

Configuring IBM Business Process Manager V.8.5 on z/OS *Advanced-Only*: Process Server

Unit 3 - Network Deployment Configuration Lab – Team

These instructions assume you have installed the IBM Business Process Manager (zBPMP) HFS, and the WebSphere Customization Toolbox (WCT) using the Installation Manager.

Recent Changes:

Revision Date: Dec. 5, 2013

1. BPM V.8.5.0 (and WAS 8.5.5) at /shared/zWebSphere/V8R55BASEBPM850 on July 17th.
2. DB2 Version 10 on April 2nd.
3. **Suggestions:**
 - In this lab, you will use UNIX Systems Services shell scripts and editors, and MVS/TSO ISPF & SDSF panels, so team up with a partner who is familiar with these environments.
 - There should be a copy of this PDF in the “ZBPM8” folder on your desktop, which you might find useful for copying and pasting long commands.
 - Each team has its own unique cell name with the team number in the second character of the cell prefix (B# or b#) and unique host address 192.168.17.20#. (or .21#)

To make the document specific for Team #, use Find & Replace to make these global changes:

- Check “Match case”
- Replace “B#” with the team Number “B#”
- Replace “b#” with the team Number “b#”

CAUTION! Do not change any names starting with “B #” (with a blank in column two.)

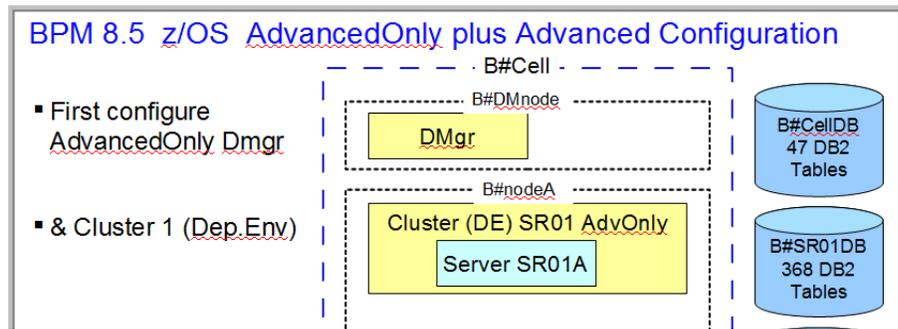
Note: This document applies to Advanced-Only Configurations.

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1. Plan your configuration and generate the response files

We are going to build a WebSphere Application Server Version 8.5 cell on z/OS “from scratch” and configure it with IBM Business Process Manager AdvancedOnly. You can add an Advanced Deployment Environment in a separate cluster, which we will cover in Lab 5.



Use the spreadsheet provided with Techdoc WP101953 to generate the response files which will be used by the Profile Management Tool to generate the customization jobstreams and scripts.

Launch the [B#_WG31_WBPMConfigSpreadsheet.xls](#) spreadsheet located on your workstation in the [C:\bpmwork](#) directory using Microsoft Excel and Click on “Enable Macros.” (You may have to click on “File” > “Open for editing”.)

Set the following values in the “Variables” tab:

(The ones in red need to be changed.)

(The screen shots here show “b0”, but you should enter your unique prefix b#)

Row 14: Your two Character Cell Abbreviation: **b#**

Row 16: Dataset HLQ: **USER1.B#CELL**

Row 29: Congig.zFS Hi Lev. Direct: **/wasv85config**

Row 36: Primary Space Allocation: **DMGR: 1200, Empty Node: 1500**

Row 39: WebSphere Install HFS: **/shared/zWebSphere/V8R55BASEBPM850**

	C	D	E	F	G	H	I	J	
1	WebSphere Application Server for z/OS V8.5								
2	Configuration Variables								
3									
4	Variables related to Target z/OS Image on which WebSphere will be Configured								
5	Enter Sysplex Name ==>						WSLPLEX		
6	Enter System Name (1) ==>						WG31		
7	Enter System Name (2) ==>								
8	Enter dmgr System Name ==>						WG31		
9									
10	Enter One Letter Node (LPAR) Qualifier for System (1) ==>						a		
11	Enter One Letter Node (LPAR) Qualifier for System (2) ==>								
12									
13									
14	Enter Two Character Cell Prefix ==>						b0		
15									
16	Enter Save Customization Dataset HLQ for System (1) ==>						USER1.B0CELL		
17	Enter Save Customization Dataset HLQ for System (2) ==>						USER1.B0CELL		
18									
19	Enter PROCLIB Dataset Name for System (1) ==>						SYS1.PROCLIB		
20	Enter PROCLIB Dataset Name for System (2) ==>						SYS1.PROCLIB		
21	Shared PROCs (Y N)?						Y		
22									
23	Variables related to WebSphere Configuration HFS/ZFS								
24	Enter Configuration HFS Dataset HLQ for System (1) ==>						omvs		
25	Enter Configuration HFS Dataset HLQ for System (2) ==>						omvs		
26									
27	Enter Configuration HFS Dataset LLQ ==>						CONFIG.ZFS		
28									
29	Enter Configuration HFS High Level Directory ==>						/wasv85config		
30	Separate Configuration HFS/ZFS (Y N)?						Y		
31									
32	Configuration Dataset(s) File System Type (HFS ZFS) ==>						zFS		
33									
34			DMGR		Stand-Alone Server		Empty Node		
35	y Space Allocation (CYL) ==>		1200		420		1500		
36	y Space Allocation (CYL) ==>		100		100		100		
37	Volume (* if SMS Managed) ==>						*		
38									
39	Path to WebSphere Install HFS (SBBHFHS) ==>						/shared/zWebSphere/V8R55BASEBPM850		

Row 47: Home dir: **/wasv85config/b#cell/home**

Row 106 & 107: Host Names: **192.168.17.20# (or 21#)** - Use the IP Addr. Instead of hostname (wg31) to identify the server to the Process Center.

