Faronics

DEEPFREEZE™

ABSOLUTE Workstation Integrity

Deep Freeze - Integrating with ZENworks

TECHNICAL WHITEPAPER

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Faronics
Toll Free Tel: 800-943-6422
Toll Free Fax: 800-943-6488
International Tel: +1 604-637-3333
International Fax: +1 604-637-8188

www.faronics.com

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Introduction

Deep Freeze provides network administrators with a simple and 100 percent successful method of maintaining desktop systems and reduces software technical support to an absolute minimum. Completely invulnerable to hacking, Deep Freeze instantly protects and preserves original computer configurations. No matter what changes a user makes to a workstation, simply restart to eradicate all changes and reset the computer to its original state. Computing environments are easier to manage and maintain, and expensive computer assets are kept running at 100 percent capacity. The result is a truly protected and parallel network, completely free of harmful viruses and unwanted programs.

Who should use this document?

This document is intended for anyone who wants to use Deep Freeze in an ZENworks environment. It explains how to:

- Install and upgrade the Deep Freeze Configuration Administrator

- Install and Uninstall Deep Freeze Workstation files and Seeds

- Install and use Deep Freeze Command Line Control (DFC) to manage workstations (creating Freeze and Thaw objects)

To use this document, you should:

- Have a working knowledge of Novell ZENworks

- Be comfortable creating applications objects in the Novell Directory Services (NDS) tree

This document assumes that all the components of your ZENworks environment are installed, configured, and operating correctly. Specifically, you must ensure that the ZENworks Application Launcher is available and installed on client workstations of the following procedures will not be valid.

The examples are based on ZENworks 7, running on a Novell 6.5 server. If you run an earlier version of ZENworks, screens may appear slightly differently.

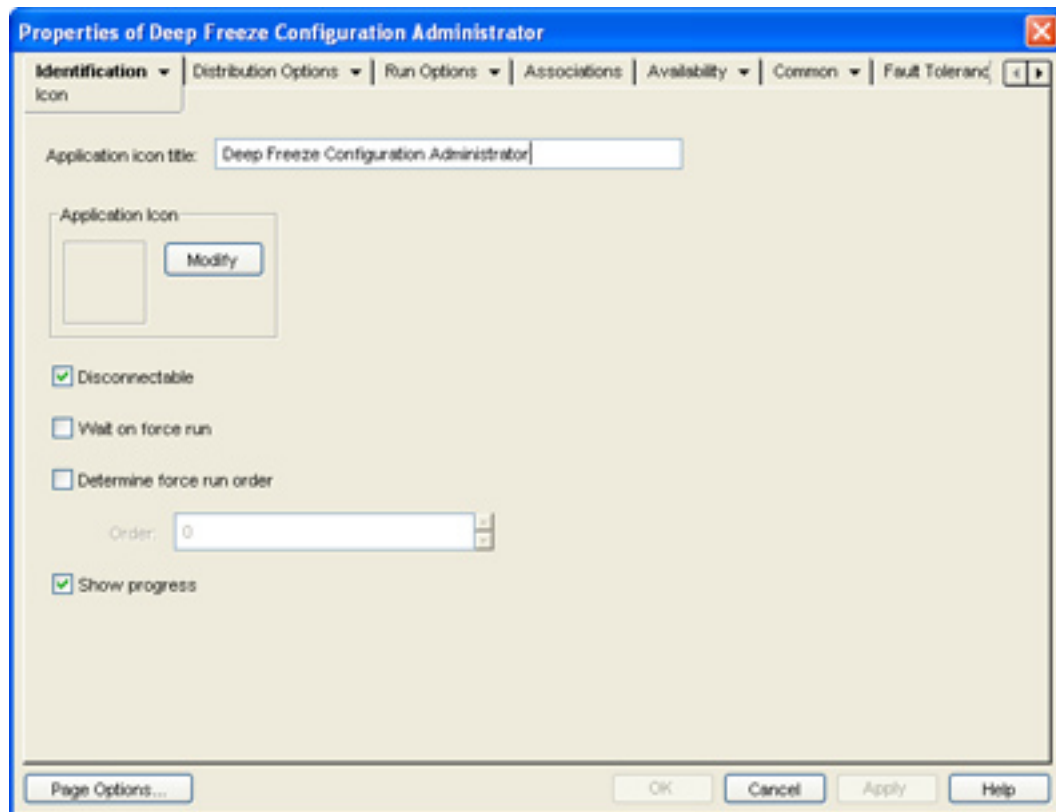## Installing the Deep Freeze Configuration Administrator

The Deep Freeze Configuration Administrator is the component of the Deep Freeze installation that allows workstation installation files, Workstation Seeds, and the Deep Freeze Enterprise Console to be created.

The Configuration Administrator should only be deployed to workstations that require the administrative portion of the software installed.

The following procedure uses a Customization Code. Keep this code secure as any user who obtains the Customization Code may be able to bypass installed copies of Deep Freeze.

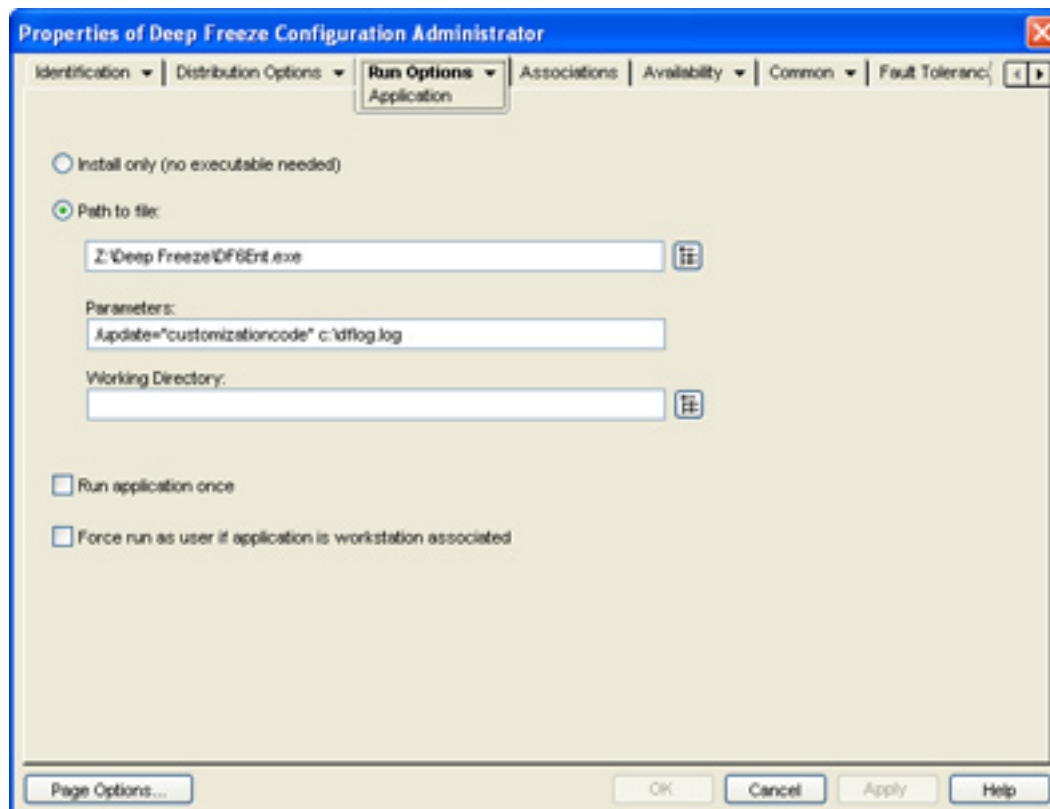**To Install the Deep Freeze Configuration Administrator:**

1. Copy the Configuration Administrator installation file to a share on the network that the workstation can access.

2. Create a new application object named *Deep Freeze Configuration Administrator* in the NDS tree by accepting all the default options.

