



DiskStation Manager 3.1
Product Guide

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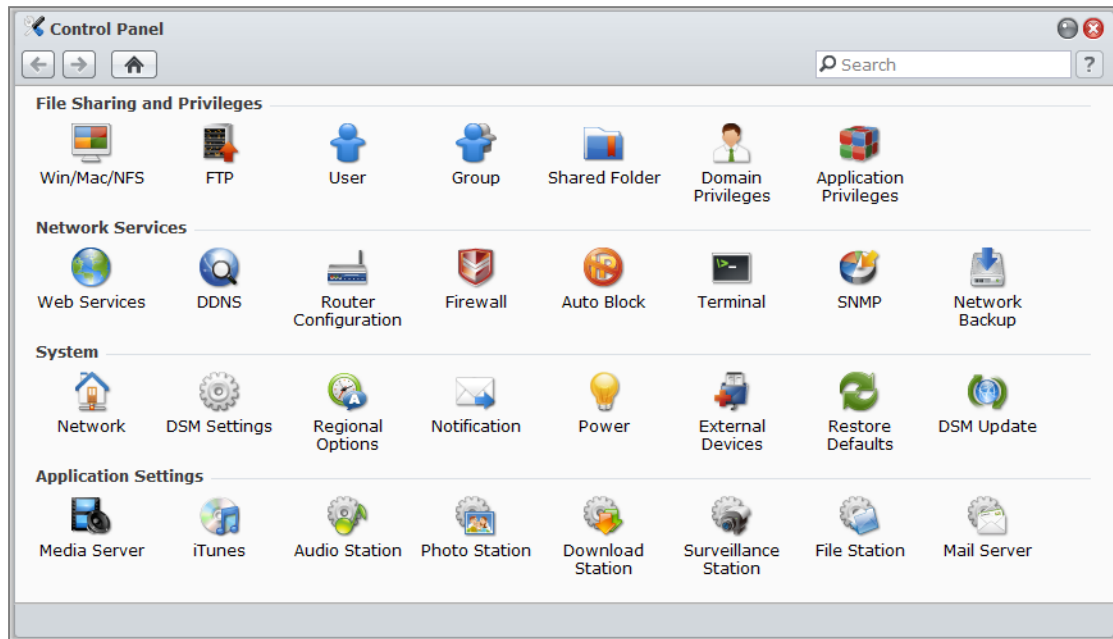
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DiskStation Manager

Powerful and Easy to Use



DiskStation Manager (hereafter referred to as DSM) is the key to maximize your NAS experience. Included with all Synology products, DSM was developed using AJAX technology to provide unprecedented usability, reliability, and performance. Its intuitive and feature-rich applications simplify and automate all kinds of tasks that used to be complicated and time-consuming.

Besides basic network storage and backup features which most NAS provide, DSM offers a wealth of features to store, manage, share, and secure your data. Our unique applications, including **Surveillance Station**, **Photo Station**, **File Station**, **Audio Station**, **iTunes Server**, **Download Station**, and many more, allow you to share files globally, publish photos and videos online, host personal or company websites, stream music, and safeguard your home or office. Synology also provides free iPhone and Android applications that allow you to get maximal benefits from your DiskStation anytime, anywhere! Constant free updates of DSM always keep the performance of your DiskStation above ordinary NAS.

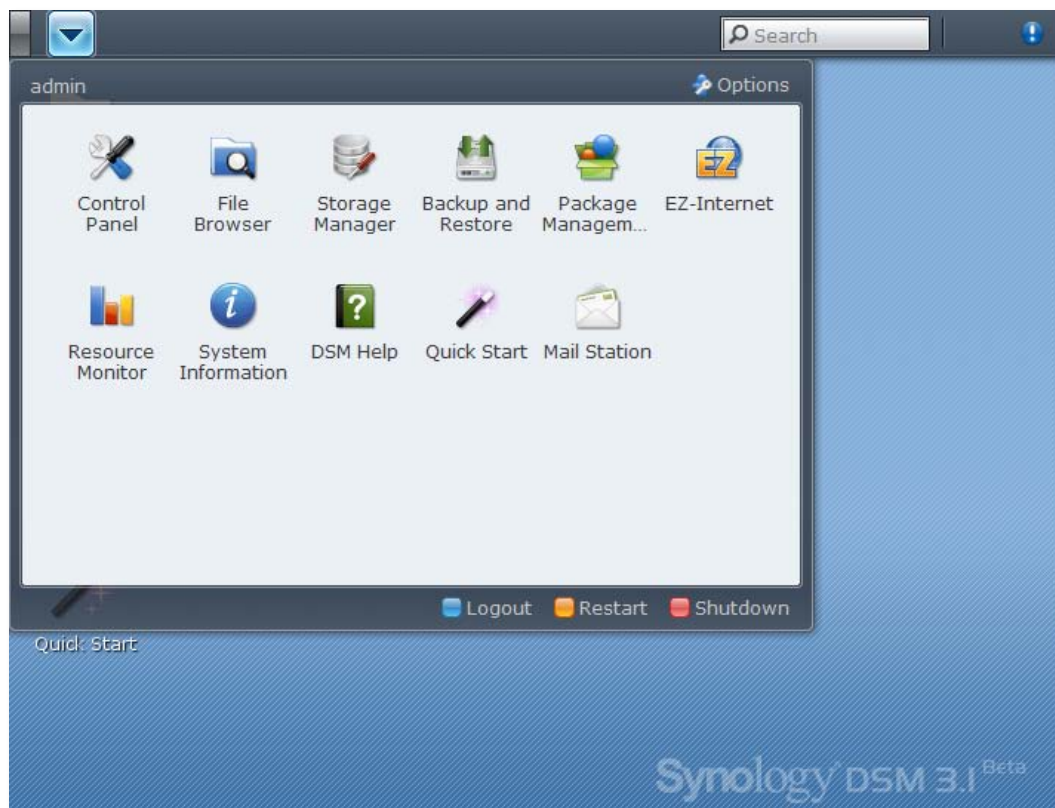
DSM is designed to meet the needs of both home and corporate users. No matter how do you use your DiskStation - to back up files and share printers in the office, to host your own website and share photos at schools, or to share music and movies at home - DSM is the tool to make all these happen!