	Variables related to TCP/IP Network		
105	Host Name for Deployment Manager ==>	wg31.washington.ibm.com	
106	Stand-Alone Server or Empty Managed Node ==>	192.168.17.216	
107	Stand-Alone Server or Empty Managed Node ==>	192.168.17.216	

Verify these “**BPM Variables**” for the IBM Business Process Manager V8.5 Configuration:

DB2 configuration properties:

- Row 7: Location Name: **WG31DB2**
- Row 8: Home Directory: **/shared/db21010/jdbc**
- Row 9: JCC Config. Properties Directory: **/u/user1/wpswork**
- Row 12: DB2 Storage Group: **B#DBSTO**
- Row 13: Database VCAT: **WSLDB2**

	C	D	E	F	G	H	I
3	IBM Business Process Manager Advanced						
4	Process Server for z/OS V8.5 Configuration Variables						
5	BPM Product HFSS						
6	DB2 Configuration Properties						
7	Location Name ==>			WG31DB2			
8	Home Directory ==>			/shared/db21010/jdbc			
9	JCC Configuration Properties File ==>			/u/user1/wpswork			
10	HostName ==>			wg31.washington.ibm.com			
11	Port Number ==>			9446			
12	Storage Group ==>			B6DBSTO			
13	DataBase VCAT ==>			WSLDB2			
14	DataBase Volume(s) ==>			*			

More BPM Variables including Process Center Configuration:

- Row 40 DE Type: Select “**Advanced-Only**”
- Row 44: ProcessCenter Host: **wpspctr.wsclab.washington.ibm.com**
- Row 45: Process Center Port: **9094**
- Row 46 & 47: UserID & Password: **pcadmin**
- Row 48: Select “**true**” for “**Advanced-Only**” configuration.
- Row 59: BPM AdminUser and Password: **B#ADMIN**

39	BPM Deployment Environment	
40	DE Type ==>	AdvancedOnly
41		
42	Process Center Configuration (Advanced)	
43	ProcessCenter Protocol ==>	http
44	Host ==>	wpspctr.wsclab.washington.ibm.com
45	Port ==>	9094
46	User ==>	pcadmin
47	Password ==>	pcadmin
48	OffLine ==>	true

After updating the Variables and BPMVariables tabs, use the appropriate tabs to save the following response files and deployment documents to your workstation in the C:\wpswork\ directory:

- Use these “Save” buttons at the top of each tab to save them in the <C:\wpswork> directory:

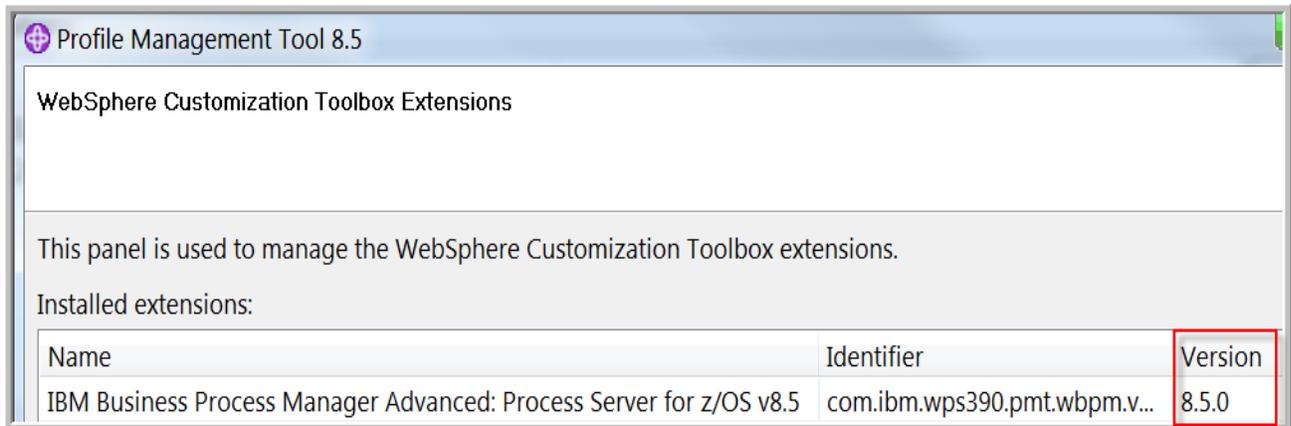
- “Deployment Manager” Response file **b#dmnode.rsp**
- “Empty Managed Node (1)” response **b#nodea.rsp**
- “BPMConfig Properties” file **b#sr01.properties**
 - *This is also copied by the WCT into this target data set **USER1.B#CELL.B#DMNODE.DATA (BPZPROPD)** and run by the BPZCNFGD job.*
- “Database”, StoGroup and GRANT definitions **b#cell.sql**