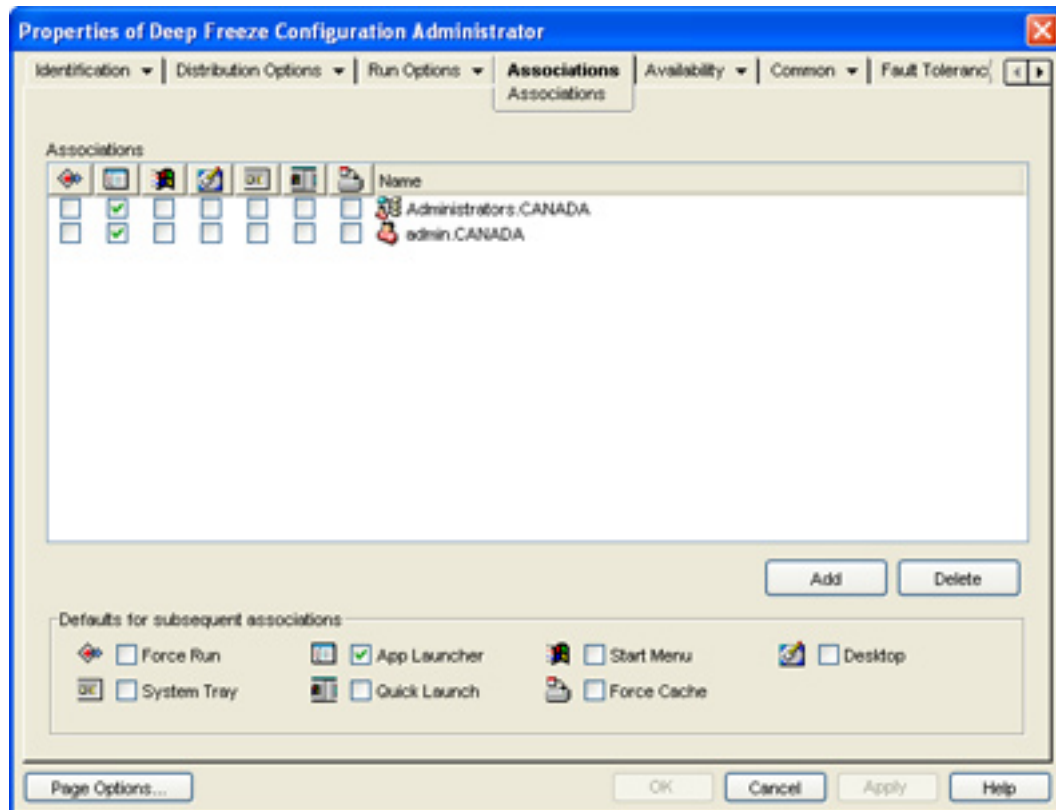3. Right-click on the application object and select *Properties*.

4. Select *Run Options > Application,* and then select *Path to file*.

5. In the *Path to file* box, type the full path to the Configuration Administrator installer; for example, `Z:\Deep Freeze\DF6Ent.EXE`. You can also use a UNC Path if you have not mapped the network share to a drive on the workstation.

In the *Parameters* box, type the command `/update="<customizationcode>" c:\dflog.log`, where `<customizationcode>` is the Customization Code you want to assign.

6. Select the *Associations > Associations* tab, and add the appropriate users or workstations to associate with this object.

7. Click *Apply* then click *OK*.

8. On the client workstation where you want to install the Configuration Administrator, open the Novell Application Launcher, and browse to the folder containing the *Deep Freeze Configuration Administrator* application object. Run this application to install the Configuration Administrator.

Upgrading the Deep Freeze Configuration Administrator:

To upgrade the Deep Freeze Configuration Administrator to a more recent version, replace the installation file on the network share with the updated DF6Ent.EXE application and complete the previous procedure.
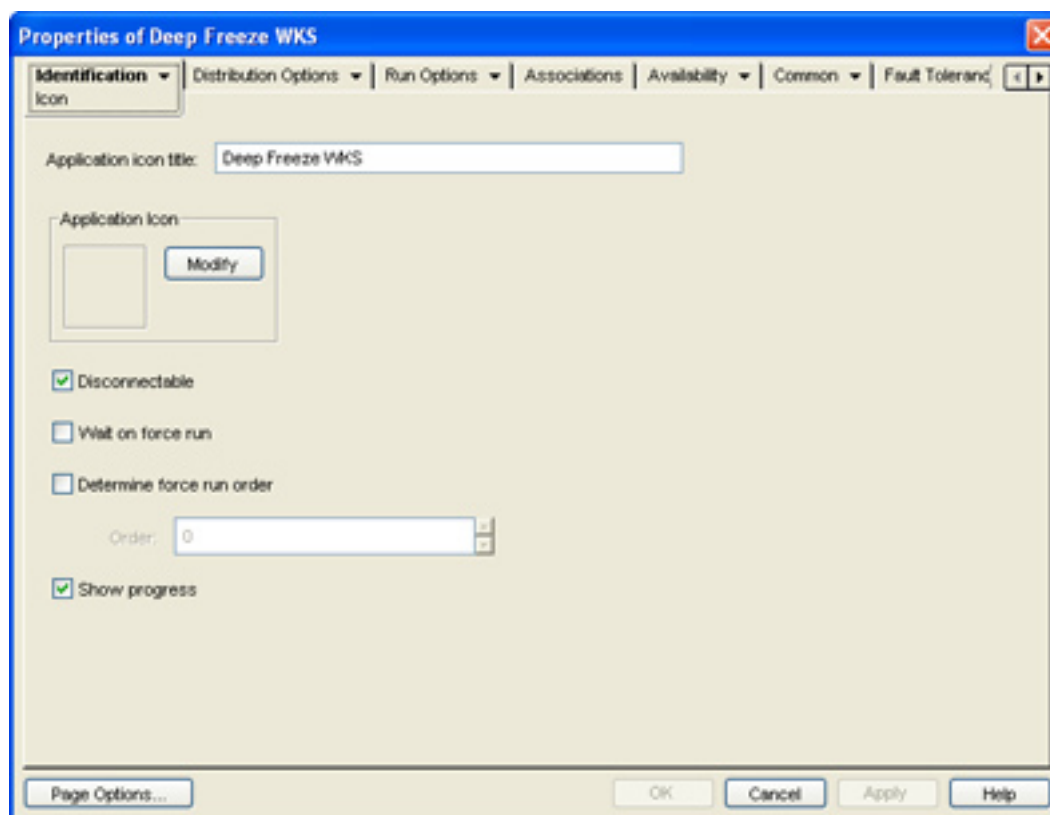
Installing Deep Freeze Workstation Installation Files and Workstation Seed Files

The Deep Freeze workstation installation files and workstation Seed files are the workstation level Deep Freeze components that must be installed on all workstations protected by Deep Freeze.