The User Interface

Personalized Web Desktop

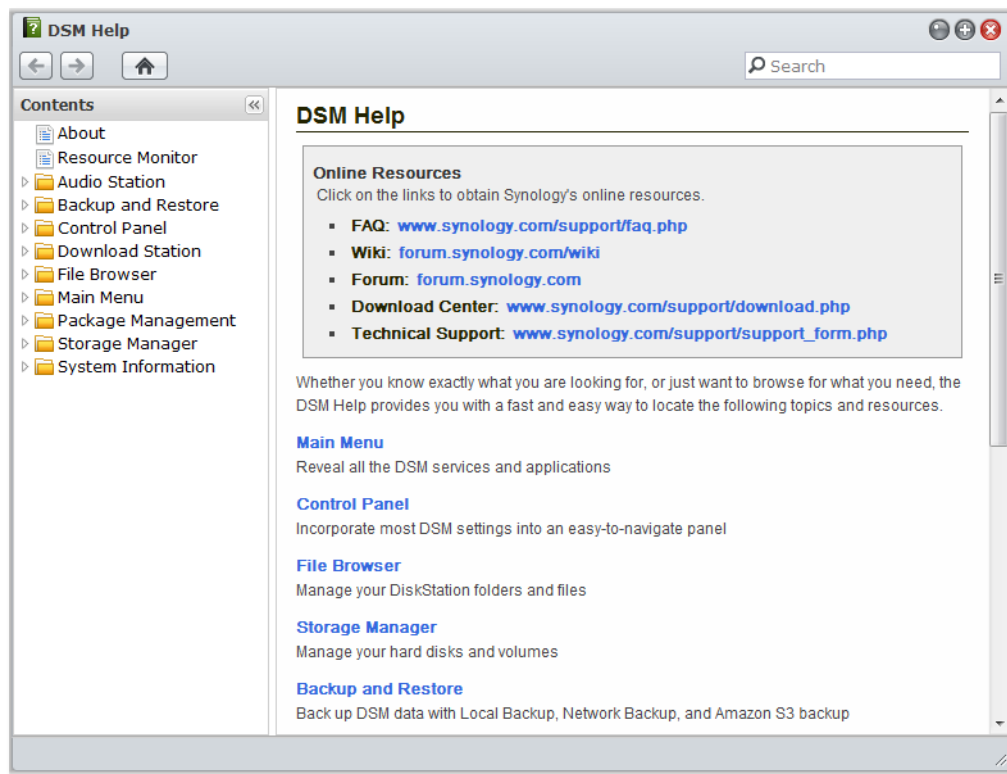
DSM is the leading NAS operating system that offers personal touch to the user interface, realizing the idea of software personalization. Upon login, every DiskStation user can have his own desktop that looks like no others. As each user has his unique preferences and needs, customized user interface tailored to specific needs is not only a charming new feature, but also increases productivity.

Easy to learn, Easy to Use



With abundant visual aids and thoughtfully designed interface, DSM is a powerful operating system with a low learning curve. Users don't need to spend a lot of time reading manuals and getting used to the system before getting started to benefit from the rich features of Synology DiskStation. We even provide ways to learn how to use DSM without pain: users can either follow the step-by-step guide of **Quick Start** wizard upon initial login, or they can use the side-by-side **DSM Help**.

