Advanced Service Assets

“PDTool” Promotion and Deployment Tool

PDTool Installer Administrator Guide

Data Virtualization Business Unit Advanced Services

September 2015

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DOCUMENT CONTROL

Version History

Version	Date	Author	Description
1.0	09/18/2015	Mike Tinius	Initial revision for Installer Admin Guide

Related Documents

Document	Date	Author
Cisco AS Promotion and Deployment Tool – PDTool Installer User Guide	*Cisco PDTool Installer User Guide.pdf*	Mike Tinius

Data Virtualization Business Unit (DVBU) Products Referenced

DVBU Product Name	Version
Composite Information Server	6.2, 7.0

INTRODUCTION

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Purpose

The Administration Guide provides a PDTool Administrator with the steps to “pre-configure” the PDTool installer for Windows with a consistent and uniform deployment across the development and testing user base. This guide does not provide the background for installing PDTool but instead guides the Administrator through the process of setting up for the installation. The Administrator can configure standard variables for your organization that will be used by all to make it easier for “mass installation”. Ultimately, a consistent installation means it is easier to support the developers and testers when they have questions or issues.

This is the part of PDTool that provides deployment and testing facilities. The other part of PDTool is called PDTool Studio and is focused on version control.

What gets installed?

- Cisco PDTool 6.2 or PDTool7.0.0
- VCS Client if the Administrator chooses to pre-configure the \VCSClients folder

Where do the files get copied?

- Recommended default location: C:\Users\%USERNAME%\.compositesw\PDTool[6.2|7.0.0]_[NOVCS|TFS|SVN|GIT|P4|CVS]
    - E.g. C:\Users\user1\.compositesw\PDTool7.0.0_TFS
    - **\PDTool** – PDTool deployment directory
    - **\VCSClients** – Pre-configured VCS clients are optional if installed elsewhere.
        - **\SVN_client** – Subversion client
        - **\TFS_TEE_client** – Team Explorer Everywhere client

- **\GIT_client** – Git client
- **\P4_client** – Perforce client
- **\CVS_client** – CVS client

Audience

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

- For CIS Developers who want to deploy resources from a version control system (VCS) such as TFS or Subversion to a target CIS server.
- For CIS testers who want to use PDTool Regression Module for testing but do not need to connect to a VCS.
- For a user who wants to encrypt a PDTool file which contains passwords.

Platform Support

The PDTool Installer is only supported on Windows.

PDTOOL (DEPLOYMENT AND TESTING) INSTALLER ADMIN GUIDE

Pre-Requisite Checklist

The following is a list the Adminstrator will need to check when setting up the "pre-confguration" for PDTool:

1. *Network Connection:*

   Each user must be connected to a network and have access to the VCS server.

2. *JRE7 Installed:*

   JRE 7 (1.7) must be pre-installed on the target computer before installing PDTool. Each user must perform this action.

   If Cisco Studio 7.0 is installed, it is possible to utilize that JRE: CIS_HOME\jre or you can use the one installed in the "C:\Program Files\Java\jre7".

3. *Version Control System (VCS) Access:*

   Each user must perform this action.

   The user must submit a request in advance to their organization to get access to a version control system (VCS) repository prior to installation of PDTool.

4. *Pre-configure Installer Default Variables:*

   The Administrator performs this action.

   For VCS installation, edit: **PDTool-VCS.bat** and provide any default values that require modification. For non-VCS installation, edit **PDTool-NOVCS.bat** and provide any default values that require modification.

5. *Pre-configure VCS Client Software:*

   The Administrator performs this action.

   To insure consistency of VCS clients across the developer community, be sure to copy the correct client software into the appropriate VCSClients sub-directory.

   - SVN_client – copy the subversion binaries.
   - TFS_TEE_client – copy the Team Foundation Everywhere client binaries.
   - P4_client – copy the Perforce client binaries.
   - GIT_client – copy the GIT client binaries.
   - CVS_client – copy the CVS client binaries.

6. *Pre-configure Configuration Property Files:*

   The configuration property files provide a mechanism for setting standard default variables for each target CIS environment.

7. *Pre-configure PDTool servers.xml Property File:*

   The servers.xml provides the connection details for each target CIS environment.

8. *Pre-configure Automated Test Framework:*

   The Automated Test Framework provides a way for the developers, deployers and QA testers to validate the target CIS environment.