You do not need to install both the workstation installation file and the Workstation Seed. The workstation installation file contains a full copy of the Workstation Seed and is installed when you run the full workstation install. The Workstation Seed should only be installed if you want to use the Deep Freeze Enterprise Console to push the workstation installation file to workstations rather than using ZENworks.
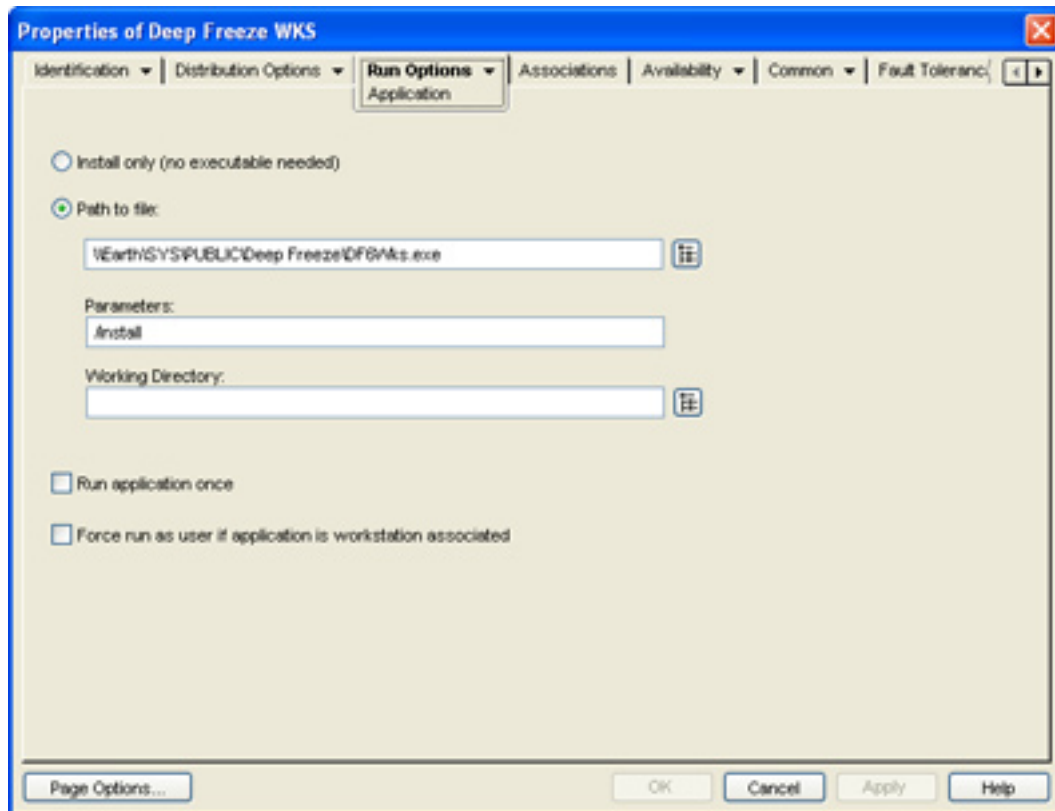
To Install the Workstation Installation or Seed Files:

1. Copy the Seed or workstation installation file to a share on the network that the workstation can access.

2. Create a new application object named *Deep Freeze WKS* in the NDS tree by accepting all the default options.

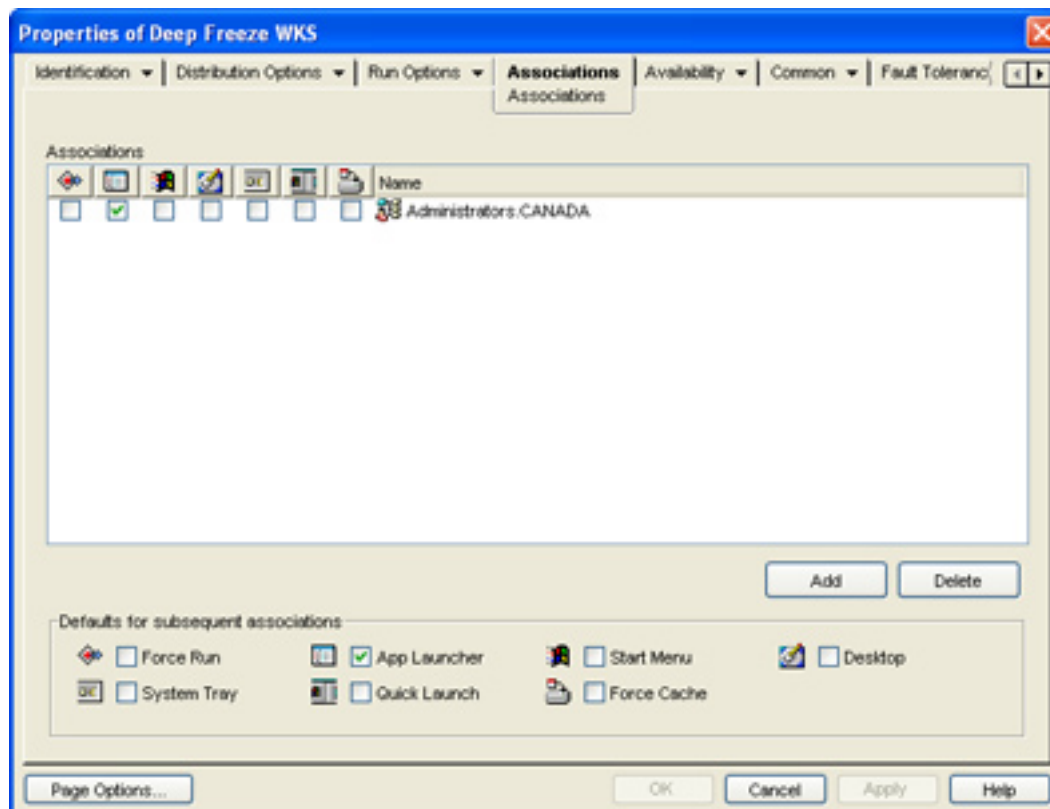3. Right-click on the Application Object and select *Properties*.

4. Select *Run Options > Application* and type the full path to the workstation installation file; for example, `\\Earth\SYS\PUBLIC\Deep Freeze\DF6Wks.exe`. You can use any path valid on the workstation, including mapped drives.

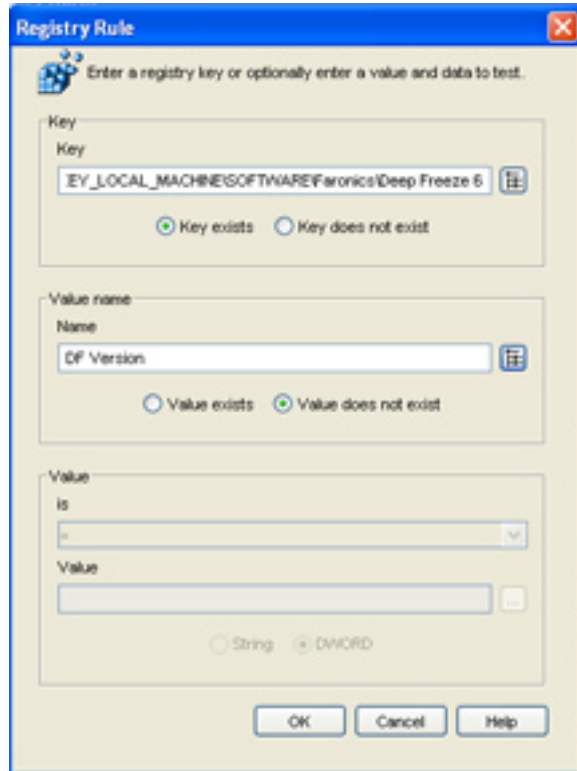5. In the *Parameters* box, type the command line switch `/install`.

6. Select the *Associations > Associations* tab and add the appropriate workstations to associate with this object. We recommend that you associate the install files object with workstation objects rather than user objects. This prevents you from inadvertently installing the workstation install file on a workstation that you don't want to protect by Deep Freeze.

7. Select the *Availability > Distribution Rules* tab, and then click *Add*.

8. In the *Registry Rule* dialog box, in the *Key* area, select *Key exists*, and browse to the location of the Deep Freeze file.

    In the *Value name* area, select *Value does not exist*, type the name `DF Version`, and click *OK*.

9. Click *Apply*, and then click *OK*.

    On the client workstations where you want to install the application object, you can install by browsing to the object in the Application Launcher window, or if you configured the object to force run, the software installs the next time a user logs on to the workstation.

