



Composite Data Virtualization

Composite PS Promotion and Deployment Tool Server Module User Guide

Composite Professional Services

November 2014

TABLE OF CONTENTS

INTRODUCTION	4
License	4
Purpose	4
Audience	4
SERVER MANAGER MODULE DEFINITION	5
Method Definitions and Signatures	5
SERVER MANAGER MODULE XML CONFIGURATION	
Description of the Module XML	6
HOW TO EXECUTE	7
Script Execution	7
Ant Execution	9
Module ID Usage	10
EXAMPLES	11
EXCEPTIONS AND MESSAGES	12
CONCLUSION	13
Concluding Remarks	13
How you can help!	

DOCUMENT CONTROL

Version History

Version	Date	Author	Description
1.0	8/11/2011	Gordon Rose	Initial revision for Server Manager Module User Guide
3.0	8/21/2013	Mike Tinius	Updated docs to Cisco format.
3.1	2/18/2014	Mike Tinius	Prepare docs for open source.
3.2	11/17/2014	Mike Tinius	Update license.

Related Documents

Document	File Name	Author
Composite PS Promotion and Deployment Tool User's Guide v1.0	Composite PS Promotion and Deployment Tool User's Guide v1.0.pdf	Mike Tinius

Composite Products Referenced

Composite Product Name	Version
Composite Information Server	5.1, 5.2, 6.0, 6.1, 6.2

INTRODUCTION

License

(c) 2014 Cisco and/or its affiliates. All rights reserved.

This software is released under the Eclipse Public License. The details can be found in the file LICENSE. Any dependent libraries supplied by third parties are provided under their own open source licenses as described in their own LICENSE files, generally named .LICENSE.txt. The libraries supplied by Cisco as part of the Composite Information Server/Cisco Data Virtualization Server, particularly csadmin-XXXX.jar, csarchive-XXXX.jar, csbase-XXXX.jar, csclient-XXXX.jar, cscommon-XXXX.jar, csext-XXXX.jar, csjdbc-XXXX.jar, csserverutil-XXXX.jar, csserver-XXXX.jar, cswebapi-XXXX.jar, and customproc-XXXX.jar (where -XXXX is an optional version number) are provided as a convenience, but are covered under the licensing for the Composite Information Server/Cisco Data Virtualization Server. They cannot be used in any way except through a valid license for that product.

This software is released AS-IS!. Support for this software is not covered by standard maintenance agreements with Cisco. Any support for this software by Cisco would be covered by paid consulting agreements, and would be billable work.

Purpose

The purpose of the Server Manager Module User Guide is to demonstrate how to effectively use the Server Manager Module and execute actions. The Server Manager Module performs the tasks of starting, stopping and restarting CIS.

Audience

This document is intended to provide guidance for the following users:

- Administrators.
- Operations personnel.

SERVER MANAGER MODULE DEFINITION

Method Definitions and Signatures

1. startServer

startServer communicates over the network with an instance of the CIS monitor process to remotely start CIS.

```
@param serverId target server id from servers config xml
@param pathToServersXML path to the server values xml
@throws CompositeException
public void startServer(String serverId, String pathToServersXML)
throws CompositeException;
```

2. stopServer

stopServer communicates over the network with an instance of the CIS monitor process to remotely start CIS.

```
@param serverId target server id from servers config xml
@param pathToServersXML path to the server values xml
@throws CompositeException
public void stopServer(String serverId, String pathToServersXML)
throws CompositeException;
```

3. restartServer

restartServer communicates over the network with an instance of the CIS monitor process to remotely start CIS.

```
@param serverId target server id from servers config xml
@param pathToServersXML path to the server values xml
@throws CompositeException
public void restartServer(String serverId, String pathToServersXML)
throws CompositeException;
```

General Notes:

The argument pathToServersXML will be located in [PDTool/resources/modules). The value passed into the methods will be the fully qualified path. The paths get resolved when executing the property file and evaluating the \$MODULE_HOME variable.

SERVER MANAGER MODULE XML CONFIGURATION

A full description of the PDTool Module XML Schema can be found by reviewing /docs/PDToolModules.xsd.html.

Description of the Module XML

The Server Manager Module performs CIS start, stop and restart operations. The Server Manager Module does not depend on a module-specific XML file. Only the servers.xml file, which is common to all modules, is used by this module.

HOW TO EXECUTE

The following section describes how to setup a property file for both command line and Ant and execute the script.

