

Deep Freeze Basics

Purpose of this Guide:



This is by no means an all-inclusive guide to deep-freeze, but rather, a general overview of Deep Freeze, what it does, and how to perform basic functions such as freezing and unfreezing machines.

Deep Freeze Overview:

Deep freeze is a program used to 'freeze' or 'lock' a PC or a Mac. Here in Biology, we typically install Deep Freeze on machines that are in common lab areas that are accessible by many students at any given time, i.e. the labs down in the sub-basement, the laptop cart machines, and the common-use computers at the Biology Helpdesk.

Once Deep Freeze is installed and a machine is 'Frozen,' it reverts to the same state that it was in at the time it was initially 'frozen' upon any restart. This means that no files or settings changed when the computer is in the 'frozen' state are saved, except for items that exist in the local virtual hard drive called 'Thawspace.' In other words, a snapshot of the machine is made when it is 'Frozen,' and it reverts to that snapshot every time the PC restarts.

This means that no files or folders whatsoever can be *permanently* modified outside of the reserved 'Thawspace' drive when a machine is frozen. Every time changes need made to the system, we must unfreeze the machine, restart the machine, make the changes, and restart again to verify the machine is frozen.

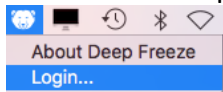
Icon Quick Reference			
	Menu Bar Icon: Machine is 'Frozen'		The Macintosh HD Icon will display a polar bear when machine is 'Frozen'
	Menu Bar Icon: Machine is 'Unfrozen'		'THAWSPACE' is the virtual disk drive where documents and files may be saved on a frozen machine.

Deep Freeze Procedures / References

Note: Instructions are for Mac, PC instructions are very similar.

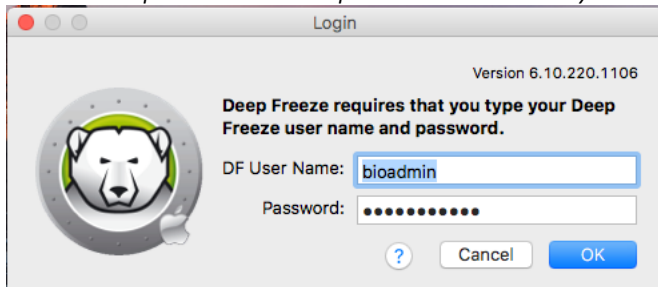
Freezing / Unfreezing a Machine

1. Click on the Deep Freeze icon on the menu bar, and 'Login'

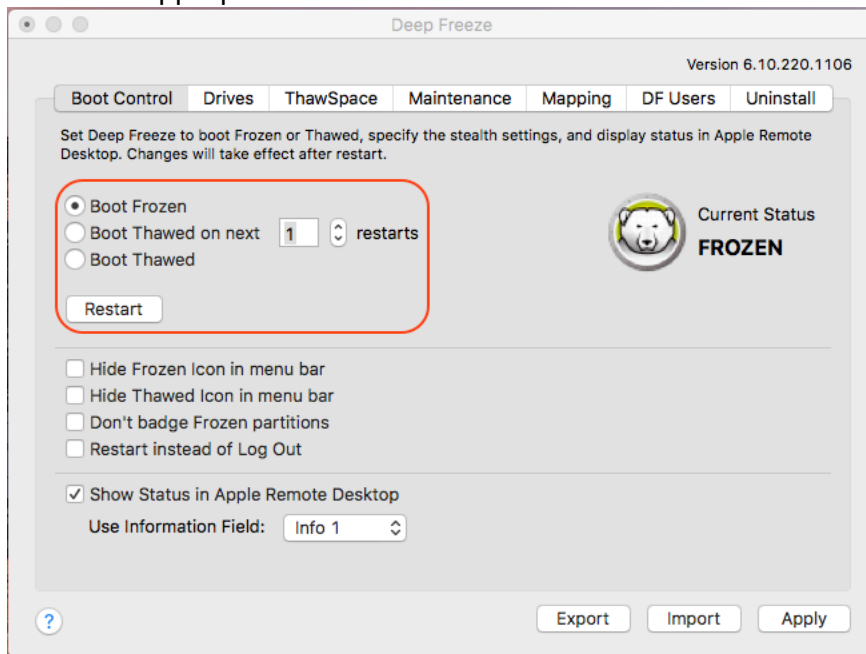


2. Log in to Deep Freeze using that machine's normal 'bioadmin' account and password.

*Note: The Deep Freeze 'bioadmin' password *should* always be the same as the password used to log in to the machine.*



3. Check the appropriate box and 'restart' the machine.



4. Always make sure the machine has been 'Frozen' again after completing your work!

Tips / Best Practices

- Remember that *everything* on the system, even miscellaneous documents saved to the desktop, will be frozen when you freeze the machine. Make sure that everything has been set the way you want it before your final reboot. Forgetting to delete / add / rename a small file or forgetting to change a simple setting can lead to multiple reboots / restarts and significant delays.
- There is a specific desktop background for frozen machines on [Athena](#). For the sake of lab users, it is a good idea to make sure it's the current background. Background posted below.