Uninstalling Deep Freeze

To uninstall Deep Freeze, simply Thaw or disable Deep Freeze on the chosen workstation(s) using the boot Thawed command discussed on the following pages of this document. Then complete the previous installation process.

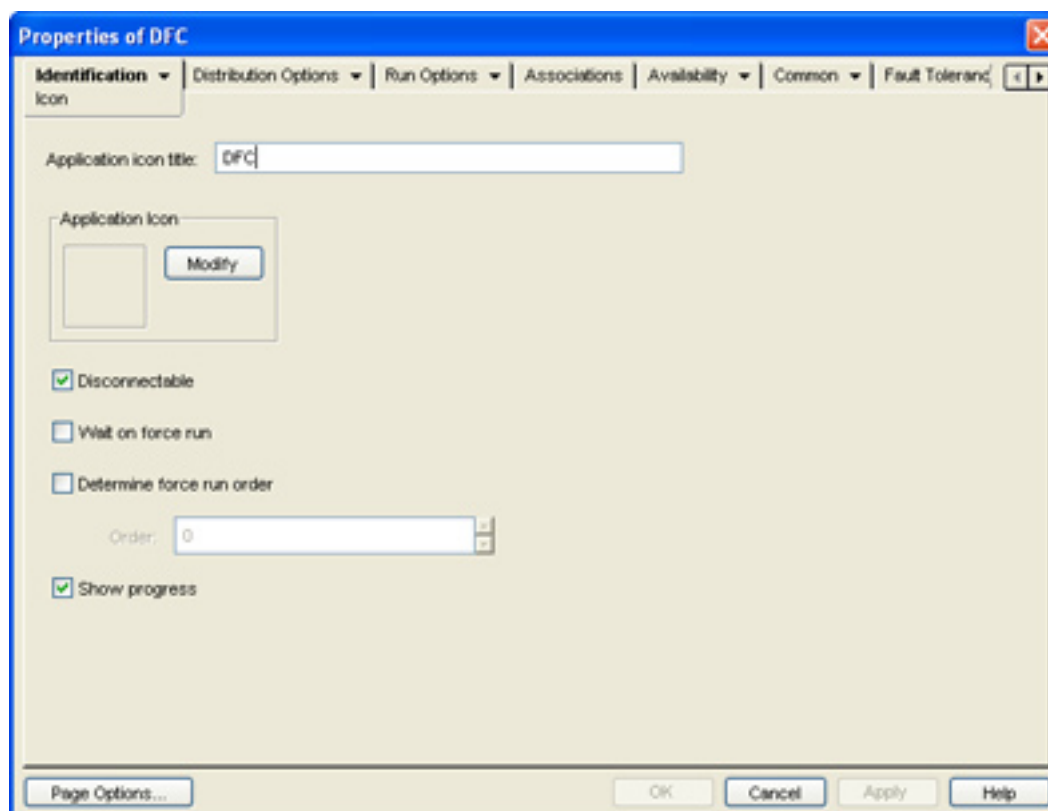# Using Deep Freeze Command Line Control to Control Deep Freeze

The Deep Freeze Command Line Control (DFC) offers network administrators increased flexibility in managing Deep Freeze workstations. DFC works in combination with third-party enterprise management tools and/or central management update workstations on the fly and on demand. For more information on using the DFC command, see the Deep Freeze Enterprise User Guide.

Installing Deep Freeze Command Line Control on Workstations

You can control an installed copy of Deep Freeze using ZENworks and Deep Freeze Command Line Control (DFC). The DFC.EXE application is installed by default in the C:\Program Files\Faronics\ Deep Freeze 6 Enterprise folder. You must copy it to workstations or run it by ZENworks from a publicly accessible network share on the local machine to control the status of the systems.
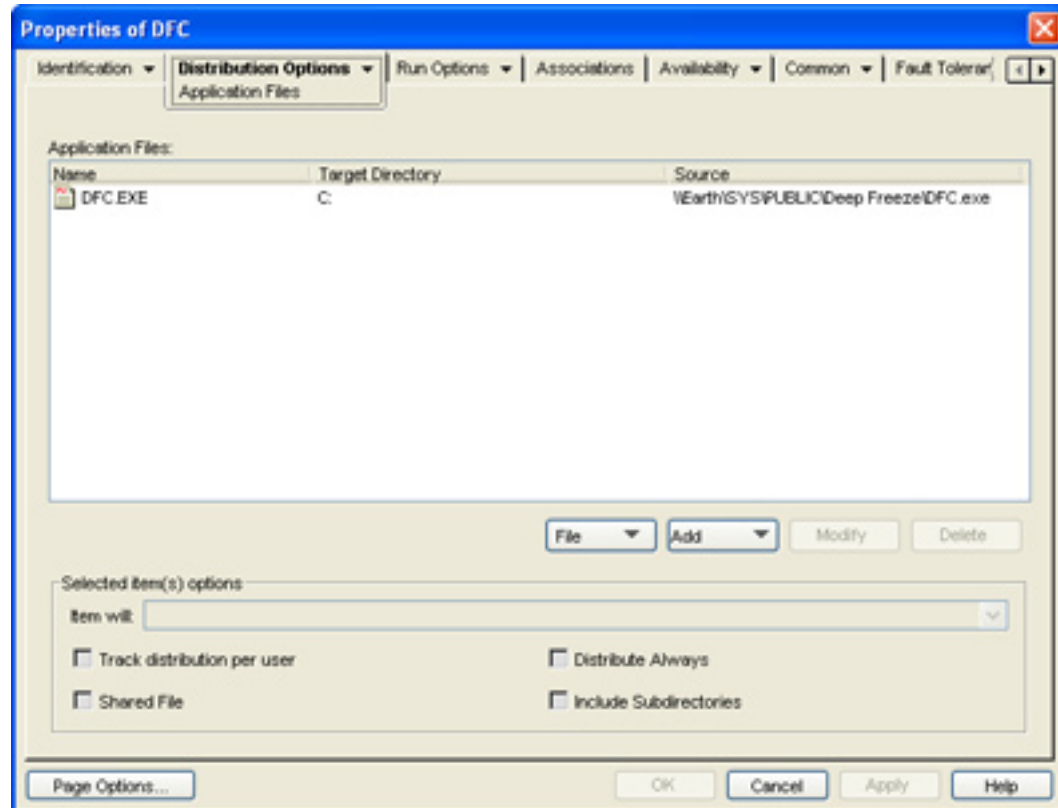
To install DFC on Workstations:

1. Copy the DFC.exe file to a share on the network that the workstation can access.
2. Create a new application object named *DFC* in the NDS tree by accepting all the default options.
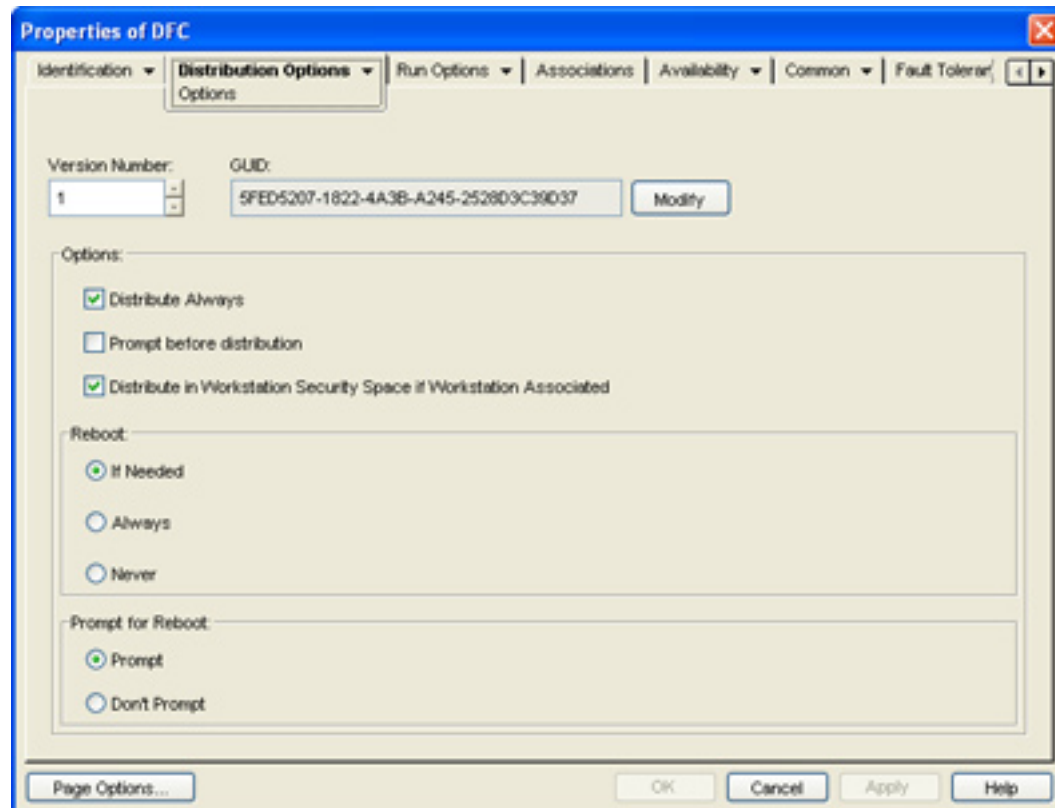3. Right-click on the Application Object and select *Properties*.

4. Select *Distribution Options > Application Files* and add the DFC.exe application to the list of files to be copied to the workstation; for example, *\\Earth\SYS\PUBLIC\Deep Freeze\DFC. exe* will be copied to the *C:* partition.
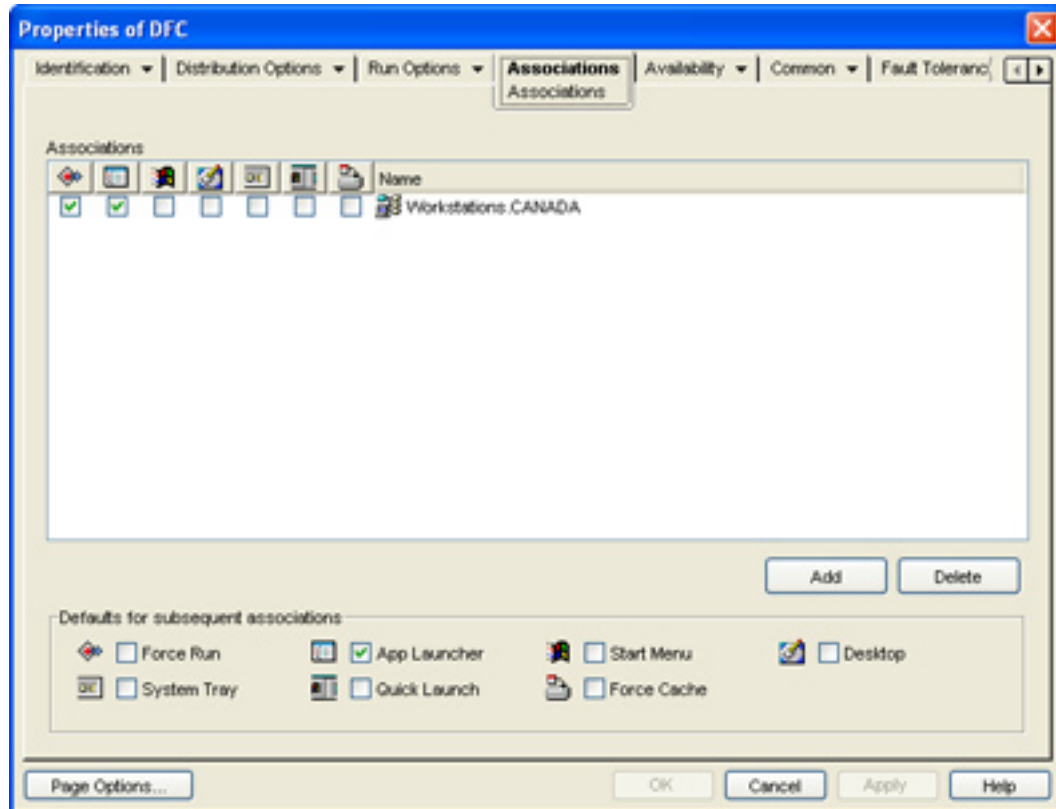
You can copy the file to any location on the system, but we recommend that you place the files in a location that exists on all workstations being installed. Browse through the file system to select the file; do not use a mounted volume.

5.   Select *Distribution Options > Options*, and select *Distribute Always* and *Distribute in workstation security space if workstation associated*.

6. Select the *Associations > Associations* tab and add the appropriate workstations to associate with this object, and select *Force Run*; for example, all workstations running Deep Freeze are part of the *Workstations.CANADA* container and the application is associated with the workstations in that container.

7. Click *Apply* and then click *OK*.

The DFC.exe file is transferred to each workstation associated with the application object. Once the file is transferred you can start using the DFC command on the workstations.

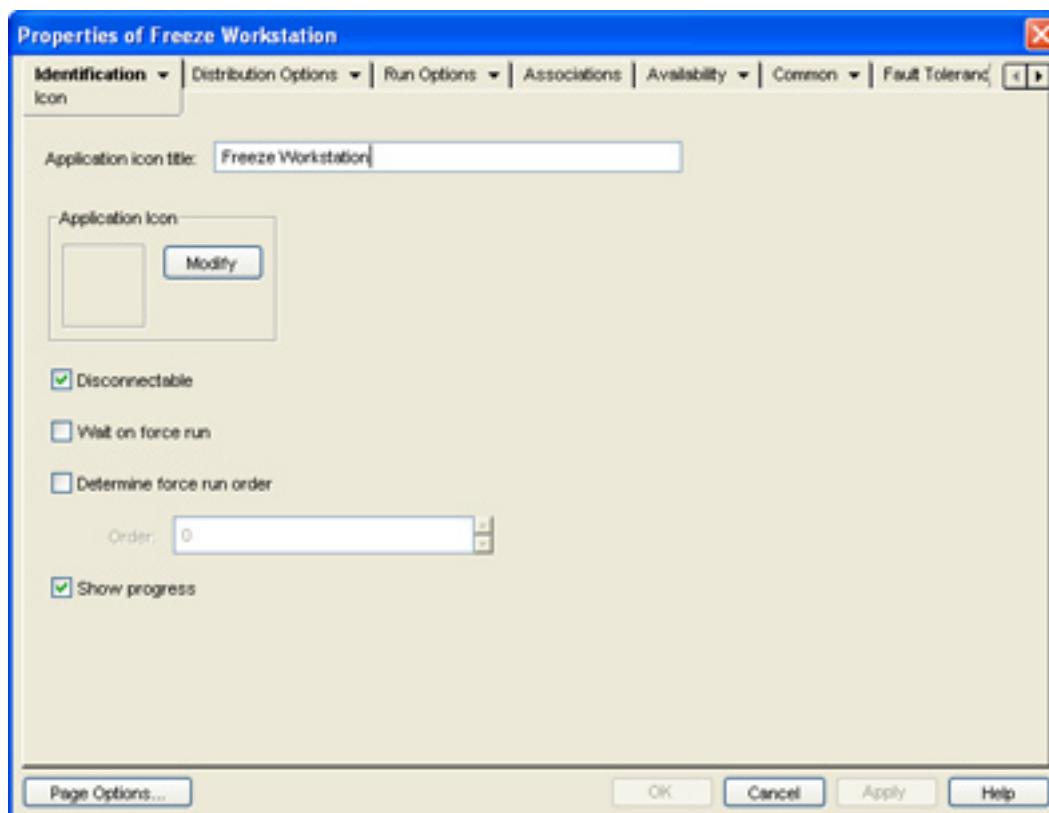## Configuring ZENworks to Control Deep Freeze using DFC

Prior to Thawing or Freezing workstations using ZENworks, you must create application objects that tell ZENworks the appropriate commands to run on target workstations.

