



WHITEPAPER

RETAINING **USER DATA**



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Overview

Many desktop administrators face challenges with maintaining the configuration of their workstations in a production environment. From users making unauthorized changes on the workstations to viruses and malware, there are a large number of exploits that can leave workstations in a non-functional state. Many system administrators are turning to the use of reboot to restore applications to maintain their workstations and are finding during their testing process that the retention of user data on the local workstation is a stumbling block in the deployment of such products.

This document will outline the suggested means to implement a reboot to restore application like Faronics Deep Freeze in such a way that user data is properly retained.



The Frozen Environment

Deep Freeze is a solution that ensures client workstations remain in a consistent state after every reboot. Deep Freeze has two states: Frozen and Thawed. In a Thawed state, any changes made to a workstation are retained after a reboot. In a Frozen state, any changes can be made during a user session, but after a reboot, these changes will disappear.

With Deep Freeze installed, it is very easy to set up a workstation on which no changes are saved. However, there are some cases where data needs to be saved locally; perhaps the user needs to be able to save email locally, or maybe an application requires data to be stored locally. With the information in this document, a workstation can be configured to allow certain changes to be retained after a reboot, even when the workstation is in a Frozen state.



Storage Solutions

The following solutions describe different methods available to configure a Thawed area (any information saved into a Thawed area is retained after a reboot).

Network Drive

Deep Freeze does not put network drives into a Frozen state. By offering the user a place to save data off the local workstation, nothing special needs to be configured on the client workstations themselves.

However, there are cases where this option is not viable. Sometimes, the workstation is not connected to the network, or an application saves user data locally. In these cases, this solution is not appropriate.

Thawed Partitions

A Thawed partition is a physical partition configured not to be Frozen. Using this solution, it is assumed the workstation has at least two physical partitions. In Deep Freeze Standard, the option to select which physical partitions are to be Frozen appears during the install. In Deep Freeze Enterprise, this option is configured before creating the workstation install file (in the Configuration Administrator go to Drives tab). Deep Freeze might need to be reconfigured after adding, deleting partitions or changing their drive letters.

ThawSpace

In some cases, the client workstation does not already have a separate physical partition configured. In this case, the Deep Freeze workstation install file can be configured to use a ThawSpace. When configuring a ThawSpace using the Configuration Administrator, select the drive letter (default is T:), the size, and the file system to be used.

A ThawSpace is a virtual drive. When the workstation is installed, another drive letter appears in Windows Explorer (if the Visibility has been set as Visible in Drives tab of the Configuration Administrator). Any data saved to this virtual partition is retained when the workstation is rebooted. For more information about creating and configuring a ThawSpace, refer to the Deep Freeze Enterprise user guide.

