

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(CYL,(1,1))
DB2I2U1	Fixed/LRECL=255/BLKSIZE=0/Binary	Space allocation(CYL,(1,1))
DB2I2U2	Fixed/LRECL=80/BLKSIZE=0/Binary	Space allocation(CYL,(5,1))
DB2I2U3	Fixed/LRECL=80/BLKSIZE=0/Binary	Space allocation(CYL,(15,1))
DB2I2U4	Fixed/LRECL=80/BLKSIZE=0/Binary	Space allocation(CYL,(1,1))

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=80/BLKSIZE=0/Binary	
DB2I2U2	Fixed/LRECL=80/BLKSIZE=0/Binary	
DB2I2U3	Fixed/LRECL=80/BLKSIZE=0/Binary	
DB2I2U4	Fixed/LRECL=80/BLKSIZE=0/Binary	Space allocation(CYL,(1,1))

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=80/BLKSIZE=0/Binary	
FIXU2	Fixed/LRECL=80/BLKSIZE=0/Binary	
FIXU3	Fixed/LRECL=80/BLKSIZE=0/Binary	
DB2I2U4	Fixed/LRECL=80/BLKSIZE=0/Binary	Space allocation(CYL,(1,1))

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' +
    
```

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

The example below uses 'JRHI.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 'JRHI.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 an member called **INFO**)

```
dsn('JRHI.DB2I211.INSTALL')
```

```
.  
. .  
IEB154I MIGR      HAS BEEN SUCCESSFULLY LOADED  
IEB154I MIGRC    HAS BEEN SUCCESSFULLY LOADED  
IEB154I MIGRR    HAS BEEN SUCCESSFULLY LOADED  
IEB154I MSSID    HAS BEEN SUCCESSFULLY LOADED  
IEB154I SSIDERR  HAS BEEN SUCCESSFULLY LOADED  
IEB154I UPDLOG   HAS BEEN SUCCESSFULLY LOADED  
IEB154I VIEWLOG  HAS BEEN SUCCESSFULLY LOADED  
IEB1098I 25 OF 25 MEMBERS LOADED FROM INPUT DATA SET REFERENCED BY SYS00706  
IEB144I THERE ARE 10 UNUSED TRACKS IN OUTPUT DATA SET REFERENCED BY SYS00704  
IEB149I THERE ARE 5 UNUSED DIRECTORY BLOCKS IN OUTPUT DIRECTORY  
IEB147I END OF JOB - 0 WAS HIGHEST SEVERITY CODE  
INMR001I Restore successful to dataset 'JRHI.DB2I211.INSTALL'  
***
```

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

Uses the example above, you should do the following:

TSO EX 'JRH.DB2I211.INSTALL(INSTALL)'

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

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

```
I - Initial Installation                DATE   - 11/02/27  
M - Migrates from previous Release of DB2I2  TIME   - 18:05  
F - Apply Fix                          USERID - DB2ADM  
  
D - Dynamic Sort Setup  
G - Set up Global Variable Information  
P - Set up $DB2I2P DB2I2 standard PROC  
S - SSID setup  
T - Dynamic STEPLIB  
  
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.

#INST ----- JRH DB2I2 for DB2/OS390 and UDB/zOS Installation Screen -----

DB2I2 PC Upload File 1 _____
DB2I2 PC Upload File 2 _____
DB2I2 PC Upload File 3 _____
DB2I2 PC Upload File 4 _____
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 _____

Starting From DB2I2 V11 SSID and Global Variable Information are
Defined in Separate Dataset out of CLIST library

SSID Information DSN _____
Global Variable DSN _____

Specify The following Alternate Library If do not have REXX370 Runtime
Or your zOS is not zOS 1.9 or Above

DB2I2 REXX Alternate Lib _____

PF3=Exit ENTER=To Generate Installation JCL

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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.

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

DB2I2U1 PC UPLOAD FILE 1
DB2I2U2 PC UPLOAD FILE 2
DB2I2U3 PC UPLOAD FILE 3
DB2I2U4 PC UPLOAD FILE 4
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)
DB2 STARTUP PROCEDURE LIBRARY
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

SSID Information DSN Start from V9, SSID information is defined out of CLIST library
If you specify a file name does not exist, it will be created.
Make sure to copy your existing SSID information
from you V8 DB2I2 CLIST library if you migrate from DB2I2 V8 (SSID)

Global Variable DSN Start from V9, Global Variable Information is defined out of
DB2I2 CLIST library. If you specify a file name does not exist,
It will be created. Make sure to copy your existing Global
Variable information from you V8 DB2I2 CLIST library
If you migrate from DB2I2 V8 (GLOBVAR)

DB2I2 REXX Alternate Lib Start from DB2I2 V9, REXX Runtime library is required to Run DB2I2.
Unless your organization have REXX370 complier installed or
your zOS is 1.9 or Above, you need to install DB2I2U4 – IBM REXX
Alternate runtime library.