DSM Help



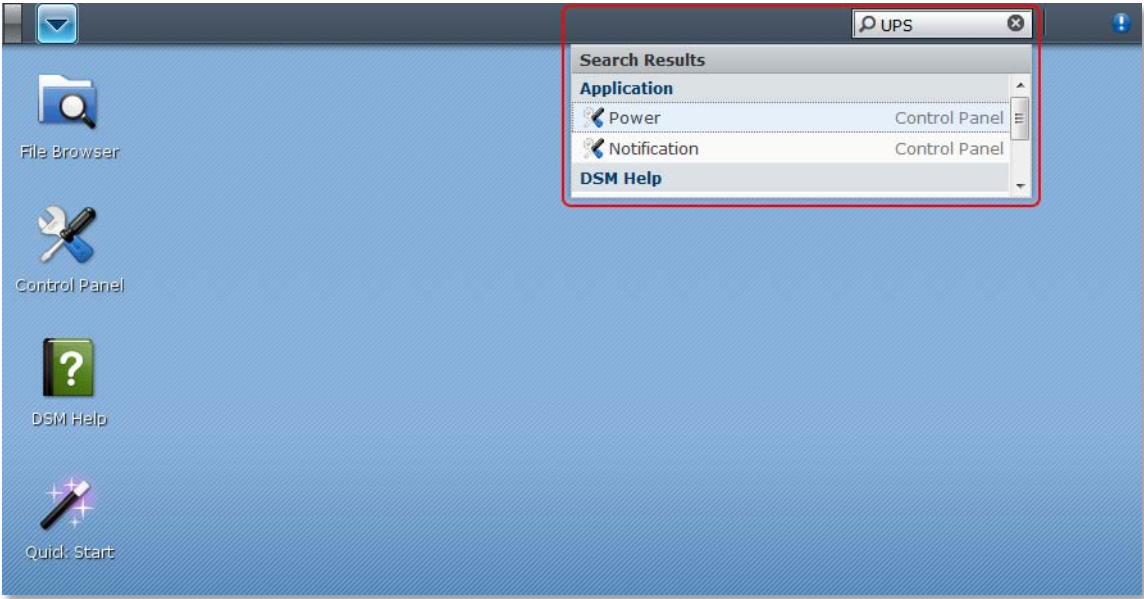
DSM Help is added to provide direct access to the comprehensive library of instructions for all functions on DSM. The links help you refer to related subjects easily when browsing. Search field on both taskbar and navigation bar in **Control Panel** helps users to look through applications or Help at the same time.

Drag-n-drop Icons to the Desktop

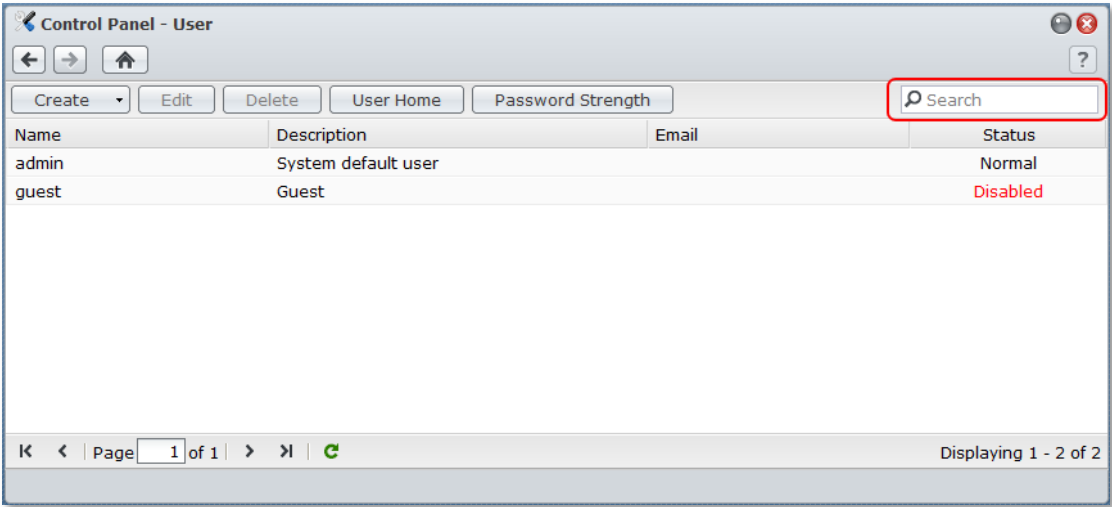
By drag-n-drop control style, the personal desktop keeps your commonly used applications and functions at easy access locations. Commonly used tasks can be pinned to the taskbar or dragged to the desktop (both reversible).

Therefore, every time upon logging in, a user will have his application shortcuts laid out in the way he intended, saving his time from wasting on unnecessary clicks and leading to increase of productivity.

Quick Search Box

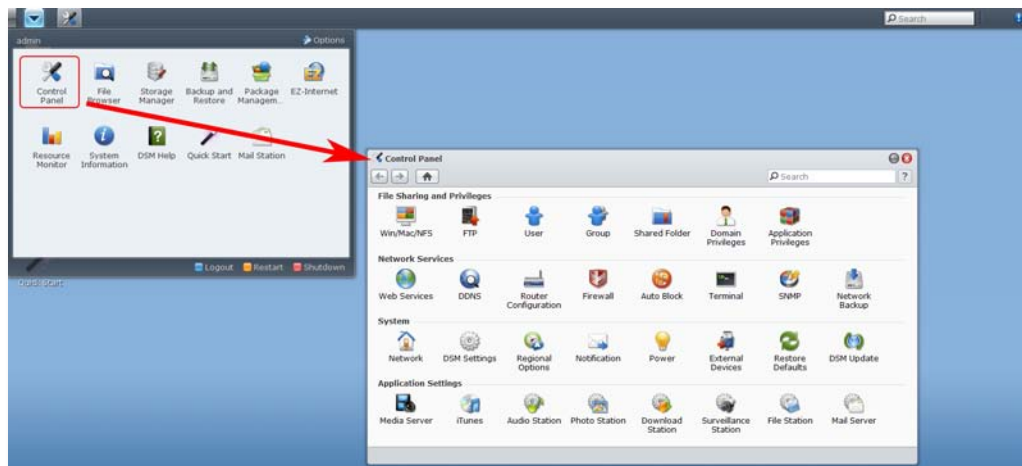


The **Quick Search Box** is always displayed at the top of the Synology taskbar. Enter keywords and a list of relevant applications and help articles will start to populate as you type. Users can easily find what they need by searching. Both Help documents and the relevant applications will be readily available.