Administrator Setup Procedure

1. *Unzip the PDTool Release Zip File:*

   a. Unzip to any directory on your windows machine e.g. [C:\Temp].

   b. PDTool-6.2-YYYY-MM-DD.r1.zip

   c. PDTool7.0.0-YYYY-MM-DD.r1.zip

2. *Edit Installer Batch Files:*

   a. *Purpose* – The purpose of this is to "pre-configure" the installation for your organization so that you have a consistent and uniform configuration across the developer and tester user base.

   b. Location

      a. [C:\Temp]\PDTool6.2_installer\installer

      b. [C:\Temp]\PDTool7.0.0_installer\installer

   c. **PDTool-NOVCS.bat** – used for installing a NO VCS configuration typically focused on QA testers who do not need VCS.

```
REM # Force SetupPDTool.bat to use default values when present and bypass prompting the user. Values=[Y or N].  This will streamline setup.
REM # Set to "Y" to bypass prompting for defaults values that are set with a value.
set DEF_FORCE_PROMPT_BYPASS=N
REM # Default for I_JAVA_HOME
set DEF_JAVA_HOME=C:\Program Files\Java\jre7
REM # Default for I_PDTOOL_DESTINATION_HOME
set DEF_PDTOOL_DESTINATION_HOME=C:\Users\%USERNAME%\.compositesw\PDTool7.0.0_TFS
REM # Default for I_PDTOOL_DESTINATION_DIR
set DEF_PDTOOL_DESTINATION_DIR=PDTool
REM # Default for I_CONFIGURE_VCS.  Bypass VCS variables when set to "N".
set DEF_CONFIGURE_VCS=N
REM # Default for I_VCS_BASE_TYPE=[SVN|TFS|GIT|P4|CVS]
set DEF_VCS_BASE_TYPE=
REM # Default for I_VCS_HOME is the location of where the VCS client executable is located
```

set **DEF_VCS_HOME**=

REM # Default for I_VCS_REPOSITORY_URL - Always use 4 forward slashes to escape https://url --> https:////url and no slash at the end.

set **DEF_VCS_REPOSITORY_URL**=

REM # Default for I_VCS_PROJECT_ROOT

set **DEF_VCS_PROJECT_ROOT**=

REM # Default for I_RELEASE_FOLDER

set **DEF_RELEASE_FOLDER**=

REM # Default for I_VCS_WORKSPACE_NAME. The name of the workspace.

REM #   To use variable delayed expansion put 2 %% signs around each variable name otherwise simply use a value.

REM #   Example: Combination of VCS username and release folder to make a unique workspace name=%%I_VCS_USERNAME%%%%I_RELEASE_FOLDER%%

set **DEF_VCS_WORKSPACE_NAME**=

REM # Default for I_VCS_USERNAME. Generally this will be the standard computer USERNAME value.

set **DEF_VCS_USERNAME**=

REM # To be appended to the I_VCS_USERNAME as in user@domain or leave blank if not applicable. TFS requires this.

set **DEF_VCS_DOMAIN**=

REM # Default for I_CIS_USERNAME. Generally this will be the standard computer USERNAME value.

set **DEF_CIS_USERNAME**=%USERNAME%

REM # Default CIS Domain used for connection by CIS_USERNAME

set **DEF_CIS_DOMAIN**=<ORGANIZATION_LDAP_DOMAIN>

REM # Default VCS Configuration property file used for connecting PDTool to CIS and VCS.

REM # This is a default value only and may be overridden during PDTool execution.

set **DEF_CONFIG_PROPERTY_FILE**=deploy_NOVCS_UAT1.properties

REM # This is the list of drive letters that PDTool will use to search for the first available drive.

REM # Depending on how /PDTool/bin/setVars.bat is configured, this may be used for "subst" or it may be used for "net use".

REM # It is recommended to use "net use" because it survives log offs and reboots.

set **PDTOOL_SUBSTITUTE_DRIVE_LIST**=I: J: K: L: M: N: O: P: R: S: T: U: V: W: X: Y: Z:

d. **PDTool-VCS.bat** – used for installing a VCS configuration focused on developers or deployment operators who require access to VCS for doing CIS deployments.

REM # Force SetupPDTool.bat to use default values when present and bypass prompting the user. Values=[Y or N]. This will streamline setup.

