

User Manual

TeraStation Live

HS-DH-TGL/R5



Congratulations on your new TeraStation! Your TeraStation Live is a powerful file server that's as easy to use as a hard drive. With its straightforward configuration GUI, anyone can easily configure the TeraStation's settings. You don't even necessarily need to configure it at all; right out of the box it's ready to be plugged in and put to work. But the TeraStation remains a fast, reliable Linux-based server, with four huge hard drives that may be configured in RAID 0, RAID 1, RAID 5, or RAID 10 arrays. It also includes PCast and DLNA media servers, allowing it to stream music, movies, and pictures to a wide range of stand-alone media players. This user manual is intended to assist you in configuring your new TeraStation.

Because we're constantly updating our product, the images and text in this manual may vary slightly from the images and text displayed by your TeraStation. These changes are minor and should not affect the ease of setup adversely. As time passes, future user interfaces, updated software, and later versions of this manual may be freely available for download at our web site: <http://www.buffalotech.com>.

If you run into difficulties or need additional help, feel free to contact our technical support. Contact information for Buffalo Technology and our technical support is available on pages 81 and 82.

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Begin setting up your TeraStation by plugging your *power cable* and *Ethernet cable* into the back of the TeraStation as shown.

Connect your cables



Plug the power cord into a wall socket or surge protector. Plug type and socket will differ according to country of use.



Plug the other end of the Ethernet cable into a hub, router, or switch in your network.



Press the *power button* on the front panel. LEDs will light as your TeraStation boots up.

After your TeraStation has completed booting up, check the *LINK/ACT LED* on the front of the TeraStation. If it's lit, then your TeraStation is connected properly, and you can go on to page 8. If it's not lit, turn to page 7 for troubleshooting.



The TeraStation's Ethernet port will automatically adjust to use either a Crossover or Patch cable, so you may connect the TeraStation to your network with either type of Ethernet cable. Buffalo Technology doesn't recommend connecting the TeraStation directly to a PC.

Verify that the *LINK/ACT LED* on the front of TeraStation is lit (see page 6's picture). If it's lit, go to page 8 to continue setting up TeraStation. If the *LINK/ACT LED* is still not lit, try the suggestions below to verify that you're not suffering from common setup problems.

Having problems? Make sure that:

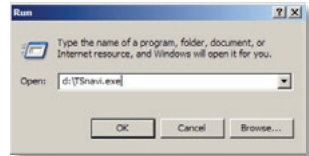
- the TeraStation and the router, hub or switch are both powered on,
- the Ethernet cable is securely plugged in at both ends, and
- the Ethernet cable is not damaged. Verify this by trying a different Ethernet cable.

If problems persist, you may contact Buffalo Technology's technical support. See pages 85 and 86 for technical support contact information.

Insert the TeraNavigator CD into your computer's CD-ROM drive.

On a PC, setup should automatically launch. If it does not, manually launch `TSnavi.exe` by pressing *Start* and selecting the *Run...* option.

When the *Run* dialog opens, type **d:\TSnavi.exe** (where d is the drive letter of your CD-ROM drive). Press *OK* to continue.



If you are installing the software on a Mac, open the CD and click *TeraNavigator* to begin installation.





Press the *Begin Installation* button to begin.

If you're installing on a PC, click on *Connect this PC to TeraStation* (the green, lower button). Mac users can skip this step.

Click *Next* to step through the installation.



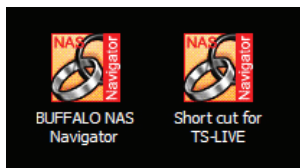


Continue pressing *Next* to step through the installation.

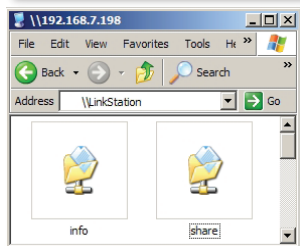
When installation is complete, you may close the installation window.



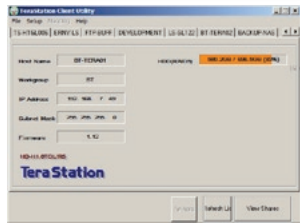
Using your TeraStation with a Windows PC



Two new icons will be on your desktop: *Shortcut for TS-Live* and *Buffalo NAS Navigator*.



Clicking *Shortcut for TS-Live* takes you directly to the folders on your TeraStation. *Share* is the main folder that you can put files and folders in. *Info* contains a copy of your user manual.

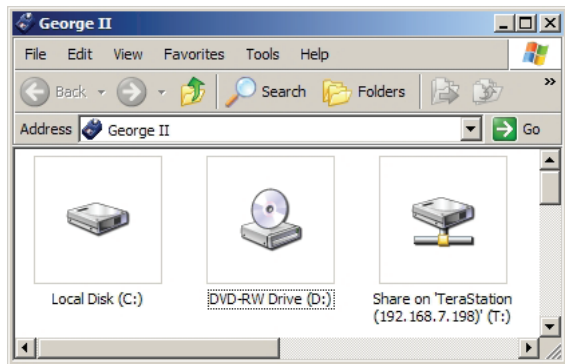
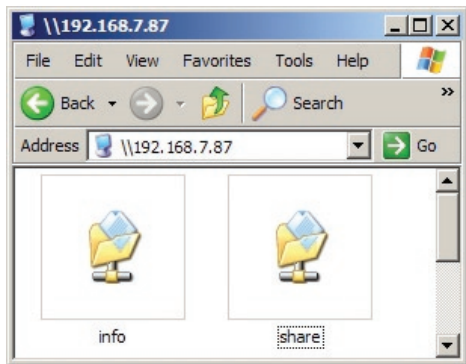


The *Buffalo NAS Navigator* icon opens the TeraStation's client utility. Turn to page 79 for more on using the NAS Navigator client utility.

Accessing TeraStation Data from your PC

To Access TeraStation Data from a PC:

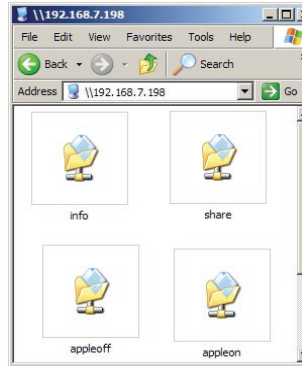
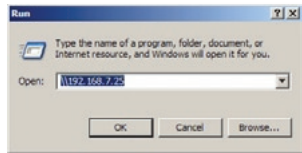
Your TeraStation uses “shares” (folders) to hold data. A share called “share” is already configured on your TeraStation, and you can create additional shares on page 40. To start using your TeraStation, you can either click on the *Shortcut for TS-Live* on your desktop, or you may just use *drive T* in My Computer, which setup has mapped to the default share in your TeraStation.



Accessing TeraStation Data from your PC

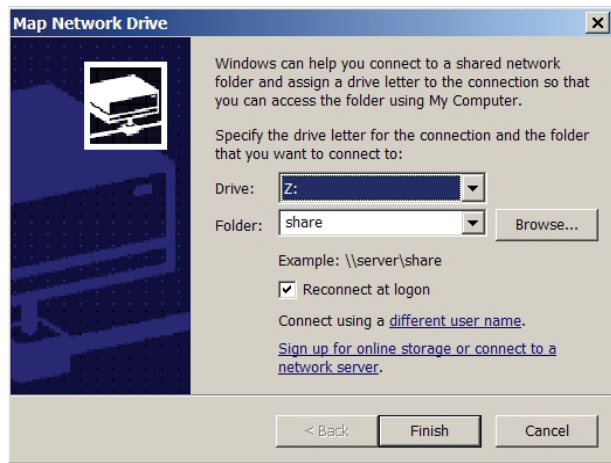
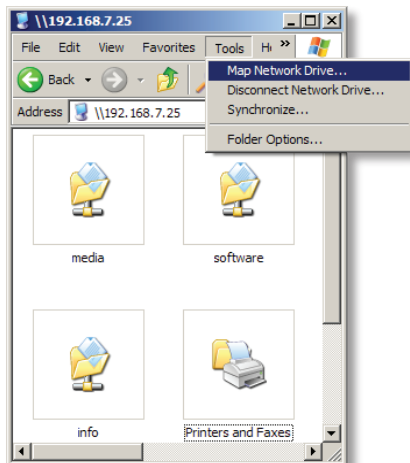
You can map additional drive letters to shares on your TeraStation. From the *Start* menu, select *Run....* Enter your TeraStation's hostname (you can get it from the NAS Navigator utility) or IP address. Press *OK*.

Your TeraStation should open. "Share" is a data folder in your TeraStation by default. "Info" contains your user manuals. If you have created other folders, they will be visible here too. You can map drive letters to any of these folders.

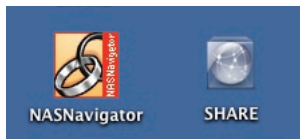


Accessing TeraStation Data from your PC

From the *Tools* pull-down menu, select *Map Network Drive*. Choose a drive letter from the *Drive*: pull down menu. To specify the folder to map, either find it with *Browse* or enter `\\TS-Live\share_name` in the *Folder*: field, where *TeraStation_Name* is your TeraStation's hostname and *share_name* is the name of a folder on your TeraStation. Check the *Reconnect at logon* checkbox to have Windows connect to this mapped drive everytime it starts. When finished, press the *Finish* button. Your share is now mapped to a drive letter.



Using your TeraStation with a Mac



After installing the TeraNavigator software, your Mac will have two new icons on the desktop.

The *Share* folder is the main folder that you can put files and folders in. *NAS Navigator* is the TeraStation's client utility.



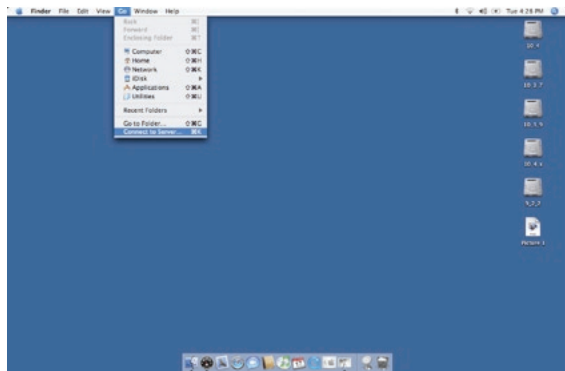
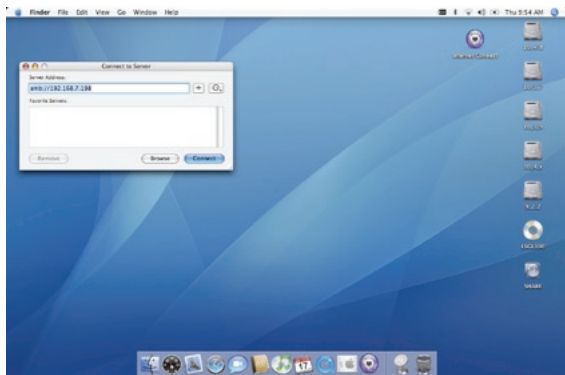
Clicking *Share* opens the main folder on your TeraStation. You can put files and folders in *Share* as though it were any other hard drive connected to your computer.



The *NAS Navigator* icon opens the TeraStation's client utility. See page 79 for more on using the *NAS Navigator* client utility.

Accessing TeraStation Data from a Mac

You can manually add TeraStation Shares (folders) to your desktop by adding them to the Mac's server list. Begin by clicking *Go*, and then choose *Connect to Server*.