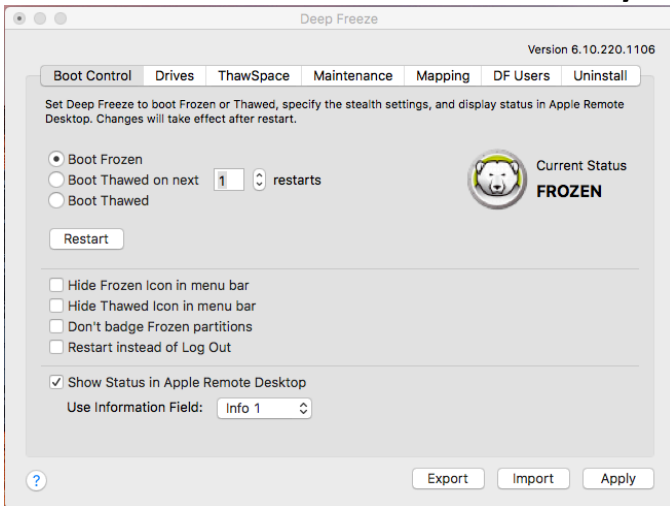
Duke University
Biology Department

Warning...

Do Not save files
on this computer.
All non-systemfiles will
be deleted upon reboot



Summary of Screens / Options



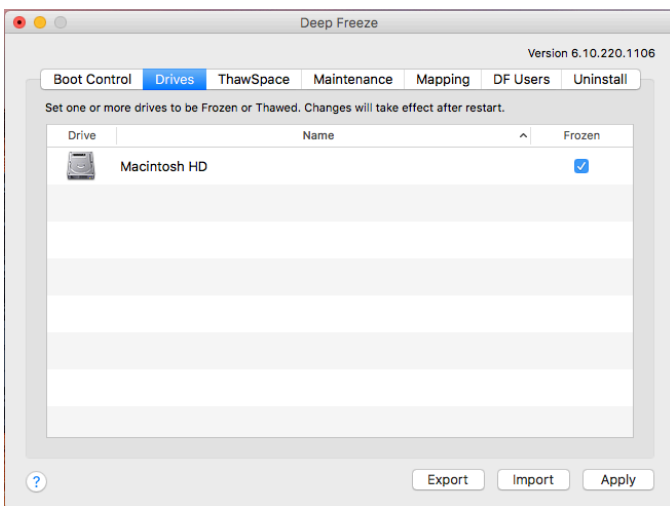
Boot Control: This specific screen is where you freeze and unfreeze the machine in question

Boot Frozen: *Restart Machine in a frozen state.*

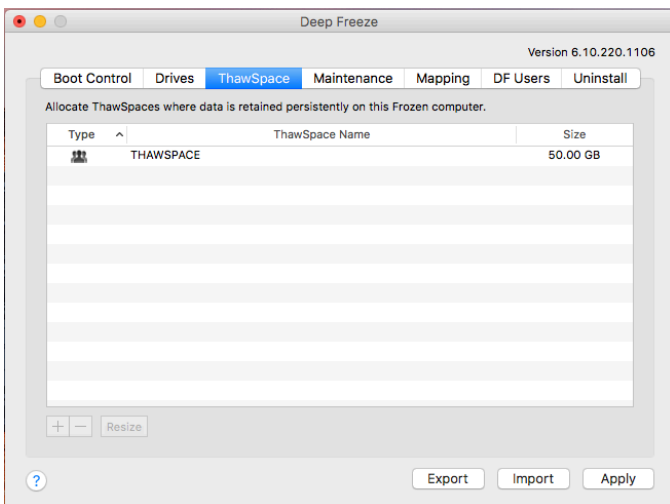
Boot Thawed on next [] restarts: *Good to use if you know the specific number of restarts required for whatever you're modifying/installing.*

