

Tips for Using your 2nd Level System on BINGTZ1

You should have already received a userid and password to access a 2nd virtual machine on BINGTZ1 with a userid of xxxxxxVM. This virtual machine is very similar to your original ID, but has an additional virtual device, 300, that can be used to IPL a 2nd level system.

IPLing a 2nd Level System on BINGTZ1

1. Login to BINGTZ1 as xxxxxxVM
2. After logging in, you will be running on a CMS guest, running on 1st level CP.
3. Issue a PA1 (right click on your PCOMM session, click on PA1)
 - o As a result of this action, the bottom right corner of your screen should read 'CP READ'. This means that your input will be passed to CP.
4. Issue: term conmode 3270
5. Issue: ipl 300 clear loadparm 9
6. This will bring up a SAPL screen. In the IPL Parameters section, add the following:
cons=9

STAND ALONE PROGRAM LOADER: z/VM VERSION 5 RELEASE 4.0

DEVICE NUMBER: 0300 MINIDISK OFFSET: 39 EXTENT: 1

MODULE NAME: CPLOAD LOAD ORIGIN: 2000

-----IPL PARAMETERS-----

cons=9

-----COMMENTS-----

9= FILELIST 10= LOAD 11= TOGGLE EXTENT/OFFSET

7. Hit F10 to LOAD.
8. At this point, the IPL process for your 2nd level CP system will begin. The first question it asks is:
14:27:13 Start ((Warm|Force|COLD|CLEAN) (DRain) (DIisable) (NODIRect)
14:27:13 (NOAUTOlog)) or (SHUTDOWN)
Your choice of action here determines whether or not to continue with the IPL, and whether or not you'd like to restore old SPOOL files. Type WARM and press enter.
9. The next question you'll be asked is something along the lines of the following:
14:29:50 NOW 14:29:50 EDT WEDNESDAY 2008-10-22
14:29:50 Change TOD clock (Yes|No)

The TOD clock is the 'Time of Day' clock. You really don't need to modify this value, so type in NO and press enter to continue.

10. After a few seconds, you'll be presented with a bunch of messages regarding XAUTOLOGs and SPOOL files, something like the following:

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14:33:44 The directory on volume 540RES at address 0300 has been brought online.
14:33:45 HCPWRS2513I
14:33:45 HCPWRS2513I Spool files available          51
14:33:47 HCPWRS2512I Spooling initialization is complete.
14:33:47 DASD 3051 dump unit CP IPL pages 8573
14:33:47 HCPARU2700I System gateway ZVMV5R40 identified.
14:33:47 z/VM Version 5 Release 4.0, Service Level 0801 (64-bit),
14:33:47 built on IBM Virtualization Technology
14:33:47 There is no logmsg data
14:33:47 FILES: 0003 RDR, 0003 PRT, NO PUN
14:33:47 LOGON AT 14:33:47 EDT WEDNESDAY 10/22/08
14:33:47 GRAF 0009 LOGON AS OPERATOR USERS = 1
14:33:47 HCP10P952I 0256M system storage
14:33:47 FILES: 0000017 RDR, 0000004 PRT, NO PUN
14:33:47 HCPCRC8082I Accounting records are accumulating for userid DISKACNT.
14:33:47 XAUTOLOG EREP
14:33:47 Command accepted
14:33:47 XAUTOLOG DISKACNT
14:33:47 AUTO LOGON ***          EREP          USERS = 2          BY OPERATOR
14:33:47 Command accepted
14:33:47 XAUTOLOG AUTOLOG1
14:33:47 AUTO LOGON ***          DISKACNT USERS = 3          BY OPERATOR
14:33:47 Command accepted
14:33:47 XAUTOLOG OPERSYMP
14:33:47 Command accepted
14:33:47 AUTO LOGON ***          AUTOLOG1 USERS = 4          BY OPERATOR
14:33:47 AUTO LOGON ***          OPERSYMP USERS = 5          BY OPERATOR
14:33:47 HCPCLS6056I XAUTOLOG information for EREP: The IPL command is verified by the IPL command processor.
14:33:47 HCPCLS6056I XAUTOLOG information for DISKACNT: The IPL command is verified by the IPL command processor.
14:33:47 HCPCLS6056I XAUTOLOG information for AUTOLOG1: The IPL command is verified by the IPL command processor.
14:33:47 HCPCLS6056I XAUTOLOG information for OPERSYMP: The IPL command is verified by the IPL command processor.
14:33:48 AUTO LOGON ***          VMSERV5 USERS = 6          BY AUTOLOG1
14:33:48 * MSG FROM OPERSYMP: 0 RECORDING FILE(S), 0 RECORDS, A DISK 01 % FULL
14:33:48 AUTO LOGON ***          VMSERVU USERS = 7          BY AUTOLOG1
14:33:48 HCPCRC8064I Recording data retrieval has been started; recording *SYMPTOM for userid OPERSYMP.
14:33:48 * MSG FROM EREP : 1 RECORDING FILE(S), 514 RECORDS, A DISK 06 % FULL
14:33:48 HCPCRC8064I Recording data retrieval has been started; recording *LOGREC for userid EREP.
14:33:48 AUTO LOGON ***          VMSERV8 USERS = 8          BY AUTOLOG1
14:33:48 * MSG FROM DISKACNT: 3 RECORDING FILE(S), 52 RECORDS, A DISK 07 % FULL
14:33:48 HCPCRC8064I Recording data retrieval has been started; recording *ACCOUNT for userid DISKACNT.
14:33:48 AUTO LOGON ***          DTCVSW1 USERS = 9          BY AUTOLOG1
14:33:48 AUTO LOGON ***          DTCVSW2 USERS = 10         BY AUTOLOG1
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At this point, your 2nd level system has finished its IPL process, and all AUTOLOG machines have been logged on. You are presently logged on as OPERATOR of the 2nd level system *without a guest operating system loaded*. To start CMS, simply issue the IPL CMS command.

