



# DEEPFREEZEMAC"

# **ADVANCED** System Integrity

# User Guide

www.faronics.com

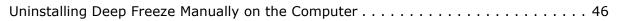


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## Contents

Preface
Important Information       6         About Faronics       6         Product Documentation       6
Technical Support
Definition of Terms
Introduction
Deep Freeze Overview
System Requirements
Installing Deep Freeze
Installing Deep Freeze
License
Using Deep Freeze
Overview
Deep Freeze Menu Bar Status Icons       20         Software Installation and Permanent Changes       20
Login
Status Tab
Volumes Tab
ThawSpaces Tab.       24         Adding a Global ThawSpace       25         Adding a User ThawSpace       25         Removing a User or Global ThawSpace       25
Maintenance Tab       27         Maintenance Schedule       27         Creating and Naming Multiple Maintenance Schedules       28         Edit, Delete, Enable, and Disable       29
Passwords Tab
Advanced Tab       32         Specify Stealth and Log Out Settings       32         Display Status in Apple Remote Desktop       32         Uninstall Deep Freeze when Thawed       33
Deep Freeze Mac Utilities
Command Line
Sample Command Line Scenario 39
Deep Freeze Tasks for ARD 41
Installing Deep Freeze Task       41         Using Deep Freeze Task       42
Uninstalling Deep Freeze 45







# Preface

This user guide explains how to install, configure, and use Deep Freeze Mac.

#### Topics

Important Information Technical Support



This section contains important information about your Faronics Product.

#### **About Faronics**

Faronics delivers market-leading solutions that help manage, simplify, and secure complex IT environments. Our products ensure 100% machine availability, and have dramatically impacted the day-to-day lives of thousands of information technology professionals. Fueled by a market-centric focus, Faronics' technology innovations benefit educational institutions, health care facilities, libraries, government organizations, and corporations.

#### **Product Documentation**

The following documents form the Deep Freeze Mac documentation set:

- Deep Freeze Mac User Guide This document guides you how to use the product.
- Deep Freeze Mac Release Notes This document lists the new features, bug fixes and known issues.

Product documentation is available at:

www.faronics.com/library

#### **Technical Support**

Every effort has been made to design this software for ease of use and to be problem free. If problems are encountered, contact Technical Support.

Web:

www.faronics.com

Technical Support:

www.faronics.com/support



### **Definition of Terms**

Term	Definition
Frozen	A state of Deep Freeze where any changes, whether malicious or intentional, are reversed on restart.
Thawed	A state of Deep Freeze where changes made to the computer are permanent and not reversed on restart.
ThawSpace	ThawSpace is a volume that can be used to store programs, save files, or make permanent changes. All files stored in the ThawSpace are retained after a restart, even if the computer is Frozen. Since a ThawSpace is unprotected, it requires standard data protection such as backup and virus scan.



## Introduction

Faronics Deep Freeze helps eliminate computer damage and downtime by making computer configurations indestructible. Once Deep Freeze is installed on a computer, any changes made to the computer—regardless of whether they are accidental or malicious—are never permanent when the computer is in a Frozen state. Deep Freeze provides immediate immunity from many of the problems that plague computers today—inevitable configuration drift, accidental system misconfiguration, malicious software activity, and incidental system degradation.



Deep Freeze protects the computers that are set to start from the hard drive. Deep Freeze cannot protect the computers that are set to start from an external drive (USB, FireWire or Thunderbolt) or from a hard drive where Deep Freeze is not installed.

#### Topics

Deep Freeze Overview System Requirements



Deep Freeze protects the startup volume (where the Operating System is installed) and optionally, other volumes on your computer. Deep Freeze protects the installed programs when they are installed on the volume protected by Deep Freeze.

Deep Freeze also manages the user home folders on the computer. The user home folder stores user preferences, as well as data such as documents, Internet Favorites, and music.

Deep Freeze has two states:

- Frozen is the protected state where any changes, whether malicious or unintentional, are reversed on restart.
- Thawed is the unprotected state where changes made to the computer are permanent and not reversed on restart.



Deep Freeze protects the computers that are set to start from the hard drive. Deep Freeze cannot protect the computers that are set to start from an external drive (USB, FireWire or Thunderbolt) or from a hard drive where Deep Freeze is not installed.

macOS automatic software update should be disabled when Deep Freeze is installed on the computer.

On macOS High Sierra, under System Preferences > App Store settings, disable *Install macOS updates*.



On macOS Mojave, under System Preferences > Software Update > Advanced..., disable *Install macOS updates*.

When applying the software update manually, ensure that the computer is in Thawed state, otherwise some system files may become unusable when an update is performed on a Frozen computer.