REM # Set to "Y" to bypass prompting for defaults values that are set with a value.

set **DEF_FORCE_PROMPT_BYPASS**=N

REM # Default for I_JAVA_HOME

set **DEF_JAVA_HOME**=C:\Program Files\Java\jre7

REM # Default for I_PDTOOL_DESTINATION_HOME

set **DEF_PDTOOL_DESTINATION_HOME**=C:\Users\%USERNAME%\.compositesw\PDTool7.0.0_TFS

REM # Default for I_PDTOOL_DESTINATION_DIR

set **DEF_PDTOOL_DESTINATION_DIR**=PDTool

REM # Default for I_CONFIGURE_VCS. Bypass VCS variables when set to "N".

set **DEF_CONFIGURE_VCS**=Y

REM # Default for I_VCS_BASE_TYPE=[SVN|TFS|GIT|P4|CVS]

set **DEF_VCS_BASE_TYPE**=TFS

REM # Default for I_VCS_HOME is the location of where the VCS client executable is located

set **DEF_VCS_HOME**=**%DEF_PDTOOL_DESTINATION_HOME%**\VCSClients\TFS_TEE_client

REM # Default for I_VCS_REPOSITORY_URL - Always use 4 forward slashes to escape https://url --> https:////url and no slash at the end.

set **DEF_VCS_REPOSITORY_URL**=http:////localhost:8080/tfs/CompositeCollection

REM # Default for I_VCS_PROJECT_ROOT

set **DEF_VCS_PROJECT_ROOT**=Rel

REM # Default for I_RELEASE_FOLDER

set **DEF_RELEASE_FOLDER**=20150918

REM # Default for I_VCS_WORKSPACE_NAME. The name of the workspace.

REM # To use variable delayed expansion put 2 %% signs around each variable name otherwise simply use a value.

REM # Example: Combination of VCS username and release folder to make a unique workspace name=%%I_VCS_USERNAME%%%%I_RELEASE_FOLDER%%

set **DEF_VCS_WORKSPACE_NAME**=TFSww7

REM # Default for I_VCS_USERNAME. Generally this will be the standard computer USERNAME value.

set **DEF_VCS_USERNAME**=%USERNAME%

REM # To be appended to the I_VCS_USERNAME as in user@domain or leave a blank space if not applicable. TFS requires this.

set **DEF_VCS_DOMAIN**=

REM # Default for I_CIS_USERNAME. Generally this will be the standard computer USERNAME value.

set **DEF_CIS_USERNAME**=admin

REM # Default CIS Domain used for connection by CIS_USERNAME

set **DEF_CIS_DOMAIN**=composite

REM # Default VCS Configuration property file used for connecting PDTool to CIS and VCS

REM # This is a default value only and may be overridden during PDTool execution.

set **DEF_CONFIG_PROPERTY_FILE**=deploy_TFS_UAT1.properties

REM # This is the list of drive letters that PDTool will use to search for the first available drive.

REM # It will be used as a substitute drive to shorten the overall path to the workspace.

REM # Depending on how /PDTool/bin/setVars.bat is configured, this may be used for "subst" or it may be used for "net use".

REM # It is recommended to use "net use" because it survives log offs and reboots.

set **PDTOOL_SUBSTITUTE_DRIVE_LIST**=I: J: K: L: M: N: O: P: R: S: T: U: V: W: X: Y: Z:

e. **Customization Concept** – if your organization requires the use of multiple VCS configurations, consider making a copy of PDTool-VCS.bat and give it a more specific name that applies to your organizations need. For example, if you require both TFS and Subversion, you could create PDTool-TFS.bat and PDTool-SVN.bat to differentiate the installation package.

3. *Configure VCS Clients (Optional):*

a. *Purpose* – The objective is to provide an out-of-the-box experience for the PDTool user. Rather than having the developer install the VCS client, the installer allows you to "pre-configure" one or more clients. This is optional however. The installer allows you to configure a pre-defined directory but this must be standard for all users.

b. *Location*

a. **\VCSClients** – Pre-configured VCS clients are optional if installed elsewhere.
   i. **\SVN_client** – Subversion client
   ii. **\TFS_TEE_client** – Team Explorer Everywhere client
   iii. **\GIT_client** – Git client
   iv. **\P4_client** – Perforce client
   v. **\CVS_client** – CVS client

c. Copy the required client into the appropriate client directory as shown above.

   a. For SVN, don't copy the /bin folder but instead copy the entire contents of the bin into SVN_client.

   b. For TFS, be sure and use the TFS Team Everywhere Explorer (TEE) client and not the GUI client.

