

AUTO DEPLOYMENT USING ANT SCRIPTS:

Application package deployment utility:

The Application Package Deployment utility is a collection of ant tasks which facilitates the deployment of application packages. It also helps in the creation and management of Service Group, Service Container and Database configuration. Using these Ant tasks, you can also automate some of the manual tasks performed while loading application packages.

List of ANT Tasks:

NAME	DETAILS
deployApplicationPackage	Application Package deployment task
undeployApplicationPackage	Application Package undeployment task
createdatabaseconfiguration	Database configuration creation task
deletedatabaseconfiguration	Database configuration deletion task
createservicegroup	Service Group creation task
deleteservicegroup	Service Group deletion task
createservicecontainer	Service Container creation task
deleteservicecontainer	Service Container deletion task
createconnectionpoint	Connection Point creation task
deleteconnectionpoint	Connection Point deletion task
cloneservicecontainers	Task to clone service containers

Ant tasks such as **deployapplicationpackage**, **createservicecontainer**, **createservicegroup** are discussed below with examples.

Reference link is attached below:

<https://wiki.cordys.com/display/bop42/Application+Package+Deployment+Utility>

Installing and Configuring Apache ANT:

- Install Apache ANT (1.10.1) from <http://ant.apache.org/bindownload.cgi>
- Extract the downloaded zip file.

Current Release of Ant

The Apache Ant team currently maintains two lines of development. The 1.9.x releases require Java5 at runtime and 1.10.x requires Java8 at runtime. Both lines are based off of Ant 1.9.7 and the 1.9.x releases are mostly bug fix releases while additional new features are developed for 1.10.x. We recommend using 1.10.x unless you are required to use versions of Java prior to Java8 during the build process.

Currently, Apache Ant 1.9.9 and 1.10.1 are the best available versions, see the [release notes](#).

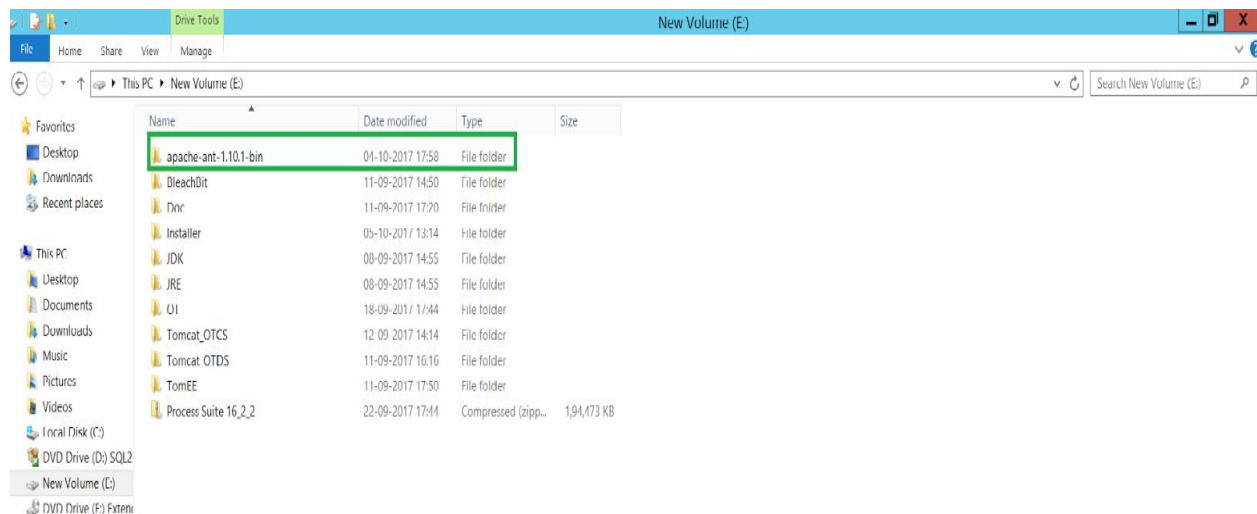
Note

Ant 1.9.9 and 1.10.1 have been released on 06-Feb-2017 and may not be available on all mirrors for a few days.