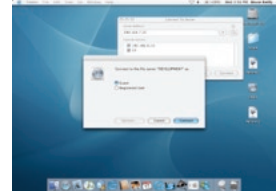


In the *Server Address* field, enter your TeraStation's IP address in the form *smb://ipaddress* (where "ipaddress" is your TeraStation's IP address), and click *Connect*.

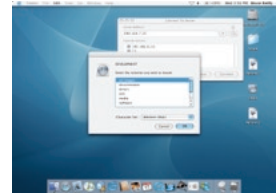
If you don't know your TeraStation's IP address, see page 18.

Accessing TeraStation Data from a Mac

Select *Guest* and click on *Connect*. Note: If you have configured share permissions on your TeraStation, select *Registered User* and enter your Registered User credentials.



Select the volume that you want to mount, such as *share* or *share-mac*, from the list of folders on the TeraStation.



The share will open. A link to the shared folder will appear on your desktop.



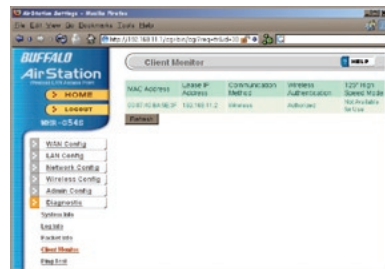
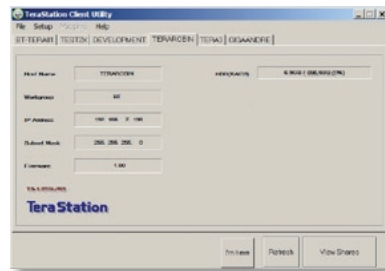
Accessing TeraStation Data from a Mac

If you don't know your TeraStation's IP address, there are several ways to get it.

One simple method is to use the NAS Navigator client utility (included on your CD) to find your TeraStation(s). Just click on the tab for your TeraStation and you'll be able to read its IP address.

You can get the TeraStation's IP address from the LCD display on the front of the TeraStation as it boots up.

You can always get the TeraStation's IP address from your router's configuration utility. Many Buffalo routers list this information on the *Client Monitor* page, as shown to the right. Consult your router's documentation for instructions on identifying the TeraStation's IP address.



TeraStation Live has two USB 2.0 ports on the rear. These ports can be used for adding external USB Hard Drives. TeraStation will share connected USB storage devices, allowing everyone on the network to use them. Up to two external USB hard drives may be added to TeraStation Live. To connect a USB hard drive to your TeraStation, simply plug it into one of the USB Ports.

You may plug in additional USB hard drives to either of the USB ports on your TeraStation. See page 36 for setting up your USB hard drives on the TeraStation. Page 54 shows you how to set up TeraStation to back up to a USB Hard Drive.



Power Button – Press and release the Power Button to turn the TeraStation on. Hold it down for three seconds to turn the TeraStation off.

Hard Drive Access – The Access LEDs will blink green when the associated hard drive is accessed. During startup, it's normal for all the lights to blink.

Hard Drive Cage – The tubular lock prevents physical access to hard drives when locked. See page 79 for information on replacing hard drives.



The **Status LCD** can be configured to display specific TeraStation information. Please see page 66 to configure the various display options.

INIT Button – The INIT button restores your TeraStation to factory default settings. It's located on the underside of the display, and only accessible while the door is open. See page 69 for more information on initialization.

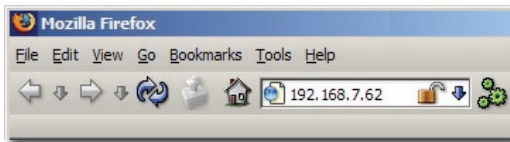
Power Plug – The TeraStation Live is designed for 100-120 Volt AC power. Connecting this plug to a 220 V power supply will damage your TeraStation Live.

10/100/1000 Mbps Ethernet Port – Use this port to connect your TeraStation to a switch, a router, or another computer. The port is autosensing, so either a conventional Ethernet cable or a crossover Ethernet cable may be used.

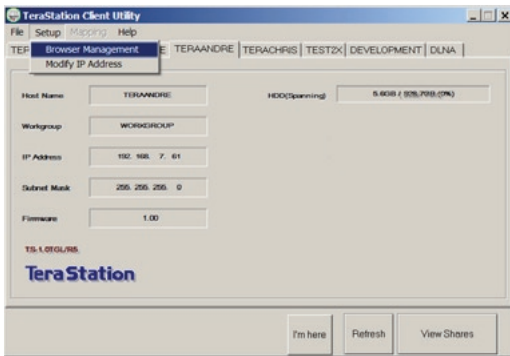
USB Ports – TeraStation offers two USB 2.0/1.1 ports for adding external drives.



The Configuration GUI

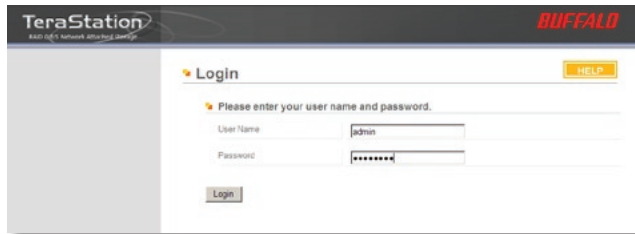


The Configuration GUI may be accessed at any time by typing the IP address of your TeraStation into the URL bar of a browser running on a computer connected to the same network as the TeraStation. This works perfectly with OS X, Linux, and other non-Windows PCs.



You may also open the Configuration GUI from NAS Navigator by clicking on *Setup* and choosing *Configuration Settings*.

This login prompt will appear. Enter **admin** for the user name. Until you change it, the password for the admin account will be **password**. Press the *OK* button when finished.



User name: *admin*

Password: *password*

See page 47 to change your password.

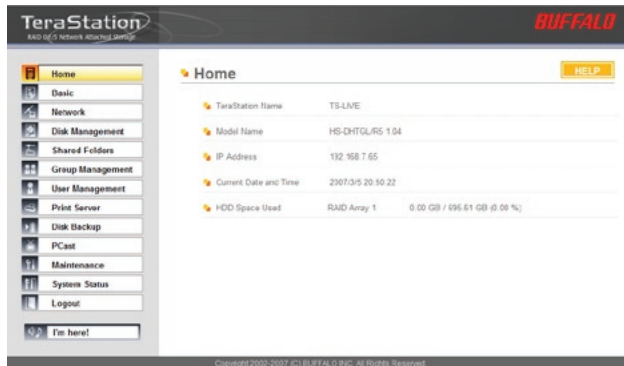
If this login prompt does not appear, your DHCP server may not be functioning correctly. If DHCP is disabled, you may re-enable it, or verify

that the TeraStation's IP Address is in the same range as that of your PC.

Note: Pages 75 and 76 describe how to configure the TeraStation with a Static IP Address.

Welcome to the configuration GUI for the TeraStation! Bookmark this page in your browser so it can be easily accessed for future configuration changes. If the TeraStation's IP Address changes, you will need to recreate the link. You can also get here by typing `http://TeraStation_Name` into a Web browser, where TeraStation_Name is the name of your TeraStation.

You are now at *Home*. Notice that the *Home* button is lit up in yellow. You can navigate this menu by clicking on the buttons at the left of the screen. Here at “Home”, you can see basic information about your TeraStation's current configuration. You may close this screen by clicking *Logout* at the bottom left, or just by closing the browser window. If you have lost your TeraStation, clicking *I'm here!* at the bottom left will cause it to beep, making it easier to find.



The screenshot shows the TeraStation configuration GUI. The top header features the 'TeraStation' logo on the left and the 'BUFFALO' logo on the right. A navigation sidebar on the left contains buttons for Home (highlighted in yellow), Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Print Server, Disk Backup, PCast, Maintenance, System Status, Logout, and I'm here!. The main content area is titled 'Home' and includes a 'HELP' button. It displays the following configuration details:

TeraStation Name	TS-LIVE
Model Name	HS-DHTGLRS 1.04
IP Address	192.168.7.55
Current Date and Time	2007/3/5 20:50:22
HDD Space Used	RAID Array 1 0.00 GB / 696.61 GB (0.00 %)

At the bottom of the page, a small copyright notice reads: Copyright 2002-2007 © BUFFALO INC. All Rights Reserved.

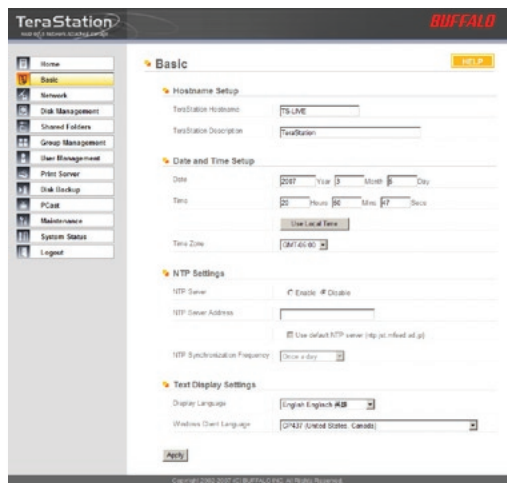
Basic

You may modify your TeraStation's hostname and description under *Hostname Setup*. A friendly, easy-to-remember name (e.g. "TeraStation") is recommended.

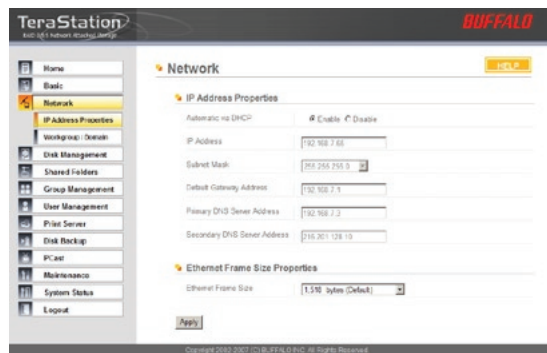
Make sure that the date and time are correct in *Date and Time Setup*. To synchronize time settings with those in your computer, press *Use Local Time*. To have your system time automatically set by an NTP server, enable *NTP Server* and enter an IP Address for the NTP server (e.g. 192.43.244.18) or use the supplied default NTP server.

Ensure that both the *Display Language* and the *Windows Client Language* are set to languages that you're comfortable with.

Once desired fields have been completed, press the *Apply* button.



Network (IP Address Properties)

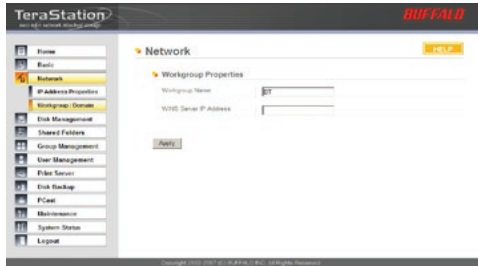


In most networks, TeraStation will get its IP Address automatically from a DHCP server. You may disable DHCP here. If DHCP is disabled and an IP Address is not set manually, it will default to *192.168.xxx.xxx* with subnet mask *255.255.0.0*. The TeraStation's *IP Address*, *Subnet Mask*, *Default Gateway Address*, and *DNS Server address* may all be entered manually under *IP Address Properties*.

Ethernet Frame Size may also be set manually on this page. Only use JumboFrame settings when operating in a Gigabit environment where all other clients support the same JumboFrame setting.

