Steps Specific to CICS function sized_window_gloss(win_url)

NDB - Steps Specific to CICS

This section describes how to install Natural for DB2 in a CICS environment. Ensure that your Natural/CICS thread size is large enough to contain the DB2SIZE; if you use the Natural Tools for DB2, an additional storage of 8 KB is required.

This section covers the following topics:

- Using Plan Selection by CICS RCT Entry Threads
- Using Plan Selection by Dynamic Plan Exit
- Using the File Server with VSAM

Using Plan Selection by CICS RCT Entry Threads

If you want fixed assignment of your transaction code to the DB2 plan, add an additional entry to your RCT, or create a DB2ENTRY with RDO if you have CICS TS installed.

Below is information on:

- Step 1: Modify, assemble and link CICS RCT or create DB2ENTRY

Step 1: Modify, assemble and link CICS RCT or create DB2ENTRY

Modify your RCT as follows (for any other parameters, refer to the relevant DB2 literature by IBM):

```
DSNRCT TYPE=ENTRY,PLAN=plan-name,TXID=(transaction-ID)
```

Or:

Define a DB2ENTRY with RDO (for parameters, refer to the relevant CICS literature by IBM:

```
DEFINE DB2ENTRY
OVERTYPE TO MODIFY                                          CICS RELEASE = 0530
CEDA  DEFine DB2Entry(          )
 DB2Entry       : DB2ENTR
 Group          : NCI
 DEscription    :
THREAD SELECTION ATTRIBUTES
 TRansid        : transaction-id
THREAD OPERATION ATTRIBUTES
 ACcountrec     : None               None ! TXid ! TAsk ! Uow
 AUTHId         :
 AUTHType       : Userid             Userid ! Opid ! Group ! Sign ! TErm
                                     ! TX
 DRollback      : Yes                Yes ! No
 PLAN           : plan-name
 PLANExitname   :
 PRIority       : High              High ! Equal ! Low
 PROtectnum     : 0005               0-2000
 THREADLimit    : 0005               0-2000
 THREADWait     : Pool               Pool ! Yes ! No
```

The *plan-name* must be the same as the name used in Step 4 - Create NDB plan (Installation Procedure, Steps Common to all Environments???).

Using Plan Selection by Dynamic Plan Exit

If you want to perform plan selection by using the dynamic plan exit, perform the following steps:

- Step 1: Assemble CICS plan specification module NDBPLNA - Job I070, Step 1620
- Step 2: Assemble CICS dynamic plan selection exit module NDBUEXT - Job I070, Step 1630
- Step 3: Link-edit CICS plan specification module NDBPLNA - Job I075, Step 1630
- Step 4: Link-edit CICS dynamic plan selection exit module NDBUEXT - Job I075, Step 1640
- Step 5: Modify, assemble and link CICS RCT or create DB2ENTRY

Step 1: Assemble CICS plan specification module NDBPLNA - Job I070, Step 1620

Precompile, assemble and link NDBPLNA for CICS.

> **Note:**
> This step receives a condition code of 4 because of an unresolved external reference for DFHEAI0 and DFHEI1. This is normal and can be ignored.

Step 2: Assemble CICS dynamic plan selection exit module NDBUEXT - Job I070, Step 1630

The sample exit NDBUEXT can be modified to use a default plan name if none has been specified prior to the first SQL call. Review the source code in the module NDBUEXT for details about specifying a default plan name.

Optionally modify the source module NDBUEXT.

Precompile, assemble and link NDBUEXT for CICS.

> **Note:**
> This step receives a condition code of 4 because of an unresolved external reference for DFHEAI0 and DFHEI1. This is normal and can be ignored.

Step 3: Link-edit CICS plan specification module NDBPLNA - Job I075, Step 1630

The resulting module NDBPLNA must be linked to the CICS load library and defined via a corresponding PPT entry or RDO.

PPT entry:

```
DFHPPT TYPE=ENTRY,PROGRAM=NDBPLNA,PGMLANG=ASSEMBLER
```

Step 4: Link-edit CICS dynamic plan selection exit module NDBUEXT - Job I075, Step 1640

The resulting module NDBUEXT must be linked to the CICS load library and defined via a corresponding PPT entry or RDO.

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PPT entry:

```
DFHPPT TYPE=ENTRY,PROGRAM=NDBUEXT,PGMLANG=ASSEMBLER
```

Step 5: Modify, assemble and link CICS RCT or create DB2ENTRY

Modify your RCT as follows (for any other parameters, refer to the relevant DB2 literature by IBM):

```
DSNRCT TYPE=POOL,PLNPGME=NDBUEXT,PLNEXIT=YES
```

The parameter PLNPGME must specify the same program as the NAME statement of the link step above.

Or:

Define a DB2ENTRY with RDO if you have CICS TS installed (for parameters, refer to the relevant CICS literature by IBM):

```
DEFINE DB2ENTRY
OVERTYPE TO MODIFY                                          CICS RELEASE = 0530
CEDA  DEFine DB2Entry(          )
 DB2Entry       : DB2ENTR
 Group          : NCI
 DEscription    :
THREAD SELECTION ATTRIBUTES
 TRansid        : transaction-id
THREAD OPERATION ATTRIBUTES
 ACcountrec     : None               None ! TXid ! TAsk ! Uow
 AUTHId         :
 AUTHType       : Userid             Userid ! Opid ! Group ! Sign ! TErm
                                     ! TX
 DRollback      : Yes                Yes ! No
 PLAN           :
 PLANExitname   : NDBUEXT
 PRIority       : High              High ! Equal ! Low
 PROtectnum     : 0005               0-2000
 THREADLimit    : 0005               0-2000
 THREADWait     : Pool               Pool ! Yes ! No
```

The parameter PLANExitname must specify the same program as the NAME statement of the link step above.

Alternatively or additionally, you can specify the plan exit program NDBUEXT with the PLANExitname parameter of POOL THREAD ATTRIBUTES of the DB2Conn resource definition of CICS TS.

Using the File Server with VSAM

If you want to use the Natural File Server (VSAM), perform the following additional steps:

- Step 1: Define VSAM dataset for file server - Job I008, Step 1610
- Step 2: Format file server dataset - Job I075, Step 1610
- Step 3: Modify, assemble and link CICS tables
- Step 4: Restart CICS

Step 1: Define VSAM dataset for file server - Job I008, Step 1610

Specify the size and the name of the VSAM RRDS that is to be used as the file server (see also Installing the File Server in Natural File Server for DB2).

Step 2: Format file server dataset - Job I075, Step 1610

Specify the five input parameters required to format the file server dataset (see also Installing the File Server in Natural File Server for DB2).

Step 3: Modify, assemble and link CICS tables

Shown below are sample additional CICS table entries needed for the file server and for the DB2 components of Natural:

FCT entry:

```
CMFSERV  DFHFCT TYPE=DATASET,                        X
               ACCMETH=VSAM ,                        X
               BUFND=5,                              X
               BUFNI=4,                              X
               DATASET=CMFSERV,                      X
               DISP=SHR,                             X
               DSNAME=SAGLIB.NCIDB2.SERVER,          X
               FILSTAT=(ENABLED,CLOSED),             X
               JID=NO,                               X
               LOG=NO,                               X
               LSRPOOL=NONE,  1-8 ONLY FOR XA; NONE  X
               RECFORM=(FIXED,BLOCKED),              X
               RSL=PUBLIC,                           X
               SERVREQ=(ADD,UPDATE,DELETE,BROWSE),   X
               STRNO=4
```

Step 4: Restart CICS

Restarting CICS is required, because of the additional FCT entry above.

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