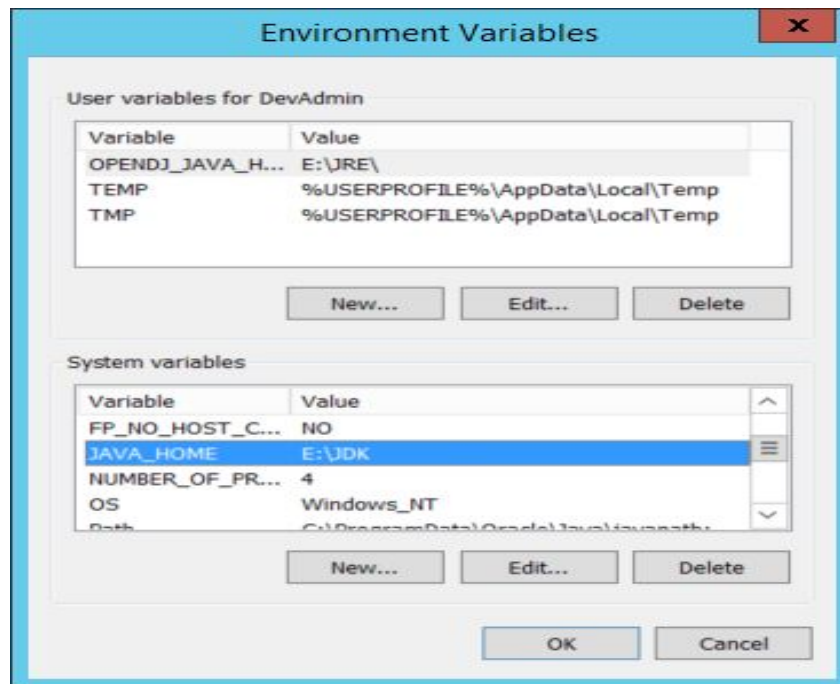
Tar files may require gnu tar to extract

Tar files in the distribution contain long file names, and may require gnu tar to do the extraction.

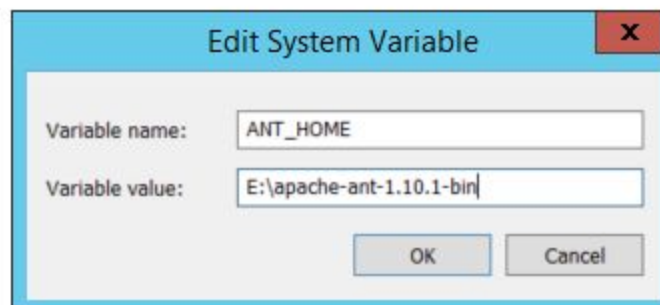
- 1.10.1 .zip archive: [apache-ant-1.10.1-bin.zip](#) [PGP] [SHA1] [SHA512] [MD5] ➡ Install Apache Ant 1.10.1
- 1.9.9 .zip archive: [apache-ant-1.9.9-bin.zip](#) [PGP] [SHA1] [SHA512] [MD5]
- 1.10.1 .tar.gz archive: [apache-ant-1.10.1-bin.tar.gz](#) [PGP] [SHA1] [SHA512] [MD5]
- 1.9.9 .tar.gz archive: [apache-ant-1.9.9-bin.tar.gz](#) [PGP] [SHA1] [SHA512] [MD5]
- 1.10.1 .tar.bz2 archive: [apache-ant-1.10.1-bin.tar.bz2](#) [PGP] [SHA1] [SHA512] [MD5]
- 1.9.9 .tar.bz2 archive: [apache-ant-1.9.9-bin.tar.bz2](#) [PGP] [SHA1] [SHA512] [MD5]
- 1.10.1 .tar.xz archive: [apache-ant-1.10.1-bin.tar.xz](#) [PGP] [SHA1] [SHA512] [MD5]



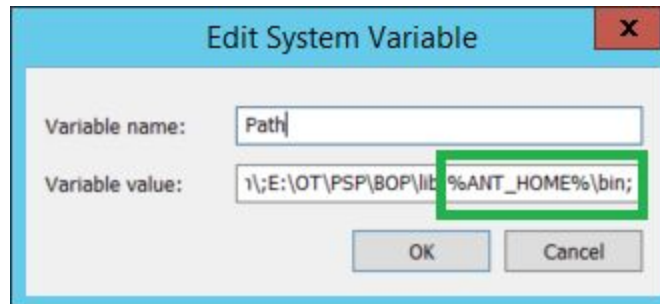
- If JDK is downloaded and installed on your computer ensure that the JAVA_HOME environment variable is set to the folder where your JDK is installed.



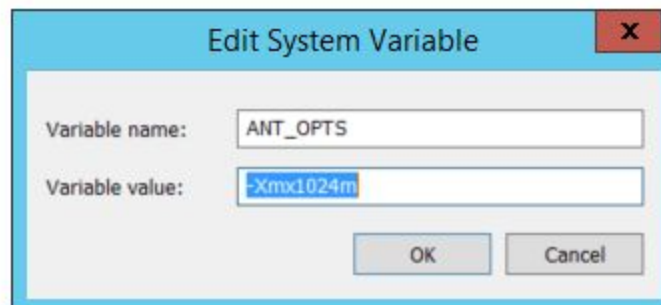
- Create a new environment variable called **ANT_HOME** that points to the Ant installation folder, in this case **E:\apache-ant-1.10.1-bin** folder.



