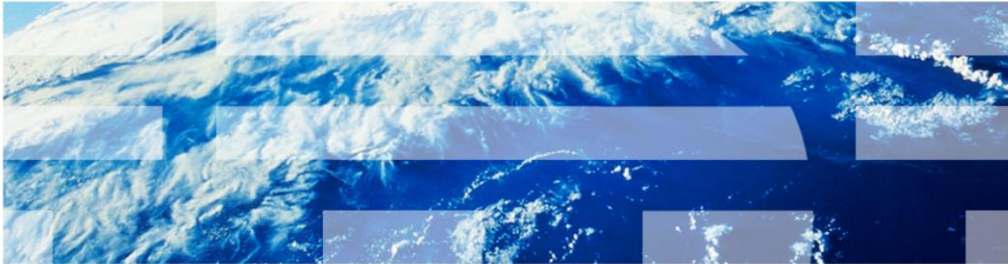


IBM Tivoli Composite Application Manager for J2EE V6.1

Manually configuring a managed WebLogic server V10.3



IBM Tivoli® Composite Application Manager for J2EE V6.1, Manually configuring a managed WebLogic server version 10.3.

Assumptions

Before you proceed, you must have these skills and knowledge:

- Basic skills for WebLogic Application Server and its directory structure
- A WebLogic server that runs with a JRockit Java virtual machine
- Knowledge of the ITCAM Data Collector GUI configuration tool
- Ability to configure the administrative instance by using the ITCAM Data Collector GUI configuration tool
- Knowledge of Windows or Linux/UNIX operating system

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Objectives

When you complete this module, you can configure a data collector for any managed instance of a WebLogic Application Server without running the standard ITCAM configuration tool

When you complete this module, you should be able to configure a data collector for any managed instance of a WebLogic Application Server manually. For example, you can configure the data collector without running the standard ITCAM configuration tool.

Initial state

All the WebLogic scripts and the **config.xml** file must be the original versions or ones that are not modified by ITCAM

- The administrative instance is not modified
The example in this training module is **AdminServer**, which is not configured by ITCAM initially
- No managed server is configured by ITCAM
The example in this training module is **managedserver1**

You must start from a clean state. For example, the administrative instance must not be initially configured by ITCAM. In this module, the instance is named **AdminServer**. Also, ensure that no managed server is configured by ITCAM. The server in this module is named **managedserver1**.

Step 1: Configuring the administrative server

- Start the AdminServer by using the script, **<DOMAIN>\bin\startWebLogic.cmd**
- Use one of these two options to configure the ITCAM Data Collector on the AdminServer:
 - Use the standard GUI tool **<DCHOME>\installer\config_dc\config_dc.bat**
If completed successfully, stop the AdminServer and proceed with step two
 - Use this Technote:
<http://www-01.ibm.com/support/docview.wss?uid=swg21644023>

Start the AdminServer by using the script `startWebLogic.cmd`. Try to configure AdminServer with ITCAM by using the standard script **`config_dc.bat`**. If the script completes successfully, stop the AdminServer and proceed with step two on the next slide. If the standard script does not complete successfully, stop the AdminServer and use the technote to manually create its ITCAM runtime directory. The address of the technote is listed on the slide. A template runtime directory is provided in the technote. Afterward, you can proceed to the next step.

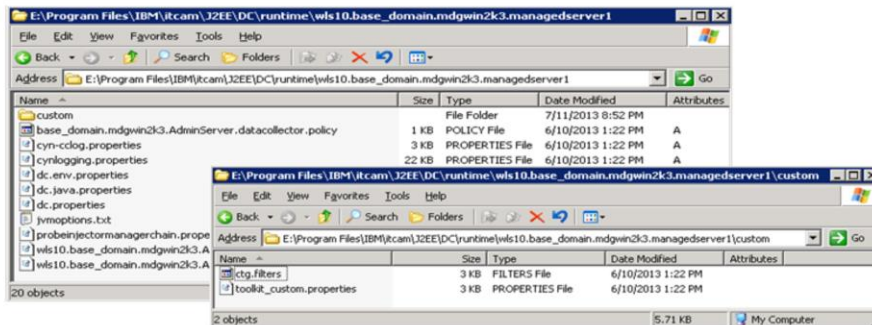
Step 2: Verifying the result

Important: Do not start the AdminServer

Look at the AdminServer runtime directory

Example: <DCHOME>\runtime\wls10.base_domain.myhostname.AdminServer\

The initial contents of that directory are like the 10 files that are shown in this screen capture, plus a *custom* subdirectory with two files



6

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Do not start the AdminServer yet. First, verify the current files of your AdminServer runtime directory. In this example, the AdminServer runtime directory is <DCHOME>\runtime\wls10.base_domain.myhostname.AdminServer\. The initial listing of that directory looks like the 10 files in the screen capture, plus a custom subdirectory that contains two more files, for a total of 12 files.

Step 3: Creating a run time for the managed server

- You can use the runtime directory created in step two as a template for your future runtime directories. For example, you can compress it and back it up now
- Duplicate this directory in the same location and rename it by replacing **AdminServer** with **managedserver1**

Example of final directory name and location:

<DCHOME>\runtime\wls10.base_domain.myhostname.managedserver1\

Now, back up the directory that is created in step two as a template. You can use this directory for your future runtime configurations. For example, you can archive it and back it up for future needs. Duplicate this directory in the same location and rename it by replacing AdminServer with managedserver1. An example of a final directory name and location is <DCHOME>\runtime\wls10.base_domain.myhostname.managedserver1.