Redirecting User Profiles and Folders using Data Igloo

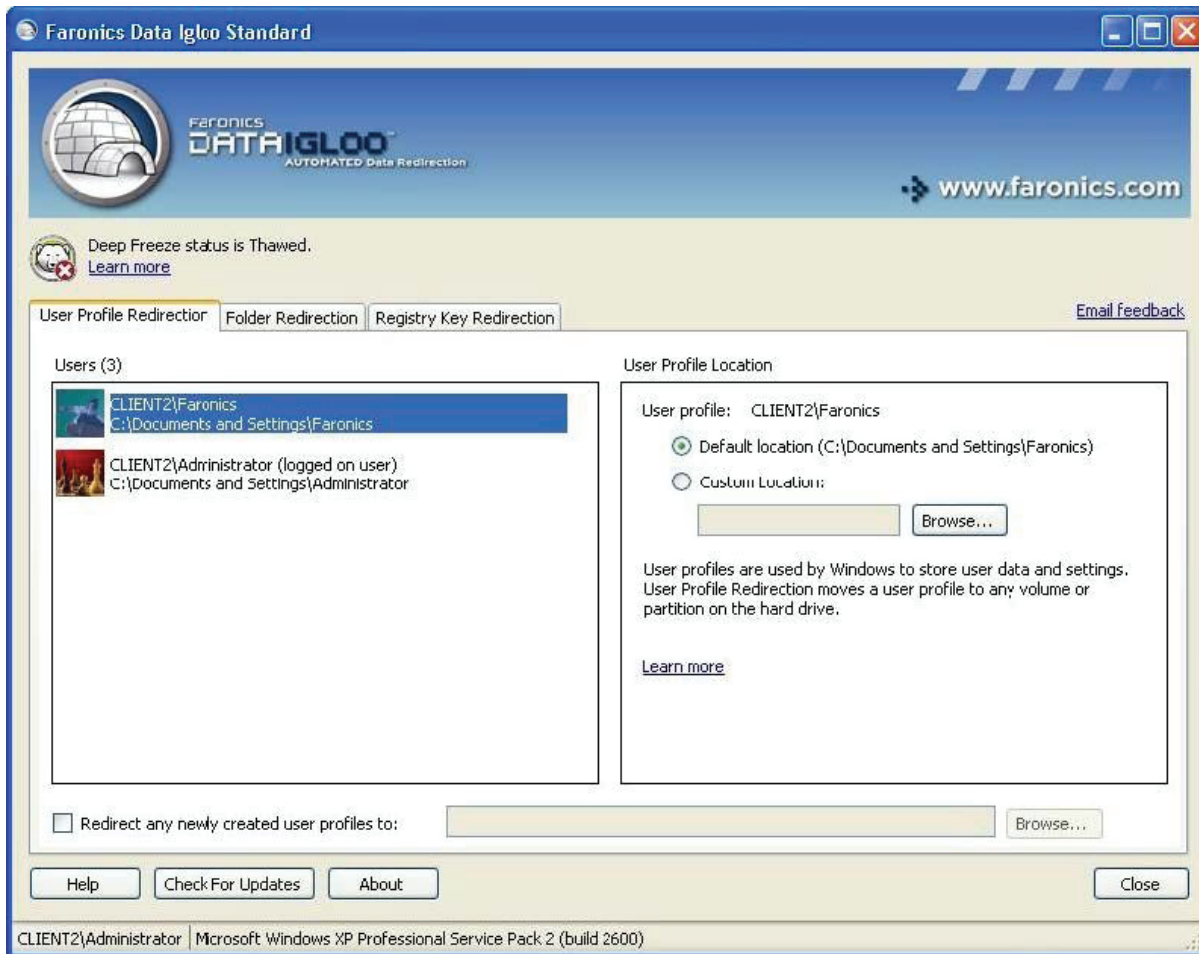
Faronics Data Igloo allows administrators to redirect user profiles and folders to a Thawed volume on your workstation. Redirecting data in this manner ensures that the data being redirected is retained even after a reboot when the workstation is protected by Deep Freeze. Faronics Data Igloo can be downloaded from

<http://www.faronics.com/dataigloo>

Redirecting User Profiles with Data Igloo

The redirection of user data normally involves the redirection of the user's entire profile to a Thawed volume. When dealing with user profiles, there are two types of users that will need to be addressed: users who have previously logged into the workstation and have an existing profile, and users who have never logged into the system and have no profile to redirect.

Any user who has logged into the workstation and has an existing profile, will be shown by Data Igloo as a user on the *User Profile Redirection* tab.



Complete the following steps to redirect an existing user profile using Data Igloo:

1. Select the user profile to be redirected.
2. Click Custom Location and specify the path. Generally, this is a Thawed volume on your workstation. For example, T:\Users.
3. Click OK. The selected user profile is moved to the Thawed volume.

Redirecting a user's entire profile to a Thawed volume will address the data retention requirements for most environments where a single, or small number of users use a specific workstation. In situations where systems are used by a large number of users or in one-to-one laptop deployments, a different approach is required.

For situations where the administrator does not know which user will be logging into the workstation, Data Igloo has the ability to redirect all new user profiles to a Thawed location when a new user logs in. This approach is ideal for one-to-one laptop deployments or situations where workstations are loaned to users for extended periods of time.

To redirect all new users who log into the system while Frozen:

1. Select the Redirect any newly created user profiles to check box in the User Profile Redirection tab.
2. Enter the path that the user profiles will be saved to. Generally, this is a Thawed volume on your workstation. For example, T:\Users.
3. When prompted, select a location to store any of the user specific registry keys. This should be a Thawed volume on your workstation, outside of the folder that contains the user profiles. For example , T:\Registry.
4. Once completed, any new users logging into the workstation while Frozen, will have their user profile and registry settings redirected to the Thawed location specified in the previous steps.