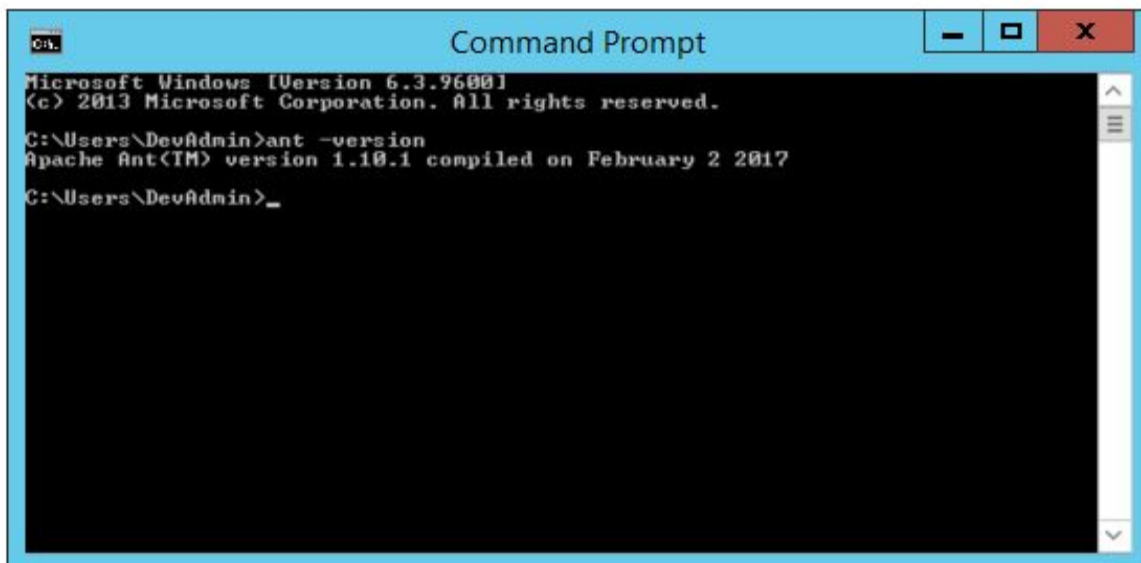
- Add **E:\apache-ant-1.10.1-bin\bin** or **%ANT_HOME%\bin** folder to PATH environment variable.



- Create a new environment variable **ANT_OPTS** and the variable value to **-Xmx1024m**.



- To verify the successful installation of Apache Ant on your computer, type **ant -version** on your computer

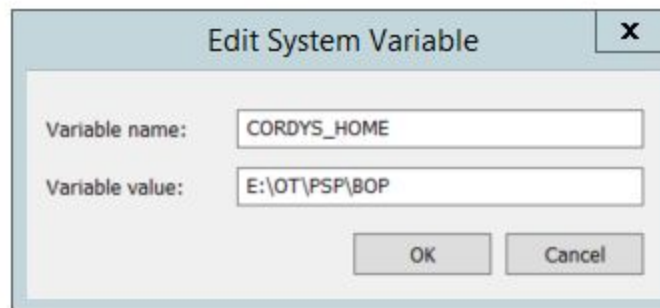


Configuring the server to use the Ant Tasks:

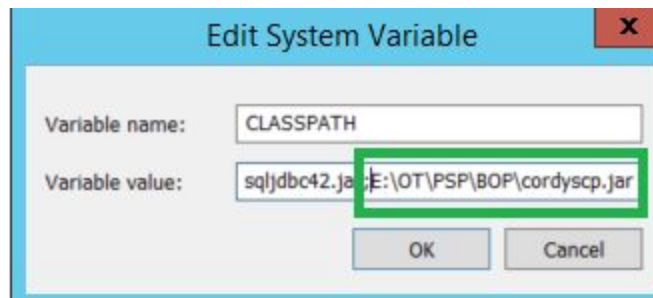
- Based on your Operating System, do the following configurations.

On Windows:

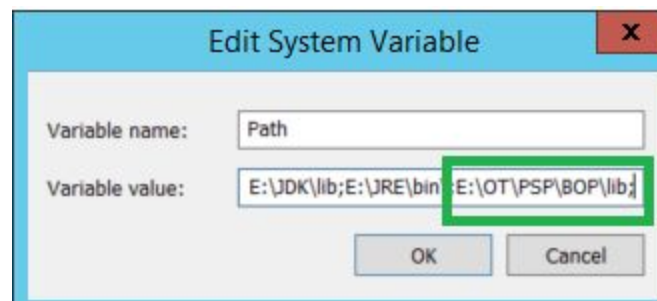
- Create environment variable called CORDYS_HOME and point it to <Cordys_Installation_Directory>/InstanceName.



- Add cordyscp.jar to system classpath.



- Add Cordys BOP libraries path (CORDYS_HOME/lib) to PATH.