Click *Apply* after making any changes.

Network (Workgroup/Domain)



To make your TeraStation a member of a workgroup, enter the workgroup name here and click *Apply*. Entering a WINS server IP address is optional.

The TeraStation Live does not support Active Directory authentication.

TeraStation uses *RAID* (“Redundant Array of Independent Disks”) technology to control the four hard drives in your TeraStation. RAID may be configured several ways:

RAID 0 - All four drives are combined into one large, fast drive, giving the maximum capacity for your TeraStation. This size is the one listed on your TeraStation’s box and shows the total capacity of the TeraStation with no data used for redundancy. RAID Spanning is fast and efficient, but with no redundancy, if one hard drive fails, all data on the TeraStation is lost.

RAID 1 (mirroring) - Hard drives are arranged in mirrored pairs. Each half of the pair reads and writes exactly the same data. This costs you half the total capacity of the array, but provides excellent redundancy. If a hard drive fails, the mirror continues to supply data, so you may work on normally. You may replace the damaged or defective drive at any time, and normal RAID 1 mirroring will then be automatically restored.

RAID 5 (parity) - All drives in a RAID 5 array reserve part of their data space for parity information, allowing all data to be recovered if a single drive fails. The parity information takes up about one hard drive’s worth of space, so if you set up all four drives in the TeraStation as a RAID 5 array, your usable capacity will be about 3/4 of the total capacity of the TeraStation. This is how your TeraStation is set up out of the box.

RAID 10 (parity) - Combines RAID 1 and RAID 0 for a fast, secure array. Half of the TeraStation’s total capacity is used for redundant information.

Buffalo Technology recommends *RAID 5* for its excellent balance of efficiency and security.

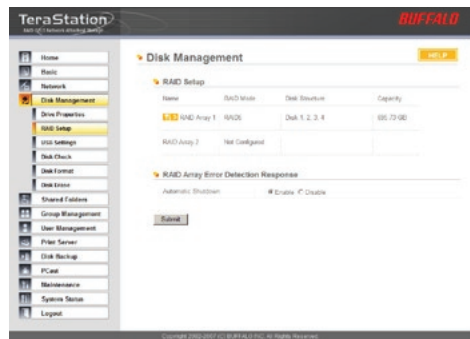
Disk Management (RAID Setup)

This page shows your current RAID arrays. You may delete old arrays or create new ones by clicking on the underlined *RAID Array #* under *RAID Array Configuration*.

The *RAID Scanning Settings* set a specific time for the TeraStation to scan and inspect its RAID arrays. It is recommended to set a time where the TeraStations usage will be minimal (perhaps the middle of the night). TeraStation will be significantly slower while the RAID scan occurs. *Begin Immediate RAID Scan* specifies the TeraStation to run a RAID Scan immediately.

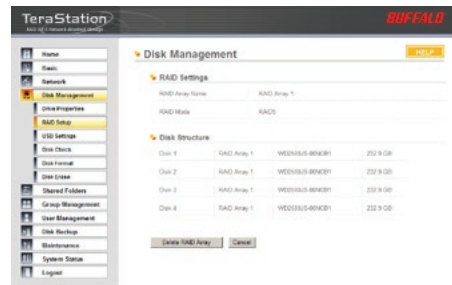
You may also disable *RAID Array Error Detection Response* from this page. Normally, this is set to automatically shut down the RAID array when an error is detected. Though it is not recommended, you may disable that behavior by selecting *Disable*.

NOTE: TeraStation has four internal hard drives. Before creating a new RAID array, you may have to delete one or more pre-existing RAID Arrays to clear up the hard drives for your new one. This will destroy all data currently on the disks, so back up any important data before deleting RAID arrays. Whether you want to clear out an old array or create a new one, begin by clicking on the array's underlined *RAID Array #*, under *Name*.

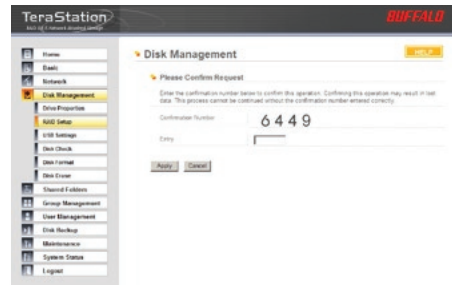


Disk Management (RAID Configuration)

A configured RAID array may be deleted by pushing the *Delete RAID Array* button. This will free up all hard drives listed under Disk Structure.

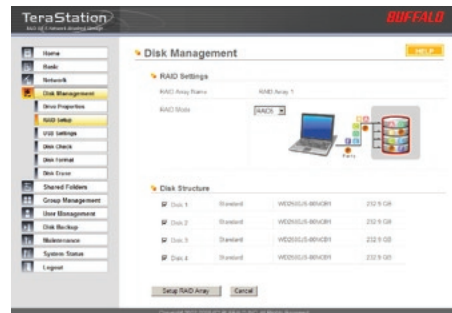
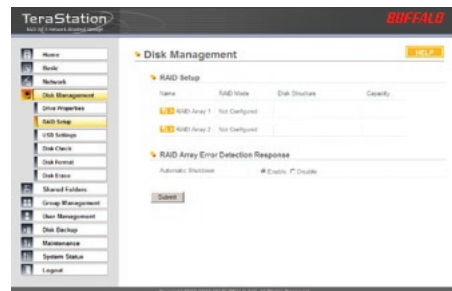


You will need to enter a confirmation number from the screen before the RAID array will be deleted.

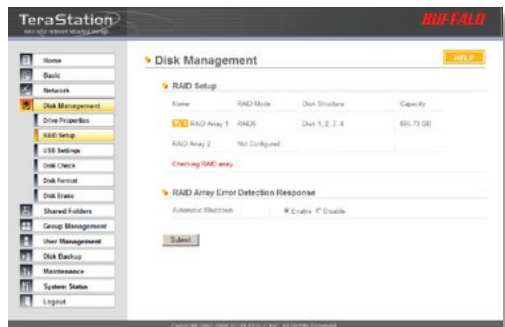


To configure an unconfigured array, begin by double clicking on the array you want to configure, e.g. “RAID Array 1”.

Choose your RAID mode under *RAID Settings* and put checks next to the hard disks you want included in the array under *Disk Structure*. Click *Setup RAID Array* when ready. It may take several minutes to complete setting up the RAID array. When it's finished, a Disk Check will run.

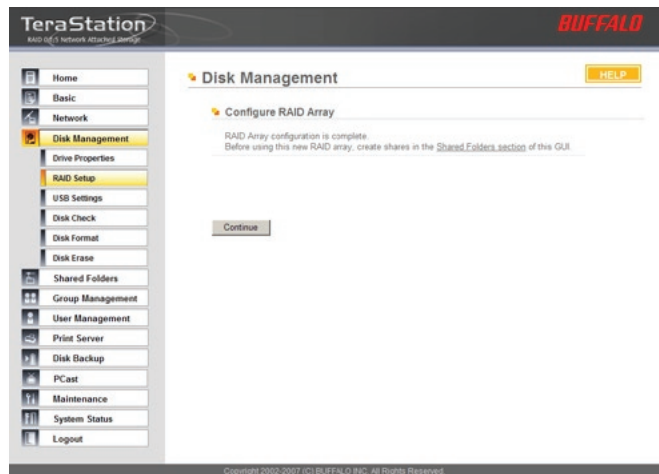


Disk Management (Disk Check)



When RAID Configuration is done, a disk check will run automatically. This may take several hours to complete. Performance of the TeraStation will be slower than normal while the disk check is running.

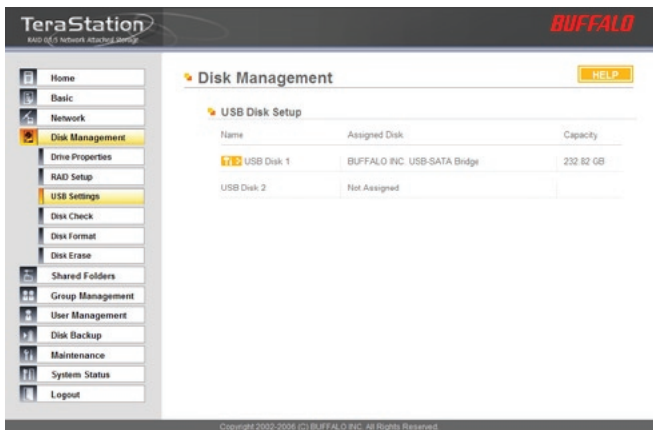
Disk Management (RAID Configuration)



You'll see this screen when your new RAID Array is completely configured. Click on *Shared Folders* and turn to page 40 to begin setting up shares on your TeraStation.

Disk Management (USB Settings)

If you've plugged an external USB hard drive into one of the USB ports on your TeraStation, you may set it up from this page. Click on its name under *USB Disk Setup* to begin.

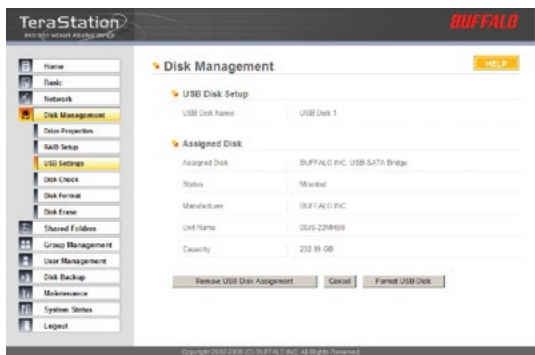


The screenshot shows the TeraStation web interface. The left sidebar has a menu with the following items: Home, Basic, Network, Disk Management (highlighted), Drive Properties, RAD Setup, USB Settings (highlighted), Disk Check, Disk Format, Disk Erase, Shared Folders, Group Management, User Management, Disk Backup, Maintenance, System Status, and Logout. The main content area is titled "Disk Management" and contains a sub-section "USB Disk Setup". Below this is a table with the following data:

Name	Assigned Disk	Capacity
USB Disk 1	BUFFALO INC. USB-SATA Bridge	232.82 GB
USB Disk 2	Not Assigned	

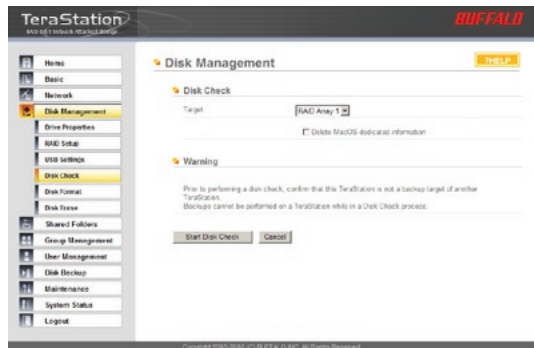
At the bottom of the interface, there is a copyright notice: "Copyright 2002-2006 (C) BUFFALO INC. All Rights Reserved."