To ensure that the command line passwords remain secure, the distribution scripts will be part of the application objects in the NDS tree. This ensures that users without access to the application objects cannot extract a command line password from the script.

These steps assume the DFC file has been copied to the C:\ partition, and that the command line password is *cmdpassword*. You can alter the path to the file and the command line password to fit your environment.

To Create the Freeze Object:

1. Create a new application object named *DFC* in the NDS tree by accepting all the default options.

2. Right-click on the Application Object and select *Properties*.
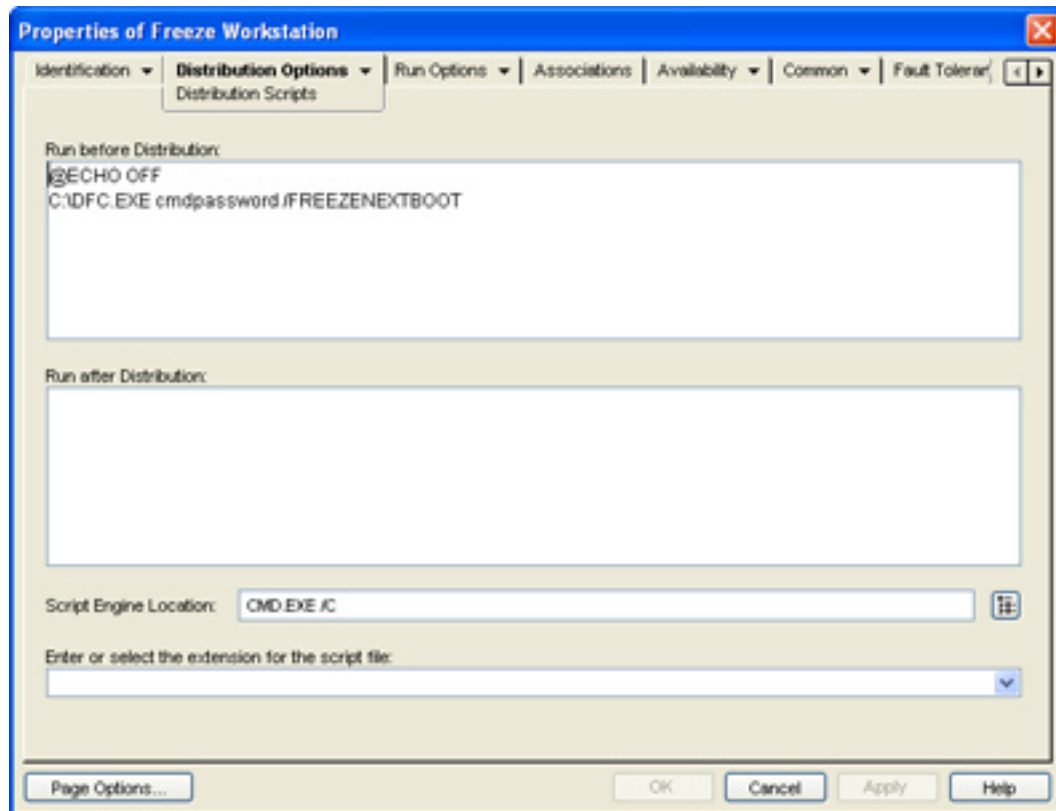

3. Select the *Distribution Options > Distribution Scripts* tab and type the following script into the *Run Before Distribution* box:

```
@ECHO OFF

C:\DFC.EXE cmdpassword /FREEZENEXTBOOT
```

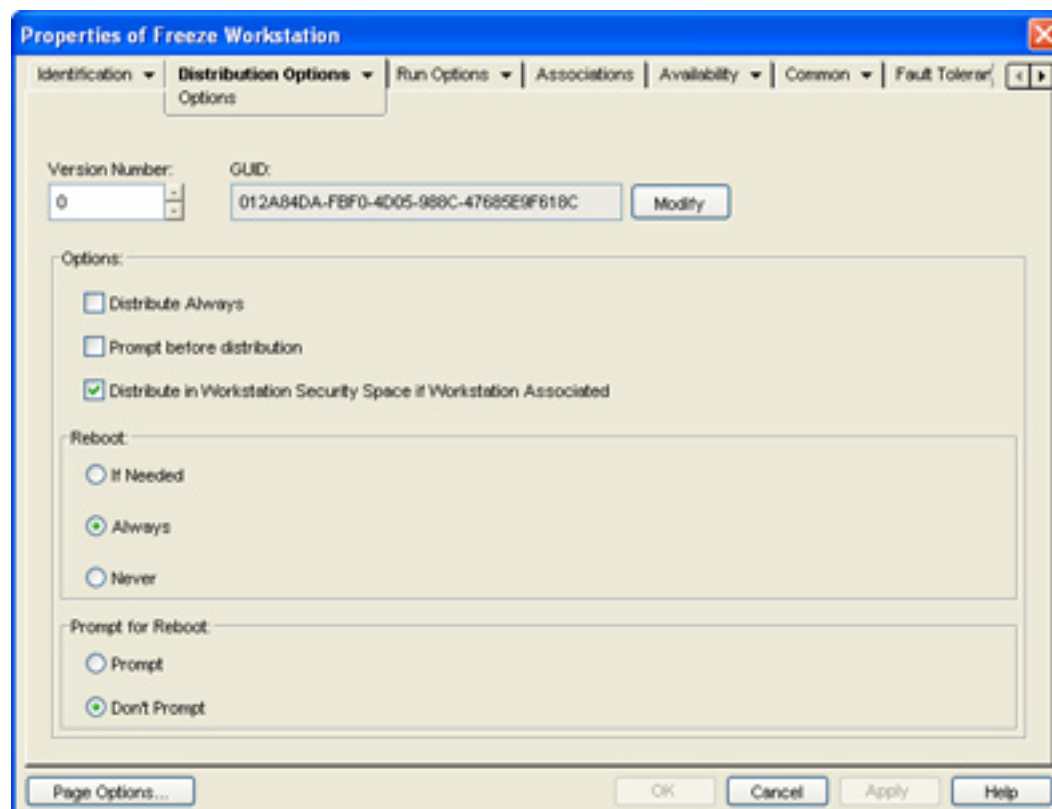4. In the *Script Engine Location* box, type: CMD.EXE /C