On Linux:

1. Create environment variable called CORDYS_HOME and point it to
<Cordys_Installation_Directory>/InstanceName.
 2. Add cordyscp.jar to system classpath.
 3. Add Cordys BOP libraries (CORDYS_HOME/lib) to LD_LIBRARY_PATH.
- **Debugging ANT Tasks:** Detailed logging for the utility is available through the **Log4j** framework. The **Log4jConfiguration.xml** file is available at the location **CORDYS_HOME/config** and can be viewed in the console or in a log file. As per requirement, add one of the following to the **Log4jConfiguration.xml** file.

To view in Log file:

```
<category name="com.cordys.deployment.ant">  
  <priority value="debug"/>  
</category>
```

The messages would be logged to the file **Launcher.xml** located at **CORDYS_HOME/Logs**.

To view in console :

```
<appender name="ConsoleAppender" class="org.apache.log4j.ConsoleAppender">  
  <layout class="org.apache.log4j.PatternLayout">  
    <param name="ConversionPattern" value="%-4r [%t] %-5p %c %x - %m%n" />  
  </layout>  
</appender>  
  
<category name="com.cordys.deployment.ant">  
  <priority value="debug"/>  
<appender-ref ref="ConsoleAppender"/>  
</category>
```

ANT build files and property files:

Ant's build file is called as **build.xml**. Setting properties directly in the build file is fine, if you are working with a handful of properties. However, for a large project, it makes sense to store the properties in a separate property file. The property file is named **build.properties** and is placed alongside the build.xml file.

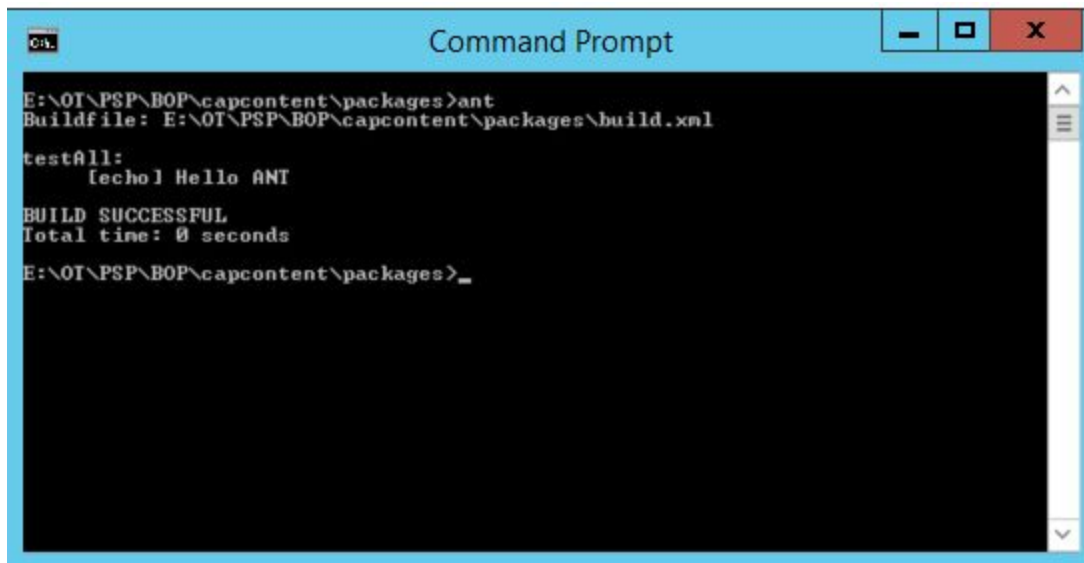
Sample build.xml:

```
<?xml version="1.0"?>
<project name="Ant Sample" default="start">
  <property file="build.properties"/>
  <target name="start">
    <echo>${message}</echo>
  </target>
</project>
```