#### **System Requirements**

System Requirements for Deep Freeze Mac:

Deep Freeze Mac 7.2 is supported on:

- macOS Catalina 10.15
- macOS Mojave 10.14
- macOS High Sierra 10.13.5

Supports APFS file system.

Fusion Drive only supported on macOS Mojave or higher.

**12** Introduction





# **Installing Deep Freeze**

This chapter describes the installation process.

#### Topics

Installing Deep Freeze



#### **Installing Deep Freeze**

Installation and configuration of Deep Freeze Mac requires administrator access.

Deep Freeze Mac is downloadable via the Internet from:

#### www.faronics.com

Complete the following steps to install Deep Freeze Mac:

1. Open Deep Freeze Mac.pkg to begin the installation process. The following screen is displayed:

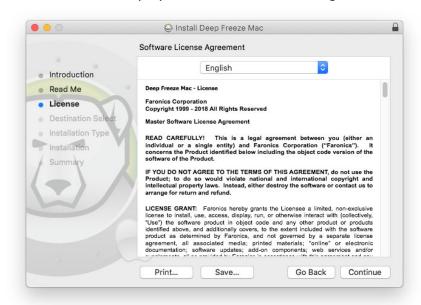


2. The security notice is displayed. Click Continue.





3. The License is displayed. Click *Continue* and *Agree*.

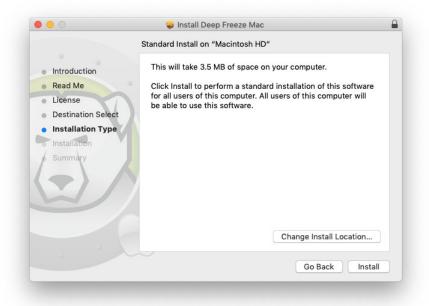


4. Enter a License Key if you have one. Leave the License Key field blank to install Deep Freeze as an evaluation. Click *Continue*.

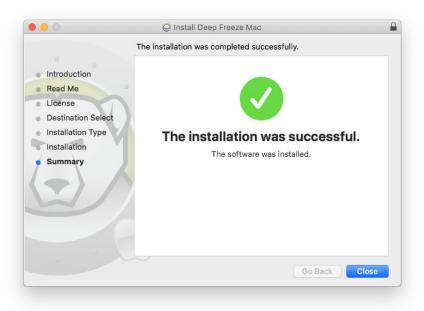
	🕪 Install Deep Freeze Mac
	Registration
Introduction	Please specify the License Key:
Read Me	p.
License	
Registration	2
Destination Select	
Installation Type	
Installation	
Summary	
	If no License Key is entered, the product will remain fully functional for 30 days for evaluation purposes. If you choose to enter your License Key after installation, you may do so at any time.
	Go Back Continue



5. Enter the administrator's password and click Install.



6. The final screen is displayed. Click *Close*.



You will need to log out and log in or restart the computer after installation to be able to see the Deep Freeze menu bar status icon.

The computer restarts in a Thawed state. To make changes to Deep Freeze configuration, click the menu bar status icon and select *Login*. You can also open the Deep Freeze application from /Applications/Faronics/.



To make permanent changes to the computer when it is in a Frozen state, you must first set computer status to Thawed. Go to Status Tab.





If you are upgrading from a previous version of Deep Freeze, the existing settings are retained.

#### License

After installation, log in to Deep Freeze and select *Deep Freeze Mac > Enter License Key*. Specify the License Key and click *OK*.





# **Using Deep Freeze**

This chapter describes the procedure to access, configure, and use Deep Freeze Mac.

#### Topics

Overview Login Status Tab Volumes Tab ThawSpaces Tab Maintenance Tab Passwords Tab Advanced Tab

#### Overview



After Deep Freeze has been installed the computer can be operated as usual. The only visual evidence that Deep Freeze is installed on a computer is the presence of a Deep Freeze icon in the menu bar.

You can make changes to the computer, including renaming or deleting files and folders, downloading files from the Internet, changing the desktop, and more. However, the Frozen volumes are completely restored to their original configurations and contents at restart.

#### Deep Freeze Menu Bar Status Icons

When Deep Freeze is installed, the polar bear icon appears in the menu bar:



Indicates that the volume is currently Frozen.



Indicates that the volume is currently Thawed.

#### Software Installation and Permanent Changes

Permanent changes and software installations can only be made to a Thawed volume, or a ThawSpace on the computer. If a volume is in a Frozen state, any software that has been installed will be gone after a restart.

A newly installed application should be run at least once while the computer or volume is Thawed in order to create a preference file, dismiss registration dialogs, and initialize various values.

