

Deep Freeze - Integrating with ZENworks

TECHNICAL WHITEPAPER

Last modified: April, 2007

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

©1999-2007 Faronics Corporation. All rights reserved. Deep Freeze, Anti-Executable, and WINSelect are trademarks and/or registered trademarks of Faronics Corporation. All other company and product names are trademarks of their respective owners.



Contents

Introduction	
Installing the Deep Freeze Configuration Administrator To Install the Deep Freeze Configuration Administrator:	3
Installing Deep Freeze Workstation Installation Files and Workstation Seed Files To Install the Workstation Installation or Seed Files: Uninstalling Deep Freeze	7
Using Deep Freeze Command Line Control to Control Deep Freeze Installing Deep Freeze Command Line Control on Workstations To install DFC on Workstations: Configuring ZENworks to Control Deep Freeze using DFC. To Create the Freeze Object: To Create the Thaw Object: Updating Workstation Installation Files.	11
To Update Workstation Installation Files using DFC: Application Dependencies	

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*.

Properties of Deep Freeze Configuration Administrator
Properties of Deep Freeze Configuration Administrator Image: Common • Distribution Options • Run Options • Associations Availability • Common • Fault Tolerand • Four Tolerand • Common is common • Fault Tolerand • Common • Fault Tolerand • Common • Fault Tolerand • Pault
Order.
Page Options OK Cancel Apply Help

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.

Properties of Deep Freeze Configuration Administrator	
	ons Availability • Common • Fault Toleranc/ (
Z:'Deep Freeze'DF6Ent.exe	1
Parameters:	
Apdate="customizationcode" c:\dflog log	
Working Directory:	
	臣
Run application once Force run as user if application is workstation associated	
Page Options	OK Cancel Apply Help

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

Properties of Deep Freeze Configuration Administrator
Identification Distribution Options Run Options Associations Associations Associations Associations Associations Associations Associations Associations Associat
Add Delete Defaults for subsequent associations Image: Proce Run Image: App Launcher Image: System Tray Image: Outick Launch Image: System Tray Image: Outick Launch Image: Page Options OK Cancel Apply

- 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*.

operties of Deep Freeze WKS		
Sentification	ociations Availability 💌 Common 💌 Fault Toleri	nd I
Application icon title: Deep Freeze VMS		
Application Icon		
Modify		
Disconnectable		
Viait on force run		
Determine force run order		
Order: 0		
Show progress		
Page Options	OK Cancel Apply	Help

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.

Properties of Deep Freeze WKS	×
Identification • Distribution Options • Run Options • Associations O Install only (no executable needed) • Path to file:	Availability • Common • Fault Toleranc, (•)
VEarth/SY/SPUBLIC/Deep Freeze/DF6/4s.exe Parameters:	E
Anstall Working Directory:	Ē
Run application once Force run as user if application is workstation associated	
Page Options	OK Cancel Apply Help

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.

Properties of Deep Freeze	wks			X
Identification Distribution O Associations		Availability Availability	• Common • Fault	Tolerano, (
	Name	CANADA		
			Add	Delete
Defaults for subsequent ass				
	App Launcher	_	🛃 🗌 Desktop	
GE System Tray	🛄 🗋 Guick Launch	Porce Cache		
Page Options		OK	Cancel Apply	Help

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*.

Registry Rule	
Enter a registry key or optionally enter a value and data to to Key Key	est.
EY_LOCAL_MACHINE/SOFTWARE/Faronics/Deep Freeze 6	1
Key exists Key does not exist	
Value name Name	
DF Version	E
O Value exists	
Value	
is	
-	Y
Value	
String @DWORD	
OK Cancel H	Ap.

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*.

Properties of DFC				X
Identification Distribution Options Run Options Association	ns Availability	Common	 Fault Tolerand 	•
Application icon title: DFC				
Application Icon Modify				
Disconnectable				
Wait on force run				
Order: 0				
Show progress				
Page Options	ОК	Cancel	Apply H	elp

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.