2. Use the PMT to create the configuration jobstreams

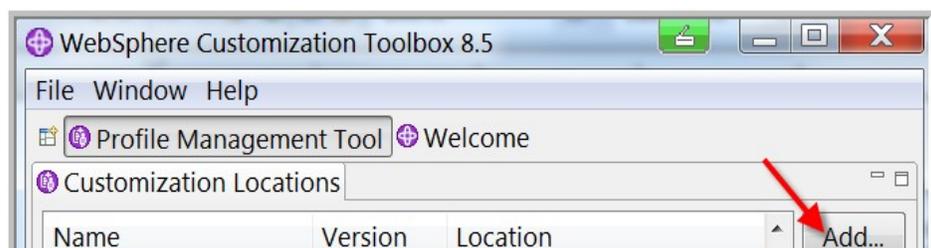
The Profile Management Tool is part of the WebSphere Customization Toolbox (WCT). We have already installed it, and the plug-in extension for Business Process Manager: *Process Server v8*.

(See “Installing the WCT and PMT plug-in extensions for IBM BPM:PS“ in the Appendix for details.)

- ❑ Launch the Profile Management Tool (PMT) by clicking on “WebSphere Customization Toolbox” on your workstation under [Programs > IBM WebSphere > WebSphere Customization Toolbox](#).

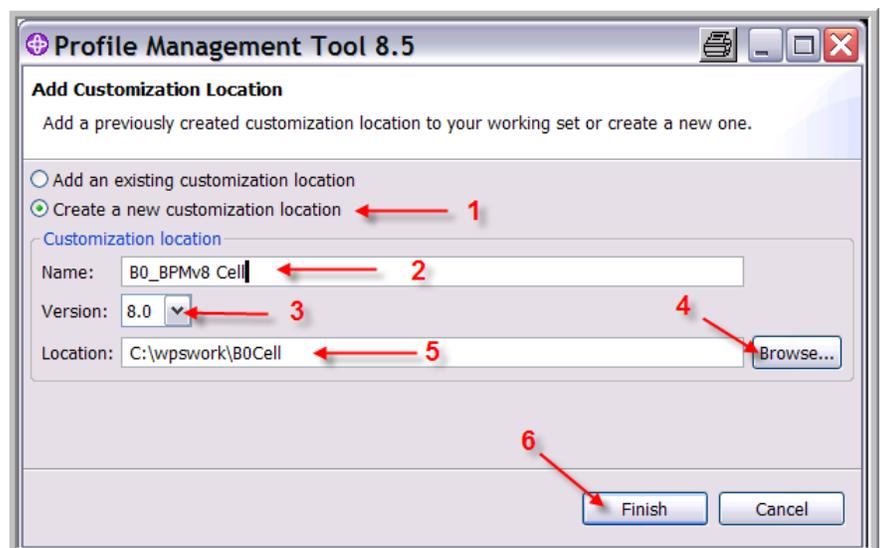


- ❑ Navigate to “Help”, “Software Updates”, “Manage Extensions” and you will see this screen showing the BPM Version 8.0.1 Extension:
- ❑ Click on “Cancel” (because we already installed the extension) and launch the “Profile Management Tool”:
- ❑ Click on “Add” to create a new “Customization location”:



- ❑ Add a Customization Location with these steps:

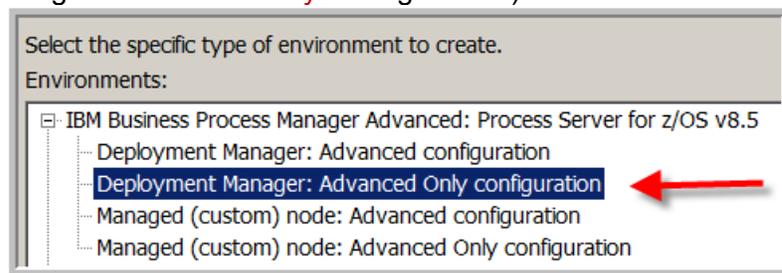
1. Select “Create a new customization location”
2. Give it a name, such as “B#_BPMv8_Cell”
3. Select Version 8.5
4. Click on “Browse”
5. Select a new folder for the “Location” such as 'C:\wpswork\B#Cell'
6. Click on “Finish”



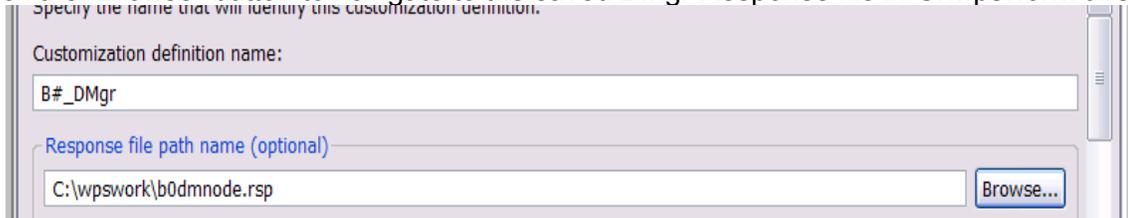
- Click on “Create”



- You will see the “Environment Selection” panel which will have many options. Select the “Deployment Manager: **Advanced Only**” configuration.)