A newly installed application may require the computer to be restarted for setup to be completed. If this is the case, it is recommended to restart the computer in a Thawed state, and then log in with the same user account, run the application once, and then log out before setting the volumes to restart in a Frozen state.



Administrators can manage Deep Freeze unless a Deep Freeze password is specified.



Users should be set up as standard users to avoid getting around Deep Freeze protection.



Complete the following steps to log in to Deep Freeze:

1. Open the Deep Freeze application from /Applications/Faronics/. The following dialog is displayed.

$\cap$	Deep Freeze Mac requires you to login.
(3)	Enter your password to allow this.
	User Name: Admin
	Password:
	Cancel

2. Enter the User name and password. Click *OK* to log in to Deep Freeze.

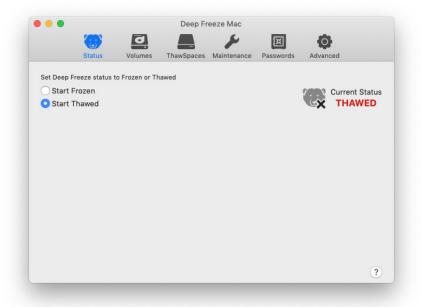


You can log in to Deep Freeze using your administrator credentials or with a Deep Freeze password (if enabled in Deep Freeze).



#### **Status Tab**

The Status tab is used to change the global status of Deep Freeze on a computer.



- Select *Start Frozen* to set the computer to a Frozen state (protected).
- Select *Start Thawed* to set the computer to a Thawed state (unprotected).



A restart is required to Thaw the computer.



#### Volumes Tab

When the Volumes tab is selected, Deep Freeze searches the computer and lists the volumes present on a computer. The volumes listed can be put into a Frozen state or a Thawed state.

Volumes that are not supported are listed as well.

All volumes on the computer are initially Frozen by default.

	Status	Volumes	ThawSpaces	Maintenance	Passwords	Advanced
et one	or more volumes	to be Frozen	or Thawed.			
Volume	•					∧ Freeze
	Data APFS					FREEZE
	Macintosh HD APFS					FREEZE
	Untitled APFS					FREEZE
	orted Volumes					
	BOOTCAMP Windows NT File	System (NTF				
	Sierra Mac OS Extende	d (Journaled)				

If Deep Freeze status is Thawed, all volumes are currently Thawed, and:

- Setting the slider from THAW to FREEZE will set the volume to Frozen when status is set to Frozen.
- Setting the slider from FREEZE to THAW will set the volume to Thawed and will remain Thawed even when status is set to Frozen.

If Deep Freeze is Frozen, volumes set to THAW are not Frozen, and:

- Setting the slider from THAW to FREEZE will immediately set the volume to Frozen.
- Setting the slider from FREEZE to THAW will set the volume to Thawed after the computer is restarted.



Removable media such as USB, FireWire or Thunderbolt are not displayed and cannot be Frozen.



#### **ThawSpaces Tab**

The ThawSpaces tab is used to create Thawed volumes where documents and changes are retained persistently on Frozen computers. Administrators can create a User ThawSpace for each user, or a Global ThawSpace. The ThawSpaces tab displays only the users that have ThawSpace.

Global and User ThawSpaces are easily distinguishable by the icons displayed in the Type column.



The Global icon represents the Global ThawSpace.

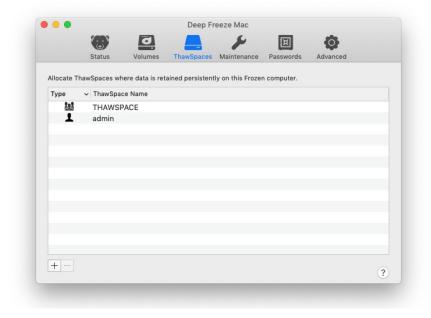


The User icon represents a User ThawSpace.

ThawSpaces can be added or deleted from within the tab using the (+) and (-) buttons.

The computer must be in a Thawed state to create or delete a ThawSpace. The Global ThawSpace and User ThawSpace are displayed as volumes on the desktop. Other Users' ThawSpaces are displayed as volumes with restricted access.

You can create one Global ThawSpace and User ThawSpaces up to as many users on each computer.





#### Adding a Global ThawSpace

To create a Global ThawSpace, complete the following steps:

- 1. Click (+).
- 2. Select *Global ThawSpace* from the list of User Names.
- 3. Click *Create* to create the new ThawSpace. Enter the administrator user name and password when prompted, then click *OK*, or
- 4. Click *Cancel* to return to the tab without adding the ThawSpace.



A Global ThawSpace is accessible to all users.