Disk Management (USB hard drive setup)



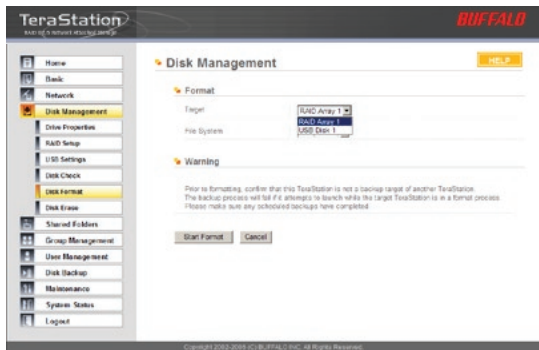
From here you can see your USB hard drive's setup information. If the hard drive's information isn't displayed properly, try restarting your USB hard drive and then restarting your TeraStation. Some USB hard drives must be reformatted from within TeraStation before they can be assigned shares. Press *Format USB Disk*, or choose *Disk Format* from the left-side menu, to begin reformatting your USB hard disk. Turn to page 39 for more information on reformatting disks. Turn to page 40 to set up shares on your USB hard drives.

Disk Management (Disk Check)



To initiate a comprehensive disk check on a hard drive or array of drives, select the hard drive or array that you want to check from the *Target* dropbox and click the *Start Disk Check* button. Performance will be slower while the disk check is running.

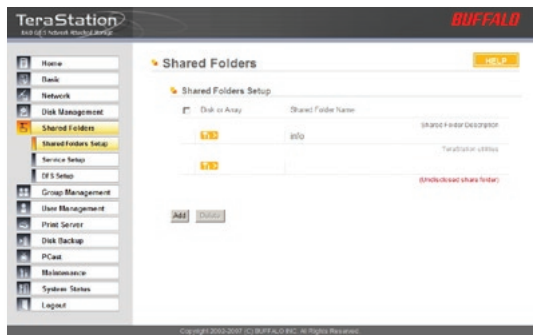
Disk Management (Disk Format)



To format a hard drive or array, select it from the *Target Disk* drop box. Choose the file system desired from the *File System* dropdown (internal drives can only be formatted with XFS). Note that FAT32 has a 2 gigabyte single file size limit. If you choose FAT32 for your file system, you will not be able to store single files larger than 2 gigabytes on the drive. Use of the *XFS* or *EXT3* file systems is recommended. Press *Select Target Disk* when done.

Depending on the size of the target hard disk or array, a Disk Format may take several hours to complete. Performance will be slow during the disk format.

Shared Folders



To add new shares to your TeraStation, select *Shared Folders* from the left side menu, and then click the *Add* button.

To delete a share, select the share you'd like to delete, and press the *Delete* button. Deleting shares will remove the share and erase all of the files and folders inside that share.

Add a new Shared Folder

The screenshot shows the TeraStation web interface. On the left is a navigation menu with options: Home, Email, Network, Disk Management, Shared Folders (highlighted), Shared Folders Setup, Service Setup, NFS Setup, Group Management, User Management, Disk Backup, Maintenance, System Status, and Logout. The main content area is titled 'Shared Folders' and contains a 'Add New Shared Folder' section. This section includes a 'Shared Folder Name' field with 'share' entered, a 'Shared Folder Description' field, a 'Volume' dropdown set to 'RAID Array 1', and 'Shared Folder Support' checkboxes for Windows (checked), Apple (checked), and NFS (unchecked). Below these are 'Shared Folder Attributes' with radio buttons for 'Read Only' (selected), 'Read / Write', and 'Full Control (Only SMB)', a 'Recycle Bin' section with 'Enable' (checked) and 'Disable' (unchecked) options, a 'File Operation Log' section with 'Enabled' (checked) and 'Disabled' (unchecked) options, and a 'Remote Backup Password' field. At the bottom of this section is an 'Offline File' dropdown set to 'Disable Offline File'. Below the 'Add New Shared Folder' section is an 'Access Restrictions' section with 'Access Restrictions' radio buttons for 'Enable' (checked) and 'Disable' (unchecked). It features a grid of 'Read / Write' and 'Read Only' permissions for 'All Groups / Users', 'Group', and 'User' categories, each with a selection box and a 'Read / Write' or 'Read Only' button. At the bottom of the form are 'Apply' and 'Cancel' buttons. The footer of the page reads 'Copyright 2002-2010 © BUFFALO INC. All Rights Reserved'.

To add a new shared folder, enter a name for it in the *Shared Folder Name* box and choose which *Disk Space* it will reside in. You may also choose which operating systems and features the share will support by putting the appropriate checks next to *Shared Folder Support*, and whether the share supports the Recycle Bin by putting a selecting *Enable* or *Disable*. Enter a *Shared Folder Description* and a *Remote Backup Password* if desired. Click *Apply* to build the new shared folder.

Appletalk support is available for use with legacy Macs. Checking “Apple” by *Shared Folder Support* lets you use your TeraStation with older Macs, but gives you all of Appletalk’s limitations, including a 2GB maximum filesize and a 32 character limit for filenames. For OS X 10.3.9 and later, leave “Apple” unchecked for best performance.

Remote Backup Password will set a password on this share for other TeraStations who want to use it as a remote backup target. This password will not affect users attempting to access the share; it only pertains to remote TeraStations trying to access this share for backup tasks.

Shared Folders (Access restrictions)



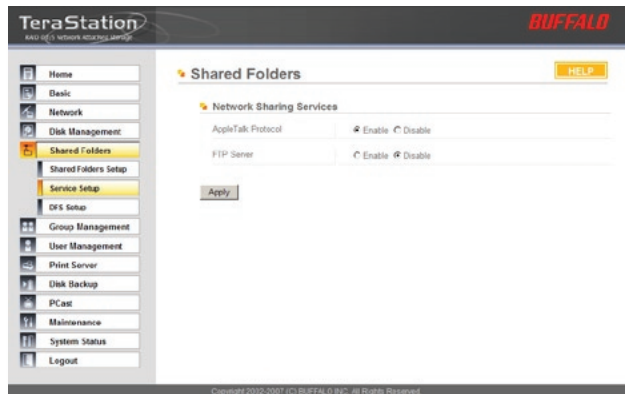
To use *Access Restrictions* for a share, select *Enable*.

Highlight groups or users in the *All Groups/ Users* column and use the left-pointing arrow buttons (located just to the left of each box) to move individual groups or users from the *All Groups/Users* column to the *Read Only* box (if you want to give them read access only) or all the way to the *Writable* box, if you want to give them full access to the share. Right-pointing arrows will move highlighted users or groups back to the right.

Click *Apply* when you have your groups and users in the appropriate boxes.

To set up new groups and users, see pages 45 and 46.

Shared Folders (Service Setup)



To allow FTP Access to TeraStation, choose *Enable* for *FTP Server*. To enable legacy AppleTalk support, choose *Enable* for *AppleTalk Protocol*.

FTP Server Info: Enabling the FTP Server will allow users to connect to shares via FTP protocol. Their username and password is used for their login credentials, and they will only have access to shares that have read-only or writeable access to on the TeraStation. The network administrator of your network may need to enable traffic on port 21 to the TeraStation for FTP to work over the Internet.

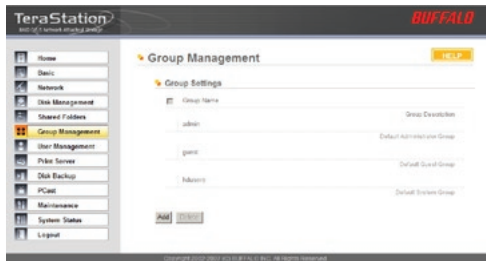
Click the *Apply* button to set up these services.

Shared Folders (DFS Setup)



To allow Distributed File System (DFS) technologies for Windows Server 2003 R2, select *Enable* and click the *Apply* button.

Group Management



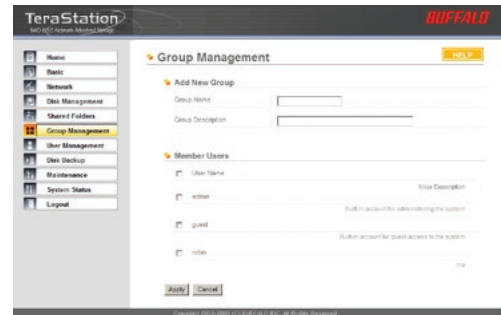
Groups allow for easier management of permissions in some networks, specifically networks with a lot of users in different departments.

To *Delete* a group, put a check next to its name and click *Delete*. To add a group to your TeraStation, click *Add*.

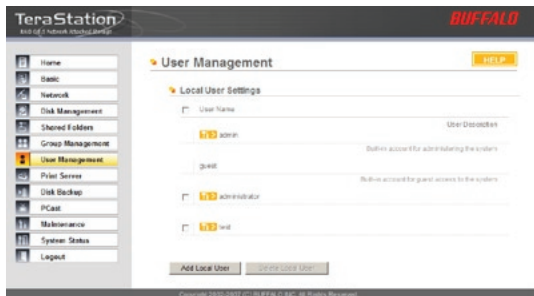
Add a name and a description to the *Add New Group* fields. Put checks next to each *Member User* that you want to be part of the group. Click *Apply* when your group is set up the way you want it.

Active Directory and Domain Groups are not shown here but are available under Share Management.

Members can be added or removed from a group at any time by editing the group. This is done by clicking on the Group name on the main Group Settings page.

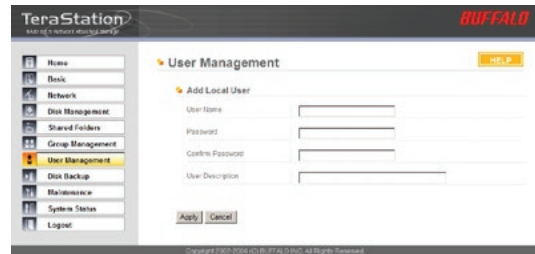


User Management

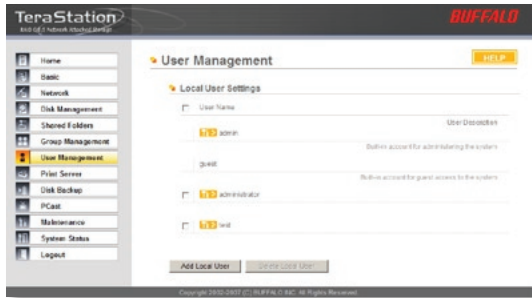


TeraStation is preconfigured with two users, *admin* and *guest*, out of the box. The *admin* and *guest* user accounts cannot be deleted. To delete any other user, put a check next to their name and click *Delete*. To add a new user, click *Add Local User*.

The *Add New User* dialog will appear. Enter a *User Name*, *Password*, and *User Description* for the new user and click the *Apply* button. If a user will be accessing the TeraStation from a Windows 95/98 computer, their password should be 15 characters or less. Mac OS 8 and OS 9 users' passwords should be 9 characters or less.

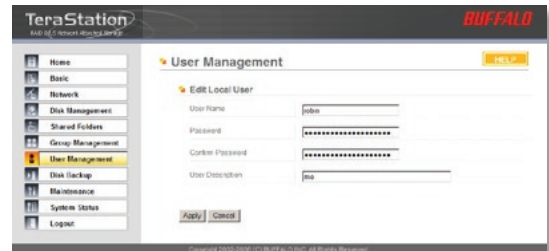


User Management (changing passwords)



To change an account's password, click on the name of the account under *User Settings*. Note: if a user name and password are used to log into a user's windows computer or domain, the same user name and password should be used when creating the user's account on the TeraStation, or problems accessing shared folders may occur.

Enter the desired new password in both boxes and click *Apply*.





A USB printer, plugged into a USB port on the rear of your TeraStation, may be used as a *Windows Print Server* on your network by choosing *Enable* and then clicking *Apply*.

TeraStation supports most PostScript printers. It doesn't support bi-directional printers.