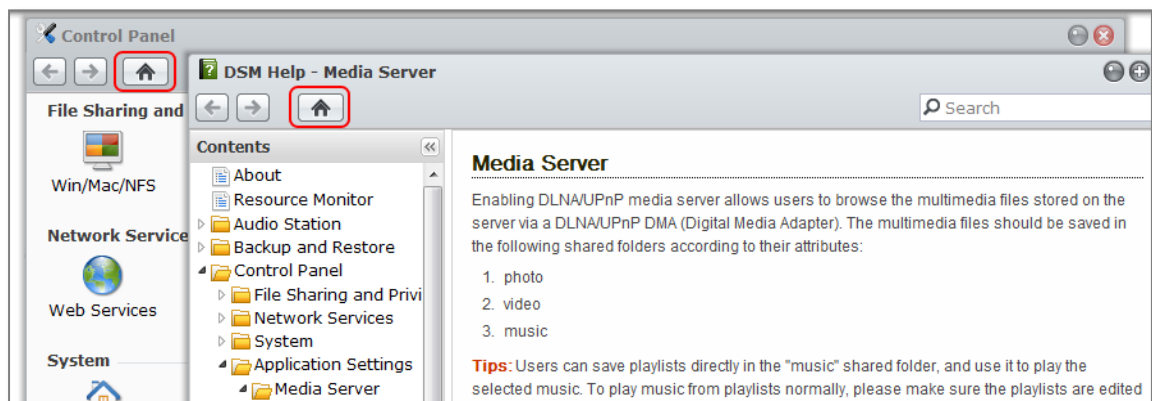
The same simplicity goes for user account management, where a search field is added to taskbar on **User**, **Group**, and **Domain Privileges** to assist admin locating specific user accounts and groups with ease and efficiency.

Control Panel



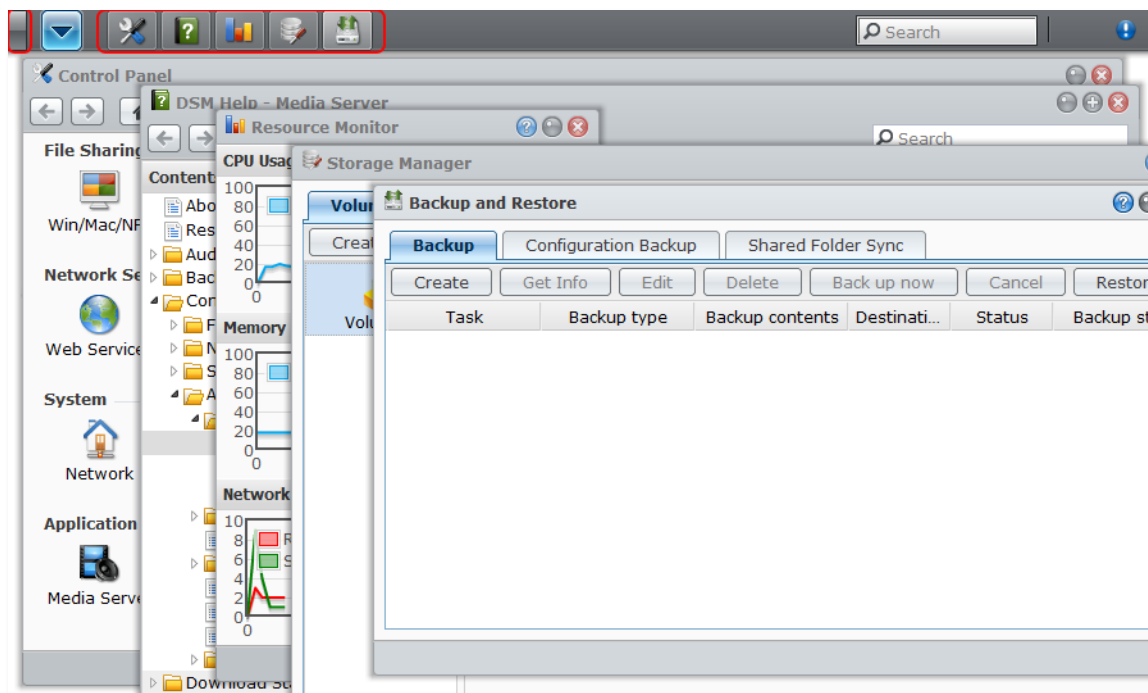
Control Panel consolidates all system settings, where users can easily modify both software and hardware configurations. Commonly used functions and advanced features are arranged in four sections, providing a clearer and easier-to-use interface.

