Oracle® Enterprise Manager Ops Center

Creating and Administering a Boot Environment for Oracle Solaris 10

12*c* Release 2 (12.2.2.0.0)

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This guide provides an end-to-end example for how to use Oracle Enterprise Manager Ops Center.

Introduction

A boot environment is an instance of a bootable Oracle Solaris image including additional software packages that are installed onto the image, and the set of all file systems and devices (disk slices and mount points) that are required to operate an Oracle Solaris operating system instance.

A dual boot environment consists of a live or active boot environment (BE) and one or more inactive alternate boot environments (ABE). An alternate boot environment is an inactive environment that is not currently booted. You can activate an alternate boot environment at any time.

Creating a boot environment provides a method of copying critical file systems from the active boot environment to a new boot environment. The lucreate command enables reorganizing a disk if necessary, customizing file systems, and copying the critical file systems to the new boot environment.

This example describes how to create a boot environment using a profile and an associated deployment plan for Oracle Solaris 10 operating system that has UFS file system.

The lucreate command used here is `-c first_disk -m /:/dev/dsk/c1t3d0s0:ufs`

`first_disk` is the name of the boot environment assigned to the active boot environment. This option is only used when the first boot environment is created. If you run lucreate for the first time and you omit the `-c` option, the software creates a default name.

The `lucreate` command that is used with the `-m` option specifies which file systems and the number of file systems to be created in the new boot environment. For example, a single use of the `-m` option specifies where to put all the file systems.

If Oracle Solaris 10 operating system contains zones, you must know about the limitations and the expected operations for Oracle Solaris 10 boot environment, before creating the boot environment.

See Related Articles and Resources for links to related information and articles.

What You Will Need

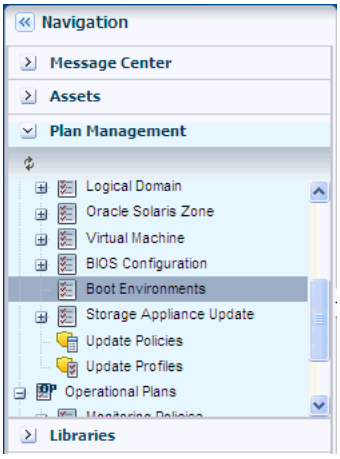
You will need the following to create the boot environment for Oracle Solaris 10 operating system:

- Determine your boot environment policy by activating boot environment and reboot on job completion.
- An agent-managed Oracle Solaris 10 operating system with the Oracle Solaris Live Upgrade feature.
- Latest Oracle Solaris Live Upgrade packages and patches must be installed to ensure that you have all the latest bug fixes and features.
- Verify that the disk space available is enough for the creation of boot environment.
- Asset administrator role, an Update administrator role, and a Plan/Profile administrator role to complete the procedure for creating boot environment.

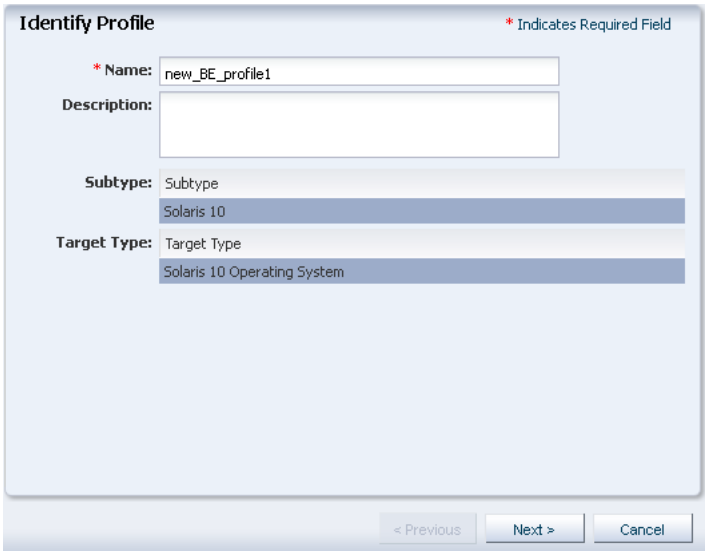
Create a Boot Environment Profile for Oracle Solaris 10

The steps to create a profile for boot environment for Oracle Solaris 10 are:

1. Expand **Plan Management** in Navigation pane.
2. Select **Boot Environments** under **Profiles and Policies**.

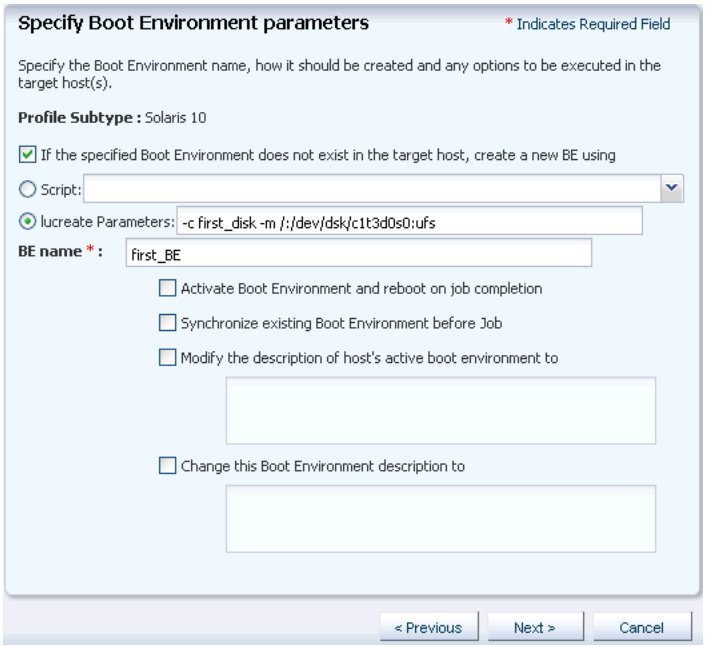


3. Click **Create Profile** from the Actions pane. It opens a **Create Profile wizard** for Boot Environment for Oracle Solaris 10.
4. Enter the following information and click **Next**.
   - Name: Enter the name of the profile.
   - Description: Enter the description of the profile.
   - Subtype: Select the subtype as Solaris 10.
   - Target Type: Select the target type as Solaris 10 Operating System.



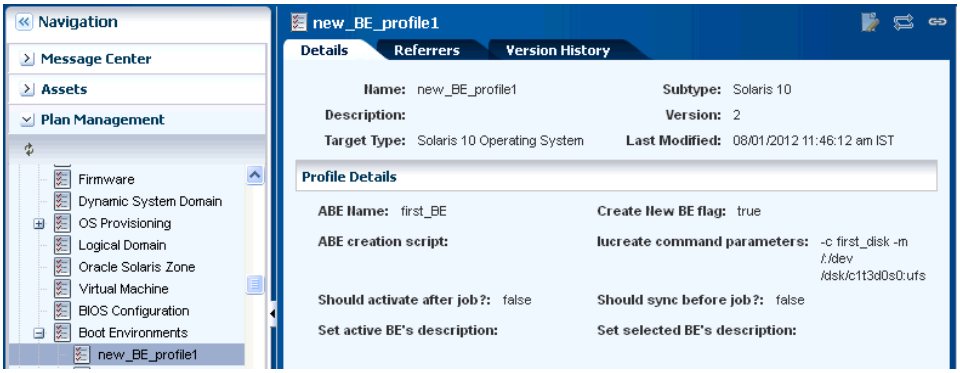
5. Specify the boot environment parameters and click **Next**.

   - lucreate Parameters: Enter the lucreate parameter. For example, a lucreate parameter is `-c first_disk -m /:/dev/dsk/c1t3d0s0:ufs`
   - BE Name: Enter the name of boot environment.
   - Deselect the **Modify the description of host's active boot environment to** check box.
   - Deselect the **Change this Boot Environment description to** check box.



6. Review the summary of the profile and click **Finish** to save the profile.

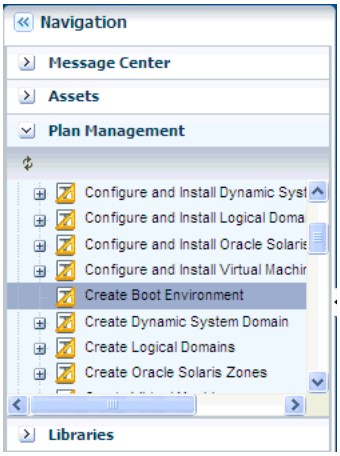
The profile for boot environment for Oracle Solaris 10 then appears under the Boot Environments section under Profiles and Policies of the Navigation pane.