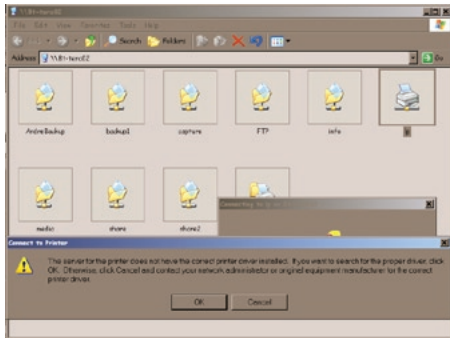
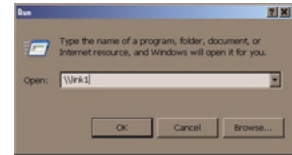
Non-PostScript printers are not supported by Buffalo. You may be able to get enough information from a printer's documentation to get it to work, but our technical support cannot help you with this.

Multi-function (all-in-one) printers are also not supported, and tech support cannot help you configure them. When multi-function (all-in-one) printers are attached to the TeraStation, many features will not function. This might include printing in general.

Print Server - Printer Share Installation

If TeraStation is set up to share your printer (page 48), you can easily add the printer to any Windows PC on your network. Follow these steps for each PC that you want to be able to access the printer.

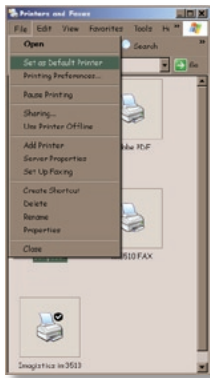
Access the TeraStation by pressing *Start*, selecting the *Run...* option, and entering `\\TeraStation_Name` (where *TeraStation_Name* is the name you set on page 26). Press the *OK* button when finished.



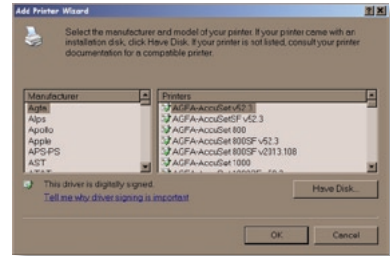
Right click on the *lp* icon and select *Connect*. You'll receive a warning that the server doesn't have the proper drivers. Press the *OK* button to continue.

Print Server - Printer Share Installation (continued)

The *Add Printer Wizard* will launch. Select the proper driver for your printer. If your printer is not in the list, you'll have to insert the CD that came with your printer into your PC's CD-ROM drive and press the *Have Disk* button. Refer to your printer documentation for further information on installing your printer if necessary. Press *OK* to finish.



If *lp* is the only printer installed on the PC, then it will automatically be set as the default printer. If it's not the only printer, you may make it the default printer by clicking *Printers and Faxes* in Control Panel, right clicking on the *lp* printer icon and selecting the *Set as Default Printer* option from the *File* drop-down menu.



Print Server (Delete Print Queue)



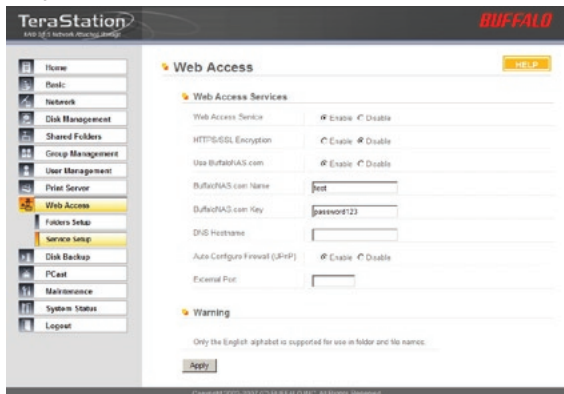
If a corrupt print job is sent to a printer, printing may suddenly fail. If your print jobs seem to be locked up, clearing the print queue may resolve the issue.

To execute the Delete Print Queue program, press the Delete button. This will clear all current print jobs. Users will have to re-send any incomplete print jobs to the printer.

If there are still problems printing to the printer, then check the printer manufacturer's documentation for troubleshooting information. Also, verify that the USB cable is securely fastened to both the printer and the

TeraStation. Finally, you may try turning the TeraStation off, turning the printer off, turning the printer back on, and then turning the TeraStation back on again.

With Buffalo's WebAccess, you can access your TeraStation from anywhere in the world with an Internet connection. It's easy to access your files, or share them with other people, wherever they may be.



WebAccess is set up from within the Configuration GUI. First, select 'Web Access', and then 'Service Setup' from the menu on the left.

To use WebAccess, set 'Web Access Service' to *Enable*.

You may enable SSL Encryption if desired.

Using 'BuffaloNAS.com' is recommended. Otherwise, you'll have to manage your own DNS settings.


'Auto-Configure Firewall' is also recommended if your router supports UPnP (most do since 2001).

If you choose not to enable this, you must manually configure your router and firewall to forward internal port 9000 to the Internet.

Choose a name for your BuffaloNAS account and a password ("key"). This name is the name that will be used to access your TeraStation and to share with your friends. The password for this protects other people from using it, so picking a strong password is recommended.

Click *Help* in the top right of the window for detailed information on each setting.



Select 'Folders Setup' in the left-side menu. Any shares on your TeraStation will appear on the list to the right. Click on the  icon beside it to select a share for web access.

Choose your desired level of Web Access from the 'Web Access Settings' dropdown:

'Disable' will prevent remote access to this share through WebAccess. This is the default setting.

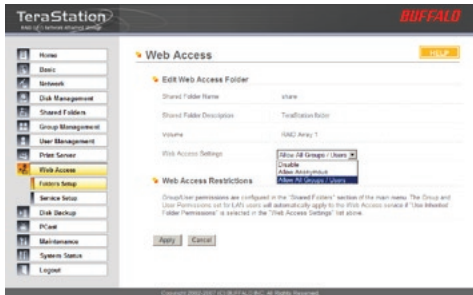
'Allow Anonymous' will allow *anyone* to access the share. Don't use this setting unless you want your TeraStation share to be available publicly to everyone in the world!

'Allow All Groups/Users' will allow only people who have an account on the TeraStation to access this share remotely.

'Use Inherited Folder Permissions' will allow people with an account on the TeraStation to access the share remotely only if they have read permissions on the specific share that they're accessing.

Consult your user manual for more information on setting up groups, users, and permissions on the TeraStation.

Click the *Apply* button to save your changes.



To access your TeraStation remotely, open a browser window on any computer connected to the Internet and go to *buffalonas.com*.

In the dialog box, type the BuffaloNAS name that you set on page 48.

Alternately, you can go directly to your share by typing *BuffaloNAS.com/your_BuffaloNAS_name* in the URL window.

The folders from your TeraStation's share will appear. Files from anonymous shares will appear to the right. To see files from shares that are not set to anonymous, you will need to *log in*. The 'login' link is on the top left corner of the page.



Troubleshooting Multiple Shares

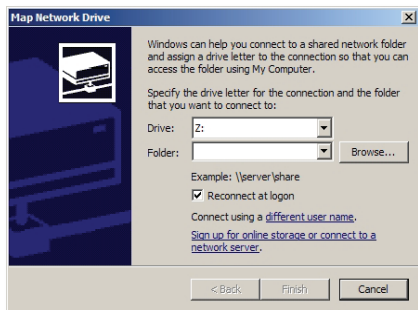


When accessing multiple shares to a Windows PC, you may see this error message.

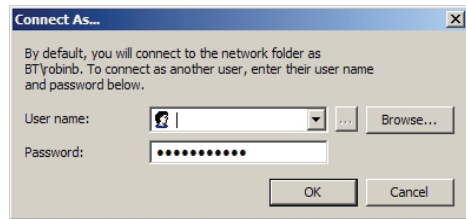
This is caused by having multiple shares to the same resource using different login credentials.

The error occurs when connecting to at least one secure, restricted share. Due to a constraint in Microsoft Windows, only one set of login credentials can access or map drive letters for a network resource such as the TeraStation. As such, only one username and password can be used while mapping drives to a PC. If unsecure, unrestricted shares are mapped and then an attempt to map a secure, restricted share is made from the same PC, then this error will occur. To prevent this, you must create all mapped shares using the same login and password information. Please follow the steps on the next page to remedy this problem.

Mapping Multiple Shares

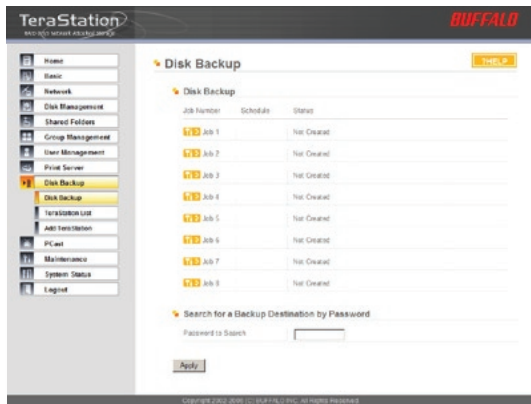


When mapping any share, select the *Connect using a different user name* option. A login and password prompt will appear. Use the username and password required by any secure, restricted shares for *all* shares. All mapped shares on a single PC must use the same username and password!



If only unrestricted shares are being mapped, then it's not necessary to set a username and password for shares. Multiple mapped drives to unrestricted shares can exist without a username or password as long as no restricted, secure shares are mapped. If an unrestricted share and a restricted share are being mapped or accessed, use the restricted username and password for the unrestricted share login by using the *Connect using a different user name* option. This will allow a Windows PC to access both shares without any problems.

Disk Backup



The screenshot shows the TeraStation Buffalo Disk Backup management interface. On the left is a navigation menu with options: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Print Server, Disk Backup (highlighted), Terastation List, Add Terastation, PCnet, Maintenance, System Status, and Logout. The main content area is titled 'Disk Backup' and contains a table of backup jobs. Below the table is a section for searching for a backup destination by password.

Job Number	Schedule	Status
173 Job 1		Not Created
173 Job 2		Not Created
173 Job 3		Not Created
173 Job 4		Not Created
173 Job 5		Not Created
173 Job 6		Not Created
173 Job 7		Not Created
173 Job 8		Not Created

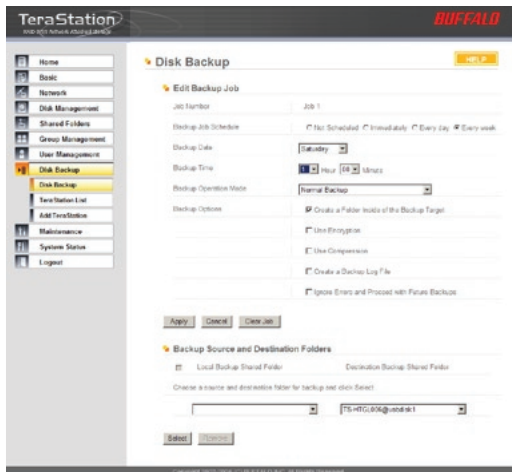
Search for a Backup Destination by Password

Password to Search:

Apply

To create a backup job, click on a *Job Number*. The *Edit Backup Job* dialog will appear.

Disk Backup (Edit Backup Job)



A *Backup Job* can run regularly on a daily or weekly schedule, or immediately by appropriate choices in the *Backup Job Schedule* field. *Date* and *Time* for the backup may be entered, and *Encryption* and *Compression* enabled or disabled. Enable *Overwrite Backup* to have each scheduled backup write over the previous backup, or *Differential Backups* to backup only files changed since the previous backup.