Roaming Profiles

Roaming profiles can be redirected using the same procedure described above. As far as Data Igloo is concerned, users with roaming profiles are treated in the same manner as users without roaming profiles.

Mapping Data for Specific Applications

This section of the document provides guidelines for performing data mapping at an application level as opposed to retaining data based on the user context. This method of retaining user data is best approached when the user data to be retained is specific to individual applications and no other data needs to be retained on the local workstation

Applications Saving Data to Internal Folders

Some applications save their user data into specific folders on the hard disk and cannot be configured to save user data in any location other than the one specified by the application developers. To work around this limitation, the application data can be mapped either by installing the whole application on a Thawed volume, or by determining the location of the data to be saved, and moving that data with Data Igloo.

Applications Saving Data to My Documents

Some applications retain their data in a folder under the user's My Documents folder. If this is the case, the information can be mapped by moving the entire user profile to a Thawed volume. If the user profile or My Documents is not being mapped to a Thawed partition or stored on the network, Data Igloo can be used to move data to a Thawed volume.

Complete the following steps to redirect a folder from one drive to another:

1. Ensure the Deep Freeze status is Thawed.
2. Launch Faronics Data Igloo from *Start>Programs>Faronics>Data Igloo Standard>Data Igloo*
3. Go to Folder Redirection tab. Click *Redirect Folder....*
4. In the Create Folder Redirection dialog, click Browse to select the source folder.
5. Select the source folder and click OK.
6. In the Create Folder Redirection dialog, click Browse to select the target folder.
7. Select the target folder and click OK.
8. Click *Redirect Folder.*
9. A progress bar is displayed and the folder is redirected.

Data Igloo does not allow redirecting from and to the Windows and Program Files system folders or any sub-folders within these folders. Both the source and target drives must be NTFS partitions.

Registry Key Redirection

The Registry Key Redirection tab allows you to redirect changes occurring in selected registry keys to a ThawSpace. This ensures that the changes to the registry key are retained even when the Deep Freeze status is Frozen. When Deep Freeze status is Thawed, the changes to the registry keys saved on the ThawSpace are automatically restored to the registry.

> Only the HKEY_LOCAL_MACHINE registry keys can be redirected using Data Igloo.

Creating a Registry Key Redirection

Complete the following steps to create a Registry Key Redirection:

- 1.** Ensure the Deep Freeze status is Thawed.
 - 2.** Go to Registry Key Redirection tab. Select Redirect registry key changes to: checkbox.
 - 3.** Click Browse to select a location on a Thawed drive.
 - 4.** Click Select Key from registry....
Registry Key Redirection
 - 5.** In the Browse For Registry Key dialog, select the registry key and click Redirect.
 - 6.** The registry key is redirected to the Thawed drive.
 - 7.** Reboot the computer Frozen
- ▶ Changes made to the configuration are applied only when the computer restarted. Registry key redirection takes effect only when the computer is rebooted Frozen.
 - ▶ Select the specific registry key to be redirected. Selecting the parent registry key removes the child registry key from the list.
 - ▶ Deep Freeze status must be Thawed to change the settings in the Registry Key Redirection tab. Registry key redirection can also be enabled when the Deep Freeze status is Frozen. However, registry key redirection will not take effect when the computer is rebooted.
 - ▶ The registry keys that are grayed out cannot be redirected.
 - ▶ Some Registry Keys might automatically appear in the Registry Key Redirection tab. These Registry Keys are used by Data Igloo and cannot be removed manually.

Microsoft Office Auto Recovery Locations

Some Microsoft Office applications have auto recovery files, where projects being modified are automatically saved and can be recovered in case of failure. When a workstation is Frozen, all documents that have been saved to this auto recovery location will be deleted. To prevent this, the auto recovery location can be modified to be redirected to a Thawed location on the workstation.

Recent versions of Microsoft Office provide an inbuilt option to modify the auto recovery location. For example, if you are using Microsoft Word 2013, go to Options > Save > Save Documents > Auto Recovery file location.



Faronics' solutions help organizations increase the productivity of existing IT investments and lower IT operating costs. Incorporated in 1996, Faronics has offices in the USA, Canada, and the UK, as well as a global network of channel partners. Our solutions are deployed in over 150 countries worldwide, and are helping more than 30,000 customers.

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