Script Execution

The full details on property file setup and script execution can be found in the document "Composite PS Promotion and Deployment Tool User's Guide v1.0.pdf". The abridged version is as follows:

Windows: ExecutePDTool.bat -exec ../resources/plans/UnitTest-ServerManager.dp

Unix: ./ExecutePDTool.sh -exec ../resources/plans/UnitTest- ServerManager.dp

Properties File (UnitTest-ServerManager.dp):

Property File Rules:

```
# UnitTest-ServerManager.dp
   1. All parameters are space separated. Commas are not used.
         a. Any number of spaces may occur before or after any parameter and are
             trimmed.
   2. Parameters should always be enclosed in double quotes according to these
rules:
          a. when the parameter value contains a comma separated list:
                                     ANSWER: "ds1, ds2, ds3"
          b. when the parameter value contain spaces or contains a dynamic variable
             that will resolve to spaces
                 There is no distinguishing between Windows and Unix variables.
                  Both UNIX style variables ($VAR) and
                  and Windows style variables (%VAR%) are valid and will be parsed
                 accordingly.
             ii. All parameters that need to be grouped together that contain
spaces
                  are enclosed in double quotes.
             iii. All paths that contain or will resolve to a space must be enclosed
                  in double quotes.
                  An environment variable (e.g. $MODULE HOME) gets resolved on
                  invocation PDTool.
                        Paths containing spaces must be enclosed in double quotes:
                               ANSWER: "$MODULE HOME/LabVCSModule.xml"
                        Given that
                        MODULE HOME=C:/dev/Cis Deploy Tool/resources/modules
                        , PDTool automatically resolves the variable to
                        "C:/dev/Cis Deploy Tool/resources/modules/LabVCSModule.xml".
```

```
c. when the parameter value is complex and the inner value contains spaces
                     i. In this example $PROJECT HOME will resolve to a path that
                        contains spaces such as C:/dev/Cis Deploy Tool
                        For example take the parameter
                        -pkgfile $PROJECT HOME$/bin/carfiles/testout.car.
                        Since the entire command contains a space it must be
enclosed
                        in double quotes:
                               ANSWER:
                        "-pkgfile $PROJECT HOME/bin/carfiles/testout.car"
   3. A comment is designated by a # sign preceding any other text.
          a. Comments may occur on any line and will not be processed.
   4. Blank lines are not processed
          a. Blank lines are counted as lines for display purposes
          b. If the last line of the file is blank, it is not counted for display
             purposes.
```

Property File Parameters:

```
# -------
# Parameter Specification:
# -------
# Param1=[PASS or FAIL] :: Expected Regression Behavior. Informs the script
whether
# you expect the action to pass or fail. Can be used for regression testing.
# Param2=[TRUE or FALSE] :: Exit Orchestration script on error
# Param3=Module Batch/Shell Script name to execute (no extension). Extension is added
# by script.
# Param4=Module Action to execute
# Param5-ParamN=Specific space separated parameters for the action. See Property
# Rules below.
```

Property File Example:

```
# ------
# Begin task definition list:
# ------
# Quick Test
PASS FALSE ExecuteAction stopServer $SERVERID "$MODULE_HOME/servers.xml"
PASS FALSE ExecuteAction startServer $SERVERID "$MODULE_HOME/servers.xml"
PASS FALSE ExecuteAction restartServer $SERVERID "$MODULE_HOME/servers.xml"
```

Ant Execution

The full details on build file setup and ant execution can be found in the document "Composite PS Promotion and Deployment Tool User's Guide v1.0.pdf". The abridged version is as follows:

Windows: ExecutePDTool.bat -ant ../resources/ant/build-ServerManager.xml

Unix: ./ExecutePDTool.sh -ant ../resources/ant/build-ServerManager.xml

Build File:

```
<?xml version="1.0" encoding="UTF-8"?>
<description>Server Manager Module Ant script</description>
  <!-- Default properties -->
  property name="SERVERID"
                                         value="localhost"/>
  property name="noarguments"
                                         value="" ""/>
 <!-- Default Path properties -->
  property name="RESOURCE HOME"
                                         value="${PROJECT HOME}/resources"/>
  property name="MODULE HOME"
                                         value="${RESOURCE HOME}/modules"/>
  property name="pathToServersXML"
                                         value="${MODULE HOME}/servers.xml"/>
                                         value="${MODULE HOME}/ArchiveModule.xml"/>
  cproperty name="pathToArchiveXML"
  property name="pathToDataSourcesXML"
                                         value="${MODULE HOME}/DataSourceModule.xml"/>
  cproperty name="pathToGroupsXML"
                                          value="${MODULE HOME}/GroupModule.xml"/>
  cproperty name="pathToPrivilegeXML"
                                         value="${MODULE HOME}/PrivilegeModule.xml"/>
  property name="pathToRebindXML"
                                         value="${MODULE HOME}/RebindModule.xml"/>
  cproperty name="pathToRegressionXML"
                                         value="${MODULE HOME}/RegressionModule.xml"/>
  property name="pathToResourceXML"
                                         value="${MODULE HOME}/ResourceModule.xml"/>
  property name="pathToResourceCacheXML"
                                         value="${MODULE HOME}/ResourceCacheModule.xml"/>
  property name="pathToTriggerXML"
                                          value="${MODULE HOME}/TriggerModule.xml"/>
  cproperty name="pathToUsersXML"
                                         value="${MODULE HOME}/UserModule.xml"/>
  property name="pathToVCSModuleXML"
                                         value="${MODULE HOME}/VCSModule.xml"/>
  <!-- Custom properties -->
  Place your property names here:
  cproperty name="moduleIds"
                                         value="srv1, srv2"/>
  <!-- Default Classpath [Do Not Change] -->
  <path id="project.class.path">
       <fileset dir="${PROJECT HOME}/lib"><include name="**/*.jar"/></fileset>
       <fileset dir="${PROJECT HOME}/dist"><include name="**/*.jar"/></fileset>
       <fileset dir="${PROJECT_HOME}/ext/ant/lib"><include name="**/*.jar"/></fileset>
  </path>
 <taskdef name="executeJavaAction" description="Execute Java Action"</pre>
classname="com.cisco.dvbu.ps.deploytool.ant.CompositeAntTask"
classpathref="project.class.path"/>
```

