command

Issue SSID(db2-subsystem ID) and press PF key to set or switch to a DB2 sub-system.

Setup job card with JOBCARD DB2I2 command

Issue JOBCARD and press PF key to enter the JOB card information, which is required for DB2I2 batch processing.

Once you have done all the above steps, you are ready to explore the exciting DB2I2 for DB2/OS390.

Post installation performance enhancement

To optimize the performance of the DB2I2 tool box as well as any other dynamic SQL against DB2 catalog tables, there are a set of 4 JCL jobs in the other Db2I2 ISPF system library (<DBALIB>). They are as follows:

- **SYSIBMI** – contains a set of DDL to define additional indexes for DB2 catalog tables. This method is the recommended method to give you better performance for DB2I2, as well as any other SQL requires access to the DB2 catalog tables.(Please see next page for detail index column information)

The following 3 JCL members are used to create mirror DB2 catalog tables:

- **SYSIBMD** – contains DDL, which defines a set of mirror DB2 catalog tables.
- **SYSIBMU** – contains a set of unload JCL steps to unload DB2 catalog table to sequential files.
- **SYSIBML** – contains a set of load JCL to load all the unloaded files back to mirror DB2 catalog tables.

We recommend most shops to modify **SYSIBMI** and create additional indexes for your DB2 catalog tables. However, if for security or catalog contention issues, you can modify **SYSIBMD**, **SYSIBMU** and **SYSIBML** jobs to build a set of mirror DB2 catalog tables.

Recommend indexable columns for SYSIBM catalog tables

<u>Catalog Table Name</u>	<u>Proposed index column name</u>		<u>Catalog Table Name</u>	<u>Proposed index column name</u>	
<u>SYSIBM.SYSCOLAUTH</u>	CREATOR	ASC	<u>SYSIBM.SYSSTMT</u>	PLNAME	ASC
	TNAME	ASC		NAME	ASC
	GRANTOR	ASC		SEQNO	ASC
	GRANTEE	ASC	<u>SYSIBM.SYSSYNONYMS</u>	TBCREATOR	ASC
<u>SYSIBM.SYSDBAUTH</u>	NAME	ASC	TBNAME	ASC	
	GRANTEE	ASC	<u>SYSIBM.SYSTABAUTH</u>	TCREATOR	ASC
	GRANTOR	ASC	TTNAME	ASC	
<u>SYSIBM.SYSDBRM</u>	PLNAME	ASC	GRANTEE	ASC	
	NAME	ASC	GRANTOR	ASC	
	NAME	ASC	<u>SYSIBM.SYSTABLEPART</u>	IXCREATOR	ASC
	PLNAME	ASC	IXNAME	ASC	
<u>SYSIBM.SYSFIELDS</u>	TBCREATOR	ASC	PARTITION	ASC	
	TBNAME	ASC	<u>SYSIBM.SYSTABLES</u>	DBNAME	ASC
	NAME	ASC	TSNAME	ASC	
<u>SYSIBM.SYSFOREIGNKEYS</u>	CREATOR	ASC	<u>SYSIBM.SYSTABLES</u>	TBCREATOR	ASC
	TBNAME	ASC	TBNAME	ASC	
	RELNAME	ASC	<u>SYSIBM.SYSVIEWDEP</u>	DCREATOR	ASC
			DNAME	ASC	
<u>SYSIBM.SYSPACKAGE</u>	COLLID	ASC	<u>SYSIBM.SYSVOLUMES</u>	SGNAME	ASC
	NAME	ASC			
<u>SYSIBM.SYSPLANAUTH</u>	NAME	ASC			
	GRANTEE	ASC			
	GRANTOR	ASC			
<u>SYSIBM.SYSPLANDEP</u>	DNAME	ASC			
<u>SYSIBM.SYSRELS</u>	CREATOR	ASC			
	TBNAME	ASC			
	RELNAME	ASC			
<u>SYSIBM.SYSRESAUTH</u>	QUALIFIER	ASC			
	NAME	ASC			
	NAME	ASC			