Never Get Lost with the “Home” Button



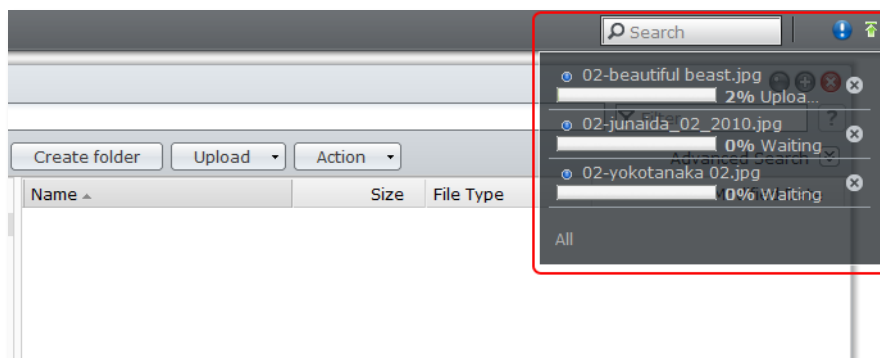
A common problem for using any advanced software program is that users have to browse too many levels and too deep inside any program to find the feature they want. The maze-like path is not easy to get out, and one can lose the sense of what he/she wanted to do in the first place. Synology DSM has the solution: both in **Control Panel** and **DSM Help**, the **Home** button on the navigation bar can bring you back instantly to the homepage.

Multitasking Manageability

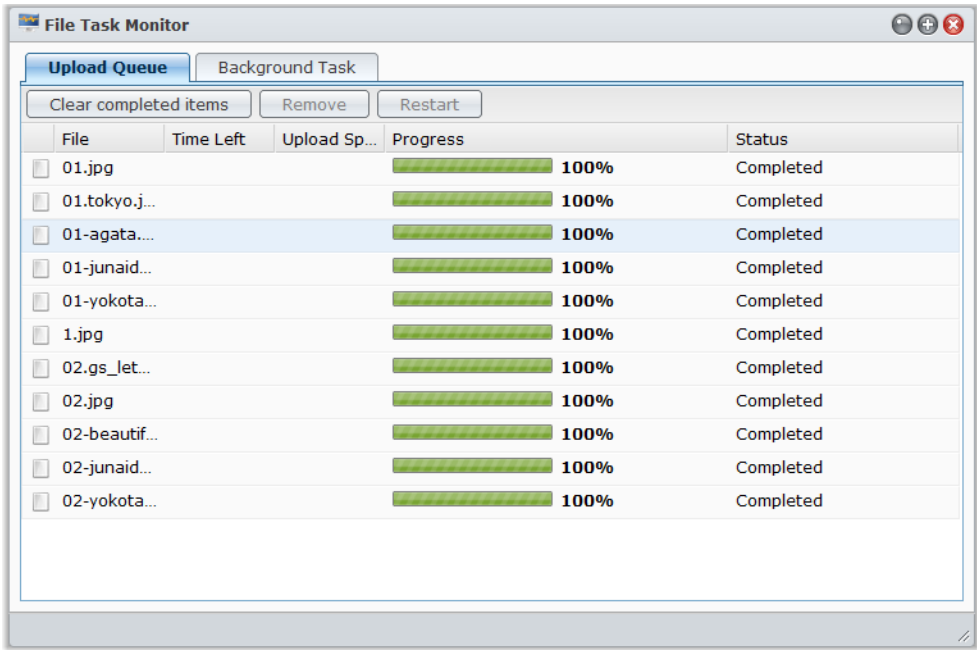


DSM design is expert on multitasking. Every detail of the user interface design is also duly adapted. Programs run in parallel are pinned to the taskbar to help users stay in control of all the tasks. Having too many programs running at the same time may cause a chaotic desktop. Here you need the **Show Desktop** button in the upper-left corner to clear the screen. Although the desktop is swiped clean, the applications are still running in the background. To restore instant access to these applications, the same button can also bring all the application windows back to the desktop in the order they were opened.

Upload and Task Monitor

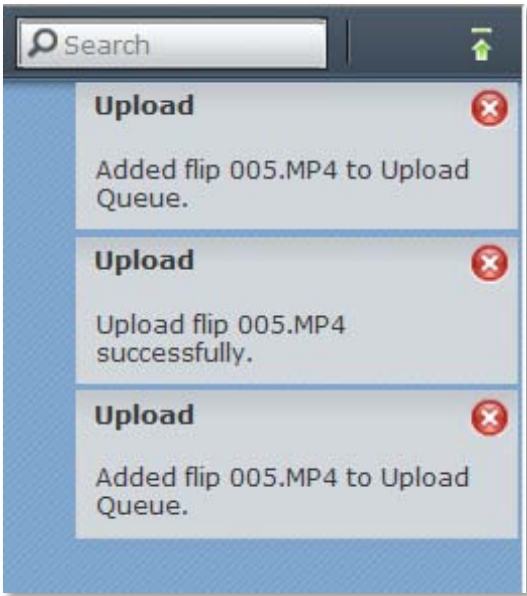


Upload Queue on taskbar provides quick information of the latest upload tasks, allowing users to better leverage the available bandwidth resource of their DiskStation.