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The following is a sample of screen input:

```
#INST ----- JRH DB2I2 for DB2/OS390 and UDB/zOS Installation Screen -----  
  
DB2I2 PC Upload File 1   JRH.DB2I2U1_____  
DB2I2 PC Upload File 2   JRH.DB2I2U2_____  
DB2I2 PC Upload File 3   JRH.DB2I2U3_____  
DB2I2 PC Upload File 4   JRH.DB2I2U4_____  
DB2 Load Library         DSNB10.SDSNLOAD_____  
DB2 Exit Library         DSNB10.DBBG.SDSNEXIT_____  
DB2 User Run Library     DSNB10.DBBG.RUNLIB.LOAD_____  
DB2 DBRM Library         DSNB10.DBBG.DBRMLIB.DATA_____  
DB2 StartUP Proc Library SVTSC.PROCLIB_____  
DB2I2 CLIST Library      JRH.DB2I211.CLIST_____  
DB2I2 Other ISPF Library JRH.DB2I211.ISPFLIB_____  
DB2I2 Load Library      JRH.DB2I211.LOAD_____  
Installer TSOID          DB2ADM_____  
SYSADMIN ID              DB2ADM_____  
DB2 SubSystem ID         DBBG_____
```

Starting From DB2I2 V9 SSID and Global Variable Information are
Defined in Separate Dataset out of CLIST library

```
SSID Information DSN      JRH.DB2I211.SSID_____  
Global Variable DSN      JRH.DB2I211.GLOBAL.VARIABLE_____  
Specify The following Alternate Library If do not have REXX370 Runtime  
Or your zOS is not zOS 1.9 or Above  
DB2I2 REXX Alternate Lib _____
```

PF3=Exit ENTER=To Generate Installation JCL

After Press Enter Key, DB2I2 Install should display the following Screen:

```
Checking PC Upload File 1: JRH.DB2I2U1.....  
Checking PC Upload File 2: JRH.DB2I2U2.....  
Checking PC Upload File 3: JRH.DB2I2U3.....  
Checking PC Upload File 4: JRH.DB2I2U4.....  
Generating DB2I2 Installation JCL.....  
***
```

And the result JCL returned from option selection.

```
//DB2ADM01 JOB (ACCT), 'DB2I2 AD',                               JOB03796  
//          NOTIFY=&SYSUID, COND=(0,NE), REGION=4M,           00020000  
//          CLASS=A,MSGCLASS=H                                 00030000  
//* Insert Jobcard information here  
//* =====  
//*          D B 2 I 2          M I G R A T I O N          J C L          +  
//*          By JRH GoldenState Software Inc.                +  
//*          (C) Copyrighted 1997-2014                       +  
//* =====  
//* DB2I2 PC UPLOAD FILE 1   JRH.DB2I2U1  
//* DB2I2 PC UPLOAD FILE 2   JRH.DB2I2U2  
//* DB2I2 PC UPLOAD FILE 3   JRH.DB2I2U3  
//* DB2I2 PC UPLOAD FILE 4   JRH.DB2I2U4  
//* DB2 LOAD LIB             DSNB10.SDSNLOAD  
//* DB2 EXIT LIB             DSNB10.DBBG.SDSNEXIT  
//* DB2 USER RUN LIB         DSNB10.DBBG.RUNLIB.LOAD  
//* DB2 DBRM LIB FOR DSNTIAD DSNB10.DBBG.DBRMLIB.DATA
```


