

運用 WebLogic Server WLST 自動佈署應用程式

WLST(WebLogic Scripting Tool)

首先，可能有人會很好奇要問，什麼是 WLST?它能夠為 WebLogic 管理者提供什麼樣的功能應用? 管理者又該如何使用 WLST?以下將提供您對 WLST 初步的認識與基本功能應用介紹(自動佈署應用程式)。

簡單來說，WLST 是 WebLogic 所提供的一個命令列腳本執行環境(command-line scripting)，管理者可利用它來自動化一般性的系統管理工作，例如:建立 WebLogic Domain，佈署相關應用程式，監看 Server 相關狀態屬性；您也可把它當作 WebLogic Administrator Console 的替代選擇(WLST Online mode)，尤其是當圖形化管理介面無法使用時。

運用 WLST 自動佈署應用程式

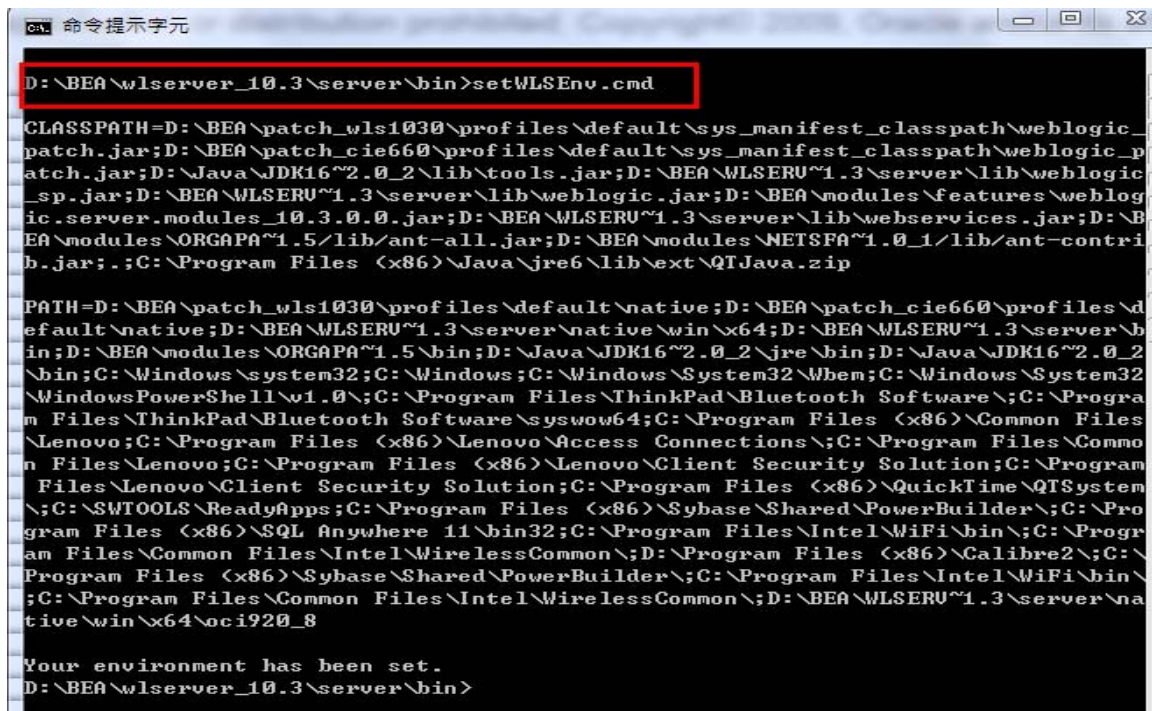
- ◆ 設定 WLST 執行環境
- ◆ 啟動 WLST，執行佈署
 - 批次式指令自動佈署(Batch)

設定 WLST 執行環境(Windows)

執行下列路徑相關環境設定檔

`%WL_HOME%\server\bin\setWLSEnv.cmd` (Windows)

