# IMS™ DB/DC
# And IMS CONNECT
# For Z/OS®

*by*

**IBM Innovation Center - Dallas**

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# IMS DB/DC

IMS DB/DC is an optional product available upon request for the z/OS remote access environment. Please contact the IBM Innovation Center, Dallas, if you wish to add IMS DB/DC to your guest z/OS system.

# 1. IMS DB/DC Installation and Configuration

When requested to be connected to the guest z/OS system, IMS DB/DC will be installed and configured as documented in the IMS DB/DC program directory and installation guide, with some minor modifications to conform to IBM Innovation Center, Dallas installation guidelines. In this environment, you can only run one IMS subsystem at a time because there are two SVCs required for IMS and we only define one pair of SVCs. We would need to define a pair of SVCs for each version of IMS to run multiple versions at the same time.

IMS Connect is also configured on the system, but it is not activated. Please follow instructions found in Appendix A. " IMS CONNECT" on page 8 to activate it.

## 1.1 Dataset Information

IMS DB/DC datasets will have the following format and contain information as described below:

- The older versions high level qualifier(*hlq*) will be IMS*xxx*, with *xxx* representing the version and release of IMS, e.g. IMS1110 or IMS1210. The newer versions high level qualifiers(hlq) are DFSD10 for version 13 and DFSE10 for version 14.

- The sample installation and IVP jobs are found in library *hlq*.INSTALIB.

- Installation, maintenance information, and configuration samples are provided in datasets named *hlq*.SVSC.* .

- The Stage 1 input macros reside in dataset *hlq*.IMSGEN.CNTL(STG1MACS).

- The jobs that run after the Stage 1 and Stage 2 jobs also reside in dataset *hlq*.IMSGEN.CNTL.

## 1.2 Special Instructions for doing STAGE1  Gen

All of these instructions are to be done with IMS NOT running.  First run *hlq*.IMSGEN.CNTL(STAGE1) this uses member STG1MACS as input and generates a jobstream that is STAGE2.  The STAGE2 job needs to be modified to have the output go to *hlq*.USER.SDFSRESL. You can do the modify using a clist.  To execute the clist, go to option 6 and enter like this sample with the correct *hlq*:

EX '*hlq*.SVSC.CLIST(STAGE2U)' '*hlq*.IMSGEN.CNTL'

This will take the STAGE2 and make the modifications needed and create STAGE2U.  Run all the steps or jobs of STAGE2U.

Then run SECURITY, DEFLTAGN, OLCUTL

1. PREPROC  - checks names - not currently used.

2. STAGE1   - has STG1MACS as input

   Run - *hlq*.IMSGEN.CNTL(STAGE1)

3. STAGE2   - STAGE1 output creates this job.

   Go to TSO option 6 and copy all of Step 4 and press enter.

4. EX '*hlq*.SVSC.CLIST(STAGE2U)' '*hlq*.IMSGEN.CNTL'

   This REXX exec stores the updated STAGE2 in STAGE2U member.

5. STAGE2U  - STAGE2U clist creates this job.

   Run - *hlq*.IMSGEN.CNTL(STAGE2U)

6. SECURITY - we turn off security on these systems.

   Run - *hlq*.IMSGEN.CNTL(SECURITY)

7. DEFLTAGN - replace Resource Access Security module - DFSISIS0

   Run - *hlq*.IMSGEN.CNTL(DEFLTAGN)

8. OLCUTL   - Online Change Utility - makes the changed objects available.

   Run - *hlq*.IMSGEN.CNTL(OLCUTL)

**The same process exists for IMS1210, DFSD10 and DFSE10, just change the dataset (*hlq*).**

## 2.  Instructions to start/stop the IMS subsystem

Depending on when IMS was requested for the system, the IMS started tasks are found in either SVTSC.PROCLIB or VENDOR.PROCLIB and follow a naming standard of IMSnn*, where nn is either 12, 13 or 14 representing the version of IMS.

The following commands can be issued from the LOG display in SDSF.  From the TSO Primary Option Menu, type SD.LOG and press ENTER.  In the following examples, IMS V9 is being started.  To start IMS V13, substitute '13' for '12' in the commands below.  To start IMS V14, substitute '14' for '12' in the commands below.

## 2.1  Starting IMS

In order to start IMS, the IRLM task must be started first.  To start IRLM for IMS V9 issue the following command from SDSF command line:

**/S IMS12RL1**

This will start the task for the IRLM associated with IMS V12. The two digits in the task name refer to the version.

Next you will start the control region for IMS V12. Issue command:

**/S IMS12CR1**

As IMS starts running it will issue a write to operator with reply (WTOR). For a normal restart, you must reply with a command like:

**/R 03,/NRE CHKPT 0 FORMAT ALL**

In this example the **03** matches the reply number in the IMS response. This will cold start IMS.