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```

/* DB2 STARTUP PROC LIB      SVTSC.PROCLIB
/* DB2I2 TOOL CLIST LIB     JRH.DB2I211.CLIST
/* DB2I2 TOOL OTHER LIB    JRH.DB2I211.ISPFLIB
/* DB2I2 TOOL LOAD LIB     JRH.DB2I211.LOAD
/* Installer TSOID         DB2ADM
/* SYSADMIN ID             DB2ADM
/* DB2 SubSystem ID       DBBG
/* DB2I2 SSID DSN         JRH.DB2I211.SSID
/* Global Variable DSN    JRH.DB2I211.GLOBAL.VARIABLE
/* DB2I2 REXX Alternate LIB
/* =====+
/* STEP00: Allocate All DB2I2 tool Libraries
/* STEP01: Create Installation REXX Exec To DB2I2.INST.CLIST
/* STEP02: Execute DB2I2.INST.CLIST Installation REXX Exec
/* STEP03: Bind package & Plan for execution FOR EACH DB2 SUBSYSTEM
/*          Repeat STEP03 for each DB2 subsystem
/* STEP04: COPY DSNTIAD, DSNTPE2 AND DSNTIAUL FROM DB2 USERLIB
/* =====+
/*-----+
//STEP00   EXEC PGM=IEFBR14
/*-----+
//DDPLIB   DD DSN=JRH.DB2I211.ISPFLIB,
//          DISP=(NEW,CATLG,DELETE),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=0,DSORG=PO),
//          UNIT=SYSALLDA,SPACE=(TRK,(180,5,100),RLSE)
//DDCLIST  DD DSN=JRH.DB2I211.CLIST,
//          DISP=(NEW,CATLG,DELETE),
//          DCB=(RECFM=FB,LRECL=255,BLKSIZE=0,DSORG=PO),
//          UNIT=SYSALLDA,SPACE=(TRK,(15,15,30),RLSE)
//DDLLOAD  DD DSN=JRH.DB2I211.LOAD,
//          DISP=(NEW,CATLG,DELETE),
//          DCB=(RECFM=U,LRECL=32760,BLKSIZE=0,DSORG=PO),
//          UNIT=SYSALLDA,SPACE=(TRK,(300,15,50),RLSE)
//DDLLOAD2 DD DSN=JRH.DB2I211.REXX.ALTLIB,
//          DISP=(NEW,CATLG,DELETE),
//          DCB=(RECFM=U,LRECL=32760,BLKSIZE=0,DSORG=PO),
//          UNIT=SYSALLDA,SPACE=(TRK,(15,15,5),RLSE)
/*-----+
//STEP01   EXEC PGM=IEBGENER
/*-----+
//SYSUT2   DD DSN=DB2ADM.DB2I2.INST.CLIST,DISP=(NEW,PASS),
//          UNIT=SYSALLDA,
//          SPACE=(TRK,(1,1),RLSE),DCB=(RECFM=FB,LRECL=80,BLKSIZE=0)
//SYSPRINT DD SYSOUT=*
//SYSIN    DD DUMMY
//SYSUT1   DD DATA,DLM=ZZ
/* REXX -----+ */
/* DB2I2_INST: Installation REXX EXEC for JRH DB2I2 */
/* Author: JRH Goldenstate Software Inc. */
/* -----+ */
/* REXX */
/* trace ?r */
x=Msg("On")
x=Prompt("On")
Say "*** DB2I2I01 - Receiving DB2I2U1"
Queue "DSN('JRH.DB2I211.CLIST')"
Address Tso,
"Receive Indsn('JRH.DB2I2U1')"
If rc \= 0 Then
Do
Say "*** DB2I2I01E - Receiving DB2I2U1 Fail"
Exit(16)
End
Say "*** DB2I2I02 - Receiving DB2I2U2"
Queue "DSN('JRH.DB2I211.ISPFLIB')"
Address Tso,
"Receive Indsn('JRH.DB2I2U2')"

```

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```
If rc \= 0 Then
Do
  Say "*** DB2I2I02E - Receiving DB2I2U2 Fail"
  Exit(16)
End
Say "*** DB2I2I03 - Receiving DB2I2U3"
Queue "DSN('JRH.DB2I211.LOAD')"
Address Tso,
  "Receive Indsn('JRH.DB2I2U3')"
If rc \= 0 Then
Do
  Say "*** DB2I2I03E - Receiving DB2I2U3 Fail"
  Exit(16)
End
Say "*** DB2I2I04 - Receiving DB2I2U4"
Queue "DSN('JRH.DB2I211.REXX.ALTLIB')"
Address Tso,
  "Receive Indsn('JRH.DB2I2U4')"
If rc \= 0 Then
Do
  Say "*** DB2I2I04E - Receiving DB2I2U4 Fail"
  Exit(16)
End
Say "*** DB2I2I05 - Creating",
  "'JRH.DB2I211.CLIST(CUSTOM)' information"
Address Tso,
  "Alloc Fi(ol)",
  "Ds('JRH.DB2I211.CLIST(CUSTOM)') Shr Reuse"
If rc \= 0 Then
Do
  Say "*** DB2I2I04E - Allocate",
    "'JRH.DB2I211.CLIST(CUSTOM)' Fail"
  Exit(16)
End
Reco.1 = Substr("ISPFLIB DSNAME:",1,20)||,
  "JRH.DB2I211.ISPFLIB"
Reco.2 = Substr("LOADLIB DSNAME:",1,20)||,
  "JRH.DB2I211.LOAD"
Reco.3 = Substr("SSID DSNAME:",1,20)||,
  "JRH.DB2I211.SSID"
Reco.4 = Substr("GLOBAL VARIABLE DSN:",1,20)||,
  "JRH.DB2I211.GLOBAL.VARIABLE"
Reco.0 = 4
If 'JRH.DB2I211.REXX.ALTLIB' \= '' Then
Do
  Reco.5 = Substr("REXX ALTLIB:",1,20)||,
    "JRH.DB2I211.REXX.ALTLIB"
  Reco.0 = 5
End
"Execio "Reco.0" DiskW Ol(Stem Reco. Finis"
If rc \= 0 Then
Do
  Say "*** DB2I2I05E - Creating",
    "'JRH.DB2I211.CLIST(CUSTOM)' Fail"
  Exit(16)
End
Address Tso "Free Fi(ol)"
Say "*** DB2I2I06 - Generating",
  "'JRH.DB2I211.ISPFLIB($DB2I2P)' information"
Address Tso,
  "Alloc Fi(ol)",
  "Ds('JRH.DB2I211.ISPFLIB($DB2I2P)') Shr Reuse"
reco.1 = "/* $DB2I2P"||,
  "-----"
reco.2 = "//DB2I2P EXEC PGM=IKJEFT1B,REGION=0M"
reco.3 = "//SYSPROC DD DISP=SHR,"
reco.4 = "// DSN=JRH.DB2I211.CLIST"
**
```