At this point, you are running CMS in the OPERATOR virtual machine, running on your 2nd level CP system. This is the virtual machine that you will use to write your code for the labs.

Updating the Virtual Machine Directory for your 2nd Level System

Note: This action is performed on your 2nd level system.

1. First you need to LOGON as MAINT. So, if you're not presently connected to the MAINT virtual machine, do the following:
 1. Issue the 'disconnect' command to disconnect from your virtual machine. This will leave the virtual machine running.
 2. You will be presented with a welcome screen/login prompt for your second level system. Login as MAINT with password MAINT.
2. MAINT has virtual device 2CC accessed as filemode C. This disk holds the USER DIRECT file.
3. XEDIT the file USER DIRECT C
4. Make whatever changes desired, and FILE the changes
5. Run DIRECTXA – If you receive errors, fix the USER DIRECT and run DIRECTXA again.
Note: Changes to the directory come online at this point, but any virtual machine already logged in will not be affected until they logoff/logon.
6. Issue 'LOGOFF' to logoff the MAINT virtual machine.
7. Re-login to your original virtual machine. If this was OPERATOR, you can logon as OPERATOR, password OPERATOR.

Viewing the System Configuration File for your 2nd Level System

Note: This action is performed on your 2nd level system.

1. Using the same steps as above, LOGON to MAINT.
2. ACCESS CF1 T (or some other filemode).
3. The SYSTEM CONFIG T file contains the system configuration used by CP when it IPLed.
4. *Note: this virtual device is accessed as READ-ONLY, so you won't be able to modify your system configuration file.*

Transferring Files Between your 1st and 2nd Level Systems on xxxxxxVM

You can access your 1st level 191 disk from your 2nd level system.

Remember, VDEV 191 1st level becomes RDEV 191 to your 2nd level CP system.

1. You can issue the command 'ATTACH 191 * as 291' from a virtual machine with privilege class B (such as OPERATOR).
2. This will result in VDEV 291 being created on your virtual machine.
3. ACCESS 219 C or some other filemode.
4. You can use the COPY command to copy files onto 291 accessed as filemode C.
5. You'll find that later, when you return to your 1st level CMS system, that the files you've copied are present on your 1st level 191 disk.

Returning to 1st Level

While running in your 2nd level system, you can do the following to return to your 1st level virtual machine:

1. From OPERATOR, issue the SHUTDOWN command.
2. Clear your screen to begin the SHUTDOWN process.
3. When this completes, your 2nd level system will be gone and you will see a message like the following: "HCPGIR450W CP entered; disabled wait PSW 00020000 00000000 00000000 00000961" . You will still be connected to your first level virtual machine, *without a guest operating system loaded.*
4. Issue IPL CMS to restart to your CMS session (running within your 1st level virtual machine, xxxxxxVM).