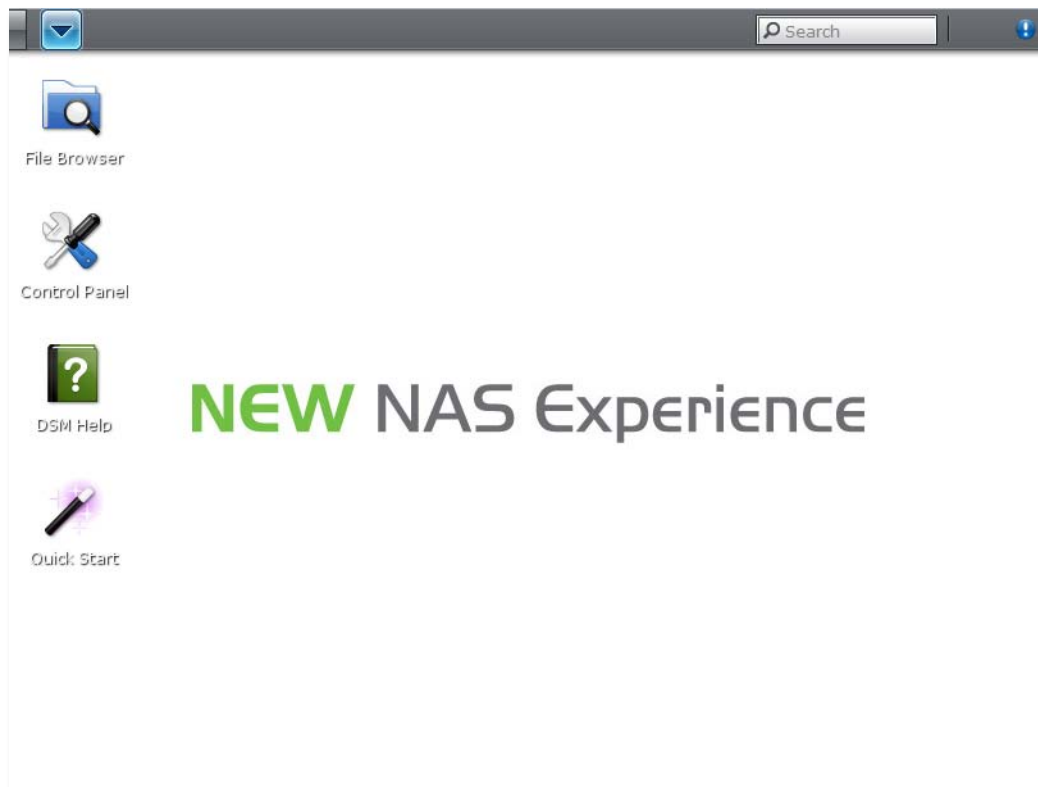
Moreover, **Upload Queue** can be expanded into **File Task Monitor**, allowing users to check the progress of all uploading and background tasks.

Background Task Notifications



When a background task is completed, you will see a notification window in the upper-right corner of the desktop. No background tasks will finish unnoticed, providing more informed user experiences when multitasking. System events will also be notified in the same way.

Customizable Background



Background wallpaper is not just an insignificant detail. Synology knows that a good product is not built alone on the great system performance, but also on the enjoyable user interface. Therefore, Synology's design group has tweaked out a whole new user interface to go with the new DSM, leaving the choice of background wallpaper for users to add their own personal touch.

Multitasking

DiskStation Manager 3.1 brings out multitasking to help you manage your life in a smart way. Now you can switch between your favorite applications without waiting for reloading of the web page.

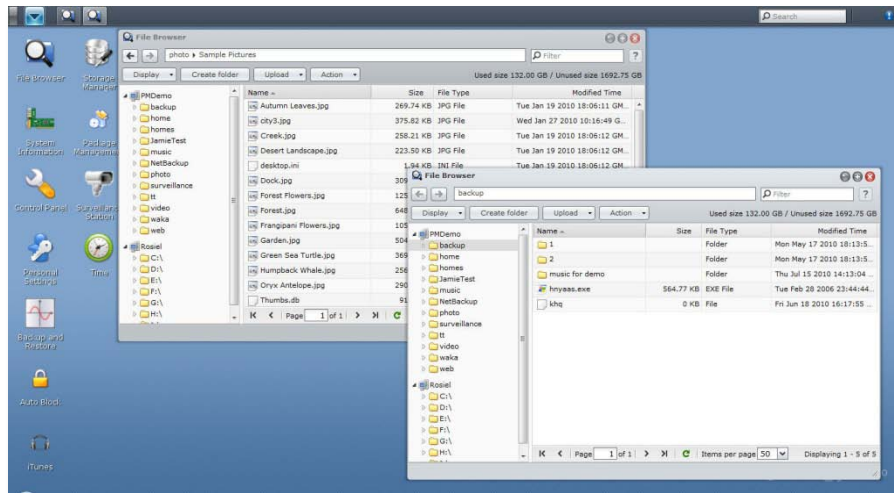
Switch between Applications Instantly

DSM allows you to run multiple applications and place them on taskbar all at once. Just click the app icon on taskbar to bring back your favorite application, and click another to switch to another application instantly. You do not have to wait for the reloading of the web page anymore.