Step 4: Customizing the runtime directory

- Go to the new **managedserver1** runtime directory and rename these three files by replacing **AdminServer** with **managedserver1**:
base_domain.myhostname.AdminServer.datacollector.policy
wls10.base_domain.myhostname.AdminServer.datacollector.properties
wls10.base_domain.myhostname.AdminServer.kwjdc.properties
- Edit the contents of these six files by replacing all the internal occurrences of **AdminServer** with **managedserver1**:
cyn-cclog.properties
dc.java.properties
probeinjectormanagerchain.properties
jvmoptions.txt
wls10.base_domain.myhostname.managedserver1.kwjdc.properties
dc.properties
- For the file, **dc.properties**, edit the value of **JMX_PORT** used by the managedserver1
Example: 7003

In this step, you work on the newly created runtime directory to adapt it for a managed server. Go to the new **managedserver1** runtime directory and rename the only three files whose names contain the string **AdminServer**, by replacing AdminServer with managedserver1. Now, you must edit the contents of six files, the ones that are listed in this slide. Replace all the internal occurrences of AdminServer with managedserver1. Finally, update the file **dc.properties** with the JMX_PORT value that is used by your managed server.

Step 5: Customizing the startup script

- Go to the <DOMAIN>/bin directory and open the script **startWebLogic.cmd** for editing
- Look for the ITCAM section that is delimited by these two lines:

```
@REM AdminServer*****DC for Weblogic support—begin*****
...
@REM AdminServer*****DC for Weblogic support--end*****
```

- Duplicate the previous section by replacing all the occurrences of **AdminServer** with **managedserver1**
- Append the new, duplicated section after the first one and just before the line **@REM START WEBLOGIC**

Example of final layout:

```
@REM AdminServer*****DC for Weblogic support—begin*****
...
@REM AdminServer*****DC for Weblogic support--end*****

@REM managedserver1*****DC for Weblogic support—begin*****
...
@REM managedserver1*****DC for Weblogic support--end*****

@REM START WEBLOGIC
...
```

In this step, you customize the startup script. Identify the ITCAM section for the AdminServer. It is located just before the line **@REM START WEBLOGIC**. You can now duplicate it by appending the new, duplicated section after the original one and replacing all the occurrences of AdminServer with managedserver1.

Startup script: Example of ITCAM section for AdminServer

```
@REM AdminServer*****DC for Weblogic support--begin*****
IF NOT DEFINED SERVER_NAME GOTO _END_AdminServer
IF "%SERVER_NAME%" == "AdminServer" GOTO BEGIN_AdminServer
IF %SERVER_NAME% == "AdminServer" GOTO BEGIN_AdminServer
GOTO _END_AdminServer
:BEGIN_AdminServer
@rem 1)
set AM_HOME=E:\PROGRA~1\IBM\itcam\J2EE\DC\itcamdc
set TOOLKIT_HOME=E:\PROGRA~1\IBM\itcam\J2EE\DC\toolkit
set PATH=E:\PROGRA~1\IBM\itcam\J2EE\DC\toolkit\lib\w32-ix86;%PATH%
set CCLOG_COMMON_DIR=C:\PROGRA~1\ibm\tivoli\common

@rem 2) set toolkit and shared dc runtime configuration
set JAVA_OPTIONS= "-Xbootclasspath/p:%TOOLKIT_HOME%\lib\bcm-bootstrap.jar;%AM_HOME%\lib\ppe.probe-
bootstrap.jar;%AM_HOME%\lib\ext\wls\weblogicBcm.jar" "-
agentlib:am_bea_16=E:\PROGRA~1\IBM\itcam\J2EE\DC\runtime\wls10.base_domain.mdgwin2k3.AdminServer\dc.env.properties" -
verbosegc -Xverboselog:"E:\PROGRA~1\IBM\itcam\J2EE\DC\wls10-gc-log.log.AdminServer.base_domain" %JAVA_OPTIONS%

:_END_AdminServer
@REM AdminServer*****DC for Weblogic support--end *****
```

Here is an example of an ITCAM section for an AdminServer that you have to duplicate and customize for managedserver1, as explained in the previous slide.

STEP 6: Customizing config.xml and starting the instances

- Add the string `,managedserver1` in `<DOMAIN>/config/config.xml` as follows:

```
<shutdown-class>
  <name>AM Shutdown</name>
  <notes>ITCAM Shutdown service</notes>
  <target>AdminServer,managedserver1</target>
  <class-name>com.ibm.tivoli.itcam.wls.sdc.DCShutdown</class-name>
</shutdown-class>

<startup-class>
  <name>AM Startup</name>
  <notes>ITCAM Startup service</notes>
  <target>AdminServer,managedserver1</target>
  <class-name>com.ibm.tivoli.itcam.wls.sdc.DCStartup</class-name>
</startup-class>
```

- Start the AdminServer by issuing this script:
`<DOMAIN>/bin/startWebLogic.cmd`
- Start the managedserver1 by issuing this script:
`<DOMAIN>/bin/startManagedWebLogic.cmd managedserver1`

In the last step, edit the config.xml file by ensuring that AdminServer and managedserver1 are listed in both AM Shutdown and AM Startup stanzas. You can start the AdminServer by using the startWebLogic.cmd script. You can start managedserver1 by using the script startManagedWebLogic.cmd with the option **managedserver1**.

Summary

Now that you completed this module, you can configure a data collector for any managed instance of a WebLogic Application Server without running the standard ITCAM configuration tool

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