#### Adding a User ThawSpace

To create a ThawSpace for a particular user on the drive, complete the following steps:

- 1. Click (+).
- 2. Select the user that the ThawSpace will be created for.
- 3. Click *Create* to create the new ThawSpace. Enter the administrator user name and password when prompted, then click *OK*, or
- 4. Click *Cancel* to return to the tab without adding the ThawSpace.



A user ThawSpace is accessible only to the particular user. When a user logs in, other users' ThawSpaces are displayed on the desktop as a volume with restricted access.



It is not possible to remove an existing ThawSpace and retain its contents. Removing a ThawSpace that has a user mapped to it will prevent the user from logging in to the computer. It is recommended that the user be mapped to an alternate location before the ThawSpace is removed.

#### Removing a User or Global ThawSpace

To remove a User or Global ThawSpace, complete the following steps:

- 1. Select the ThawSpace to be deleted and click (-). A dialog appears, asking for confirmation of the deletion.
- 2. Click *Delete* to permanently delete the ThawSpace. Enter the administrator user name and password when prompted, then click *OK*, or
- 3. Click *Cancel* to return to the tab with the ThawSpace retained.



Alternatively, Deep Freeze Mac can be uninstalled in order to remove any ThawSpaces.



If you unmount the ThawSpace volume, it is not remounted upon log out/log in. On a Frozen computer, if a ThawSpace is physically deleted, the ThawSpace and its contents are deleted.



Before removing a ThawSpace, you must remove its home folder or folder mapping and any symbolic links.



Data stored in a ThawSpace is not protected by Deep Freeze. Use standard data protection like backup and anti-virus to protect data in a ThawSpace.



#### **Maintenance Tab**

The Maintenance tab is used to schedule a Maintenance Period for computers. Administrators can create, edit, delete, enable, and disable Maintenance Schedules through the Maintenance Tab.

•			Deep Fr	eeze Mac			
		0		~	×	Ō	
	Status	Volumes	ThawSpaces	Maintenance	Passwords	Advanced	
				cally Thawed to effect after rest		ftware Update	s and othe
Enable	Name	^ Frequ	ency Day	Start	End	Summ	ary
<b>a</b>	Schedule 1	Repea	ting Mon V	Ved 12	:00 PM 1	:00 PM 🍥 🏲	A CA
+ -							

#### **Maintenance Schedule**

A Maintenance Schedule is a schedule when the computer will be automatically Thawed to allow Apple Software Updates, execute script, and perform other maintenance needed to be permanently applied. The computer must be *Frozen* for the Maintenance schedule to start.



If the global status is *Start Thawed (Restart required)* when the maintenance period starts, Deep Freeze will not go into maintenance mode.



If FileVault is enabled, user needs to log in to the computer before a scheduled maintenance in order for maintenance period to start.

On macOS Catalina, adding script files from one of the folders protected by Data Protections using the command line from the Terminal.app will generate a prompt to allow Terminal.app to access the folder. If Apple Remote Desktop or other third-party tool is used to execute 'deepfreeze' command line, you have to manually add the tool for *Full Disk Access* if you have not added the tool previously.

Alternatively, you can store the script file on a non-protected folder.

A maintenance schedule in progress can be edited, but the changes will only take effect after the current maintenance period ends.



At the end of maintenance period, Deep Freeze will set the computer back to Frozen state without restarting the computer.

If the computer is turned off before a maintenance period starts, and turned on within the maintenance period or after it ended, Deep Freeze will not go into that maintenance period.

If the script is still running when the maintenance period ends, Deep Freeze will issue a restart to ensure the computer is in a clean state before freezing.

Maintenance period can be canceled by setting the computer to Frozen or Thawed state, however if Deep Freeze is performing software updates or executing the selected script, the process cannot be interrupted.

If software update and scripts are selected (enabled), the software update will be performed first, followed by script after software update has been completed.

#### **Creating and Naming Multiple Maintenance Schedules**

To create multiple individually named Maintenance Schedules, complete the following steps:

- 1. On the Maintenance Tab, click (+).
- 2. The Add Schedule dialog is displayed. Specify or select the following:
  - > Name The default is Schedule 1. You can modify the name or leave it as it is. The schedule name has to be unique.
  - > Frequency Select *Repeating* to assign a recurring maintenance schedule on the selected days. Select *Once Only* to perform a one-time maintenance schedule on the selected day.

A maintenance schedule set for *Once Only* becomes disabled after it has been completed.