`${WL_HOME}/server/bin/setWLSEnv.sh` (Linux)



```
cmd 命令提示字元
D:\BEA\wlserver_10.3\server\bin>setWLSEnv.cmd

CLASSPATH=D:\BEA\patch_wls1030\profiles\default\sys_manifest_classpath\weblogic_patch.jar;D:\BEA\patch_cie660\profiles\default\sys_manifest_classpath\weblogic_patch.jar;D:\Java\JDK16~2.0_2\lib\tools.jar;D:\BEA\WLSEU~1.3\server\lib\weblogic_sp.jar;D:\BEA\WLSEU~1.3\server\lib\weblogic.jar;D:\BEA\modules\features\weblogic.server.modules_10.3.0.0.jar;D:\BEA\WLSEU~1.3\server\lib\webservices.jar;D:\BEA\modules\ORGAPA~1.5\lib\ant-all.jar;D:\BEA\modules\NETSPA~1.0_1\lib\ant-contrib.jar;.;C:\Program Files (x86)\Java\jre6\lib\ext\QTJava.zip

PATH=D:\BEA\patch_wls1030\profiles\default\native;D:\BEA\patch_cie660\profiles\default\native;D:\BEA\WLSEU~1.3\server\native\win\x64;D:\BEA\WLSEU~1.3\server\bin;D:\BEA\modules\ORGAPA~1.5\bin;D:\Java\JDK16~2.0_2\jre\bin;D:\Java\JDK16~2.0_2\bin;C:\Windows\system32;C:\Windows;C:\Windows\System32\Wbem;C:\Windows\System32\WindowsPowerShell\v1.0\;C:\Program Files\ThinkPad\Bluetooth Software\;C:\Program Files\ThinkPad\Bluetooth Software\syswow64;C:\Program Files (x86)\Common Files\Lenovo;C:\Program Files (x86)\Lenovo\Access Connections\;C:\Program Files\Commo n Files\Lenovo;C:\Program Files (x86)\Lenovo\Client Security Solution;C:\Program Files\Lenovo\Client Security Solution;C:\Program Files (x86)\QuickTime\QTSystem\;C:\SWTOOLS\ReadyApps;C:\Program Files (x86)\Sybase\Shared\PowerBuilder\;C:\Program Files (x86)\SQL Anywhere 11\bin32;C:\Program Files\Intel\WiFi\bin\;C:\Program Files\Common Files\Intel\WirelessCommon\;D:\Program Files (x86)\Calibre2\;C:\Program Files (x86)\Sybase\Shared\PowerBuilder\;C:\Program Files\Intel\WiFi\bin\;C:\Program Files\Common Files\Intel\WirelessCommon\;D:\BEA\WLSEU~1.3\server\native\win\x64\oci920_8

Your environment has been set.
D:\BEA\wlserver_10.3\server\bin>
```