Select the folder to be backed up from the *Local Backup Shared Folder* dropdown, and the destination for the backup files from the *Destination Backup Shared Folder* dropdown. The destination folder may be on a USB drive attached to the TeraStation, or another TeraStation on the network. Click on *Select* to approve the backup targets.

Click the *Apply* button when your backup job is set up the way you want it, or *Clear Job* to stop a job from running again.

Disk Backup (TeraStation List)

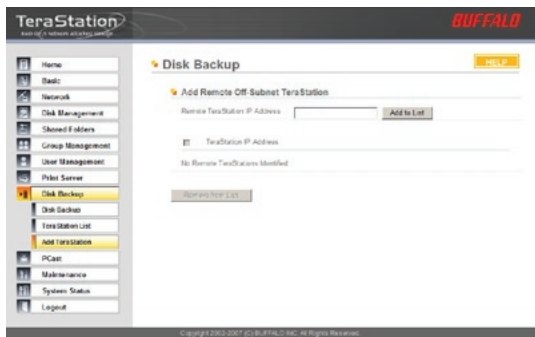
The screenshot shows the Buffalo TeraStation web interface. The left sidebar contains navigation options: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Disk Server, Disk Backup, TeraStation List, Add TeraStation, iCast, Maintenance, System Status, and Logout. The main content area is titled 'Disk Backup' and contains a 'TeraStation List' table. Below the table is a 'Refresh' button. The footer of the interface reads 'Copyright 2007-2011 Buffalo, Inc. All Rights Reserved'.

Name	IP Address	Backup Support	Disk Sleep
TS-LMT	192.168.7.35	Supported	Not Configured
DEV-LS	192.168.7.36	Supported	Not Configured
LS-GL12	192.168.7.37	Supported	Not Configured
DEVELOPMENT	192.168.7.38	Supported	Not Configured
ANERUVE	192.168.7.39	Supported	Not Configured

The TeraStation list shows other TeraStations in your network that you can configure network backups to.

Press *Refresh* to get a list of TeraStations on your network.

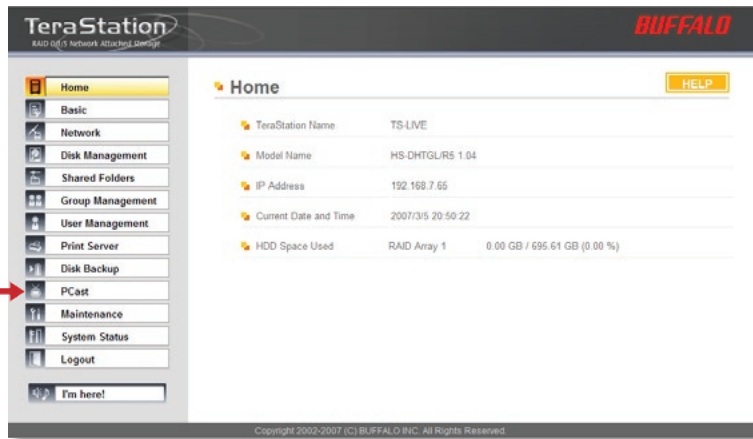
Disk Backup (Add TeraStation)



To add a remote TeraStation to your network, enter its numerical IP Address in the *Remote TeraStation IP Address* field and click the *Add to List* button. For remote TeraStation backups, make sure both firewalls are configured to allow traffic in and out of their networks.

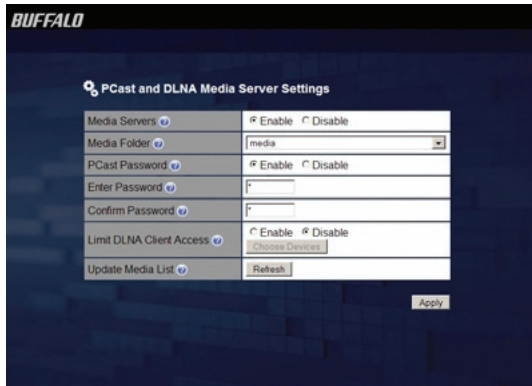
Note: Disk Backups between two TeraStations use port 8873 for encrypted backups and port 873 for backups with no encryption.

PCast and DLNA are special services that can run within TeraStation, allowing it to be a media server for LinkTheater or other digital multimedia players. The LinkTheater product is a media server that connects to your television and streams multimedia content. The PCast service allows you to stream any multimedia content directly from your TeraStation Live to the LinkTheater. DLNA is an industry standard supported by many digital multimedia players.



If you do not own a multimedia player, PCast and DLNA settings may be ignored.

For more information on LinkTheater, please visit Buffalo Technology's web site at www.buffalotech.com and look under Multimedia Products.



Media Server Function: The *Media Server Function* will need to be enabled for this function to work. If you do not own a LinkTheater than disabling this feature is recommended.

Media Folder: The *Media Folder* specifies which shared folder to share with LinkTheater. All of the multimedia files inside this shared folder will be available to LinkTheater. **NOTE:** At this time, only one shared folder can be accessed with LinkTheater. Please make sure that all of the multimedia files you wish to share with LinkTheater are in this shared folder.

PCast Password: Restrict access to your media server by specifying an access password.

Limit DLNA Client Access: Choose what devices can access your media server. See next page for more information on configuration.

Update Media List: This updates the list of multimedia folders and files displayed by your media player. Some changes may not be shown until the list is refreshed or the media player rebooted.

BUFFALO

Access Limitation of DLNA Client

DLNA client that permits access

MAC Address	IP Address	Device Name
Access from all DLNA client is prohibited		

Deny Access Select All Clear All

Search of DLNA client

Search

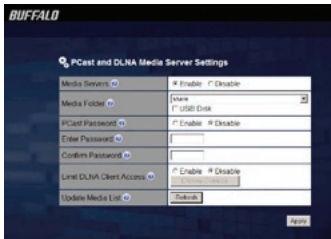
	MAC Address	IP Address	Device Name
<input type="checkbox"/>	00 13 D3 13 65 0F	192.168.7.102	TECHN/RITER02: Windows Media Connect
<input type="checkbox"/>	00 80 87 44 BC D9	(Not detected)	0L44BCD9
<input type="checkbox"/>	00 11 25 B0 2D 00	(Not detected)	(Not detected)
<input type="checkbox"/>	00 11 09 D8 DA DB	192.168.7.45	(Not detected)
<input type="checkbox"/>	00 0D 0B 36 DC 68	(Not detected)	(Not detected)
<input type="checkbox"/>	00 0D 60 78 76 A6	(Not detected)	(Not detected)
<input type="checkbox"/>	00 07 40 BA 5E 52	(Not detected)	(Not detected)
<input type="checkbox"/>	00 0B DB 91 D0 A5	(Not detected)	(Not detected)
<input type="checkbox"/>	08 00 45 BF 9C AF	(Not detected)	(Not detected)

Allow access Select All Clear All

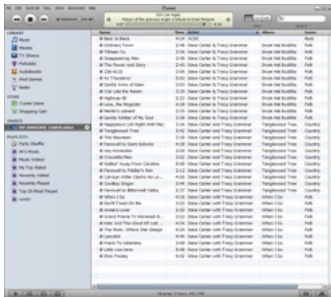
Apply Cancel

Get to this page by clicking *Choose Devices* on the previous page.

Search for DLNA Client: This will show a list of all clients that could connect to the media server. For any that you want to have access, put a checkmark next to their MAC address and click *Allow Access*. You can deny access to any DLNA client by checking it and clicking *Deny Access*.

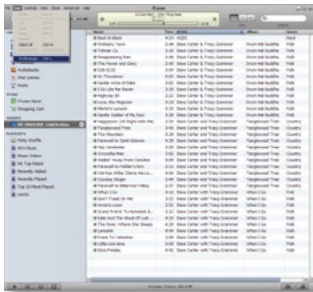


Your TeraStation may be used as a music server for computers running iTunes. As long as PCast's *Media Servers* function is enabled, the *Media Folder* ("Share" by default) will appear in iTunes on computers on the same subnet.



All music files in the *Media Folder* will be visible from within iTunes 7 or later. Music files stored in this folder will be playable from up to 5 computers on the network.

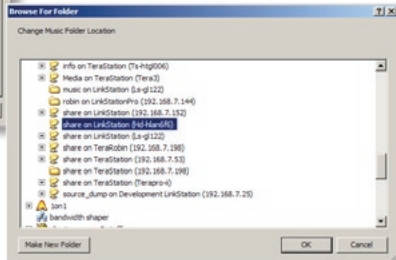
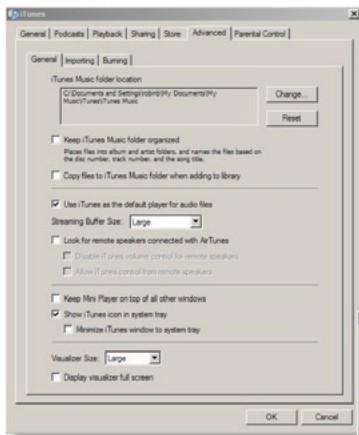
You can configure iTunes to store all of your music on the TeraStation if desired. To do so, select *Edit* and then *Preferences*.



On the *Advanced* tab, to change the iTunes Music folder, click *Change*.

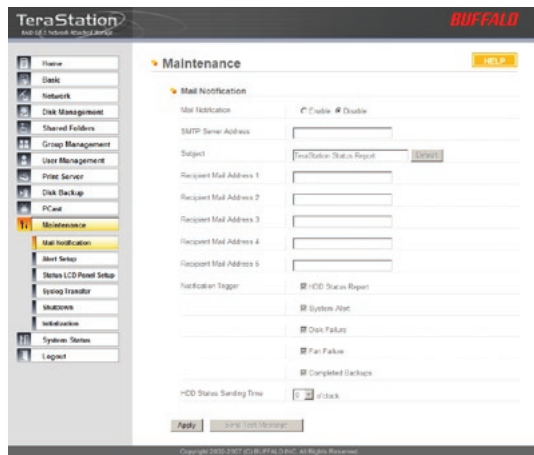


Browse to the media folder on your TeraStation (by default, the media folder is `//TS-Live/share`). Click *OK*, and then *OK* again.



iTunes will now save all music to the media folder on the TeraStation.

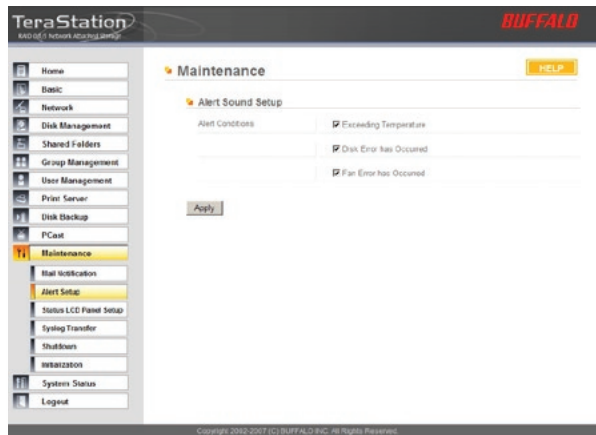
Maintenance (Notification)



If your TeraStation is remotely managed, you may choose to receive nightly status reports and be notified of any disk events by email. To set this up, enable *Mail Notification* and enter the IP Address of your SMTP server* in the *SMTP Server Address* field. Select a *Subject* line for the emails (i.e. “TeraStation Status Report”) and enter the email address of each person you want to receive notification emails into a *Recipient Mail Address* field.