- > Day Select one or more days by clicking Mon to Sun.
- > Start Specify the start time.
- > End Specify the end time.
- > Select Install Apple Software Updates to install any available Apple Software Updates.
- > Run script Select this option and select Add Script from the drop-down. Browse to the folder, select the script and click Choose to add script. A previously added script can be deleted by selecting Delete Script.
- > Select *Lock Out User* to prevent a user from logging into the computer during the Maintenance Period.
- > Select *Shutdown After Maintenance* to shut the computer down after the Maintenance Period is complete.
- > Select Show message x minutes before maintenance starts to provide a message to users warning them that the computer will be taken over at a specified time, and enter the warning time in the field provided. Use the text box to enter a custom message for the user, explaining that the Maintenance Schedule will take place at a specified time; by inserting %d as a variable into



the message, Deep Freeze will automatically display the number of minutes until the Maintenance Period begins. (Again, %d is a variable corresponding to the number of minutes between the current time and the time that scheduled Maintenance will begin.)

There is no limit on the number of maintenance schedules to be added.

The minimum time allowed for a Maintenance Period is 10 minutes.



There is a minimum 10-minute interval required between schedules.

Ensure sufficient time for the maintenance activity to complete if Apple Software Update or script is enabled. Insufficient time will lead to the failure of the update or script execution.

3. To save any changes made, click *OK*; the changes take effect immediately.

#### Edit, Delete, Enable, and Disable

To delete a Maintenance Schedule, select it click Delete (-).

To edit a Maintenance Schedule, select it and click Edit **#**.

To disable a Maintenance Schedule, clear the *Enabled* checkbox.

To enable a Maintenance Schedule, select the *Enabled* checkbox.



#### **Passwords Tab**

The Passwords tab allows administrators to manage the Deep Freeze passwords. There are a maximum of four passwords permitted.

Select the *Enable Deep Freeze Password* to enable users to log in to Deep Freeze using a Deep Freeze password.

			Deep Fi	reeze Mac			
		J		5	I	0	
	Status	Volumes	ThawSpaces	Maintenance		Advanced	
Administr	ators and man	ana Daan Fraa	ze unless a pass	word is specific	d		
		ze Password	te uniess a pass	word is specifie	u.		
	d Description						~
user1	a Description						~
user2							
user3							
user4							
+ -	/						?



Changes will take effect the next time you open Deep Freeze Mac.

#### Adding, Deleting, and Editing Passwords

To add a password, complete the following steps:

- 1. Click (+).
- 2. Enter the Description and Password and verify the password.



3. Click *Add* to save the changes to the password. Enter the administrator user name and password when prompted, then click *OK*, or click *Cancel* to exit with no changes saved.

		Deep Freeze Mac	
		<b>D A F B O</b>	
	Status	Volumes ThawSpaces Maintenance Passwords Advanced	
Administrato			
Enable [	0	Deep Freeze Mac is trying to remove a password.	
Password D	7	Enter your password to allow this.	
user1	6		
user2		User Name: Admin	
user3		Password:	
user4			
		Cancel	
		Cancer	
		2	
+-/			
			(1

To delete a password, click (-). A dialog appears asking for confirmation of the deletion. Click *Cancel* to exit the dialog, or click *Delete* to delete the password permanently.

To edit the properties of a password, click  $\mathscr{I}$ . Edit the Description and Password in the properties dialog as needed.



If passwords are not enabled in Deep Freeze, any administrator can access Deep Freeze using their credentials.



#### **Advanced Tab**

The Advanced Tab allows administrators to configure stealth settings and whether to retain or delete existing ThawSpaces when uninstalling Deep Freeze.

			Deep Fr	eeze Mac		
		J		4	I	0
	Status	Volumes	ThawSpaces	Maintenance	Passwords	Advanced
Specify ste	ealth and log o	out settings.				
Hide F	rozen Icon i	in menu bar				Current Status
Hide T	hawed Icon	in menu bar				<b>THAWED</b>
Restar	rt instead of	Log Out				
Display sta	atus in Apple F	Remote Deskto	р.			
Show	Status in Ap	ple Remote I	Desktop			
Use In	nformation F	ield: Info 1	0			
Uninstall D	eep Freeze w	hen Thawed.				
Retain	Existing Th	awSpace(s)	As-is			
		nawSpace(s)				
Uninst	all					
						?

#### **Specify Stealth and Log Out Settings**

- Hide Frozen icon in menu bar Select this option to hide the Frozen icon in the menu bar.
- Hide Thawed icon in menu bar Select this option to hide the Thawed icon in the menu bar.
- Restart instead of Log Out Select this option to restart the computer when a user logs out. If fast user switching is enabled, Deep Freeze will not restart the computer until the last user logs out.



The computer must be Frozen in order for the computer to restart when the user logs out.

If the global status is *Start Thawed (Restart required)*, Deep Freeze will not restart the computer when a user logs out.