5. Select the *Distribution Options > Options* tab, and select the options below:
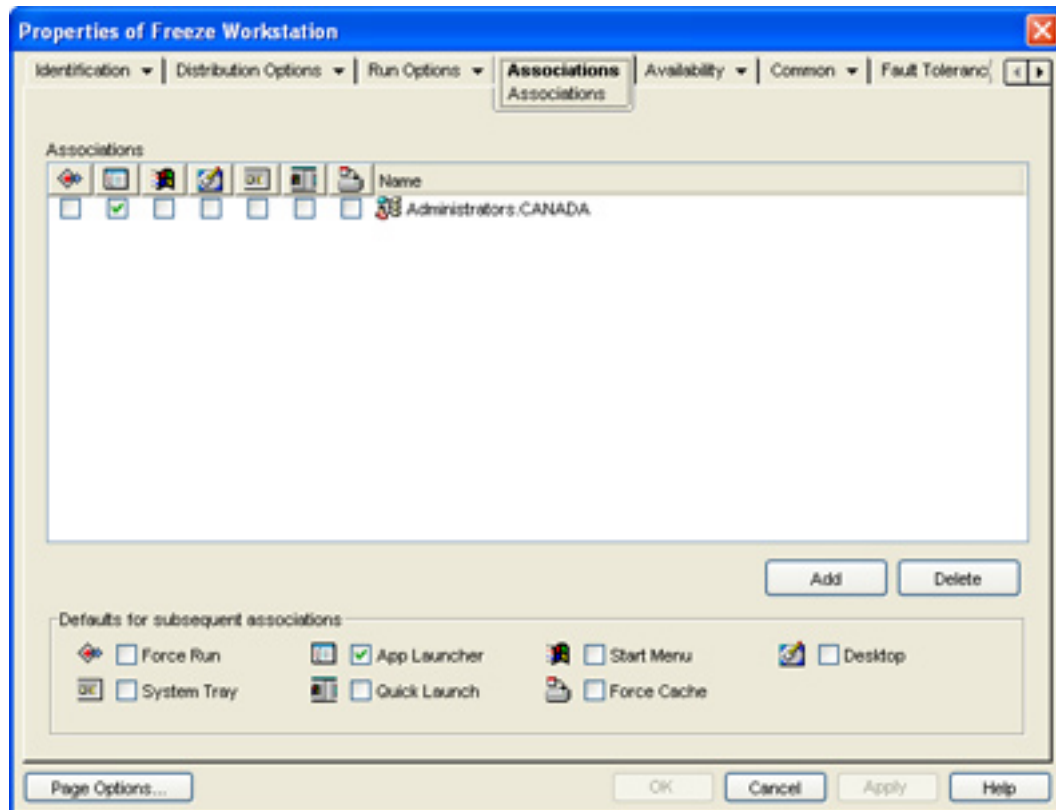
Reboot > Always

Prompt for Reboot > Don't Prompt

Distribute in Workstation Security Space if Workstation Associated

6. Select the *Associations > Associations* tab, and add the appropriate workstations and users to associate with this object.
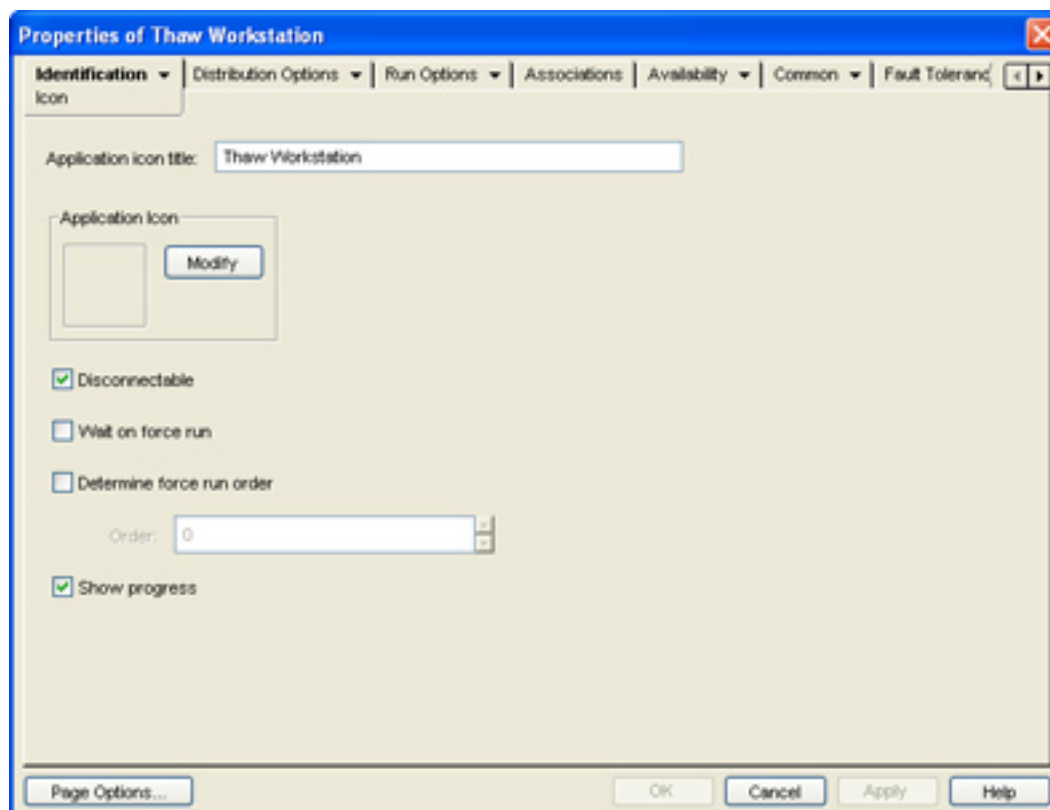

7. Click *Apply* and click *OK*.

To verify the application object functions correctly, browse to the object in the Application Launcher and run the application object. The workstation should automatically reboot into a Frozen state.
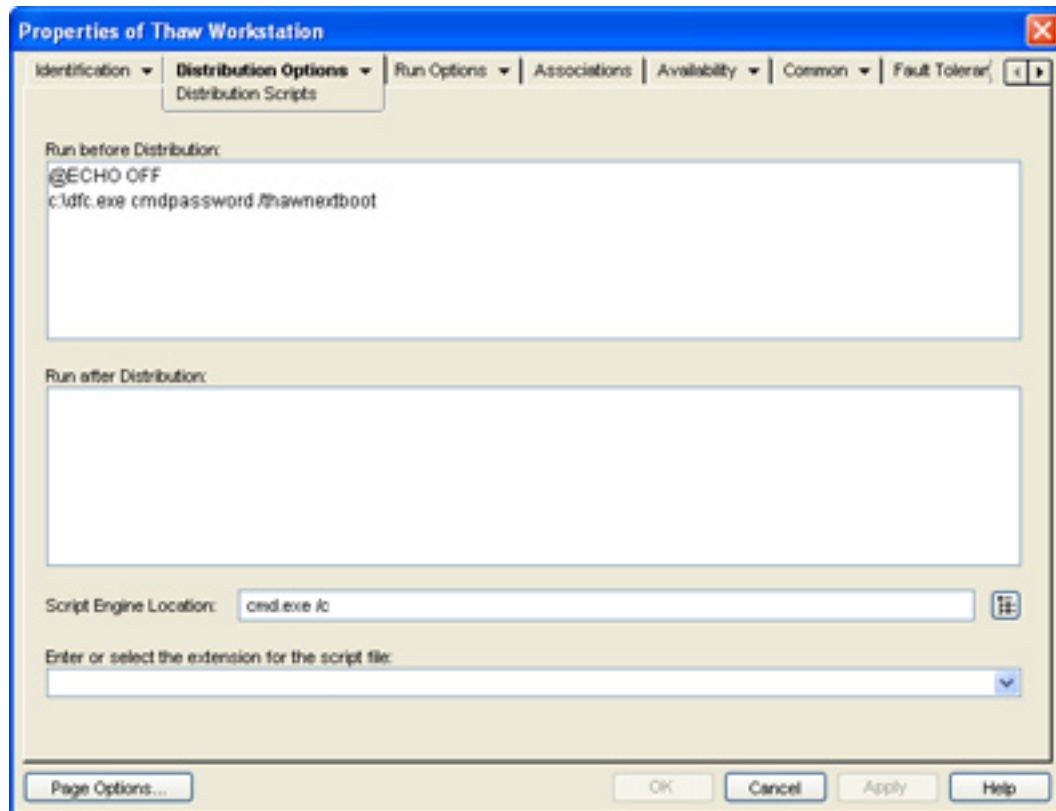
To Create the Thaw Object:

1. Create a new application object named *DFC* in the NDS tree by accepting all the default options.
2. Right-click on the Application Object and select *Properties*.