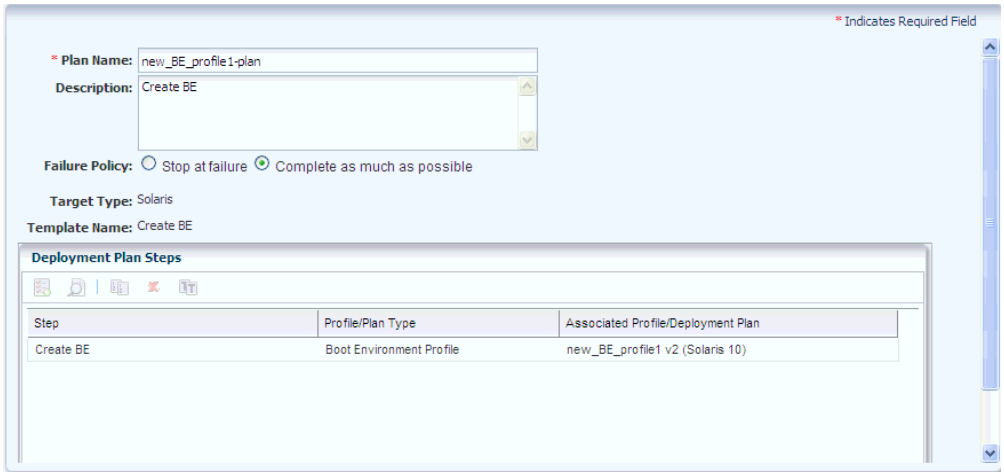
Create a Boot Environment Deployment Plan for Oracle Solaris 10

The steps to create a deployment plan for boot environment for Oracle Solaris 10 are:

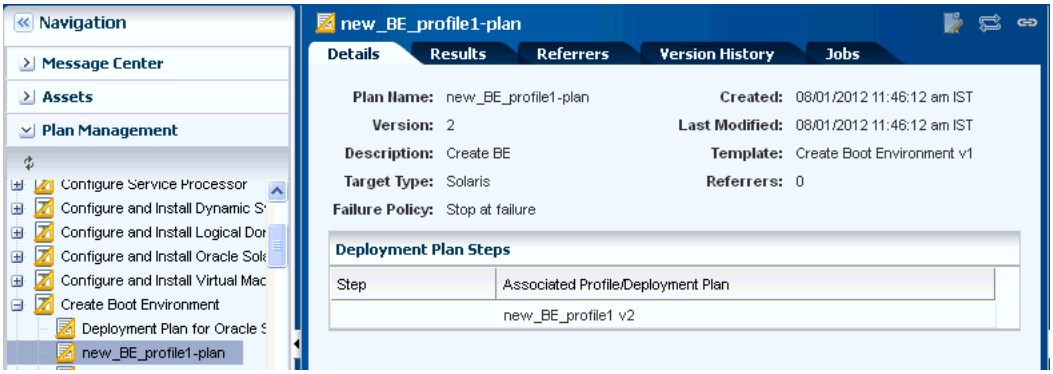
1. Expand **Plan Management** in Navigation pane.
2. Select **Create Boot Environment** under **Deployment Plans**.



3. Click **Create Plan from Template** from the Actions pane. It opens **Create a Deployment Plan wizard** for Boot Environment for Oracle Solaris 10.
4. Enter the following details and click **Save**.
   - Plan name: Enter the name of the deployment plan.
   - Description: Enter the description of the plan.
   - Failure Policy: Select Complete as much as possible.
   - Deployment Plan Steps: Associate the profile that is created for the **Create BE** step by clicking on the drop down of Associate Profile/Deployment Plan and then select the corresponding profile.



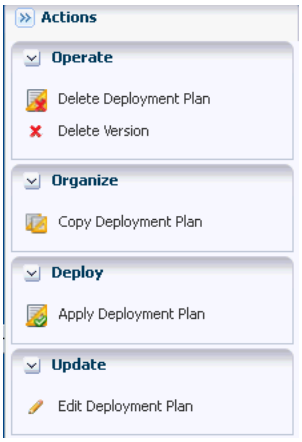
The deployment plan for boot environment for Oracle Solaris 10 then appears under the **Create Boot Environment** section under **Deployment Plans** of the Navigation pane.