4. *Configure PDTool Configuration Property Files:*

a. *Purpose* – The configuration property files provide a standard mechanism for each CIS server environment. It allows the PDTool Administrator to "pre-configure" which environments PDTool will be allowed to connect to and set environment variables that are specific to that environment. There is a standard naming convention used that is tried and true for any customer environment. PDTool comes pre-configured for DEV1, UAT1 and PROD1. It is up to the PDTool Administrator to copy and configure for their specific environments. It is recommended that short names be used to express each environment. For example, deploy_SVN_DEV1.properties or deploy_NOVCS_DEV1.properties.

b. *Location*

   a. [C:\Temp]\PDTool6.2_installer\installer_source\PDTool\resources\config

   b. [C:\Temp]\PDTool7.0.0_installer\installer_source\PDTool\resources\config

c. *Procedure*

   a. Determine the list of environments needed and the abbreviation name to be used for each. Here are some examples of typical servers and their meaning:

      i. DEV1=development server 1
      ii. CIT1=Code Integration Test server 1
      iii. SIT1=System Integration Test server 1
      iv. UAT1=User Acceptance Test server 1
      v. TT1=Technical Test server 1
      vi. PROD1=Production server 1
      vii. LAB1=Lab server 1

   b. For the given VCS, copy the related "deploy_[VCS]_DEV1.properties" and give it a new name. For NOVCS, copy "deploy_NOVCS_DEV1.properties" and give it a new name. Typical environment variables are generally at the top of the file include:

      i. LDAP_ENV=DEV
      ii. SYSTEM_ENV=DEV1
      iii. CIS_REPO_PORT=9428
      iv. CIS_PORT=9420
      v. CIS_HTTP_TYPE=http

   c. The Administrator may also put standard, custom organization variables in the configuration property file.

   d. Edit the file and change the environment variables to reflect its environment. Save when done.

5. *Configure PDTool "servers.xml" Property File:*

a. *Purpose* – The servers.xml provides the CIS server connection information for each CIS server. The <id> is the SERVERID variable that is set the configuration property file described in the previous step. There should be an entry for each environment that is being configured.

b. *Location*

a. [C:\Temp]\PDTool6.2_installer\installer_source\PDTool\resources\modules

b. [C:\Temp]\PDTool7.0.0_installer\installer_source\PDTool\resources\modules

c. *Example* – The following is an excerpt from servers.xml. Note how <id> contains the environment abbreviation as specified by the configuration property file along with the port and http type. These three items serve to identify a connection profile. Also note the use of standard variables for the $CIS_USERNAME, $CIS_PASSWORD and $CIS_DOMAIN. These are all set by the individual user in the setMyPrePDToolVars.bat which is configured by the installer at installation time. This allows the servers.xml file to be generic across all users.

```
<?xml version="1.0" encoding="UTF-8"?>
<servers>
<server>
  <id>DEV1_9420http</id>
  <hostname>localhost</hostname>
  <port>9420</port>
  <usage>DEV1</usage>
  <user>$CIS_USERNAME</user>
  <encryptedpassword>$CIS_PASSWORD</encryptedpassword>
  <domain>$CIS_DOMAIN</domain>
  <cishome>/CompositeSoftware/CIS7.0.0</cishome>
  <clustername></clustername>
  <site>Local</site>
  <useHttps>false</useHttps>
  <allowVariables>true</allowVariables>
 </server>

 <server>
  <id>UAT1_9420http</id>
  <hostname>localhost</hostname>
  <port>9420</port>
  <usage>UAT1</usage>
  <user>$CIS_USERNAME</user>
  <encryptedpassword>$CIS_PASSWORD</encryptedpassword>
  <domain>$CIS_DOMAIN</domain>
  <cishome>/CompositeSoftware/CIS7.0.0</cishome>
  <clustername></clustername>
  <site>Local</site>
  <useHttps>false</useHttps>
  <allowVariables>true</allowVariables>
 </server>
</servers>
```

d. *Procedure* – Create <server> entries as needed for the various environments and connection types. Save when completed.