#### **Display Status in Apple Remote Desktop**

To display the computer status (Frozen, Thawed, Thawed (Restart required), or Unknown) remotely in Apple Remote Desktop, select the Show Status in Apple Remote Desktop check box and select the desired Information Field. The computer will now write Frozen or Thawed to the selected Information Field during start up time, or when the global status changes.

To view this status information in Apple Remote Desktop, select *Edit* > *View Options* and select the matching Computer Info Field (1-4). Computers will now show their current status, and groups of computers can be sorted by this status column.



#### **Uninstall Deep Freeze when Thawed**

All volumes in the computer must be in a Thawed state for the Uninstall option to be available. If the computer is in a Frozen state, the Uninstall option is not available. If there are existing ThawSpaces on a computer, choose either to retain or delete them by selecting the preferred button.

- Retain Existing ThawSpace(s) As-is Select this option to retain the ThawSpaces.
- Delete Existing ThawSpace(s) Select this option to delete all the ThawSpaces on the selected computer.

The computer restarts and Deep Freeze is uninstalled.



All program components are permanently deleted when Deep Freeze is uninstalled.



Before removing a ThawSpace, you must remove its home folder or folder mapping.





# **Deep Freeze Mac Utilities**

This chapter describes using the Deep Freeze Mac Utilities.

#### Topics

Command Line Sample Command Line Scenario Deep Freeze Tasks for ARD

#### **Command Line**

The Deep Freeze Mac Command Line gives network administrators increased flexibility in managing Deep Freeze Mac computers. These commands can be run with several different third-party enterprise management tools, such as Apple Remote Desktop, and/or central management solutions; this includes executing commands in Terminal while connected to a remote computer via SSH.

Deep Freeze Mac has the following command line options.

Usage: deepfreeze <command> <verb> argument [option]



Specify the Deep Freeze Mac Command Line Utility full path /usr/local/bin/deepfreeze when executing the command using third-party management tools.

If Deep Freeze password is enabled, Deep Freeze password can be passed as an environment variable by specifying '--env'.



Usage:

DFXPSWD=password /usr/local/bin/deepfreeze <command> <verb> argument [option] --env

Command	Description
deepfreeze version	Displays the Deep Freeze Mac version.
deepfreeze status	Displays the current status of Deep Freeze Mac.
	volume – Freeze or thaw a specific volume
	startup – Freeze or thaw the startup volume
deepfreeze freezevolume VolumeName	computer – Change Global state
startup  computer deepfreeze thawvolume VolumeName	Volumes will be set to Frozen or Thawed depending on the status of Deep Freeze.
startup  computer	Refer to Volumes Tab for details on setting Volumes to Frozen or Thawed status.
	Go to Status Tab to change the status of Deep Freeze.

Command	Description				
	[info] shows detailed information of the license				
deepfreeze license [info  set	[set LicenseKey] activate Deep Freeze Mac with a license key				
LicenseKey]	This command displays the full license key if run with root privilege or if Deep Freeze password is enabled.				
deepfreeze thawspace createuser UserName	Create or delete global ThawSpace or specific user ThawSpace, where UserName is the user's account name.				
deepfreeze thawspace deleteuser UserName  global	This command requires root privilege, even when Deep Freeze password is enabled.				
deepfreeze password enable deepfreeze password disable	Enable or disable Deep Freeze password.				
<pre>deepfreeze password adddescription Description deepfreeze password editdescription Description [newdescription newDescription] deepfreeze password deletedescription Description</pre>	Add, edit or delete Deep Freeze password.				
deepfreeze hideicon frozen [on  off] deepfreeze hideicon thaw [on  off]	Show or hide the Deep Freeze Frozen icon in the menu bar.				
deepfreeze restartinstead [on  off]	Restart the computer after user logs out, or the last user logs out if fast user switching is enabled.				
deepfreeze ardinfo [set N  clear]	Set or clear ARD info field.				

Command	Description
<pre>deepfreeze schedule addname "ScheduleName" [enable on off]day monday[,tuesday,wednesday,thursday,friday,s aturday,sunday]begin "24-hr-time"end "24-hr-time" [onceonly on off] [installappleupdate on off] [lockuser on off] [warnuser off "5-999"] [message "message string"] [shutdownafter on off] [runscript off "script file name"]</pre>	
<pre>deepfreeze schedule editname "ScheduleName" [enable on off] [day monday[,tuesday,wednesday,thursday,friday,s aturday,sunday]] [begin "24-hr-time"] [end "24-hr-time"] [onceonly on off] [installappleupdate on off] [lockuser on off] [warnuser off "5-999"] [message "message string"] [shutdownafter on off] [runscript off "script file name"]</pre>	Add, edit, remove, enable or disable Maintenance schedules.
deepfreeze schedule deleteall  name "ScheduleName"	
deepfreeze schedule enablename "ScheduleName"	
deepfreeze schedule disablename "ScheduleName"	
deepfreeze schedule scriptsadd "ScriptFullpath"	Add, delete or list scripts.
deepfreeze schedule scriptsdelete "ScriptName" deepfreeze schedule scriptslist	This command requires root privilege, even when Deep Freeze password is enabled.
	Uninstall Deep Freeze Mac with the option of deleting ThawSpaces.
deepfreeze uninstall [deletethawspaces]	This command requires root privilege, even when Deep Freeze password is enabled.