Module ID Usage

The following explanation provides a general pattern for module identifiers. The module identifier for this module is "serverIds".

- Possible values for the module identifier:
- 1. Inclusion List CSV string like "id1,id2"
 - PDTool will process only the passed in identifiers in the specified module XML file.

Example command-line property file

```
PASS FALSE ExecuteAction startServer "svr1,svr2" "$MODULE_HOME/servers.xml" Example Ant build file
```

```
<executeJavaAction description="startServer" action="startServer"
arguments="svr1,svr2^${pathToServersXML}" endExecutionOnTaskFailure="TRUE"/>
```

- 2. **Process All** '*' or whatever is configured to indicate all resources
 - PDTool will process all resources in the specified module XML file.

Example command-line property file

```
PASS FALSE ExecuteAction startServer "*" "$MODULE_HOME/servers.xml"

Example Ant build file
```

```
<executeJavaAction description="startServer" action=" startServer "
arguments="*^${pathToServersXML}" endExecutionOnTaskFailure="TRUE"/>"
```

- 3. Exclusion List CSV string with '-' or whatever is configured to indicate exclude resources as prefix like "-id1,id2"
 - PDTool will ignore passed in resources and process the rest of the identifiers in the module XML file.

Example command-line property file

```
PASS FALSE ExecuteAction startServer "-svr1,svr2" "$MODULE_HOME/servers.xml"
```

Example Ant build file

<executeJavaAction description="startServer" action="startServer" arguments="svr1,svr2^\${pathToServersXML}" endExecutionOnTaskFailure="TRUE"/>

EXAMPLES

As the Server Manager Module does not depend on or require any module-specific XML files, please see the sections above for complete examples of how to use the module's startServer, stopServer and restartServer operations.

EXCEPTIONS AND MESSAGES

The following are common exceptions and messages that may occur.

Wrong Number of Arguments:

This may occur when you do not place double quotes around comma separated lists.

CONCLUSION

Concluding Remarks

The PS Promotion and Deployment Tool is a set of pre-built modules intended to provide a turn-key experience for promoting CIS resources from one CIS instance to another. The user only requires system administration skills to operate and support. The code is transparent to operations engineers resulting in better supportability. It is easy for users to swap in different implementations of a module using the Spring framework and configuration files.

How you can help!

Build a module and donate the code back to Composite Professional Services for the advancement of the "*PS Promotion and Deployment Tool*".

ABOUT COMPOSITE SOFTWARE

Composite Software, Inc. ® is the only company that focuses solely on data virtualization.

Global organizations faced with disparate, complex data environments, including ten of the top 20 banks, six of the top ten pharmaceutical companies, four of the top five energy firms, major media and technology organizations as well as government agencies, have chosen Composite's proven data virtualization platform to fulfill critical information needs, faster with fewer resources.

Scaling from project to enterprise, Composite's middleware enables data federation, data warehouse extension, enterprise data sharing, real-time and cloud computing data integration.

Founded in 2002, Composite Software is a privately held, venture-funded corporation based in Silicon Valley. For more information, please visit www.compositesw.com.

cisco.

Americas Headquarters Cisco Systems, Inc. San Jose, CA Asia Pacific Headquarters Cisco Systems (USA) Pte. Ltd. Singapore

Europe Headquarters Cisco Systems International BV Amsterdam, The Netherlands

Cisco has more than 200 offices worldwide. Addresses, phone numbers, and fax numbers are listed on the Cisco Website at www.cisco.com/go/offices.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Printed in USA CXX-XXXXX-XX 10/11