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```
reco.5 = "//ISPLLIB DD DISP=SHR,"
reco.6 = "// DSN=JRH.DB2I211.LOAD"
reco.7 = "//ISPSLIB DD DISP=SHR,"
reco.8 = "// DSN=JRH.DB2I211.ISPFLIB"
reco.9 = "//ISPMLIB DD DISP=SHR,"
reco.10 = "// DSN=ISP.SISPMENU"
reco.11 = "//ISPPLIB DD DISP=SHR,"
reco.12 = "// DSN=ISP.SISPPENU"
reco.13 = "//ISPTLIB DD UNIT=SYSALLDA,SPACE=(TRK,(5,1,5),RLSE),"
reco.14 = "// DCB=(LRECL=80,BLKSIZE=0,RECFM=FB,DSORG=PO)"
reco.15 = "// DD DISP=SHR,"
reco.16 = "// DSN=ISP.SISPTENU"
reco.17 = "//ISPCTLO DD UNIT=SYSALLDA,SPACE=(CYL,(1,1)),",
reco.18 = "// DCB=(LRECL=80,BLKSIZE=0,RECFM=FB)"
reco.19 = "//ISPCTL1 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1)),",
reco.20 = "// DCB=(LRECL=80,BLKSIZE=0,RECFM=FB)"
reco.21 = "//ISPWRK1 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1)),",
reco.22 = "// DCB=(LRECL=256,BLKSIZE=0,RECFM=FB)"
reco.23 = "//ISPPROF DD UNIT=SYSALLDA,SPACE=(TRK,(1,1,5),RLSE),"
reco.24 = "// DCB=(LRECL=80,BLKSIZE=0,RECFM=FB,DSORG=PO)"
reco.25 = "//ISPLOG DD UNIT=SYSALLDA,SPACE=(CYL,(1,1),RLSE)"
reco.26 = "//SYSTSPRT DD SYSOUT=*"
reco.27 = "//SYSTSIN DD DISP=SHR,"
reco.28 = "// DSN=JRH.DB2I211.ISPFLIB(DB2I2BST)"
"Execio 28 DiskW 01(Stem Reco. Finis"
If rc \= 0 Then
Do
  Say "*** DB2I2I06E - Creating",
  " 'JRH.DB2I211.ISPFLIB($DB2I2P)' Fail"
  Exit(16)
End
Address Tso "Free Fi(ol)"
Say "*** DB2I2I07 - Generating",
  " 'JRH.DB2I211.ISPFLIB(#HEADER)' Information"
Address Tso,
  "Alloc Fi(il)",
  "Ds('ISP.SISPPENU(ISREDDE2)') Shr Reuse"
"ExecIo * DiskR il(Stem reci. Finis"
Address Tso "Free Fi(il)"
Address Tso,
  "Alloc Fi(ol)",
  "Ds('JRH.DB2I211.ISPFLIB(#HEADER)') Shr Reuse"
"NEWSTACK"
first_attr = 'Y'
Do i = 1 to reci.0
  If Index(reci.i,'/-/') = 0 Then
  Do
  If left(reci.i,5) = ')BODY' Then
  Do
  x = ")ABC DESC('Db2i2') MNEM(1)"
  Queue x
  x = "PDC DESC('DB2I2 Help Menu')",
  "ACTION RUN(DB2I2) PARM('HELP 0')"
  Queue x
  x = "PDC DESC('How JRH DB2I2 Works')",
  "ACTION RUN(DB2I2) PARM('HELP 1')"
  Queue x
  x = "PDC DESC('Line Object Definition')",
  "ACTION RUN(DB2I2) PARM('HELPL0')"
  Queue x
  x = "PDC DESC('How To Select Line Object')",
  "ACTION RUN(DB2I2) PARM('HELP 3')"
  Queue x
  x = "PDC DESC('Global Line Object Option')",
  "ACTION RUN(DB2I2) PARM('HELP 4')"
  Queue x
  x = "PDC DESC('Db2i2 Execution Output'),"
```

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```
        "ACTION RUN(DB2I2) PARM('HELP 5')"
    Queue x
    x = "PDC DESC('Global Command Option')",
        "ACTION RUN(DB2I2) PARM('HELP 6')"
    Queue x
    x = "PDC DESC('DB2I2 Command - Summary')",
        "ACTION RUN(DB2I2) PARM('HELP 7')"
    Queue x
    x = "PDC DESC('DB2I2 Command - List')",
        "ACTION RUN(DB2I2) PARM('HELP 8')"
    Queue x
    x = "PDC DESC('*UDF, *UDQ, DB2I2 TSO Command')",
        "ACTION RUN(DB2I2) PARM('HELP 9')"
    Queue x
    x = "PDC DESC('DB2I2 Tutorial Mode')",
        "ACTION RUN(DB2I2) PARM('HELP LO')"
    Queue x
    x = ")ABCINIT"
    Queue x
    x = ".ZVARS=DB2I2HLP"
    Queue x
    "ExecIO 14 DISKW 01"
End
Else
If left(peci.i,2) = '1415'x Then
    peci.i = left(peci.i,length(strip(peci.i))-1)||,
            '1540'x||'Db2i2'||'14'x
    QUEUE peci.i
End
Else
Do
    reco='ba'x||,
        "&DB2I2HDR/ /"
    QUEUE reco
End
"ExecIO 1 DISKW 01"
If left(peci.i,5) = ')ATTR' & first_attr = 'Y' Then
Do
    reco=" ||'ba'x||" ",
        "TYPE(TEXT) INTENS(LOW) COLOR(BLUE) HILITE(REVERSE)"
    QUEUE reco
    "ExecIO 1 DISKW 01"
    first_attr = 'N'
End
Else
If left(peci.i,5) = ')INIT' Then
Do
    reco="VGET (DB2I2HDR) SHARED"
    QUEUE reco
    "ExecIO 1 DISKW 01"
End
End
"ExecIO 0 DISKW 01(finis"
Address Tso "Free Fi(01)"
Say "*** DB2I2I08 - Checking REXX Runtime Information"
Call Off Error
Address Tso "Call 'JRH.DB2I211.LOAD(VALIDT)'"
If rc \= 0 Then
Do
    Say "***" copies('-',68) '***'
    If 'JRH.DB2I29.REXX.ALTLIB' = '' Then
    Do
        Say "*** DB2I2I08E - DB2I2 REXX Alternate Lib is Required"
        Say "*** DB2I2I08E - Please Specify it on Installation Screen"
        Say "*** DB2I2I08E - and Re-submit JCL to complete Installation"
        Say "***" copies('-',68) '***'
        Return 16
    End
End
End
```