Boot Thawed: *Restart machine in a thawed state indefinitely. Make sure to change back to 'Boot Frozen' after your task is complete.*

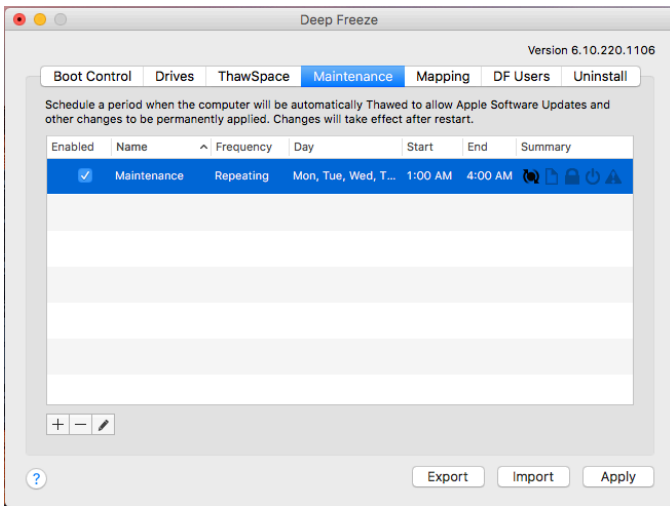
Note: This screen also shows the 'Current Status.' The other options are self-explanatory.



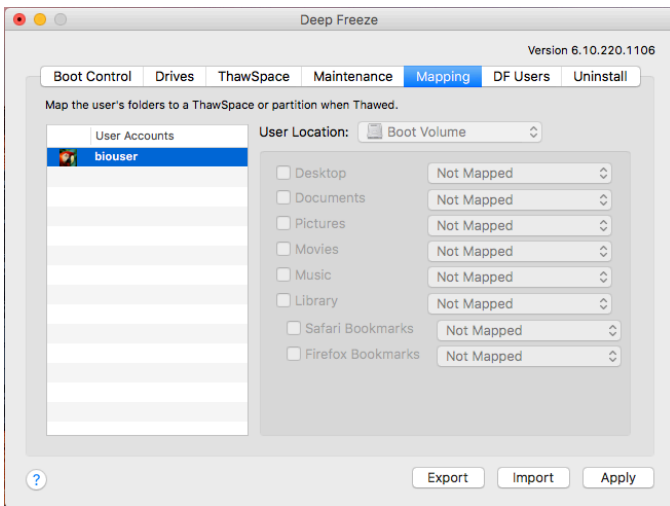
Drives: Self-explanatory, controls which drives are frozen by Deep Freeze.



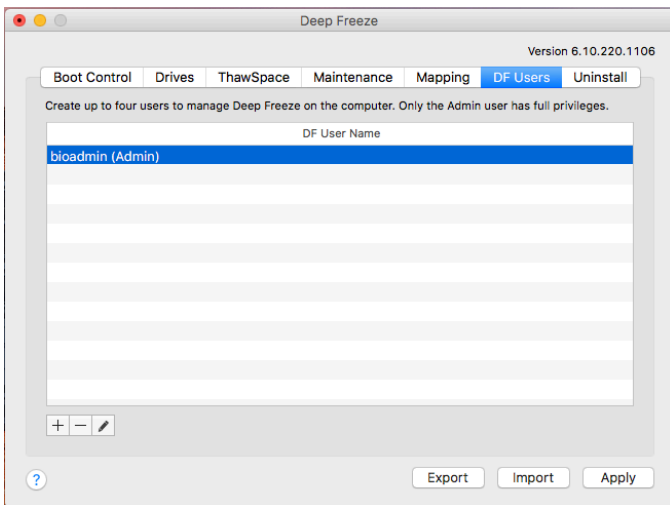
ThawSpace: This tab shows you the name and size of the Thawspace virtual drive. You can change the size of this to fit the needs of the lab machine. This should be no less than 5GB or so, but typically, 10% of the drive is a good rule of thumb. Users can save files and folders in the 'Thawspace' drive, and they will be retained even after a system restart.



Maintenance: This tab displays the ‘maintenance’ window. During this time, the machine is automatically unfrozen so that system updates / etc. can be pushed automatically. By default, we set this to 1:00AM-4:00AM daily. It can be changed if necessary on a case-by-case basis.



Mapping: We generally don’t mess with these settings at all.



DF Users: If the ‘bioadmin’ password is out of date or incorrect, we can change it on this screen. Typically, this will happen if the OS is upgraded, but the deep freeze password hasn’t yet been changed.