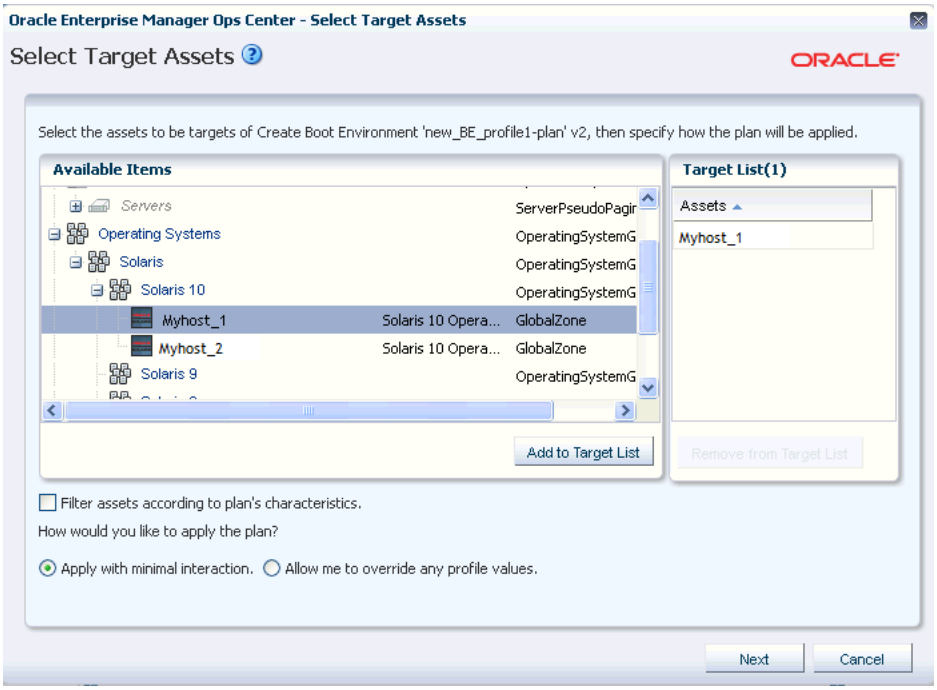
Create a Boot Environment for Oracle Solaris 10 From a Deployment Plan

Complete the following steps to create a boot environment for Oracle Solaris 10 from a deployment plan.

1. Expand **Plan Management** in Navigation pane.
2. Expand **Deployment Plans**.
3. Select the deployment plan under **Create Boot Environment**.
4. Select **Apply Deployment Plan** from the Actions pane.

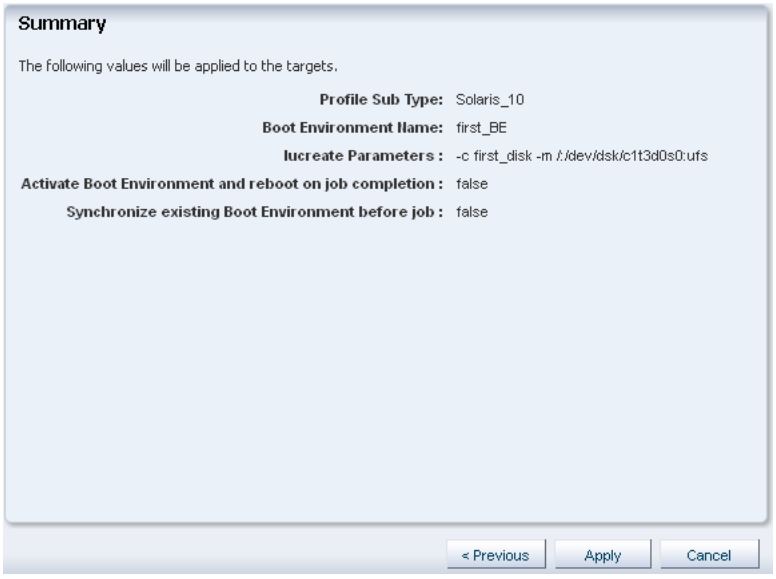


5. Select the target assets and Add to Target List. Click **Next**.

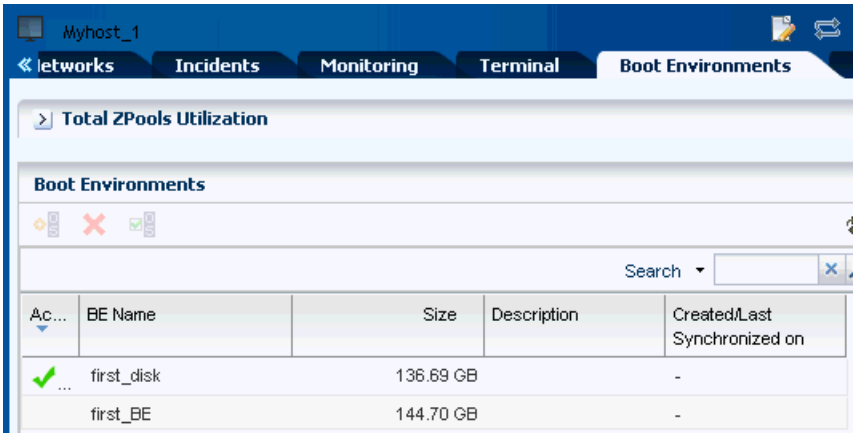


6. Schedule the job to run Now or at a later time and click **Next**.

7. View the Summary and click **Apply**.



This new boot environment now appears in the Boot Environment tab of the center pane.