Sample build.properties:

```
message=Hello ANT
```

Execution of ant files: Go to the location where you have build.xml and type the command ant.



```
Command Prompt
E:\OT\PSP\BOP\capcontent\packages>ant
Buildfile: E:\OT\PSP\BOP\capcontent\packages\build.xml

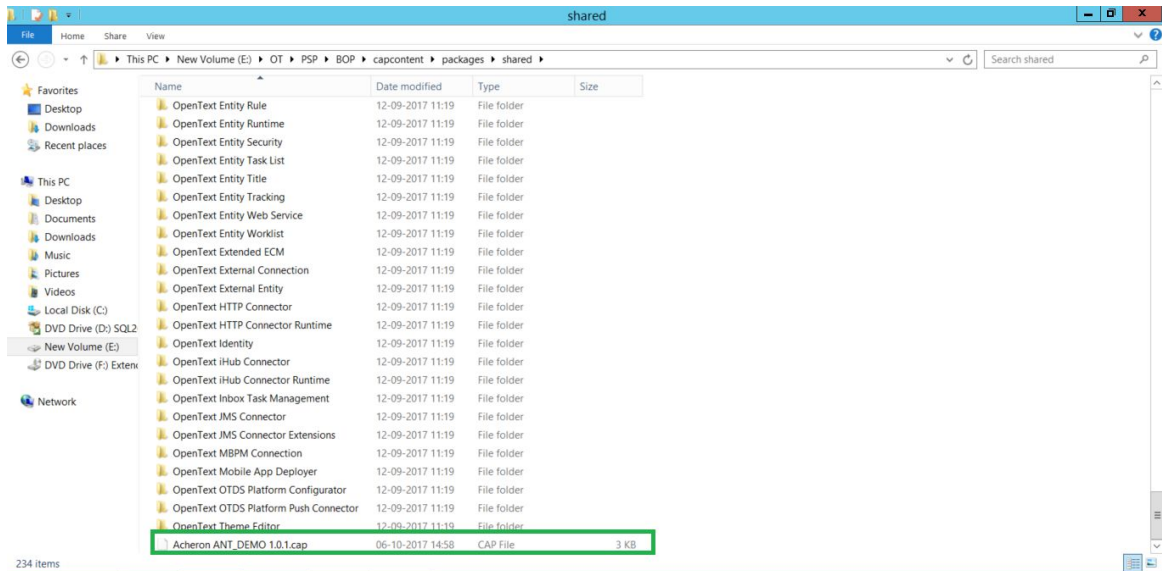
testAll:
    [echo] Hello ANT

BUILD SUCCESSFUL
Total time: 0 seconds

E:\OT\PSP\BOP\capcontent\packages>_
```

Deploy application package:

The Ant task `deployapplicationpackage` deploys an application package onto the specified BOP instance. The `.cap` file should be placed in the location `<Cordys_HOME>\capcontent\packages` folder.



build.xml:

```
<project basedir="." default="AntTest" name="Test-Antscripts">
  <property file="build.properties"/>
  <property environment="env"/>
  <property name="bop.install.dir" value="${env.CORDYS_HOME}"/>
  <path id="anttask.classpath">
    <pathelement location="${bop.install.dir}/components/anttasks/anttasks.jar"/>
  </path>
  <taskdef resource="com/cordys/deployment/ant/taskdef.xml">
    <classpath refid="anttask.classpath"/>
  </taskdef>
  <target name="AntTest">
    <antcall target="Deploying Package"/>
    <antcall target="Success"/>
  </target>
</project>
```



```

<target name="Deploying Package">
    <deployapplicationpackage name='${package}' server='${server}'
revertOnFailure="false" ldapRoot='${ldapRoot}' buildNumber='${buildNumber}'
version='${version}' protocol='${protocol}' port='${port}'/>
</target>
<target name="Success">
    <echo message="Deployment Successful!!!"/>
</target>
</project>

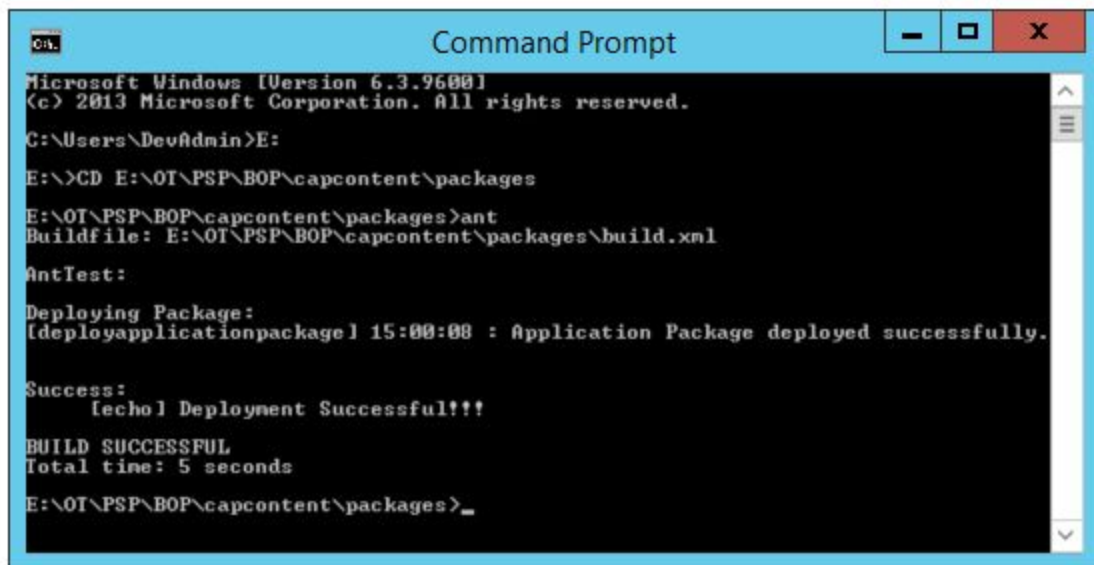
```

build.properties:

```

server=PSPDev
organization=system
ldapRoot=cn=cordys,cn=DevInst,o=acheron-tech.com
buildNumber=1
version=1.0
protocol=http
port=8080
package=Acheron ANT_DEMO

