



IBM Software Group

WebSphere® Process Server for z/OS® V6.0.1 WebSphere Enterprise Service Bus for z/OS V6.0.1

Configuration Troubleshooting



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This presentation will look at some troubleshooting techniques that can be used when problems arise in the configuration of WebSphere Process Server for z/OS V6.0.1 or WebSphere Enterprise Service Bus for z/OS V6.0.1.

Goals

- Troubleshoot errors encountered when configuring WebSphere Process Server for z/OS V6.0.1 and WebSphere Enterprise Service Bus for z/OS V6.0.1



The goal of this presentation is to show you how to determine the cause of errors when trying to configure WebSphere Process Server for z/OS or WebSphere Enterprise Service Bus for z/OS.

Section

Troubleshooting



This presentation will look at basic troubleshooting techniques when configuring WebSphere Process Server for z/OS V6.0.1 or WebSphere Enterprise Service Bus for z/OS V6.0.1.

Troubleshooting

ASCII files

▪ zSMPInstall.sh -install logs

▶ Found in <WAS_HOME>/logs/wbi directory

```

90SConfigNoProfileFirstStepsESB.ant.log
90SConfigNoProfileFirstStepsWBI.ant.log
90SConfigWBIMigrationScript.ant.log
90SConfigureWSProfileForWBI.ant.log
90SInstallCEI.ant.log
90SUpdateJavaOptions.ant.log
91SConfigNoProfileFirstStepsCharset.ant.log
98SDeployBPCAdminConsolePlugins.ant.log
98SDeployServerAdminConsolePlugins.ant.log
99SDeployCoreAdminConsolePlugins.ant.log
cmtInstall.log
cmtInstall.log.lck
zSMPInstall.log
zSMPInstall.trace

```

Logs from
.ant tasks
called by the
Configuration
Manager task

Configuration Manager task log



When you run the zSMPInstall.sh script, many log files are written to your <WAS_HOME>/logs/wbi directory. The zSMPInstall.log and zSMPInstall.trace files are pretty basic but if you turn traces on during execution, the trace file might prove interesting. As you saw in the installation overview, zSMPInstall calls the Configuration Manager which is responsible for calling many .ant scripts to configure the server. The cmtInstall.log file is a record of the Configuration Manager's progress and then each of the .ant scripts writes its own detailed log of its progress. These logs are shown here. How to determine a .ant script problem is on the next slide.

Troubleshooting

▪ `cmtInstall.log` (ASCII file)

- ▶ Look here if error occurred during execution of the Configuration Manager Task
- ▶ Find 'SEVERE' to determine error
- ▶ Find 'Buildfile' **previous** to discover what .ant task was running when the failure occurred
- ▶ Look in corresponding .ant.log file for more information

See example with `zWPSConfig.sh`



If the `zSMPInstall.sh` script has ended with an error during configuration manager processing, you can look in the `cmtInstall.log` for a record indicating 'SEVERE'. From that point, if you look for the last 'Buildfile' occurrence before the SEVERE record, you will find what .ant task was running when the failure occurred. It is possible that the SEVERE record will give you enough information to see what went wrong but if not, you can look in the corresponding .ant log file to get more detailed information on the error that occurred. There is an example of this process on the slide that covers the `zWPSConfig.sh` script logs. The same basic technique is used there.

Keep in mind that all these log files are encoded in ASCII so you will either need to look at them from a Windows® machine or use an editor like `viascii`.

Troubleshooting

▪ zWPS/WESBConfig.sh -augment logs

- ▶ <WAS_HOME>/logs directory
 - events_install_msg.log
 - events_install_trc.log
 - wasprofile
 - wbi

- ▶ <WAS_HOME>/logs/wbi directory
 - c2n.log
 - zWPSConfig.log
 - zWPSConfig.trace

- ▶ <WAS_HOME>/logs/wasprofile directory
 - wasprofile_augment_default.log



Logs from the zWPSConfig.sh and zWESBConfig.sh scripts are found in a few different directories. To start, you will find messages from the installation of the Common Event Infrastructure in the <WAS_HOME>/logs directory. If you move down to the /wbi directory, you will find the zWPSConfig.log and .trace files (or zWESBConfig). Like the equivalent zSMPInstall logs, these are pretty basic and the more interesting one usually turns out to be the one found in the /wasprofile directory, the wasprofile_augment_default.log.

Troubleshooting

- **zWPS/WESBConfig.sh -augment logs**

- ▶ **<WAS_HOME>/profiles/default/logs directory**

```
addDmgrSharedESBWebUIFeatures.ant.log
bpcaugment.log
cbebrowser_config.log
configAppSchedulerDBTables.ant.log
configCei.ant.log
configCopy.ant.log
configCopyESB.ant.log
configDatabase.ant.log
configDmgrRecovery.ant.log
configDmgrSCA.ant.log
configDynamicArtifactRepository.ant.log
configFirstStepsESBDmgr.ant.log
configFirstStepsWBIDmgr.ant.log
configMediation.ant.log
configObjects.log
configRelationship.ant.log
copyWpsAugmentFile.ant.log
createESBServerTemplate.ant.log
createProcessServerTemplate.ant.log
.
.
.
```

The augmentation makes use of lots of .ant tasks to perform the augmentation and each one of those .ant tasks writes its own log file to the /logs directory in the <WAS_HOME>/profiles/default directory. Some of the logs are shown on this slide but it is only a partial listing.