What's Next?

After you create a boot environment, you can administer and manage the boot environment.

- View a Boot Environment
- Synchronize a Boot Environment
- Activate a Boot Environment
- Update a Boot Environment
- Delete a Boot Environment

View a Boot Environment

You can view the active boot environment and the inactive boot environment in the Boot Environments tab and in the Summary tab. Inactive boot environments appear in the Boot Environments tab for each operating system.

When you select the Oracle Solaris 10 operating system under Assets section, the **Summary** tab displays the name of the active boot environment in the center pane.

Further details about the boot environment are available in the **Boot Environments** tab in the center pane. To view the file system details, click the **FileSystems** subtab in the **Boot Environments** tab. To view the associated zone boot environment details, click the **Associated Zone BEs** subtab in the **Boot Environments** tab.

Synchronize a Boot Environment

You can synchronize, or sync, an active Oracle Solaris 10 global zone boot environment with an inactive boot environment on the same system. Synchronizing boot environments makes the inactive boot environment the same as the currently running boot environment.

To synchronize a single boot environment:

1. Click an **Oracle Solaris 10 operating system** in the **Assets** section of Navigation pane.
2. Click the **Boot Environments** tab. Existing boot environments for the OS appear in the center pane.

3. Select the boot environment and click **Synchronize Boot Environment** from the Actions pane.

Activate a Boot Environment

Activating a boot environment makes an inactive or alternate boot environment the active boot environment. You can activate a single boot environment, or you can select an operating system group and activate an alternate boot environment for each operating system.

To activate a single boot environment:

1. Click an **Oracle Solaris 10 operating system** in the **Assets** section of Navigation pane.
2. Click the **Boot Environments** tab. Existing boot environments for the OS appear in the center pane.
3. Select the boot environment and click **Activate Boot Environment and Reboot** from the Actions pane.

You can also activate a boot environment from the Boot Environments tab by clicking the Activate a Boot Environment icon.

Only one boot environment can be active at a time. The newly activated boot environment becomes the default environment upon reboot. You cannot delete the active boot environment.

Update a Boot Environment

You can update an alternate boot environment by deploying a Software Deployment / Update deployment plan and selecting the alternate boot environment as the target. Before you update an alternate boot environment, you must have a Software Deployment / Update plan. You can also update a boot environment from an Update Profile.

Delete a Boot Environment

You can delete a boot environment by deleting all associated snapshots and unshared file systems. If there are non-global zone boot environments associated with the global zone boot environment, you can delete them too. Shared file systems are not deleted.

To delete a boot environment:

1. Click an **Oracle Solaris 10 operating system** in the **Assets** section of Navigation pane.
2. Select one or more boot environments or snapshots that you want to remove in the **Boot Environments** tab, then click the **Delete Boot Environment(s)** icon.

Related Articles and Resources

For more information on installing and using the Live Upgrade feature, and the parameters available for the lucreate command see,

- `Oracle Solaris 10 Installation Guide: Solaris Live Upgrade and Upgrade Planning`
- `lucreate (1M)` man page

For more information on the limitations and requirements on zones, see the section *Requirements for Oracle Solaris 10 Live Upgrade and Oracle Solaris Zones* in *Oracle Enterprise Manager Ops Center Feature Reference Guide*.

See the following chapters in *Oracle Enterprise Manager Ops Center Feature Reference Guide*:

- Operating System Management
- Monitoring Rules and Policies
- Oracle Solaris Zones

Oracle Solaris 10 documentation at
http://www.oracle.com/technetwork/documentation/solaris-10-192992.html

See the Operate How To library at
http://docs.oracle.com/cd/E40871_01/nav/operatehowto.htm for more information about operating Oracle Enterprise Manager Ops Center.

See the Deploy How To library at
http://docs.oracle.com/cd/E40871_01/nav/deployhowto.htm for more information about deploying Oracle Enterprise Manager Ops Center.

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