```



```

Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\DevAdmin>E:
E:\>CD E:\OT\PSP\BOP\capcontent\packages
E:\OT\PSP\BOP\capcontent\packages>ant
Buildfile: E:\OT\PSP\BOP\capcontent\packages\build.xml

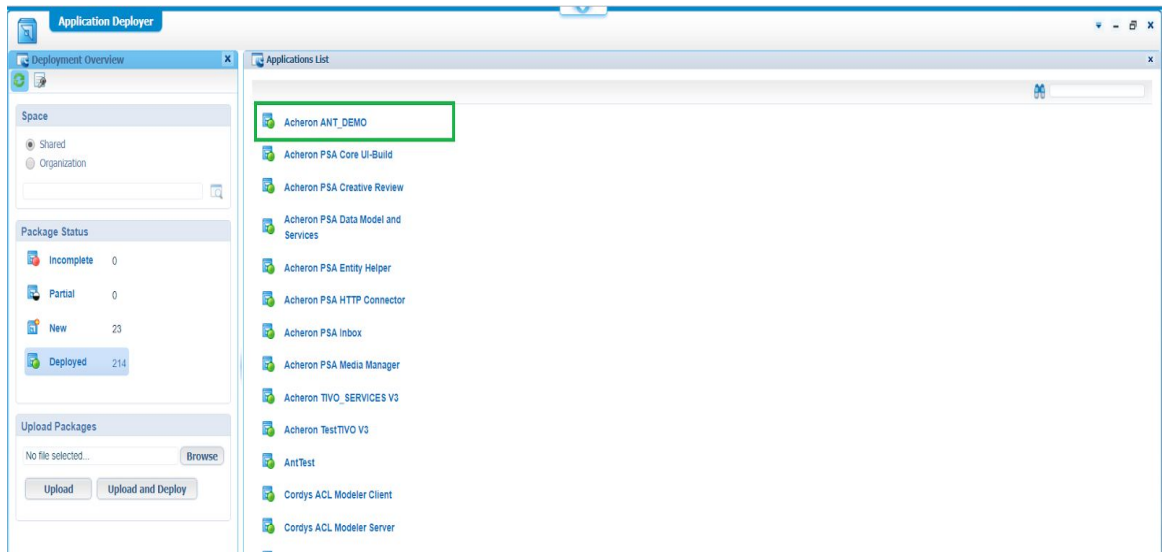
AntTest:
Deploying Package:
[deployapplicationpackage] 15:00:00 : Application Package deployed successfully.

Success:
[echo] Deployment Successful!!!

BUILD SUCCESSFUL
Total time: 5 seconds

E:\OT\PSP\BOP\capcontent\packages>_

```



Create service group:

createservicegroup Ant task creates a Service Group in an organization of Cordys BOP instance.

Build.xml:

```
<project basedir="." default="AntTest" name="Test-Antscripts">
  <property file="build.properties"/>
  <property environment="env"/>
  <property name="bop.install.dir" value="${env.CORDYS_HOME}"/>
  <path id="anttask.classpath">
    <pathelement location="${bop.install.dir}/components/anttasks/anttasks.jar"/>
  </path>
  <taskdef resource="com/cordys/deployment/ant/taskdef.xml">
    <classpath refid="anttask.classpath"/>
  </taskdef>
  <target name="AntTest">
    <antcall target="Creating Service Group"/>
    <antcall target="Success"/>
  </target>
  <target name="Creating Service Group">
    <createservicegroup name='${serviceGroupName}'
organization='${organization}' ldapRoot='${ldapRoot}'>
```

```

        <WebserviceInterface name="cn=Method Set Process Admin and
Monitoring 4.2,cn=Cordys Business Process Engine"
namespace="http://schemas.cordys.com/bpm/monitoring/1.0" />
        </createservicegroup>
    </target>
    <target name="Success">
        <echo message="Deployment Successful!!!" />
    </target>
</project>