Troubleshooting

- **Standard Output** directs you to `<WAS_HOME>/logs/wasprofile/wasprofile_augment_default.log` on failure:

```
INSTCONFFAILED: Profile augmentation failed. For more information, consult
/etc/clicell/AppServerNode1/logs/wasprofile/
wasprofile_augment_default.log.
```

- **wasprofile_augment_default.log – find ‘SEVERE’**

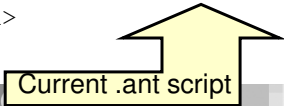
```
<record>
  <date>2006-05-31T21:38:41</date>
  <millis>1149125921764</millis>
  <sequence>6445</sequence>
  <logger>com.ibm.ws.install.configmanager.actionengine.ant.utils.
  ANTLogToCmtLogAdapter</logger>
  <level>SEVERE</level>
  <class>com.ibm.ws.install.configmanager.actionengine.ant.utils.A
  NTLogToCmtLogAdapter</class>
  <method>messageLogged</method>
  <thread>10</thread>
  <message>Execute failed: java.io.IOException: db2: not
  found</message>
</record>
```

Now that we've seen where all the log files reside, let's look at an actual error and see an example of looking for the problem. The Standard Output from the execution of the shell script directs you to the `wasprofile_augment_default.log`, as shown here. If you look into that log file, you will see many records that detail the execution of the augmentation (or in the case of the `cmtInstall.log` during `zSMPInstall.sh` processing, the configuration manager). In order to find where you hit a problem, you will do a search for 'SEVERE' as you saw earlier. This slide shows an actual example of what a record might look like when an error was recorded. In this example, you can see right away what the error is and probably don't need to go any further. Often though, you will need to find the `.ant` script that was executing so that you can go look there.

Troubleshooting

- **wasprofile_augment_default.log – find ‘Buildfile’ PREV**

```
<record>
  <date>2006-05-31T21:25:24</date>
  <millis>1149125124699</millis>
  <sequence>5484</sequence>
  <logger>com.ibm.ws.install.configmanager.actionengine.ant
    .utils.InProcessAntRunner</logger>
  <level>INFO</level>
  <class>com.ibm.ws.install.configmanager.actionengine.ant.
    utils.InProcessAntRunner</class>
  <method>logOutputMessage</method>
  <thread>10</thread>
  <message>Buildfile:
    /etc/c11cell/AppServerNode1/profileTemplates/default.wbic
    ore/actions/configCei.ant</message>
</record>
```



Current .ant script

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Configuration Troubleshooting

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In order to do that, you want to find the last ‘Buildfile’ occurrence before the SEVERE record. In this example, you see that the configCEI.ant script was running when the SEVERE error occurred. You can now go look in the configCEI.ant script’s log to get further information.

Troubleshooting

- **<WAS_HOME>/profiles/default/logs/
configCei.ant.log**

```
BUILD FAILED
```

```
file:/etc/cl1cell/AppServerNode1/dbant/antDBUtility.a  
nt:325: com.ibm.db2.jcc.t2zos.y:  
[IBM/DB2][T2zos/2.7.72]T2zosConnection.flowCon  
nect:DB2AttachInterface:initRRSAFAttach:1064:RRS  
Identify failed,Return Code=8, Reason  
Code=X00F30002,Subsystem ID:DSN8,Plan Name:,P  
klist:NULLID.*
```

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Configuration Troubleshooting

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Looking at the configCei.ant.log, you see some more specific information about the error that was encountered that you can investigate if need be.

The names of the logs are pretty self-explanatory but if it does not seem obvious which log to look into, a record in the **wasprofile_augment_default.log** will point you to the log that was in use at the time of the .ant script's execution.

Troubleshooting

- Collect various log files to debug
 - ▶ `<WAS_HOME>/logs`
`jar -cf logs.jar <WAS_HOME>/logs/*`
 - ▶ `<WAS_HOME>/profiles/default/logs`
`jar -cf profileLogs.jar <WAS_HOME>/profiles/default/logs/*`

- Unzip them on workstation to analyze



Most of the logs that are written by the configuration process have an ASCII encoding. If you don't have a good way to look at them on the z/OS system, it is possible to ftp them down to a workstation in binary and look at them there. This slide shows a way to .jar up all the logs easily so that they can be unzipped on your workstation and analyzed there instead. This is also a good set of information to provide the service team when opening a PMR.

Summary

- Troubleshooting involves looking at a variety of log files that are written during installation and augmentation.
 - ▶ This presentation gave you a methodology to find your problem quickly.

In summary, there are many logs written to record the process of the configuration. This presentation showed you how to wade through them to hopefully get to the bottom of your problem.

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