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```
End
Else
Do
  Say "*** DB2I2I08W - TSO Logon Proc is Required to Use JRH DB2I2"
  Say "*** DB2I2I08W - Please include the Following DD in your",
    "Logon Proc"
  Say "*** DB2I2I08W - //STEPLIB DD DISP=SHR,DSN="JRH.DB2I29.REXX.ALTLIB
  Say "***" copies('-',68) '***'
  Return 4
End
End
Else
  Say "*** DB2I2I08 - REXX Runtime is OK, No Logon Proc is Required"
  Call Off Error
Return 0
ZZ
/*-----+
//STEP02 EXEC PGM=IKJEFT01
/*-----+
//SYSPROC DD DSN=DB2ADM.DB2I2.INST.CLIST,DISP=(OLD,PASS)
//SYSTSPT DD SYSOUT=*
//SYSTSIN DD *
EX 'DB2ADM.DB2I2.INST.CLIST'
/*-----+
/* THE COLLECTION ID FOR THE DB2I2A PACKAGE IS DELIVERED AS DB2I2A +
/*-----+
//STEP03 EXEC PGM=IKJEFT01,DYNAMNBR=100,REGION=4M,COND=EVEN
//STEPLIB DD DISP=SHR,DSN=DSNB10.SDSNLOAD
// DD DISP=SHR,DSN=DSNB10.DBBG.SDSNEXIT
// DD DISP=SHR,DSN=DSNB10.DBBG.RUNLIB.LOAD
/*-----+
//SYSABOUT DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSTSPT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SYSTSIN DD *
DSN S(DBBG)
BIND PACKAGE(DB2I2A) -
OWNER(DB2ADM) QUALIFIER(SYSIBM) -
MEMBER(DB2I2A10) LIBRARY('JRH.DB2I211.ISPFLIB') -
ACTION(REPLACE) CURRENTDATA(NO) DEGREE(1) -
ENABLE(*) -
EXPLAIN(NO) FLAG(I) ISOLATION(CS) -
ENCODING(EBCDIC) -
SQLERROR(NOPACKAGE) VALIDATE(BIND)
BIND PACKAGE(DB2I2A) -
OWNER(DB2ADM) QUALIFIER(SYSIBM) -
MEMBER(DB2I2E9) LIBRARY('JRH.DB2I211.ISPFLIB') -
ACTION(REPLACE) CURRENTDATA(NO) DEGREE(1) -
ENABLE(*) -
EXPLAIN(NO) FLAG(I) ISOLATION(CS) -
ENCODING(EBCDIC) -
SQLERROR(NOPACKAGE) VALIDATE(BIND)
BIND PACKAGE(DB2I2A) -
OWNER(DB2ADM) QUALIFIER(SYSIBM) -
MEMBER(DSNTIAD) LIBRARY('DSNB10.DBBG.DBRMLIB.DATA') -
ACTION(REPLACE) CURRENTDATA(NO) DEGREE(1) -
ENABLE(*) -
EXPLAIN(NO) FLAG(I) ISOLATION(CS) -
ENCODING(EBCDIC) -
SQLERROR(NOPACKAGE) VALIDATE(BIND)
BIND PACKAGE(DB2I2A) -
OWNER(DB2ADM) QUALIFIER(SYSIBM) -
MEMBER(DSNTPEP2) LIBRARY('DSNB10.DBBG.DBRMLIB.DATA') -
ACTION(REPLACE) CURRENTDATA(NO) DEGREE(1) -
ENABLE(*) -
EXPLAIN(NO) FLAG(I) ISOLATION(CS) -
```

DB2I2 Installation Guide

```

ENCODING(EBCDIC) -
SQLERROR(NOPACKAGE) VALIDATE(BIND) -
BIND PLAN(DB2I2A) -
OWNER(DB2ADM) QUALIFIER(SYSIBM) -
PKLIST(*.DB2I2A.*) -
NODEFER(PREPARE) ACQUIRE(USE) -
ACTION(REPLACE) CURRENTDATA(NO) DEGREE(1) -
CACHE SIZE(1024) DISCONNECT(EXPLICIT) -
ENABLE(*) -
EXPLAIN(NO) FLAG(I) ISOLATION(CS) -
ENCODING(EBCDIC) -
RELEASE(COMMIT) SQLRULES(DB2) VALIDATE(RUN) -
BIND PLAN(DB2I2AP) -
OWNER(DB2ADM) QUALIFIER(SYSIBM) -
PKLIST(*.DB2I2A.*) -
NODEFER(PREPARE) ACQUIRE(USE) DYNAMICRULE(BIND) -
ACTION(REPLACE) CURRENTDATA(NO) DEGREE(1) -
CACHE SIZE(1024) DISCONNECT(EXPLICIT) -
ENABLE(*) -
EXPLAIN(NO) FLAG(I) ISOLATION(CS) -
ENCODING(EBCDIC) -
RELEASE(COMMIT) SQLRULES(DB2) VALIDATE(RUN) -

RUN PROGRAM (DSNTIAD) PLAN (DSNTIAD)
END
//SYSIN DD *
GRANT EXECUTE ON PLAN DB2I2A TO PUBLIC;
/*
/*-----*** COPY DSNTIAD, DSNTPE2 AND DSNTIAUL ***-----+
/* COPY DSNTIAD, DSNTPE2 AND DSNTIAUL FROM DB2 USERLIB +
/*-----+
//STEP04 EXEC PGM=IEBCOPY
//DDIN DD DSN=DSNB10.DBBG.RUNLIB.LOAD,DISP=SHR
//DDOUT DD DSN=JRH.DB2I29.LOAD.N,DISP=SHR
//SYSUT3 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSUT4 DD UNIT=SYSALLDA,SPACE=(CYL,(1,1))
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
COPY INDD=((DDIN,R)),OUTDD=DDOUT
SELECT MEMBER=(DSNTIAD,DSNTEP2,DSNTIAUL)
/*

```

Submit the JCL to install DB2I2 V11.

There are few changes for the V11 Installation procedure:

- A member named CUSTOM is created and saved in DB2I2 CLIST library which contain the following information:

```

***** ***** Top of Data *****
000001 ISPFLIB DSNAME: JRH.DB2I211.ISPFLIB
000002 LOADLIB DSNAME: JRH.DB2I211.LOAD
000003 SSID DSNAME: JRH.DB2I211.SSID
000004 GLOBAL VARIABLE DSN: JRH.DB2I211.GLOBAL.VARIABLE
000005 REXX ALTLIB: JRH.DB2I211.REXX.ATLIB3
***** ***** Bottom of Data *****
ISPFLIB DSNAME: contain the name of DB2I2 V11 ISPF Library
LOADLIB DSNAME: contain the name of DB2I2 V11 Load Library
SSID DSNAME: contains the name of the SSID information file
GLOBAL VARIABLE DSN: contains the name of the Global Variable information file
REXX ALTLIB: contains the name of the REXX Alternate Library
This information will be loaded each time an user login DB2I2.
DO NOT CHANGE THE FORMAT OF THIS DATASET

```

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- Unlike Previous release of DB2I2, a member named \$DB2I2P in DB2I2 ISPFLIB is generated automatically based on your ISPF system setup.
- A member named #HEADER in DB2I2 ISPFLIB is generated which will be used to present the tool bar for DB2I2 V9.

The Following are common errors when process installation JCL:

- ** DB2I2I01E - Receiving DB2I2U1 Fail
- ** DB2I2I02E - Receiving DB2I2U2 Fail
- ** DB2I2I03E - Receiving DB2I2U3 Fail
- ** DB2I2I04E - Receiving DB2I2U4 Fail

The size of receiving file is too small or needed to be compressed.

Make sure free up the input file U1, U2, U3 and U4 if you upload these files with TSO or FTP.

- ** DB2I2I05E – Creating CUSTOM Fail
Make Sure DB2I2U1 is received successfully
- ** DB2I2I06E – Creating \$DB2I2P Fail
Make Sure Logon with a logon proc with ISPPLIB contains IBM default ISPPLIB. (The library contains a member named ISREDDE2)
- ** DB2I2I08E – REXX Alternate Library is required
Make Sure specify REXX Alternate Library if your zOS is not 1.9 or above and no REXX370 run time library is installed.

- If you have error about can not find **ISREDDE2** during installation, Use

P - Set up \$DB2I2P DB2I2 standard PROC

Option to fix this problem.

Migrate from previous Installation

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

```
#MENU ----- DB2I2 for DB2/OS390 and UDB/zOS Migration Screen-----

Existing DB2I2U0
Installation
REXX EXEC Library      JRH.DB2I211.INSTALL

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 ----- JRH DB2I2 for DB2/OS390 and UDB/zOS Installation Screen -----

DB2I2 PC Upload File 1  JRH.DB2I2U1
DB2I2 PC Upload File 2  JRH.DB2I2U2
DB2I2 PC Upload File 3  JRH.DB2I2U3
DB2I2 PC Upload File 4  JRH.DB2I2U4
DB2 Load Library        DSNB10.SDSNLOAD
DB2 Exit Library        DSNB10.DBBG.SDSNEXIT
DB2 User Run Library    DSNB10.DBBG.RUNLIB.LOAD
DB2 DBRM Library        DSNB10.DBBG.DBRMLIB.DATA
DB2 StartUP Proc Library SVTSC.PROCLIB
DB2I2 CLIST Library     JRH.DB2I211.CLIST
DB2I2 Other ISPF Library JRH.DB2I211.ISPFLIB
DB2I2 Load Library      JRH.DB2I211.LOAD
Installer TSOID         DB2ADM
SYSADMIN ID             DB2ADM
DB2 SubSystem ID        DBBG

Starting From DB2I2 V9 SSID and Global Variable Information are
Defined in Separate Dataset out of CLIST library

SSID Information DSN      JRH.DB2I211.SSID
Global Variable DSN      JRH.DB2I211.GLOBAL.VARIABLE
Specify The following Alternate Library If do not have REXX370 Runtime
Or your zOS is not zOS 1.9 or Above
DB2I2 REXX Alternate Lib JRH.DB2I211.REXX.ALTLIB