Resume Your Work

All running applications will be placed on taskbar and they won't be shut-off when you switch to another application. You are just one-click away to be back on track at where you left off.

Drag and Drop On the Go



Extend your Windows or Mac experiences on DSM without learning curve. Applications are launched in individual windows under the same web browser. By launching two or more **File Browser** applications, manage all your data stored on DiskStation by dragging and dropping your favorite music, movies, photos, or work projects between **File Browser** windows.

Enjoy Music in the Background

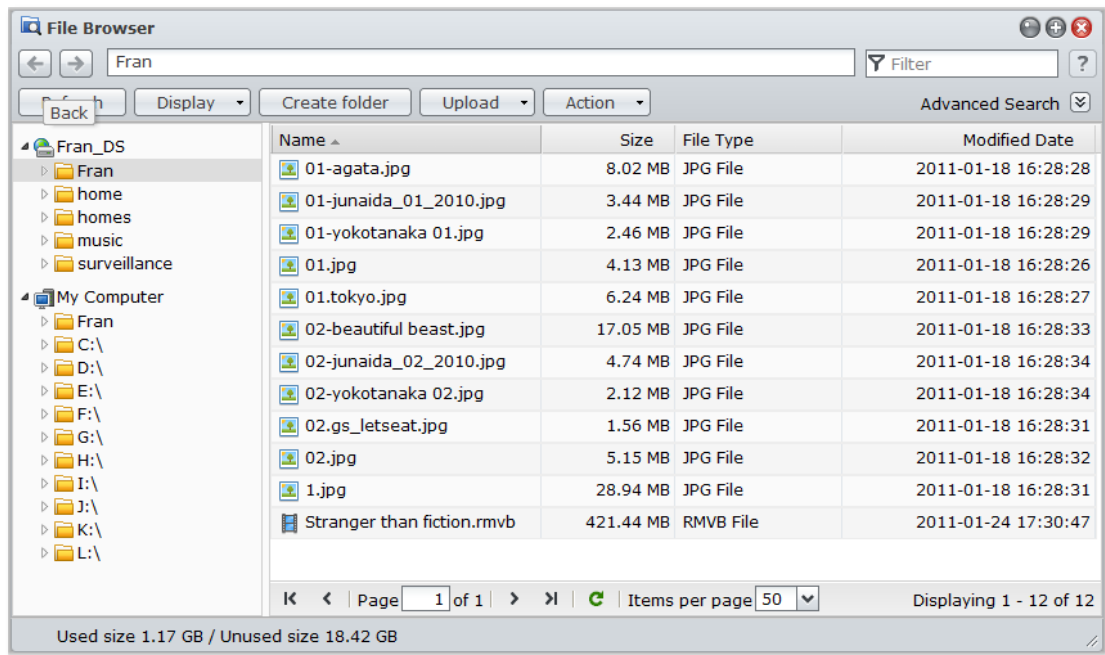
Enjoy your music on **Audio Station** while you are managing your movie collections with **File Browser** or doing administrative works in **Control Panel**. You will now be able to increase your productivity in a quality environment by the touch of music.

Perform Tasks in the Background

It may take hours to upload, copy or move your favorite movie collections on DiskStation from one volume to another. With **File Browser**, you can now listen to music on **Audio Station** or keep working on whatever you were doing while upload tasks or any other file operations are queued and performed in the background. Closing the **File Browser** window will not affect the background tasks at all. Waiting is not an option in DSM!

File Sharing

File Browser



File Browser on DSM provides easy file navigation on your Desktop, allowing you to move or copy files without boundaries.

Easy as 1-2-3

Extend your Windows or Mac experience on **File Browser** without learning curve. **File Browser** is launched in individual windows under the same web browser. You can easily copy, move, delete, rename, upload or download files from DiskStation with the help of **File Browser**. Nothing is out of the ordinary, everything is expected.