It is recommended that a user be specified when using Apple Remote Desktop to send Deep Freeze task, even if Deep Freeze password is used. If *Current console user on target computer* is selected and there is no user logged in on the target computer, the task will fail.



This section provides an example of configuring Deep Freeze Mac to use Deep Freeze password with one password and its description 'dfadmin' using Apple Remote Desktop. The startup volume (Macintosh HD) will be Frozen, and each computer user will have their own ThawSpace.

The example below assumes the following:

- There is one volume on the computer: Macintosh HD
- There are two computer users:
  - > admin (Administrator user)
  - > user1 (Standard user)

To install Deep Freeze Mac on remote computer using Apple Remote Desktop:

- 1. In Apple Remote Desktop, select the target computer(s) from the list.
- 2. Select 'Install Packages...' from the Manage menu.
- 3. Under the *Packages* pane, click the + button and select the Deep Freeze Mac installer file to use. The installer file can also be dragged and dropped into the pane.
- 4. Click the *Install* button.

A restart is not required to complete the installation.

After the installation completes, Deep Freeze Mac can be configured by sending UNIX commands.

The configuration can be done by sending several UNIX commands, one after another.

- 1. Select the target computer(s) to configure from the list.
- 2. Select 'Send UNIX Command...' from the Manage menu.
- 3. To enable Deep Freeze password, run the command as 'root' user:

/usr/local/bin/deepfreeze password enable

4. To add the first Deep Freeze password 'dfpswd' with its description 'dfadmin', run the command as 'root' user:

DFXNEWPSWD=dfpswd /usr/local/bin/deepfreeze password add --description dfadmin --env

5. To create ThawSpace for admin, run the command as 'root' user:

DFXPSWD=dfpswd /usr/local/bin/deepfreeze thawspace create --user admin --env



6. To create ThawSpace for user1, run the command as 'root' user:

DFXPSWD=dfpswd /usr/local/bin/deepfreeze thawspace create --user user1 --env

To add a script called 'CleanUp' to be executed during a maintenance schedule, run the command as 'root' user:

DFXPSWD=dfpswd /usr/local/bin/deepfreeze schedule scripts --add "/Volumes/Macintosh HD/Users/Admin/Documents/CleanUp" --env

8. To create a repeating maintenance schedule on Wednesday and Sunday:

```
DFXPSWD=dfpswd /usr/local/bindeepfreeze schedule add --name
"Maintenance 1" --enable on --day wednesday,sunday --begin "22:00"
--end "23:00" --installappleupdate on --lockuser on --shutdownafter on
--runscript "CleanUp" --env
```

9. To edit an existing maintenance schedule 'Maintenance 1' to start at different day and time and provide warning message to the users 10 minutes before maintenance starts:

```
DFXPSWD=dfpswd /usr/local/bin/deepfreeze schedule edit -n
"Maintenance 1" -d tuesday,saturday -b "20:00" -e "21:00" -w "10" -m
"Maintenance will start in %d minutes, please save your work." --env
```

10.To freeze the computer:

```
DFXPSWD=dfpswd /usr/local/bin/deepfreeze freeze --computer --env
```

11. To see the status of Deep Freeze:

DFXPSWD=dfpswd /usr/local/bin/deepfreeze status --env

The computer is now Frozen, and both admin and user1 users have their own ThawSpaces.



#### **Deep Freeze Tasks for ARD**

Deep Freeze tasks are pre-configured actions used to manage Deep Freeze via ARD.

#### **Installing Deep Freeze Task**

Complete the following steps to install Deep Freeze Task:

- 1. Open *Deep Freeze Tasks for ARD.app* to begin the installation process.
- 2. Select the tasks to install. Click *Continue*.

Introduction
Deep Freeze tasks for ARD are pre-configured actions used to manage Deep Freeze via Apple Remote Desktop (ARD).
Learn more about Apple Remote Desktop.
🗹 Install Deep Freeze Tasks for APFS
Install Deep Freeze Tasks for HFS+

3. If *Deep Freeze tasks for APFS* is selected, you have the option to use Deep Freeze password if Deep Freeze password is enabled. Select *Use Deep Freeze Password* and enter the password. If *Deep Freeze tasks for HFS*+ is selected, specify Deep Freeze user name and password. Click *Continue*.