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**
- **DB2I2 REXX Alternate 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 files1, 2 and 3. After you have done the changes and press Enter key to generate the Apply Fixes JCL.

```
#INST ----- JRH DB2I2 for DB2/OS390 and UDB/zOS Installation Screen -----

DB2I2 PC Upload File 1  JRH.DB2I2.FIXU1
DB2I2 PC Upload File 2  JRH.DB2I2.FIXU2
DB2I2 PC Upload File 3  JRH.DB2I2.FIXU3
DB2I2 PC Upload File 4  JRH.DB2I2.FIXU4
DB2 Load Library        DSNB10.SDSNLOAD
DB2 Exit Library        DSNB10.DBBG.SDSNEXIT
DB2 User Run Library    DSNB10.DBBG.RUNLIB.LOAD
DB2 DBRM Library        DSNB10.DBBG.DBRMLIB.DATA
DB2 StartUP Proc Library SVTSC.PROCLIB
DB2I2 CLIST Library     JRH.DB2I211.CLIST
DB2I2 Other ISPF Library JRH.DB2I211.ISPF LIB
DB2I2 Load Library     JRH.DB2I211.LOAD
Installer TSOID         DB2ADM_
SYSADMIN ID             DB2ADM_
DB2 SubSystem ID        DBBG__

Starting From DB2I2 V9 SSID and Global Variable Information are
Defined in Separate Dataset out of CLIST library

SSID Information DSN     JRH.DB2I211.SSID
Global Variable DSN     JRH.DB2I211.GLOBAL.VARIABLE
Specify The following Alternate Library If do not have REXX370 Runtime
Or your zOS is not zOS 1.9 or Above
DB2I2 REXX Alternate Lib JRH.DB2I211.REXX.ALTLIB

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*
- *DB2I2 REXX Alternate Library if DB2I2U4 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
- STEP03: Bind package & Plan for execution and Grant plan access
- STEP04: COPY DSNTIAD, DSNTPE2 AND DSNTIAUL FROM DB2 USERLIB (optional)

Please repeat job step STEP03 for each of the DB2 sub-system which you want to use DB2I2.

Check **SYSTSPRT on STEP03** to see if there are any errors. Condition code 16 means there is error for the installation. **Condition Code 4** means **LOGON Proc is required** to run DB2I2.

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

- STEP00: Compress Existing DB2I2 Librarise
- STEP01: Copy Existing system files setup (for Migration only)
- STEP02: Create Installation REXX Exec To DB2I2.INST.CLIST
- STEP03: Execute DB2I2.INST.CLIST Installation REXX Exec
- STEP04: Restore Existing system files setup (for Migration only)
- STEP05: Bind DB2I2A package

Please repeat job step STEP05 for each of the DB2 sub-system which you want to use DB2I2.

Check **SYSTSPRT on STEP03** to see if there are any errors. Condition code 16 means there is error for the installation. **Condition Code 4** means **LOGON Proc is required** to run DB2I2.

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

- STEP00: Compress Existing DB2I2 Librarise
- STEP01: Copy Installation REXX Exec To DB2I2.INST.CLIST
- STEP02: execute DB2I2.INST.CLIST installation REXX exec
- STEP03: Bind package

Please repeat job step STEP03 for each of the DB2 sub-system which you want to use DB2I2.

Set up all system files

You do not have to do 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:

SSID	DB2LOAD	DB2EXIT	DB2USER	SYSAFF	DB2 VERSION	CATALOG TABLE PREFIX	DSNTIAD	DSNTEP2	DSNTIAUL
DSNDB06	VCATNAME	LOCATION	MIXED	UNITO	UNITW	UNITOU	UNITWU	MODELDCB	
DSN1	SYSLSDSNLOAD	SYSLSDSNLOAD	SYSLSDSNLOAD	NONE	5	SYSIBM*			
TDB2		NONE	N	SYSDA	SYSDA	SYSDA	MODEL	DB2I2A	DB2I2A
								DB2I2A	DSNTIAUL

- 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 SBCS 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.
- *DB2 PROCLIB** Enter DB2 Start-Up Proc library.

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

* New for DB2I2 V9

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DO NOT delete the heading line from this SSID file.

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.

```

***** ***** Top of Data *****
==MSG> /* -----*/
==MSG> /*          DB2I2 Workbench $DYNSORT setup screen          */
==MSG> /*          By JRH GoldenState Software, Inc.              */
==MSG> /*          (C) Copyrighted 1997-2014                       */
==MSG> /* -----*/
=NOTE= **          $DYNSORT Store SORT Dynamic Allocation Information **
=NOTE= **          DB2I2 Use This Information to Prepare DB2 Utility JCL **
=NOTE= **          Please Modify this line to Fit Your Shop Standard **
=NOTE= **          If you try to Upgrade to New Release of DB2I2 or **
=NOTE= **          Reinstall into different libraries, you can copy $DYNSORT **
=NOTE= **          From Previous Installed ISPF library.      **
=NOTE= *****
000001 /* $DYNSORT----- **
000002 //DFSPARM DD *
000003  DYNALLOC=(SYSALLDA,5)

```

Setup Global Variable Information

Use **G – Setup Global Variable** option to setup the Global Variable information. Starting from V9, the Global Variable Information is defined outside of DB2I2 CLIST library. If the name specify from installation does not exist, DB2I2 Installer will create this file as new dataset and populate the following 2 global variable in it.

```

==MSG> /* -----*/
==MSG> /*                DB2I2 Workbench SSID setup screen                */
==MSG> /*                By JRH GoldenState Software, Inc.                */
==MSG> /*                (C) Copyrighted 1997-2014                        */
==MSG> /* -----*/
=NOTE= **          Please Update And Add One Line For Each Global Variable          **
=NOTE= **          Which Can Be Shared By ALL JRH DB2I2 Users.                **
=NOTE= ** Format of Global Varialbe:                                          **
=NOTE= ** GV &global_var_name=.....                                          **
=NOTE= ** Example:                                                            **
=NOTE= ** GV &EXP=EXPLAIN DESC=N DET=N Q=ABCE                                **
=NOTE= *****
000001 GV &GVDSN='JRH.DB2I29.GLOBAL.VARIABLE'
000002 GV &MYGV=DB2I2.GLOBAL.VARIABLE
***** ***** Bottom of Data *****

```

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.

Start from DB2I2 V9, \$DB2I2P is automatically generated as part of the installation procedure. You do not need to modify this file any more.

If you do need to modify this file, make sure the first ISPPLIB contains the IBM ISPF default ISPPLIB. (The file contains member name ISREDDE2)