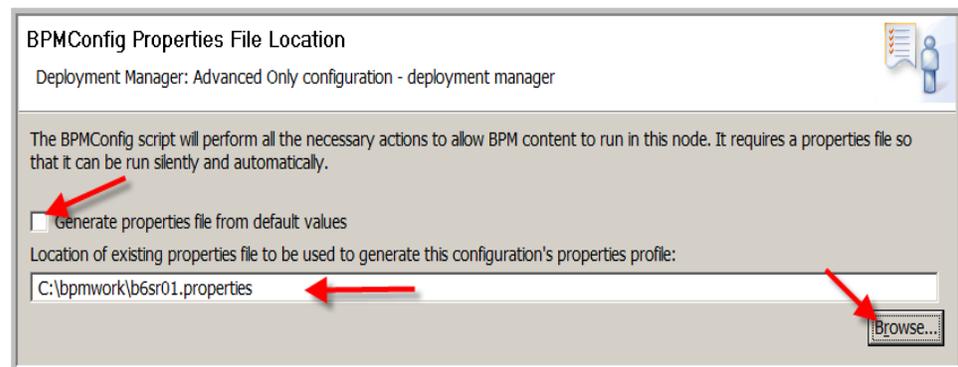


- Click “Next” to create a customization definition and specify a name such as “B#_DMGr, and click the “Browse” button to navigate to the saved DMGr Response file in C:\wpswork\ directory:



- Click “Next” to begin scrolling through the zPMT panels.
- Review each panel to make certain you have specified them correctly when you filled out the spreadsheet. (Ask an instructor if you have any questions.)
- In the following panels, you will have to provide input:

- *Administrative Security*: Confirm the administrative user's password (b#admin).
- BPMConfig Properties File Location:
- **Uncheck the box “Generate properties file from default values”**
- Click on “Browse”
- Select the location where you saved your b#sr01.properties file from the spreadsheet.
- Click “Next >”



- (This is also copied into the target data sets for the Dmgr:
`USER1.B#CELL.B#DMNODE.DATA (BPZPROFD)` and run by the `BPZCNFGD` job.)

- ❑ At the end of the panels, click the “Create” button, and then “Finish.”
- ❑ Next, click on the “Process” button to upload the customization jobs to the target datasets.
- ❑ Select “Upload to target z/OS system using FTP.”

- ❑ Click “Next” Fill in the user ID and password for “user1”

- ❑ Check the box saying “Allocate target z/OS datasets”
- ❑ Click on “Finish” to complete the upload.

Create jobstreams for the empty node

While you are in the Profile Management Tool, repeat the process for the empty managed node:

- ❑ Click on “Create”, then select “Managed (custom) node: **Advanced Only**” configuration.
- ❑ Click on “Next” to create a customization definition and specify a name such as “B#_NodeA”, and click the “Browse” button to navigate to where you saved the `b#nodea.rsp` file from the spreadsheet.
- ❑ Click on “Next” to begin scrolling through the definitions that were created by the spreadsheet.
- ❑ Review each panel to make certain you have specified them correctly when you filled out the spreadsheet.
- ❑ In the panel to “Federate Application Server (Part 1)”, provide the password for the `b#admin` userID (“`b#admin`”).
- ❑ At the end of the panels, click the “Create” button, and then “Finish” then click on the “Process” button to upload the customization jobs to the target datasets.

- Fill in the password for “user1” and check the box saying “Allocate target z/OS datasets” and click on “Finish” to complete the upload.

You can now exit the WCT.

3. Set up Security Profiles

To define the RACF Groups, Users and profiles, use the following members in `USER1.WAS.CNTL`:

- Logon to TSO as 'user1' (pw = 'user1')
- The `B#RAC800` member defines the basic Groups, Ids and profiles for WebSphere Application Server. Change all occurrences of “#” to your team number and submit the job. (These are based on Techdoc WP101427 and are run instead of the BBOSBRAK and BBODBRAK jobs created by the PMT.)
- Review the output to see if it was successful. (Don't just trust the “00” return code.)

Create RACF User and Group IDs and EJBROLE Profiles for BPM:

Additional User and Group IDs, and EJBROLE profiles are needed for BPM:

- Edit the `B#RACUID` member to define Groups and Users for BPM. Change all occurrences of “#” to your team number, submit the job, and look for any errors.
- Edit the `B#EJBROL` member to define the BPM EJBROLE profiles & permissions. Change all occurrences of “#” to your team number, submit the job, and look for any errors.

4. Create the Deployment Manager and Augment with BPM

Using the jobs created by the WCT in the previous step, you can now run the jobs to create and augment the deployment manager.

- Create cell-level zFS file system: edit the `B#CELZFS` member in `USER1.WAS.CNTL`, change all occurrences of “#” to your team number, submit the job, and look for any errors.
- Edit the dataset containing the deployment manager installation jobs `USER1.B#CELL.B#DMNODE.CNTL`
- Submit the following jobs in order, one at a time. Examine each job for a return code of “0” before submitting the next one.
 - BBOSBRAM – Create the Home Directories in `/wasv85config/b#cell/home/`
 - BBODCFS – Create the zFS: `OMVS.B#CELL.B#DMNODE.CONFIG.ZFS`
 - BBODHFSA – Populate the zFS
 - BBOWWPFDF – Create the Profiles for WAS V8 (This runs for 4 minutes.)
 - BBODPROC – Copy Proclib members
 - `BPZAUGD` - augment the Deployment Manager's profiles with BPM. (This member is not listed in the BBOCCINS instructions, but must be run to complete the BPM:PS customization for the Deployment Manager.)
 - `BPZCNFGD` – Generate DB config scripts & Run DE wizard to create the cluster (but no cluster members.) (5 minutes)

Note: Do not start the deployment manager yet! You must first create the DB2 tables for BPM.