Deep Freeze tasks for APFS
Use Deep Freeze password Enter the Deep Freeze password to use in Apple Remote
Desktop tasks.
Password: •••••
Verify Password:
Deep Freeze User name and password from the previous installation will still be used.



You must restart the computer after installing Deep Freeze Tasks for Apple Remote Desktop.

#### Using Deep Freeze Task

In ARD, the Deep Freeze specific tasks are saved in the *Deep Freeze (APFS)* and *Deep Freeze (HFS+)* folders.

The following tasks are available for Deep Freeze (APFS):

Task		Description
DeepFreeze	(APFS):addPassword	Add Deep Freeze password.
DeepFreeze	(APFS):addSchedule	Add a Maintenance schedule.
DeepFreeze	(APFS):addScript	Add scripts.
DeepFreeze	(APFS):clearArdInfo	Clear the ARD Info Field.
DeepFreeze	(APFS):createGlobalThawSpace	Create a Global ThawSpace.
DeepFreeze	(APFS):createUserThawSpace	Create a User ThawSpace.
DeepFreeze	(APFS):deleteAllSchedules	Delete all Maintenance schedules.
DeepFreeze	(APFS):deleteGlobalThawSpace	Delete the Global ThawSpace.
DeepFreeze	(APFS):deletePassword	Delete Deep Freeze password.
DeepFreeze	(APFS):deleteSchedule	Delete a Maintenance schedule.
DeepFreeze	(APFS):deleteScript	Delete one scripts at a time.
DeepFreeze	(APFS):deleteUserThawSpace	Delete a User ThawSpace.
DeepFreeze	(APFS):disablePassword	Disable Deep Freeze password.
DeepFreeze	(APFS):disableSchedule	Disable a Maintenance schedule.
DeepFreeze	(APFS):editPassword	Edit Deep Freeze password.
DeepFreeze	(APFS):editSchedule	Edit a Maintenance schedule.
DeepFreeze	(APFS):enablePassword	Enable Deep Freeze password.
DeepFreeze	(APFS):enableSchedule	Enable a Maintenance schedule.
DeepFreeze	(APFS):freezeComputer	Change Global state to Frozen.
DeepFreeze	(APFS):freezeStartup	Freeze the startup volume.
DeepFreeze	(APFS):freezeVolume	Freeze a specific volume.
DeepFreeze	(APFS):hideFrozenIcon	Show or hide the Deep Freeze Frozen icon in the menu bar.



Task	Description
DeepFreeze (APFS):hideThawedIcon	Show or hide the Deep Freeze Thawed icon in the menu bar.
DeepFreeze (APFS):licenseInfo	Displays the License information.
DeepFreeze (APFS):listScripts	List all the script files.
DeepFreeze (APFS):restartInstead	Restart the computer when the user logs out (if fast user switching is enabled, restart the computer when the last user logs out)
DeepFreeze (APFS):setArdInfo	Set the specific ARD Info Field to show Deep Freeze status.
DeepFreeze (APFS):setLicense	Activate the License Key.
DeepFreeze (APFS):status	Displays the current status of Deep Freeze Mac.
DeepFreeze (APFS):thawComputer	Change Global state to Thawed.
DeepFreeze (APFS):thawStartup	Thaw the startup volume.
DeepFreeze (APFS):thawVolume	Thaw a specific volume.
DeepFreeze (APFS):uninstall	Uninstall Deep Freeze Mac and delete existing ThawSpaces.
DeepFreeze (APFS):uninstallKeepThawSpaces	Uninstall Deep Freeze Mac but retain existing ThawSpaces.
DeepFreeze (APFS):version	Displays the Deep Freeze Mac version.





# **Uninstalling Deep Freeze**

This chapter describes the uninstall process.

#### Topics

Uninstalling Deep Freeze Manually on the Computer



#### **Uninstalling Deep Freeze Manually on the Computer**

Complete the following steps to uninstall Deep Freeze manually on the computer where it is installed:

- 1. Log in to Deep Freeze.
- 2. Restart the computer to a Thawed state (if it is Frozen).
- 3. Go to Advanced Tab > Uninstall Deep Freeze when Thawed.
- 4. Select *Retain Existing ThawSpace(s) As-is* to retain the ThawSpaces. Select *Delete Existing ThawSpace(s)* to delete all the ThawSpaces on the selected computer.
- 5. Click Uninstall.
- 6. Enter the administrator user name and password when prompted, then click OK.
- 7. Click Restart.

Deep Freeze is uninstalled and the computer restarts.