* SMTP server must be an *open* type server. Currently, there’s no provision for entering a username or password.

Maintenance (Alert Settings)



Alerts can be configured on the TeraStation to make audible noises when a problem is detected. Along with the audible noise, alert emails will be sent out if *Mail Notification* was properly configured. Please select the features you would like to receive an audible sound alert from and then press the *Apply* button.

Maintenance (Status LCD)



The Status LCD Setup allows configuration for the LCD display on the front of TeraStation. Please select the type of information that the front panel should display from the *LCD Display Items*. *Automatically Switch LCD Items* tells the TeraStation to cycle through the selected display items every 10 seconds. Disabling this feature means the LCD display does not cycle, and it will stay on the same display item until the *Display* button on the front of TeraStation is pressed. The LCD screen and green LED buttons brightness can be controlled via their respective settings. Press the *Apply* button once all of the settings have been configured.

Maintenance (Syslog Transfer)

The screenshot shows the Buffalo TeraStation web interface. The left sidebar contains a navigation menu with the following items: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Print Server, Disk Backup, PCat, Maintenance (highlighted), Mail Notification, Alert Setup, Status LCD Panel Setup, Syslog Transfer (highlighted), Shutdown, Initialization, System Status, and Logout. The main content area is titled 'Maintenance' and contains a sub-section for 'Syslog Transfer'. The 'Syslog Transfer' option is selected with a radio button. Below it, there is a text input field for 'Syslog Server IP Address'. Under the 'Log Information' section, the 'System Log' and 'File Log (SMB)' options are both checked with checkboxes. An 'Apply' button is located at the bottom of the settings area. The Buffalo logo is visible in the top right corner of the interface.

Check *Enable* to allow system logs to be transferred. Press *Apply* once all of the settings have been configured.

Maintenance (Shutdown)

The screenshot displays the TeraStation web interface. The top left corner features the 'TeraStation' logo with the tagline 'RAID (eS) Network Attached Storage' and the 'BUFFALO' brand name in red. A vertical navigation menu on the left lists various system settings, with 'Maintenance' and its sub-option 'Shutdown' highlighted in yellow. The main content area is titled 'Maintenance' and contains a sub-section for 'Shutdown'. It offers two actions: 'Shutdown the TeraStation' with a 'Shutdown Now' button, and 'Restart the TeraStation' with a 'Restart Now' button. A yellow 'HELP' button is located in the top right of the main content area. At the bottom of the interface, a copyright notice reads 'Copyright 2002-2007 (C) BUFFALO INC. All Rights Reserved.'

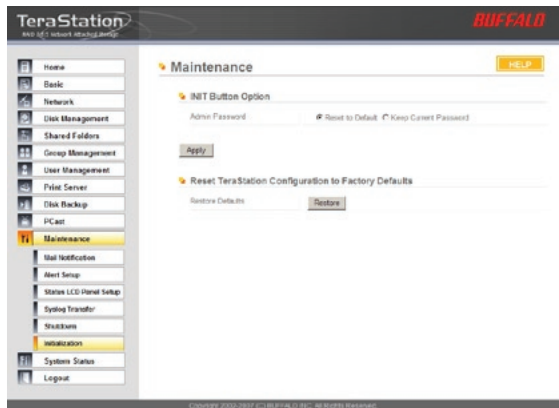
From the *Shutdown* page, press *Apply* to shutdown TeraStation. This has the same function as holding down the power button on the front of TeraStation, but may be done remotely. Turning on the TeraStation after a shutdown requires a physical button push on the front of TeraStation. The *Restart Now* button simply reboots the TeraStation, bringing it back to functionality after about 120 seconds.

Maintenance (Initialization)

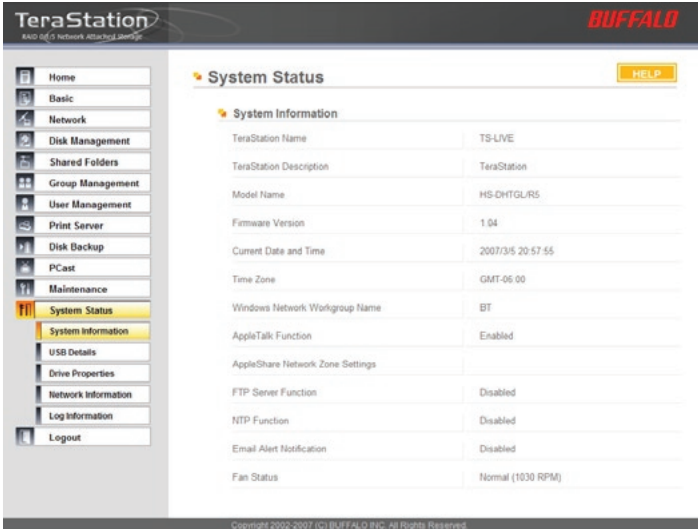
Initialization is a reset procedure that restores all settings back to the default, out of box, configuration. All configuration, users, groups, and backup jobs are lost, but actual data and shares on the hard are NOT lost. If you want all data to be erased, reformat the drive.

Specify whether the TeraStation shall keep its administrator password after a initialization or whether the password should be reset to the default password (default password is *password*). Press the *Apply* button once you make the selection.

Press the *Restore* button to begin the initialization process; this will restore all settings to factory defaults but will NOT erase the data on the hard drives.



System Status (System Information)



The screenshot displays the TeraStation web interface. The left sidebar contains a navigation menu with the following items: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Print Server, Disk Backup, PCast, Maintenance, System Status (highlighted), System Information (highlighted), USB Details, Drive Properties, Network Information, Log Information, and Logout. The main content area is titled 'System Status' and includes a 'HELP' button. Underneath, there is a section for 'System Information' which contains a table of system details.

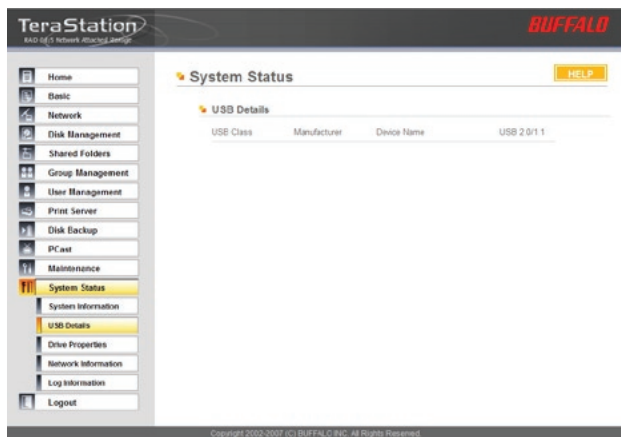
TeraStation Name	TS-LIVE
TeraStation Description	TeraStation
Model Name	HS-DHTGLRS
Firmware Version	1.04
Current Date and Time	2007/3/5 20:57:55
Time Zone	GMT-05:00
Windows Network Workgroup Name	BT
AppleTalk Function	Enabled
AppleShare Network Zone Settings	
FTP Server Function	Disabled
NTP Function	Disabled
Email Alert Notification	Disabled
Fan Status	Normal (1030 RPM)

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This page shows you the System Information for your TeraStation.

Firmware updates are occasionally available from www.buffalotech.com for the TeraStation Live. These must be executed from a Windows PC on the same network. Your router, switch, or hub should pass through ports 8873 and 22939 for this to work (most do).

System Status (USB Details)



The screenshot displays the TeraStation web management interface. The top left features the 'TeraStation' logo with the tagline 'Best of 5 Network Attached Storage'. The top right shows the 'BUFFALO' logo. A left-hand navigation menu includes options like Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Print Server, Disk Backup, PCast, Maintenance, System Status (highlighted), System Information, USB Details (highlighted), Drive Properties, Network Information, Log Information, and Logout. The main content area is titled 'System Status' and contains a 'HELP' button. Below this, the 'USB Details' section shows a table with the following data:

USB Class	Manufacturer	Device Name	USB 2.0/1.1
			USB 2.0/1.1

At the bottom of the interface, a copyright notice reads: 'Copyright 2002-2007 (C) BUFFALO INC. All Rights Reserved'.

This page shows you details on USB hard drives plugged into your TeraStation.

System Status (Drive Properties)

This page shows you the properties of all hard drives and RAID arrays in and attached to your TeraStation.

The screenshot displays the 'System Status' page in the TeraStation web interface. The left sidebar contains a navigation menu with 'System Status' selected. The main content area is divided into three sections: RAID Array Information, Disk Information, and USB Disk Information.

RAID Array Information

RAID Array	Status	Details
RAID Array 1	Normal	<ul style="list-style-type: none"> RAID Mode: RAID5 Disk Structure: Disk 1, 2, 3, 4 Total Capacity: 729,385,702 Mybytes (696.61 GB) Amount Used: 4,938 Mybytes (4.89 GB) Percent Used: 0.68% File Format: JFS
RAID Array 2	Status	Not Configured

Disk Information

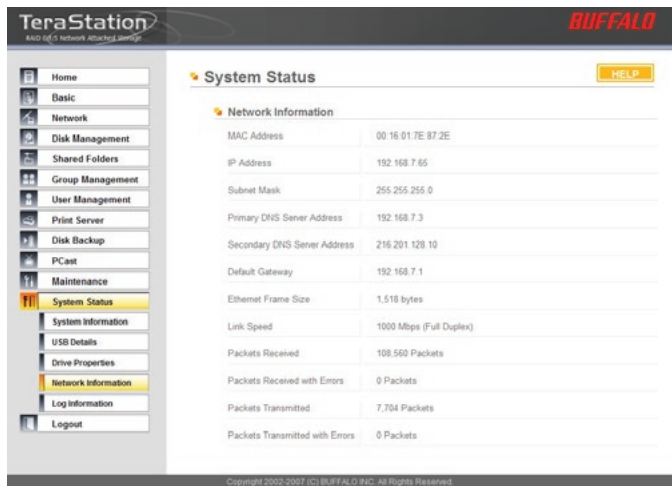
Disk	Status	RAID Array	Unit Name	Total Capacity
Disk 1	Status	RAID Array 1	WDS05US-09KCE1	241,193,084 Mybytes (232.89 GB)
Disk 2	Status	RAID Array 1	WDS05US-09KCE1	241,193,084 Mybytes (232.89 GB)
Disk 3	Status	RAID Array 1	WDS05US-09KCE1	241,193,084 Mybytes (232.89 GB)
Disk 4	Status	RAID Array 1	WDS05US-09KCE1	241,193,084 Mybytes (232.89 GB)

USB Disk Information

USB Disk	Status	Details
USB Disk 1	Status	Not Detected
USB Disk 2	Status	Not Detected

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System Status (Network Information)