5. Create the DB2 Database & Tables

Process Server requires many DB2 tables, which cannot be defined until the Deployment Manager is configured and augmented with BPM:PS by the BPZAUGD job you just ran.

- The cell-level DB2 tables must be defined before the Deployment manager is started.
- The cluster-level DB2 tables must be created before the cluster is started.

You will define all these DB2 tables in this section.

Setup DB2 Command Line Processor parameters

The following files were set up for the DB2 CLP:

- /u/user1/wpswork/db2setup.sh
- /u/user1/wpswork/DB2JccConfiguration.properties
- /u/user1/clp.properties

Creating the DB2 Storage Groups and databases

- Start DB2 with this MVS command using SDSF: **-DSNX START DB2**

The DB2 DDL to create the databases, StorageGroups and GRANTs were provided by the spreadsheet in the "Database" tab, which you down-loaded to the C:\wpswork\ directory in file named **b#cell1.sq1**. We copied it to USER1.WAS.CNTL(**B#CRDB2**) and added JCL to help you:

- Change all occurrences of '#' to your team number which will make these changes:

DataBases: B#CELLDB and B#SR01DB
StoGroup: B#DBSTO
Administrator UserID: B#ADMIN
Schemas 1st two chars: B#

- Submit the job and look at the output to verify that the commands were successful.

Creating the DB2 tables

We will use the createDatabase.sh script which uses the DB2 command line processor (clp):

- Use telnet (PuTTY or TeraTerm) or TSO/OMVS to log into the USS environment as "user1" on your WG31 host.
- Change to the administrator's ID: **su b#admin**
- Run the db2setup.sh script in the **/u/user1/wpswork/** directory. Specify a period and a space before the command to keep the exported variables in the current USS environment:

. db2setup.sh

To make sure the DB2 setup worked, try the "db2" alias command:
(db2="java com.ibm.db2.clp.db2")

(Click 'c+t1_c' to exit.)

```
USER1:/u/user1:> cd wpswork
USER1:/u/user1/wpswork:> . db2setup.sh
USER1:/u/user1/wpswork:> db2
db2 =>
```

The B#ZCNFGD job created sql statements & createDatabase.sh script in the following directory:

/wasv85config/b#cell1/b#dmnode/DeploymentManager/profiles/default/dbscripts/b#cell1/DB2zos/B#CELLDB

- Change to the above directory, and create the StoGroup, tablespaces, and **47** tables in the B#CELLDB database with the following command:

./createDatabase.sh -DBAlias DSNX -RunSQL

You should see these messages:

```
Creating database schema definitions
CONNECT TO DBP2
. . .
DSNC101I : The "CONNECT" command completed successfully.
UPDATE COMMAND OPTIONS USING z ON z_output.txt o OFF
0 SQL statements failed, 191 SQL statements executed successfully
```

- Look in the [z_output.txt file](#) for any error messages. (Find 'SQLCODE'.)

Configure Cluster Level Database Tables (for BPC, Process Server and SIB's)

While we're in the neighborhood", lets also create the DB2 tables for the cluster:

```
cd /wasv85config/b#cell/b#dmnode/DeploymentManager/profiles/default/dbscripts
cd B#SR01/DB2zOS/B#SR01DB
```

- Make sure you are still logged in as the **b#admin** userID, and go to the above directory
- Run the following script to create the **368** tables for BPC, BPC Reporter, Process Server, etc.:

```
./createDatabase.sh -DBAlias DSNX -RunSQL
```

You should see these messages: (after about 7 minutes)

```
Creating database schema definitions
CONNECT TO DBP2
Database Connection Information
Database server      =DB2 DSN10015
SQL authorization ID =SYSADM1
JDBC Driver         =IBM DB2 JDBC Universal Driver Architecture 3.62.73
DSNC101I : The "CONNECT" command completed successfully.
UPDATE COMMAND OPTIONS USING z ON z_output.txt o OFF
1 SQL statements failed, 1435 SQL statements executed successfully.
```

- Look in the [z_output.txt file](#) for any error messages. (Find 'SQLCODE'.)
- The B#ADMIN UserID must be granted access to the DB2 tables and sequences in this database. These are generated by the spreadsheet in the "Database" Tab, and copied into member USER1.WAS.CNTL(**B #GRANTS**) Edit this member and change all occurrences of '#' to your team number and submit the job. Look for a return code of '0' or '4'.
- Verify that a total of **368** tables were created in the B#SR01DB database by the above createDatabase.sh script command. See "Verify the Database Tables" in the Appendix for using the ADBL command by sysadm1 to list the tables in the B#SR01DB database.