3. Select the *Distribution Options > Distribution Scripts* tab and type the following script into the *Run Before Distribution* box:

```
@ECHO OFF

C:\DFC.EXE cmdpassword /THAWNEXTBOOT
```

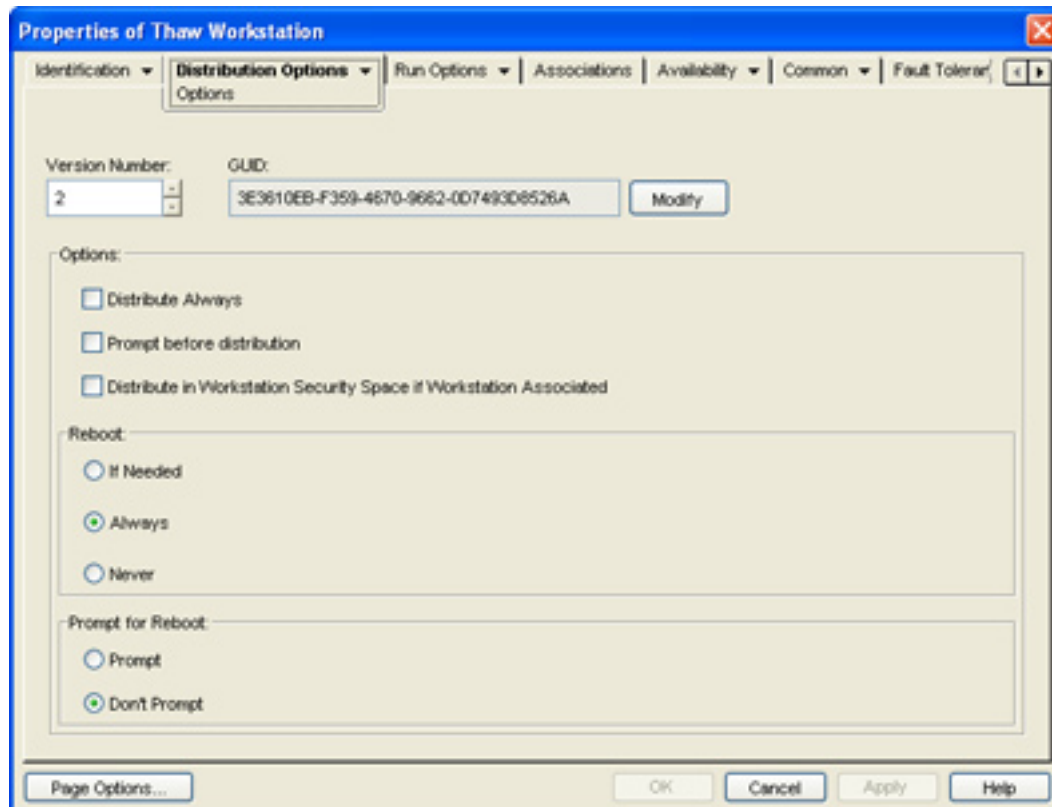4. In the *Script Engine Location* box, type: CMD.EXE /C

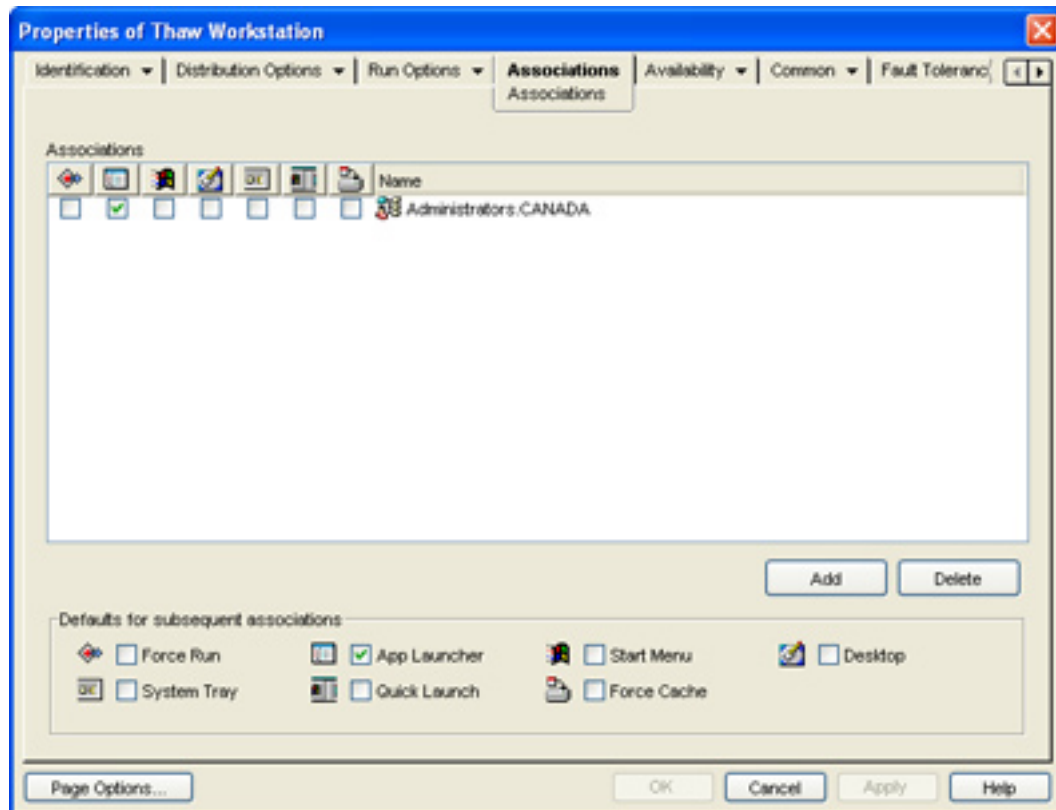5. Select the *Distribution Options > Options* tab, and select the options below:

Reboot > Always

Prompt for Reboot > Don't Prompt

Distribute in Workstation Security Space if Workstation Associated

6. Select the *Associations > Associations* tab, and add the appropriate workstations and users to associate with this object.

7. Click *Apply* and click *OK*.

The command line option */THAWNEXTBOOT* will Thaw the computer and allow users to access the system via the local terminal. If users should not be able to access the terminal while Thawed, you can replace the */THAWNEXTBOOT* switch with the */THAWLOCKNEXTBOOT* command line switch to disable keyboard and mouse access while the computer is Thawed.

To verify the application object functions correctly, browse to the object in the Application Launcher and run the application object. The workstation should automatically reboot into a Frozen state.

Updating Workstation Installation Files

Update workstations with installed copies of Deep Freeze using the *Update* feature of the Enterprise Console introduced in version 6.x of Deep Freeze Enterprise.

To Update Workstation Installation Files using DFC:

Configure an application object to launch the following DFC command:

DFC password /UPDATE = <path to installer file>

Path to installer file references a workstation installation file updated to the latest version, and resides in a location on the file server publicly accessible to the users or workstations associated with the application object.

Application Dependencies

In ZENworks you can make an application dependant on the execution of another application object prior to installation. In this case, you can make the installation of a specific application dependant on the push of a Thaw command to the workstation by creating an application object that Thaws the workstation when deployed. Each user associated with the primary application is added as a trustee of the dependent application. For more information on application dependencies, see the ZENworks documentation.

Application dependencies are not available in ZENworks prior to version 4.01.