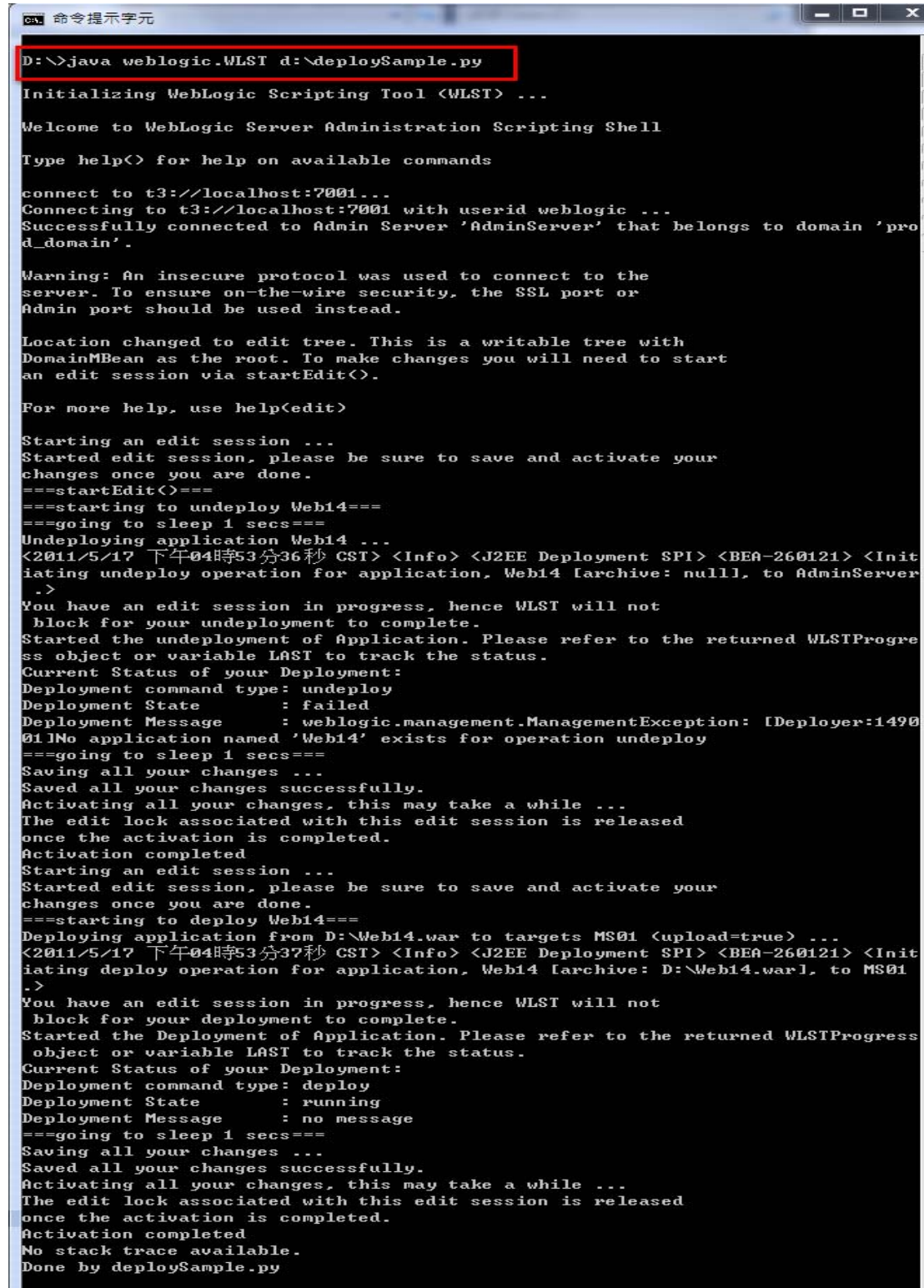
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批次式指令自動佈署(Batch) (Windows)

執行預先定義好的批次指令腳本檔(.py)

[java weblogic.WLST \[script.py\]](#)



```
命令提示字元
D:\>java weblogic.WLST d:\deploySample.py
Initializing WebLogic Scripting Tool <WLST> ...
Welcome to WebLogic Server Administration Scripting Shell
Type help(<) for help on available commands
connect to t3://localhost:7001...
Connecting to t3://localhost:7001 with userid weblogic ...
Successfully connected to Admin Server 'AdminServer' that belongs to domain 'prod_domain'.
Warning: An insecure protocol was used to connect to the
server. To ensure on-the-wire security, the SSL port or
Admin port should be used instead.
Location changed to edit tree. This is a writable tree with
DomainMBean as the root. To make changes you will need to start
an edit session via startEdit(<).
For more help, use help(edit)
Starting an edit session ...
Started edit session, please be sure to save and activate your
changes once you are done.
===startEdit()===
===starting to undeploy Web14===
===going to sleep 1 secs===
Undeploying application Web14 ...
<2011/5/17 下午04時53分36秒 CST> <Info> <J2EE Deployment SPI> <BEA-260121> <Init
iating undeploy operation for application, Web14 [archive: null], to AdminServer
.>
You have an edit session in progress, hence WLST will not
block for your undeployment to complete.
Started the undeployment of Application. Please refer to the returned WLSTProgre
ss object or variable LAST to track the status.
Current Status of your Deployment:
Deployment command type: undeploy
Deployment State      : failed
Deployment Message    : weblogic.management.ManagementException: [Deployer:1490
01]No application named 'Web14' exists for operation undeploy
===going to sleep 1 secs===
Saving all your changes ...
Saved all your changes successfully.
Activating all your changes, this may take a while ...
The edit lock associated with this edit session is released
once the activation is completed.
Activation completed
Starting an edit session ...
Started edit session, please be sure to save and activate your
changes once you are done.
===starting to deploy Web14===
Deploying application from D:\Web14.war to targets MS01 <upload=true> ...
<2011/5/17 下午04時53分37秒 CST> <Info> <J2EE Deployment SPI> <BEA-260121> <Init
iating deploy operation for application, Web14 [archive: D:\Web14.war], to MS01
.>
You have an edit session in progress, hence WLST will not
block for your deployment to complete.
Started the Deployment of Application. Please refer to the returned WLSTProgress
object or variable LAST to track the status.
Current Status of your Deployment:
Deployment command type: deploy
Deployment State      : running
Deployment Message    : no message
===going to sleep 1 secs===
Saving all your changes ...
Saved all your changes successfully.
Activating all your changes, this may take a while ...
The edit lock associated with this edit session is released
once the activation is completed.
Activation completed
No stack trace available.
Done by deploySample.py
```