Start the Deployment Manager

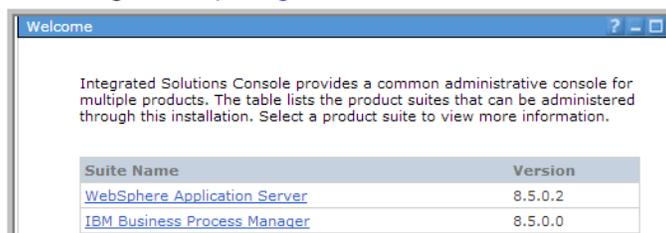
Once Security is configured and DB2 tables are created, start the Deployment Manager.

- Using TSO SDSF, issue the following MVS console command:

```
START B#DCR, ENV=B#CELL.B#DMNODE.B#DMGR, JOBNAME=B#DMGR
```

Login to the ISC

- After the Deployment Manager is up, use your browser to go to <http://wg31:8505/ibm/console>
- Log in with the administrator's UserID ("B#ADMIN")
- Verify that the Deployment Manager has been successfully augmented in the Welcome panel with BPM V8.5:



- Click on “System administration” and under that, set “Console Preferences” to “Synchronize changes with Nodes”, and click on “Apply”.
- Click on “Resources” > “JDBC” > “Data sources” to see the Cell-scope data sources:

<input type="checkbox"/>	BPM CellScopedDB data source	jdbc/WPSDB	Cell=b0cell	DB2 Using IBM JCC Driver	BPM data source
<input type="checkbox"/>	BPM ESBMediationDB data source	jdbc/mediation/messageLog	Cell=b0cell	DB2 Using IBM JCC Driver	BPM data source

6. Create the Empty Node, Augment it with BPM, and Federate it

Run these configuration jobs created by the WCT/zPMT to create the Empty Node(s):

- Logon to TSO and edit the Target dataset for the deployment manager: `USER1.B#CELL.B#EMPTYA.CNTL`
- Submit the following jobs in order, one at a time. Examine each job for a return code of “0” before submitting the next one.
 - BBOMCFS – Create zFS
 - BBOMHFSA – Populate zFS
 - BBOWWPFM – Create Profiles
 - BBOMPROC – Copy Procs
 - BPZAUJN** - augment the empty node's profiles with BPM. (This isn't listed in the BBOMNINS instructions, but must be run to complete the BPM:PS customization for the empty node.)
 - Start the Deployment Manager, if it is not already started, and wait for it to fully start.
 - BBOWMNAN** – Federate Empty Node (**Change UserID & PW on JOB card to B#ADMIN**)

You now have a network deployment cell, with a single node, but no servers have been defined.

7. Create a Cluster Member with the BPZCNFGD job

Once the empty node is federated, you can create a server as a member of the cluster using the same job you used earlier to create the cluster.

- Submit the **BPZCNFGD** job from the `USER1.B#CELL.B#DMNODE.CNTL` dataset.

8. Update Cluster Variables

There are a few more updates needed for the new cluster:

- Use the **B#ADDVAR** member of `USER1.WAS.CNTL` to create four new cell-level environmental variables (`TZ`, `raz_time_local`, `ras_hardcopy_msg_dd`, & `ras_default_msg_dd`)

If there are any problems with the script, or if you want to change anything, this job can be re-run multiple times without problems.

9. Restart the Cluster and backup your Configuration zFSes.

At this point, we need to re-cycle the Deployment Manager and Node Agent to have these changes hardened in the configuration files.

- Stop the B#DEMN address space in SDSF DA panel with the “Y” action character.
- Restart the deployment manager and node agent (and any servers.)

```
START B#DCR, ENV=B#CELL.B#DMNODE.B#DMGR, JOBNAME=B#DMGR
```

```
START B#ACRA, ENV=B#CELL.B#NODEA.B#AGNTA, JOBNAME=B#AGNTA
```

This is a good time to back up your configuration zFS file systems before you create the cluster.

- Edit the **B#ZFSBAK** member in USER1.WAS.CNTL, and make the following changes:
- Change all occurrences of “#” to your team number.
- Change the DUMP dataset name from OMVS.B#CELL.ZFSBAK.AFTERFED.MAY22.T1020AM to Reflect the state of the cell (e.g., AFTERFED) and the Date & Time (e.g, NOV6.T330PM).
- Then submit the job and look for any errors.

10. Validate your Advanced-Only configuration:

- Sign on to the ISC at <http://wg31:8505/ibm/console>
- Navigate to Servers -> Clusters. Select the b#sr01 cluster, and click “Start”.
- Go to the TSO/SDSF Display Active (DA) panel, and watch the server start up with three address spaces:
 - B#SR01A (the controller),
 - B#SR01AA (the adjunct),
 - B#SR01AS (the servant).

- When you start the application servers for the first time after the Database is created, you may see slow startup times caused by a DB2 connection problem. The delay may be up to 12 minutes, but the problem does not occur on future server start-ups.
- Look in each started task and find any error messages. (Ask an instructor if you have questions about the messages.)

Some of these ERRORS YOU CAN IGNORE during start-up, but they should go away when the server is all the way up:

Adjunct: CHFW0030E: Error starting chain _InboundTCPProxyBridgeService because of exception ... when attempting to start the TCPProxyChannel

Servant: SRVE0278E: Error while adding servlet mapping --> /*.

Verify your configuration in the ISC

- Sign on to the ISC and note the new artifacts that have been added after the BPM install and augment. (Applications, Buses, JDBC Data Sources & Drivers)

Are the Applications Successfully Installed?