Properties of D	FC		×
Identification +	Application Files	Run Options 🔹	▼ Associations Availability ▼ Common ▼ Fault Tolerar
Application Files			
DFC.EXE	Torget Di C	rectory	Source VEarth/SYSIPUELIC/Deep Freeze/DFC.exe
Selected Bern	(s) options		File Add Modify Delete
Bern wilt			✓
Track dis	tribution per user		Distribute Always
Shared P	lle		Include Subdirectories
Page Options			OK Cancel Apply Help

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

Properties of D	FC				E
Identification +	Distribution Options + Options	Run Options 👻 Associa	tions Availa	bility 👻 Common	▼ Fault Tolerar(<)
Version Number		A3B-A245-2528D3C39D37	Modify		
Cistribu	before distribution	pace if Workstation Associate	d		
Reboot If Need Always					
O Never					
-Prompt for R Prompt Prompt Don't Pr					
Page Options			OK .	Cancel	Apply Help

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.

Properties of DFC	X
Identification Distribution Options Run Options Associations	Availability • Common • Fault Toleranc •
Defaults for subsequent associations Porce Run Porce Run OC Ouick Launch OC Ouick Launch	Add Delete Add Delete Start Menu Force Cache
Page Options	OK Cancel Apply Help

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*.

con Application icon	stification -	Distribution Options	· Run Option	ns - Associations	Availability +	Common -	Fault Toleran	K
Application loon Modify Disconnectable Wait on force run Determine force run order Order:								
Application loon Modify Disconnectable Wait on force run Determine force run order Order:	nication icon title	Freeze Worksta	tion					
Modify Disconnectable Wait on force run Determine force run order Order:								
	pplication loon							
Weit on force run Determine force run order Order: 0		fodity						
Weit on force run Determine force run order Order: 0	_							
Weit on force run Determine force run order Order: 0								
Weit on force run Determine force run order Order: 0	Disconnectable							
Order: 0								
Order: 0	Wat on force n	n						
	Determine force	run order						
	Order 0			ч				
Show progress	ALDER TO							
	Show progress	ł						

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

operties of F	reeze Workstation						1
dentification 👻	Distribution Options + Distribution Scripts	Run Options	- Associat	ions Availab	itty 👻 🛛 Commo	n 🕶 Faut T	olerar¦ (
Run before Dist	ribution						
GECHO OFF CIDFC.EXE 0	mdpassword /FREEZEN	EXTBOOT					
Run after Distrik	ution						
Script Engine Lo	cotion: CMD EXE /C						Ē
Enter or select t	he extension for the script f	IC.					v
Page Options				OK.	Cancel	Apply	Help

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

roperries of P	reeze Workstation 🛛 🛛 🔀
Identification 👻	Distribution Options • Run Options • Associations Availability • Common • Fault Tolerar
Version Number	r: GUID:
	te Always before distribution te in Workstation Security Space if Workstation Associated
Reboot	
O Never	
Prompt for R	eboot
O Prompt	
	rompt

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

Properties of Freeze Works	lation			X
Identification • Distribution Op	tions 👻 Run Options 👻 🗚	Availability sociations CANADA	▼ Common ▼ Fault	
	ciations	_	Add Desktop	Delete
Page Options		OK (Cancel Apply	Help

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*.

Properties of Thaw Workstation				
Identification Distribution Options Run Options Association Icon	ns Availabilit	y 👻 🛛 Common	▼ Fault To	veranc' (
Application icon title: Thew Workstation				
Application Icon Modify				
Disconnectable				
Welt on force run				
Order:				
Show progress				
Page Options	OK	Cancel	Apply	Help

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

roperties of T	haw Workstation						
Identification +	Distribution Options + Distribution Scripts	Run Options	▼ Associati	ons Availabi	ty 👻 Common		kerar(<
Run before Dist	ribution						
@ECHO OFF c3dfc.exe cmo	ipassword /thawnextboot						
Run after Distrik	ution						
Script Engine Lo	cetion: cmd.exe /c						Ŧ
Enter or select t	he extension for the script fil	¢C					~
Page Options				OK	Cancel	Apply	Help

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

Properties of T	haw Workstation 🔀
Version Number 2 Options: Distribut	Distribution Options Run Options Associations Availability Common Fault Tolerar(Foult Tolerar(GUID: 3E3610EB-F359-4670-9662-0D7493D8526A Modify
Reboot O If Need	ed
O Never	
Prompt for R	eboot.
O Prompt	
 Don't Pr 	ompt
Page Options	OK Cancel Apply Help

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

Properties of Thaw Workstation			×
Identification - Distribution Options - Run Options - A	ssociations	▼ Common ▼ Fault	Toleranc', ()
Defaults for subsequent associations		Add Desktop	Delete
Page Options	ок (Cancel Apply	Help

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.