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Welcome, weblogic | Connected to: prod_domain | Home | Log Out | Preferences | Record | Help | Search

Home >MS01 >Summary of Deployments >Summary of Servers >MS01 >Summary of Deployments >Summary of Servers >MS01 >Summary of Deployments >Summary of Servers >MS01

Settings for MS01

Configuration | Protocols | Logging | Debug | Monitoring | Control | **Deployments** | Services | Security | Notes

This page summarizes the J2EE Enterprise applications, stand-alone J2EE modules (such as EJBs and Web applications), JMS/JDBC configuration modules, and J2EE libraries that have been deployed to the current server.

To install a new application or module, select **Deployments** in the left pane of the Administration Console. To configure an existing application or module, click on its name in the table.

Applications and Modules Deployed to this Server

Name	State	Type	Deployment Order
Web14	Active	Web Application	100

Showing 1 to 1 of 1 Previous | Next

附錄 A 常用 WLST Commands Examples

Command	Description	Syntax
connect	Connects to a server instance (online mode)	connect('weblogic','weblogic','t3://localhost:7011')
disconnect	Disconnects from a server instance (online mode)	disconnect()
exit	Exits WLST (online mode)	exit()
readDomain	Opens an existing domain for updating (offline mode)	readDomain('c:/bea/user_projects/domains/onlinestore')
updateDomain	Updates and saves the current domain (offline mode)	updateDomain()
start	Starts a manager server instance or a cluster (online mode)	start('mycluster', 'Cluster')
suspend	Suspends a running server (online mode)	suspend('mainserver')
shutdown	Gracefully shuts down a WLS instance or a cluster (online mode)	shutdown('myCluster', 'Cluster')
startServer	Starts the Administration Server (offline mode)	startServer('adminserver','human resources','t3://localhost:7011')
resume	Resumes a server that is in the ADMIN state (online mode)	resume('mainserver')
help	Get help for a given WLST command	help() help('deployment')

附錄 B PY File Deployment Example

```
admin_url="t3://localhost:7001"
target_server="MS01"
print 'connect to '+ admin_url +'...'
connect("weblogic","weblogic",admin_url)

webapps = { 'Web14':'D:/Web14.war' }
edit()

for name, path in webapps.items():
    try:
        #start to edit and get edit lock
        while cmgr.editor == 1:
            print '===going to sleep 1 secs===

        startEdit()
        print '===starting to deploy ' + name + '===
        p1=deploy(name , path ,targets=target_server,stageMode='stage',upload='true',block='true')
        p1.printStatus()
        print '===going to sleep 1 secs===

        save()
        activate(block='true')
    except Exception:
        print Exception
        cancelEdit('y')
        pass

dumpStack()
print 'Done by deploySample1.py'
exit()
```

指令說明

connect("weblogic","weblogic",admin_url)

說明:連結 **WebLogic Admin Server**

p1=deploy(name , path ,targets=target_server,stageMode='stage',upload='true',block='true')

說明:Deploy war File to Manager Server

save()

說明:Save Configuration

activate(block='true')

說明:Activate Configuration

參考資料連結

http://download.oracle.com/docs/cd/E12840_01/wls/docs103/config_scripting/using_WLST.html

<http://webservice.bea.com/examplesWebApp/docs/core/index.html>