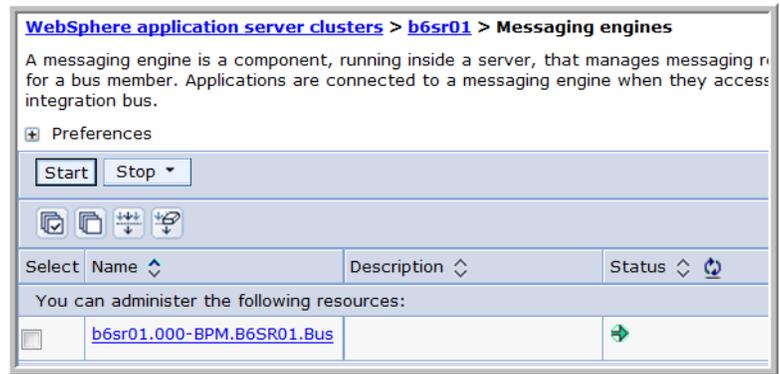
- Look under Applications > Enterprise Applications - There should be 29 applications Installed and Started.

Has the New Bus been Defined and is the Messaging Engines Started?

Logon to the ISC.

- Expand Servers
- Click on clusters > b#sr01
- Click on Messaging Engines (under Cluster Messaging)

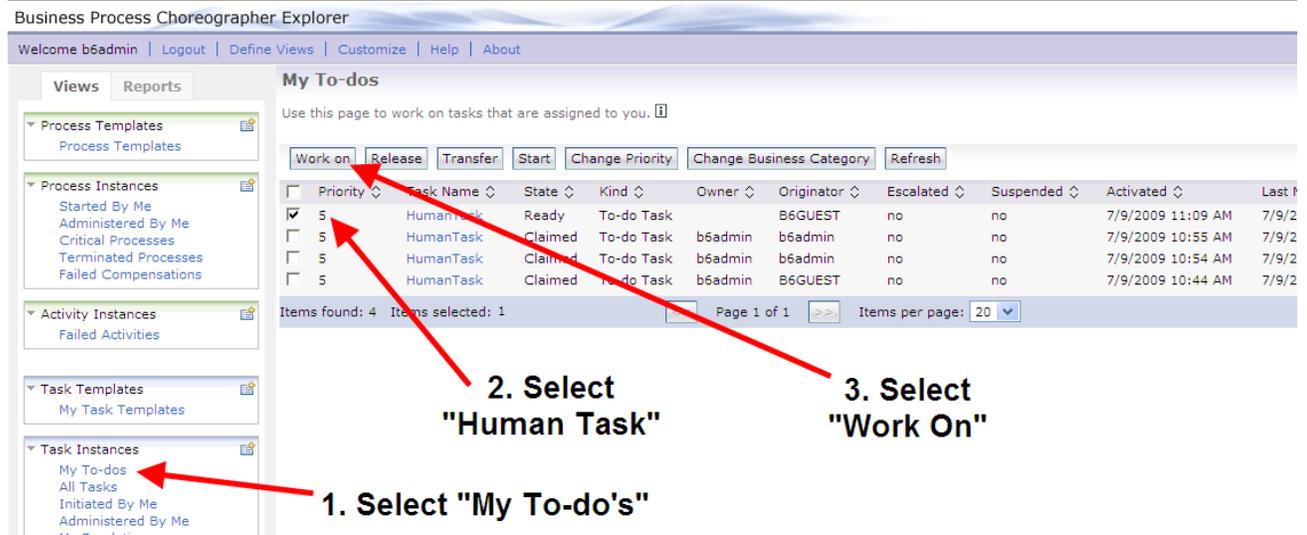
Does the Messaging Engine show a green arrow under the status column?



(If you have any problems, it may help to re-cycle the cell.)

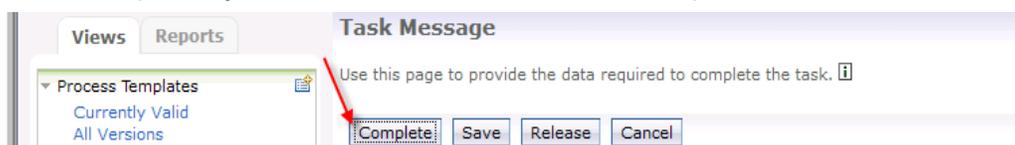
Install and Test a “Long-Running/Macroflow” BPC Application

- Using a web browser, login to the BPC Explorer at <http://wg31:8560/bpc> (Login with the ‘B#WCU’ userID (pw= ‘B#WCU’) You won’t find any tasks there yet, because you haven’t run any “Long-Running” BPC applications.)
- Install the WPSHumanTask.ear (Human Task Application) using the ISC which can be found in the /u/user1/wpswork/ directory. (Take all the defaults.)
- Start the WPSHumanTask application in the ISC.
- Test it by using the url: <http://wg31:8560/WPSHumanTaskWeb>
- Enter a character string and click on “Submit”. The application will respond “WCS Human Task Test Reply”
Request sent to the Process for processing. Check the worklist to complete the process
- Go back to the BPC explorer at: <http://wg31:8560/bpc>



and click “Refresh”

- Select “My To-dos”, then select the work item, and click on “Work on”.
- In the next panel, you can mark this human task “Complete”:



Congratulations! You have finished the first lab exercises.