```

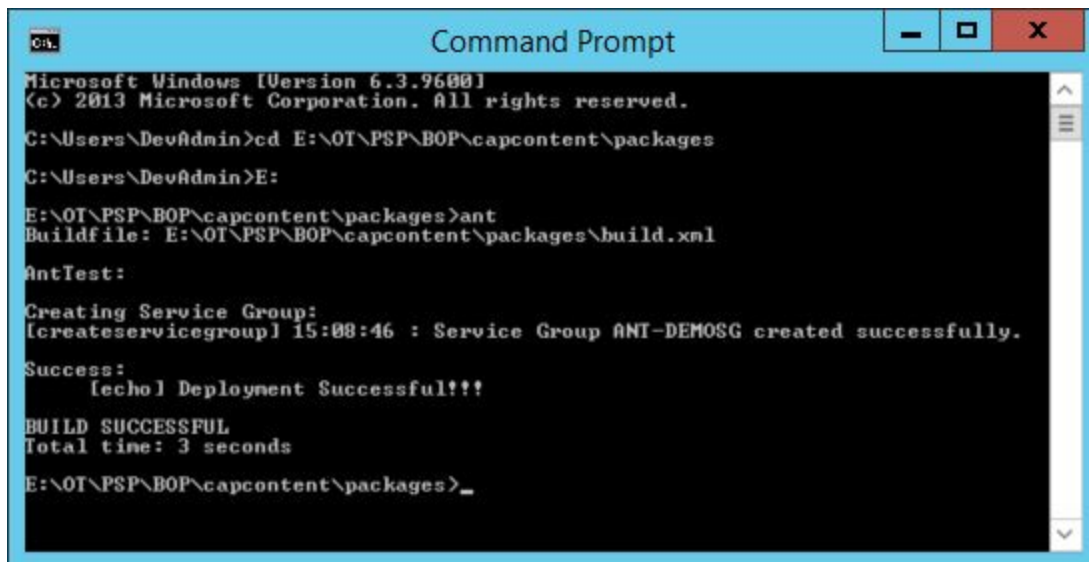
Build.properties:

server=PSPDev

organization=system

ldapRoot=cn=cordys,cn=DevInst,o=acheron-tech.com

serviceGroupName=ANT-DEMOSG



```

Microsoft Windows [Version 6.3.9600]
(c) 2013 Microsoft Corporation. All rights reserved.

C:\Users\DevAdmin>cd E:\OT\PSP\BOP\capcontent\packages
C:\Users\DevAdmin>E:
E:\OT\PSP\BOP\capcontent\packages>ant
Buildfile: E:\OT\PSP\BOP\capcontent\packages\build.xml

AntTest:
Creating Service Group:
[createservicegroup] 15:08:46 : Service Group ANT-DEMOSG created successfully.
Success:
    [echo] Deployment Successful!!!

BUILD SUCCESSFUL
Total time: 3 seconds

E:\OT\PSP\BOP\capcontent\packages>_

```

Name	Computer	Startup-Type	Organization	Status	Process-ID	SOAP-Messages	Processing-Time	Last-Time	NOMStringPoolMe...	ResidentMemory-KB
Auditing	pspdev	Manual	system							
Business Activity Monitor	pspdev	Manual	system							
Business Process Management	pspdev	Automatic	system	Started	13288	35	7964	78	24403	931024
CAP@pspdev	pspdev	Automatic	system	Started	12980	291	102434	16	6485	248284
CoBOC	pspdev	Automatic	system	Started	4612	0	0	0	3024	176428
Collaborative Workspace	pspdev	Automatic	system	Started	5772	1023	177244	31	24593	1200096
Data Transformation	pspdev	Automatic	system	Started	5316	0	0	0	2661	166064
Email	pspdev	Manual	system							
Event Handling	pspdev	Automatic	system	Started	3872	2907	21576	156	2697	189764
Hub	pspdev	Manual	system							
LDAP	pspdev	Automatic	system	Started	11328	22517	81984	32	7663	244764
Logging	pspdev	Automatic	system	Started	14252	0	0	0	2661	160396
MDM Hub Publisher	pspdev	Manual	system							
MDM Service	pspdev	Manual	system							
monitor@pspdev	pspdev	Automatic	system	Started	1044	13794	150946	0	3830	212524
Notification	pspdev	Automatic	system	Started	13288	35	2057	15	24402	931024
Platform	pspdev	Automatic	system	Started	13288	10	1680	79	24413	930708
Repository	pspdev	Automatic	system	Started	2272	1898	916270	0	8583	220816
Rule Management	pspdev	Manual	system							
Scheduling	pspdev	Manual	system							
Security Administration	pspdev	Automatic	system	Started	2580	20	4979	0	2633	185600
Single Sign-On	pspdev	Automatic	system	Started	12676	307	51482	16	4772	201728
TEST-SC	pspdev	Manual	system							

Create service container:

createservicecontainer Ant task creates a Service Container in an organization of Cordys BOP instance.