```
//DB2I2P EXEC PGM=IKJEFT1B,REGION=0M
//SYSPROC DD DSN=<DBACLIST>,DISP=SHR
//ISPMLIB 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 dsnextit 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","dsnextit","dsnuser")"
Return rc

```


Multiple-Level Authorization Support

Use A – **Multiple-Level Authorization support** option to edit the Multiple level authorization support file. The multiple-level authorization support allows administrator to set up a list of db2i2 commands which can be used without granted with db2 table access authority.

There is a new plan DB2I2AP which has been bound with DYNAMICRULE(BIND). This allows any users who have been granted plan executed authorization to access the listed commands without additional DB2 authorization being granted. By doing this, we allows easy control as to who can access these commands.

Multiple-level authorization information is stored in db2i2.clist(info). You should see the information below when you select this option. Add or remove any command to fit your organization requirement.

```

EDIT          JRH.DB2I2111.CLIST(INFO) - 01.03
Command ==>
***** ***** Top of Data *****
000001 Customer Name:      EVALUATION COPY
000002 Release Date:      12/13/2013
000003 Version:           11
000004 Db2i2a:            DB2I2A10 DB2I2A  DB2I2AP
000005 Db2i2e:            DB2I2E   DB2I2E  DB2I2E
000006 Db2i2x:            DB2I2X
000007 -- The Following Db2i2 Commands Can be used by All Users W/O UserAuth Granted.
000008 -- Remove command from list if you do not want the Command to be used by All Users.
000009 -- DO NOT include DSNTIAD, DSNTFEP2, DSNTIAUL and EXEC command in the following list.
000010 Public Commands:
000011 DRILLDWN AL        ALTER    AUTH    BIND    CHECK    COAUTH    COPY    COPYAUTH
000012 CPY2CPY  CREATE    CURSORD DB      DBAUTH    DCLGEN    DDL      DELETE    DSADJ
000013 DSCOPY    DT          EXPLAIN EXPLAINP FETCH    FLASH    FREE      FU
000014 GENVCAT  GRANT      IMPACT  INSERT  IP        IPC        IS        ISC        ISP
000015 ISPC     IX         IXC     LISTC   LISTDEF   LOAD      MIGR     MODIFY    MS
000016 MT      OI        PACKIT  PG      PGAUTH    PL        PLAUTH   PM        QUIESCE
000017 RBA     REBIND    REBUILD RECOVER REORG    REORGCHK  REPAIR   REPORT    REVOKE
000018 RI     RSAUTH    RTAUTH  RUNSTATS SELECT   SELPATHU  SELPATHV SHAUTH   SNAPSHOT
000019 SP      SPACE     SPACEADJ SQ       SQAUTH    STATS     SY        TB        TBC
000020 TBAUTH   TP        TPC     TR      TRAUTH    TS        TSC      TSIX     TSSET
000021 UNLOAD  UPDATE    USAUTH  VIRTUAL VW

```

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 1997-2014                */
==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 JOBCARD 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.

*Skip this section since IBM has made some additional indexes to the 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.SYSTMT</u>	PLNAME	ASC
	TNAME	ASC		NAME	ASC
	GRANTOR	ASC		SEQNO	ASC
	GRANTEE	ASC			
<u>SYSIBM.SYSDBAUTH</u>	NAME	ASC	<u>SYSIBM.SYSSYNONYMS</u>	TBCREATOR	ASC
	GRANTEE	ASC		TBNAME	ASC
	GRANTOR	ASC			
<u>SYSIBM.SYSDBRM</u>	PLNAME	ASC	<u>SYSIBM.SYSTABAUTH</u>	TCREATOR	ASC
	NAME	ASC		TTNAME	ASC
	NAME	ASC		GRANTEE	ASC
	PLNAME	ASC		GRANTOR	ASC
<u>SYSIBM.SYSFIELDS</u>	TBCREATOR	ASC	<u>SYSIBM.SYSTABLEPART</u>	IXCREATOR	ASC
	TBNAME	ASC		IXNAME	ASC
	NAME	ASC		PARTITION	ASC
<u>SYSIBM.SYSFOREIGNKEYS</u>	CREATOR	ASC	<u>SYSIBM.SYSTABLES</u>	DBNAME	ASC
	TBNAME	ASC		TSNAME	ASC
	RELNAME	ASC			
<u>SYSIBM.SYSPACKAGE</u>	COLLID	ASC	<u>SYSIBM.SYSTABLES</u>	TBCREATOR	ASC
	NAME	ASC		TBNAME	ASC
<u>SYSIBM.SYSPLANAUTH</u>	NAME	ASC	<u>SYSIBM.SYSVIEWDEP</u>	DCREATOR	ASC
	GRANTEE	ASC		DNAME	ASC
	GRANTOR	ASC			
<u>SYSIBM.SYSPLANDEP</u>	DNAME	ASC	<u>SYSIBM.SYSVOLUMES</u>	SGNAME	ASC
<u>SYSIBM.SYSRELS</u>	CREATOR	ASC			
	TBNAME	ASC			
	RELNAME	ASC			
<u>SYSIBM.SYSRESAUTH</u>	QUALIFIER	ASC			
	NAME	ASC			
	NAME	ASC			