Backup your Configuration zFSes (again)

- Edit the B#ZFSBAK member in USER1.WAS.CNTL, and change the DUMP dataset to something meaningful, such as **OMVS.B#CELL.ZFSBAK.AFTERIVT.FEB26.T345PM.**
- Then submit the job and look for any errors.

Appendix

Here are some optional tools and techniques you might find useful:

Verify the Database Tables were created successfully

- Open up a new Personal Communications window, and logon as **sysadm1** (pw='sysadm1') – The logon command should be: **db21010**
- Go to ISPF option '6' (TSO command) and type: **ADBL**
- Select '1' (DB2 Catalog), then 'D' (Databases), and you will see the Databases defined.
- Type 'b#' under the name column, and you should see the following databases :

Select	Name	Owner	Storage Group	Buffer Pool	Created DBID	By	Index T E	BPool
	B#	*	*	*	*	*	*	*
	B#CELLDB	SYSADM1	B#DBSTO	BP1	308	SYSADM1	U	BP2
	B#SR01	SYSADM1	B#DBSTO	BP1	312	SYSADM1	U	BP2

- Type 'T' (under the Select column) next to the B#SR01 Database. You should see **368 Tables** defined for that Database (819 Tables for Advanced)

DB2 Admin ----- DSNX Tables, Views, and Aliases ----- Row 1 of 368

Sel	Name	Schema	T	DB Name	TS Name	Cols
	AUDIT_LOG_T	B#SR01	T	B#SR01	AUDIT01	36
	TASK_AUDIT_LOG_T	B#SR01	T	B#SR01	AUDIT02	34

- You can now log off the sysadm1's TSO session.

Update BPXPRMZD

- Add the following statements to SYSS.PARMLIB(BPXPRMZD) so your configuration zFS file-systems will be re-mounted in case of an IPL of z/OS:

```
MOUNT FILESYSTEM('OMVS.B#CELL.ZFS')
MOUNTPOINT('/wasv85config/b#cell')
TYPE(ZFS) MODE(RDWR) PARM('AGGRGROW')
MOUNT FILESYSTEM('OMVS.B#CELL.B#DMNODE.CONFIG.ZFS')
MOUNTPOINT('/wasv85config/b#cell/b#dmnode')
TYPE(ZFS) MODE(RDWR) PARM('AGGRGROW')
MOUNT FILESYSTEM('OMVS.B#CELL.B#NODEA.CONFIG.ZFS')
MOUNTPOINT('/wasv85config/b#cell/b#nodea')
TYPE(ZFS) MODE(RDWR) PARM('AGGRGROW')
```

Installing the WCT and PMT plug-in extensions for IBM BPM:PS

The Profile Management Tool is part of the WebSphere Customization Toolbox (WCT). The IBM Installation Manager (IM) is required to install the WCT. The IBM Installation Manager (v1.6.2) is available from <http://www-01.ibm.com/support/docview.wss?uid=swg24032641>

We have already installed the WebSphere Customization Toolbox Version 8 from the WCT repository at <http://www.ibm.com/software/repositorymanager/com.ibm.websphere.WCT.v85>

(Open up IM and click on File --> Preferences --> Repositories and then paste the above link.)

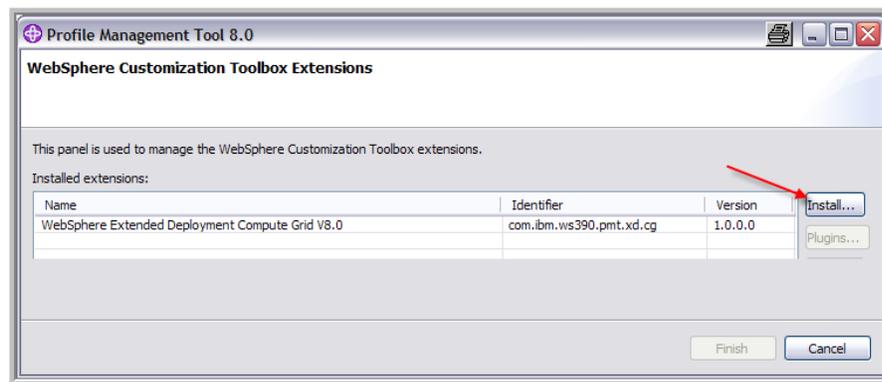
Note: You will need to register for an IBM ID to download the WCT installation packages.

You will need the following plug-in in the WCT from the Product HFS file-systems:

- IBM BPM extension {smpe_install_root}/util/WCT/zWBI.wct

The 'smpe_install_root' directory on our system is
/shared/zWebSphere/V8R55BASEBPM850

- Launch the Profile Management Tool (PMT) by clicking on “WebSphere Customization Toolbox” on your workstation under **Programs > IBM WebSphere > WebSphere Customization Toolbox**.
- Install the plug-ins by clicking on “Help” then “Software Updates” then “Manage Extensions”. You will see this screen where you can click on “Install”:



- Click “Browse” to navigate to the C:\wpswork\plugins\ directory, select the zWBI.wct file and click “Open”:
- Click “Next”, “Next”, “Finish”, “Finish” and then “OK” and the WebSphere Customization Toolbox will be automatically restarted for you.