Build.xml:

```
<project basedir="." default="AntTest" name="Test-Antscripts">
  <property file="build.properties"/>
  <property environment="env"/>
  <property name="bop.install.dir" value="${env.CORDYS_HOME}"/>
  <path id="anttask.classpath">
    <pathelement location="${bop.install.dir}/components/anttasks/anttasks.jar"/>
  </path>
  <taskdef resource="com/cordys/deployment/ant/taskdef.xml">
    <classpath refid="anttask.classpath"/>
  </taskdef>
  <target name="AntTest">
    <antcall target="Creating Service Container"/>
  </target>
</project>
```

```

</target>
    <target name="Creating Service Container">
        <createservicecontainer IdapRoot='${IdapRoot}'
            name='${serviceContainerName}' organization='${organization}'
            serviceGroupName='${serviceGroupName}' server='${server}'">
            <applicationConnector implementation='${wsappConnector}'/>
        </createservicecontainer>
    </target>
</project>

```

Build.properties:

server=PSPDev

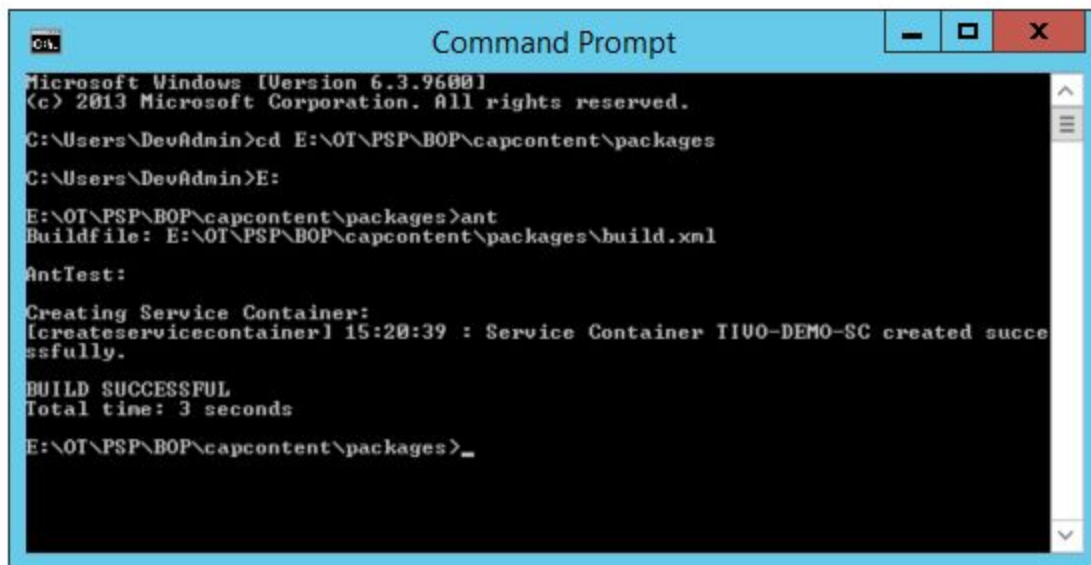
organization=system

IdapRoot=cn=cordys,cn=DevInst,o=acheron-tech.com

serviceGroupName=ANT-DEMOSG

wsappConnector=com.cordys.cpc.bsf.connector.BsfConnector

serviceContainerName=TIVO-DEMO-SC



```

C:\Users\DevAdmin>cd E:\OT\PSP\BOP\capcontent\packages
C:\Users\DevAdmin>E:
E:\OT\PSP\BOP\capcontent\packages>ant
Buildfile: E:\OT\PSP\BOP\capcontent\packages\build.xml

AntTest:
Creating Service Container:
[createservicecontainer] 15:20:39 : Service Container TIVO-DEMO-SC created successfully.
BUILD SUCCESSFUL
Total time: 3 seconds
E:\OT\PSP\BOP\capcontent\packages>_

```

System Resource Manager
Manage Service Groups, Service Containers, Web Service Interfaces, and Connection Points

Service Groups

- ANT-DEMOSG
- Auditing
- Business Activity Monitor
- Business Process Management
- CAP
- CoBOC
- Collaborative Workspace
- Data Transformation
- Email
- Event Handling
- iHub
- LDAP
- Logging
- MDM Hub Publisher
- MDM Service
- monitorsapnode@pspdev

Service Containers

Name	Computer	Startup-Type	Organization	Status	Process-ID	SOAP-Messages	Processing-Time	Last-Time	NOMStringPoolMe...	ResidentMemory-KB
TIVO-DEMO-SC	pspdev	Manual	system							

Service Group Properties - ANT-DEMOSG

Name: ANT-DEMOSG

Routing Algorithm: Simple load balancing

Description: ANT-DEMOSG

Protocol: ☐ Protocol

Payload: ☐ Payload

Payload Trim: ☐ Payload Trim

Web Service Interfaces

Name	Organization/Package	Type	Namespace
Method Set Process A...	Cordys Business Process E...	Business Process Ma...	http://schemas.cordys.com/bpm/monitoring/1.0