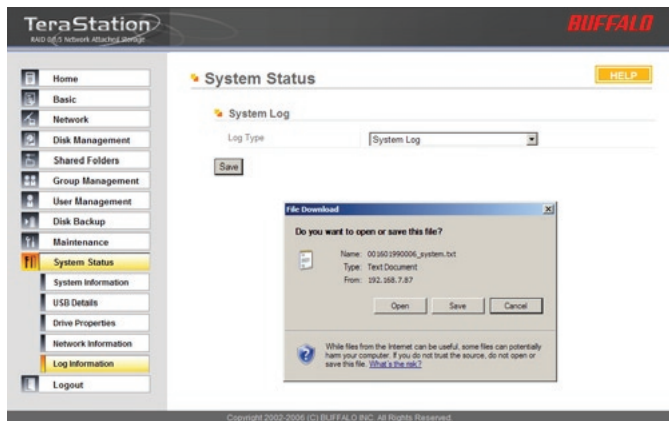
The screenshot displays the Buffalo TeraStation web management interface. The left sidebar contains a navigation menu with the following items: Home, Basic, Network, Disk Management, Shared Folders, Group Management, User Management, Print Server, Disk Backup, PCast, Maintenance, System Status (highlighted), System Information, USB Details, Drive Properties, Network Information (highlighted), Log Information, and Logout. The main content area is titled "System Status" and includes a "HELP" button. Under the "Network Information" section, the following details are listed:

MAC Address	00 16 01 7E 87 2E
IP Address	192.168.7.65
Subnet Mask	255.255.255.0
Primary DNS Server Address	192.168.7.3
Secondary DNS Server Address	216.201.128.10
Default Gateway	192.168.7.1
Ethernet Frame Size	1,518 bytes
Link Speed	1000 Mbps (Full Duplex)
Packets Received	108,560 Packets
Packets Received with Errors	0 Packets
Packets Transmitted	7,704 Packets
Packets Transmitted with Errors	0 Packets

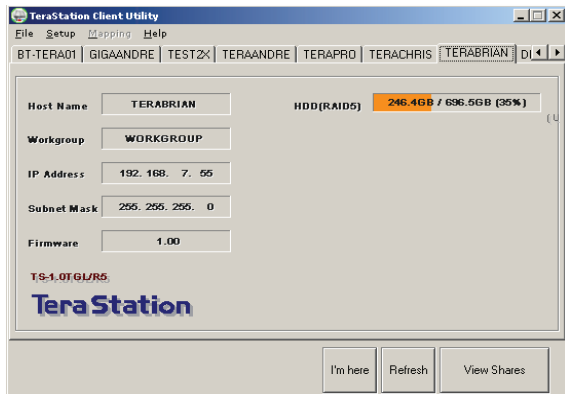
Copyright 2002-2007 (C) BUFFALO INC. All Rights Reserved.

This page shows you the System Information for your network connection.

Log Information



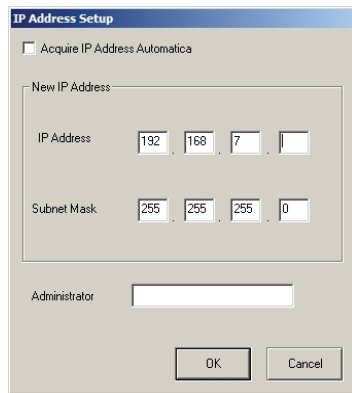
This page lets you save or display system log information. Choose the log you want from the *Log Type* dropdown and click *Save*. The dialog will let you save or display (“Open”) the logfile.



This is the *TeraStation Client Utility*. Installed on your PC, it allows you to access each of the TeraStations on your network. Click *Refresh List* to get tabs for each of your TeraStations. Each tab shows the Host Name, Workgroup, IP Address, and Subnet Mask of the associated TeraStation, as well as the version of firmware it's running.

With a TeraStation's tab selected, you can click on the *View Shares* button to go directly to its root share. Clicking the *Setup* pulldown menu and selecting *Browser Management* takes you to the configuration GUI. And clicking *Setup* and choosing *Modify IP Address* takes you to the following screen . . .

IP Address Setup



The screenshot shows a dialog box titled "IP Address Setup". At the top, there is a checkbox labeled "Acquire IP Address Automatica" which is currently unchecked. Below this, there is a section titled "New IP Address" containing two rows of input fields. The first row is labeled "IP Address" and contains four text boxes with the values "192", "168", "7", and an empty box. The second row is labeled "Subnet Mask" and contains four text boxes with the values "255", "255", "255", and "0". Below the "New IP Address" section, there is a label "Administrator" followed by a single-line text input field. At the bottom of the dialog, there are two buttons: "OK" and "Cancel".

Here, you may enter your *IP Address* and *Subnet Mask* manually, or enable your TeraStation to acquire them automatically from a DHCP server. You'll need the administrator password to use this screen. Press *OK* when you're done.

If TeraStation encounters a disk error, it will be reported in the *TeraStation status* on the top of any of the Web-Based configuration screens. Run a Disk Scan in the event of this error. If that does not resolve the problem, a *format* is recommended. Formatting the drive will delete all of the data on it, so back up any data you can before formatting. Finally, if none of the above solutions help, then please contact Technical Support (see pages 85 and 86 for Technical Support contact information).

DIAG LCD Codes:

Error Code	Description	Alert Sound
E00	MPU error: Main MPU is not responding.	A
E01	Error on DRAM DATA LIN	A
E02	Error on DRAM ADDRESS LINE	A
E03	Error on RTC CHIP	A
E04	Failed to load kernel (FLASH error)	A
E10	UPS AC LINE FAIL Error	B
E11	FAN Error: Fan rotation speed is low or fan is stopped.	B
E12	Cooling Error: Cooling by fan cannot catch up.	B
E13	Error has occurred on RAID Array x.	B
E14	Cannot mount RAID Array x.	B
E15	Not Used	
E16	Cannot find HDDx.	B
E17	Cannot communicate with RTC chip (IC12).	A
E18	Cannot communicate with SATA chip (IC1).	A
E19	Cannot communicate with SATA chip 2 (IC2)	A
E20	Cannot communicate with USB chip (IC5)	A
E21	Cannot communicate with Ethernet chip (IC13)	A
E22	Cannot mount HDDx	B
E23	HDDx faulty (HDDx is excluded from raid because of errors)	B

Safety Warning:

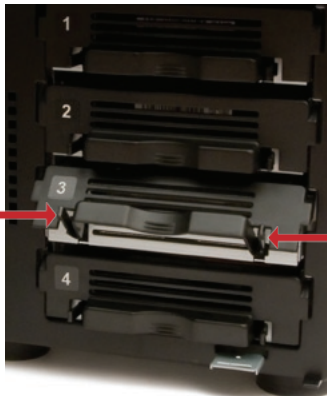
Do not use a replacement Hard Disk Drive which has more than 0.92A at 5Vdc and 0.9A at 12Vdc for the specification of current load.

Do not use any Hard Disk Drive which does not have required safety certificate (example: MET, UL) approved by NRTL.

The above warnings are basic safety restrictions only, and do not constitute the full requirements for a hard disk drive to function properly in the TeraStation.

Replacing a Hard Drive

Turn the key counter-clockwise to open drive door.

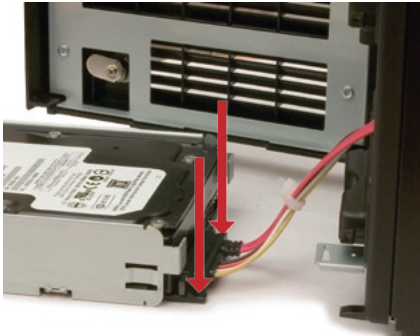


Squeeze the tabs gently and swing the tray latch upward.

The hard drive tray will now slide out.

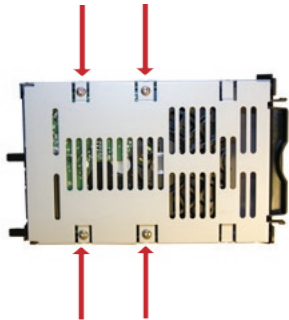
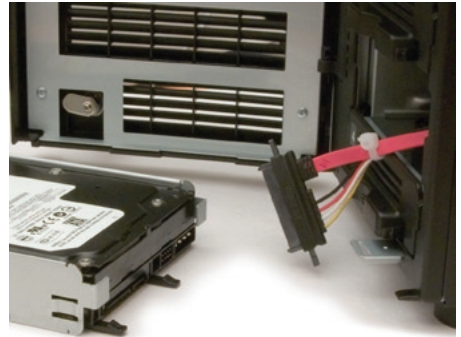


Lower the drive carefully to the work surface.



Gently push down on the two tabs to release the plug.

Pull the plug straight out to remove the drive.



To remove the hard drive from its cage, set the assembly on a soft surface and remove these four screws.

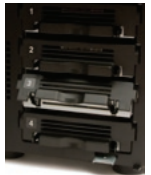
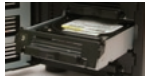
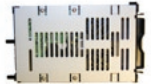
Install a new hard drive by doing the same steps in reverse order:

Begin by screwing the new hard drive into the cage.

Plug the power/data connector into the hard drive.

Slide the hard drive cage back into the TeraStation.

Press the latch down to lock the hard drive cage in place.



LAN Standards:	IEEE 802.3u 100BASE-TX; IEEE 802.3 10BASE-T
Transmission Types:	1000Mbps/100Mbps/10Mbps; 100BASE-TX 4B/5B, MLT-3;10BASE-T Manchester Coding
Access Media:	CSMA/CD
Media Interface:	RJ-45
USB Standard:	USB 2.0 Hi-Speed (HS) Full-Speed (FS) Low-Speed (LS)
USB Connector:	USB A Connector (2)
Data Transmission Speed:	Max: 480 Mbps (HS Mode) Max: 12 Mbps (FS Mode)
Power Consumption:	~56W (Varies based on size)
Dimensions:	6.7" x 9.3" x 12.2" (170 x 235 x 310 mm.)
Weight:	~15.8 lb. (7.2 kg.) (Weight varies based on size)
Operating Environment:	32° - 95° F; 20-80% non-condensing

Buffalo Technology USA Inc.
4030 West Braker Lane, Suite 120
Austin, TX 78759-5319

GENERAL INQUIRIES

Monday through Friday
8:30am-5:30pm CST

Direct: 512-794-8533 | **Toll-free:** 800-456-9799 | **Fax:** 512-794-8520 | **Email:** sales@buffalotech.com

TECHNICAL SUPPORT

North American Technical Support by phone is available 24 hours a day, 7 days a week. (USA and Canada).

Toll-free: (866) 752-6210 | **Email:** info@buffalotech.com

Buffalo Technology UK Ltd.
176 Buckingham Avenue,
Slough, Berkshire, SL1 4RD
United Kingdom

GENERAL INQUIRIES

Email: *sales@buffalo-technology.com*

TECHNICAL SUPPORT

Phone (UK only): 08712 50 12 60*

Phone: +353 61 70 80 50

Email: *helpdesk@buffalo-technology.ie*

*Calls cost 8.5p per minute

Technical Support Operating Hours

Monday - Friday (GMT)

9:00 AM - 6:00 PM Monday-Thursday

9:00 AM - 4:30 PM Friday

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For each individual product and revision, please send one individually packaged self addressed padded CD shipping envelope, containing a blank CD-R to the following address:

Buffalo Technology USA Inc.
4030 W. Braker Lane Suite 120
Austin, TX 78759
Attn. GPL Department

Within the envelope containing the self addressed padded CD shipping envelope, please include a bank draft or money order for \$20 (USD) (Made out to: Buffalo Technology) to cover our handling fee, postage and CD preparation. The CD-R should have the name of the product and revision number clearly written on the actual CD-R (not on the insert).

We do not send GPL source in bulk on a DVD. And order confirmation is not required by the GNU General Public License.

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Ireland
Attn. GPL Department

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