## 2.2  Stop IMS

In order to stop IMS, you would use the following commands on the SDSF command line:

**/R 04,/CHE SNAPQ**

**/R 05,/CHE FREEZE**

These commands will close the checkpoint dataset and bring down the control region. You will still need to stop the IRLM with the following command:

**/P IMS12RL1**

## 3.  IMS terminals in full screen APPLication mode

In order to connect to IMS, the IMS version you want to connect must be started and the VTAM APPL must be activated. The current highest level of IMS supported on the system will be the active VTAM APPL. i.e IMS14APL  You can display which VTAM APPLs are active by issuing the following command:

**/D NET,APPLS**

To display the specifics about the IMS VTAM APPL that is active, issue the following command:

**/D NET,ID=IMS14APL,E**

If you want to activate a different IMS, you must first stop the current VTAM APPL and start the new VTAM APPL.  For instance, to stop the IMS V14 APPL and start the IMS V13 APPL, issue the following commands:

**/V NET,INACT,ID=IMS14APL**

**/V NET,ACT,ID=IMS13APL**

Note:  Since we only include one set of SVC's defined for IMS, you can run only one version of IMS at a time.

In the default STAGE1 for each version of IMS,  there are predefined terminals named for LF02, LF03, LF04 which correspond to the F02, F03, F04 terminal attribute used on the DIAL command. To be connected as one of those predefined terminal names, use the DIAL command and specify one of the terminal IDs (either F02, F03, or F04).  Following is an example of this command:

**D ETPGyyy F02**

To see the definitions for the terminals refer to the STAGE1 input found in the IMSGEN.CNTL library. i.e. IMS1010.IMSGEN.CNTL(STG1MACS).

When you specify IMS on your "WELCOME TO THE SOFTWARE VENDOR SYSTEMS CENTER" , you may see differences in the screen you are presented based on which terminal id you selected.

- Terminal ID F02 is defined as a Master Terminal and you will get a MTO session.
- Terminal ID F03 and F04 will give you a regular IMS terminal session without a /SIGN signon required.

If you did not connect with one of these F02, F03 or F04, you will see a signon screen.  If you get the sign on screen, you must specify a user ID but no password is needed.  Neither the user ID nor the password are checked

**Note: To drop the VTAM terminal session to the IMS application use the /RCL command from any terminal connected to IMS.**

# Appendix A.    IMS CONNECT

This appendix will provide instructions for solution developers to implement IMS Connect with IMSPlex support, on their remote development system. These instructions assume that the guest z/OS system is active and that the solution developer is logged on to TSO to perform the tasks.

Additional information can be found in the IMS V9 Connect Users Guide and Reference at URL http://www.elink.ibmlink.ibm.com/publications/servlet/pbi.wss? CTY=US&FNC=SRX&PBL=SC18-9287-02

## A. 1    IMS Connect PROCS and PARMS

There are several additional started task procs and parm members required for IMS Connect with IMSPlex support (used to access Operations Manager). These members are in addition to the normal IMS control and dependent region procs/parms. You will find these members located in *hlq*.PROCLIB (*hlq* represents the high level qualifierof the version of IMS). Please verify that you have these members on your system, if not, please contact the IBM Innovation Center, Dallas support team:

IMSxxHWS  (IMS Connect task name)

IMSxxRM1  (Resource Manager)

IMSxxSCI  (Structure Call Interface)

IMSxxOM1  (Operations Manager)

DFSPBIV2

DFSCG001

HWSCFG02

## A. 2    Implementation

Copy member IMSxxCR1 from SVTSC.PROCLIB into VENDOR.PROCLIB. Change the RGSUF parm to RGSUF=IV2. This is all the cusomization you should need to do, provided all of the above members exist on your system.

## A. 3    Start IMS and IMS Connect Tasks

Once IMS connect is implemented, you must start the IMS tasks in the following order. Below are commands to complete this task:

1. S IMSxxRL1
2. S IMSxxSCI
3. S IMSxxRM1
4. S IMSxxOM1
5. S IMSxxCR1 – follow normal start procedure for IMS as documented in " Starting IMS" on page 4
6. S IMSxxHWS

## A. 4    Stop IMS and IMS Connect Tasks

Use the following order and commands to stop the IMS tasks – please wait for each shutdown to complete before continuing on to the next one:

1. Look in SYSLOG for the outstanding reply number for DTSCHWS.  Respond with xx,CLOSEHWS QUIESCE
2. Shut IMS control and dependent regions down using normal shutdown commands as documented in " Stop IMS" on page 5.
3. P IMSxxOM1
4. P IMSxxRM1
5. P IMSxxSCI
6. P IMSxxRL1