6. *Configure Automated Test Framework "ATF" (Optional):*

a. *Purpose* – If your QA testers or developers will be using the Automated Test Framework to validate their deployments [recommended], then you will want to pre-configure the ATF directory.

b. *Location* – **Regression Testing** – used for validating deployments and general CIS testing.

   a. [C:\Temp]\PDTool6.2_installer\installer_source\PDTool\AutomatedTestFramework\regression\bin\setVars.bat

   b. [C:\Temp]\PDTool7.0.0_installer\installer_source\PDTool\AutomatedTestFramework\regression\bin\setVars.bat

   c. Documentation – [C:\Temp]\PDTool7.0.0_installer\installer_source\PDTool\AutomatedTestFramework\regression\Cisco AS PDTool - Regression Automated Test Framework.pdf

c. Edit **Regression** setVars.bat – Depending on whether you installed PDTool 6.2 or PDTool 7.0.0 only configure the required section.

   a. For 6.2, modify section "BEGIN: 6.2 USER DEFINED VARIABLE SECTION"

      i. set PDTOOL_INSTALL_HOME_6=

      ii. set VALID_ENV_CONFIG_PAIRS_6=

         1. PDTool 6.2 configuration Property Pairs format is a comma separate list of environment designators and property file names without the .properties extension which is assumed: DEV~deploy_NOVCS_DEV1, UAT~deploy_NOVCS_UAT1, PROD~deploy_NOVCS_PROD1

   b. For 7.0, modify section "BEGIN: 7.0 USER DEFINED VARIABLE SECTION"

      i. set PDTOOL_INSTALL_HOME_7=

      ii. set VALID_ENV_CONFIG_PAIRS_7=

         1. PDTool 7.0.0 configuration Property Pairs format is a comma separate list of environment designators and property file names without the .properties extension which is assumed: DEV~deploy_NOVCS_DEV1,

UAT~deploy_NOVCS_UAT1,
PROD~deploy_NOVCS_PROD1

c. For common variables modify:

i. set JAVA_HOME=

ii. set EDITOR=

d. *Location* – **Migration Testing** – used for testing the migration of CIS 6.2 to CIS 7.0.

a. [C:\Temp]\PDTool6.2_installer\installer_source\PDTool\AutomatedTestFramework\migration\bin\setVars.bat

b. [C:\Temp]\PDTool7.0.0_installer\installer_source\PDTool\AutomatedTestFramework\migration\bin\setVars.bat

c. Documentation – [C:\Temp]\PDTool7.0.0_installer\installer_source\PDTool\AutomatedTestFramework\migration\Cisco AS PDTool - Migration Automated Test Framework.pdf

e. *Edit **Migration** setVars.bat* – For migration, both 6.2 and 7.0 will be required to be configured. PDTool 6.2 and PDTool 7.0 will both need to be present on the system.

a. For 6.2, modify section “BEGIN: 6.2 USER DEFINED VARIABLE SECTION”

i. set PDTOOL_INSTALL_HOME_6=

ii. set VALID_ENV_CONFIG_PAIRS_6=

1. PDTool 6.2 configuration Property Pairs format is a comma separate list of environment designators and property file names without the .properties extension which is assumed: DEV~deploy_NOVCS_DEV1, UAT~deploy_NOVCS_UAT1, PROD~deploy_NOVCS_PROD1

b. For 7.0, modify section “BEGIN: 7.0 USER DEFINED VARIABLE SECTION”

i. set PDTOOL_INSTALL_HOME_7=

ii. set VALID_ENV_CONFIG_PAIRS_7=

1. PDTool 7.0.0 configuration Property Pairs format is a comma separate list of environment designators and property file names without the .properties extension which is assumed: DEV~deploy_NOVCS_DEV1,

UAT~deploy_NOVCS_UAT1,
PROD~deploy_NOVCS_PROD1

c. For common variables modify:

i. set JAVA_HOME=

ii. set EDITOR=

7. *Zip up the Installer Directory:*

a. Location

a. [C:\Temp]\PDTool6.2_installer

b. [C:\Temp]\PDTool7.0.0_installer

8. *Share "pre-configured" PDTool:*

a. Share the PDTool "pre-configured" installer with others in your organization via a shared drive, Sharepoint or some other shared mechanism.

FINISHED

CONCLUSION

Concluding Remarks

The AS 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 Cisco Advanced Services for the advancement of the "***AS Promotion and Deployment Tool***".