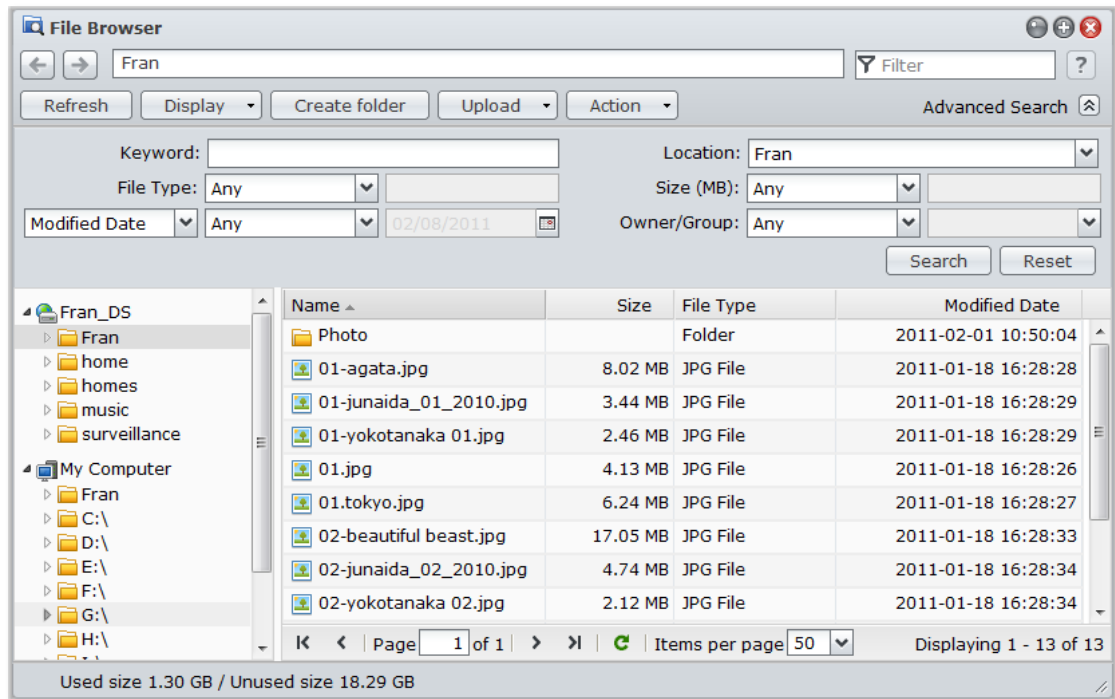
Inter-app Data Exchanges

By launching **File Browser** in multiple windows, you can manage all your data stored on DiskStation by dragging and dropping your favorite music, movies, photos, or work projects between **File Browser** windows.

Advanced Search

The advanced search tool is now available to offer numerous options, which helps to make your searches more precise. Type in keywords, updated time, or file owner to narrow down the search and there you have the results within seconds.

While you may think filtering through a large pool of data takes a long time, **File Browser** can prove otherwise. It significantly reduces the search time by performing database index to file names. A well-organized file name index is like a list in the back of a book, which greatly improves data retrieval speed and helps users find the result they want more quickly.

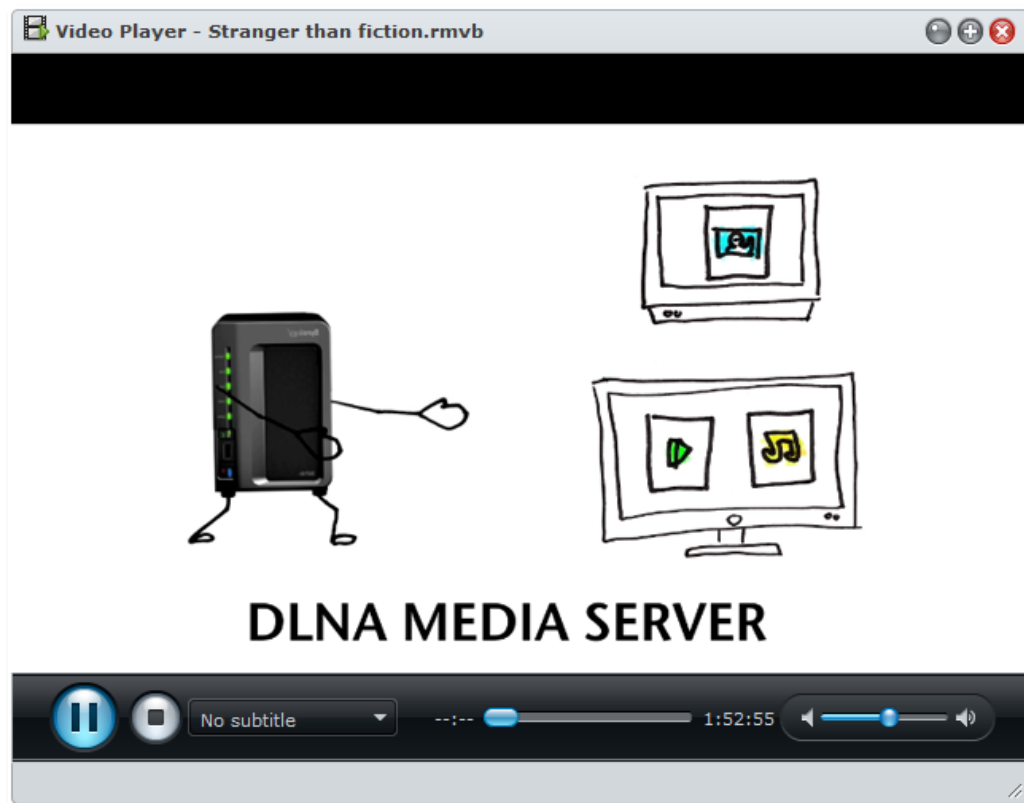


Preview Pictures and Videos

The embedded Photo Viewer and Video Player will help you to directly preview your digital content in the DiskStation Manager.



You can right click on the picture and preview your photo by **Photo Viewer**. Moreover, you can browse pictures, rotate and delete pictures, and examine EXIF and XMP information of a picture. You are able to start a slide show in the **Photo Viewer** as well.

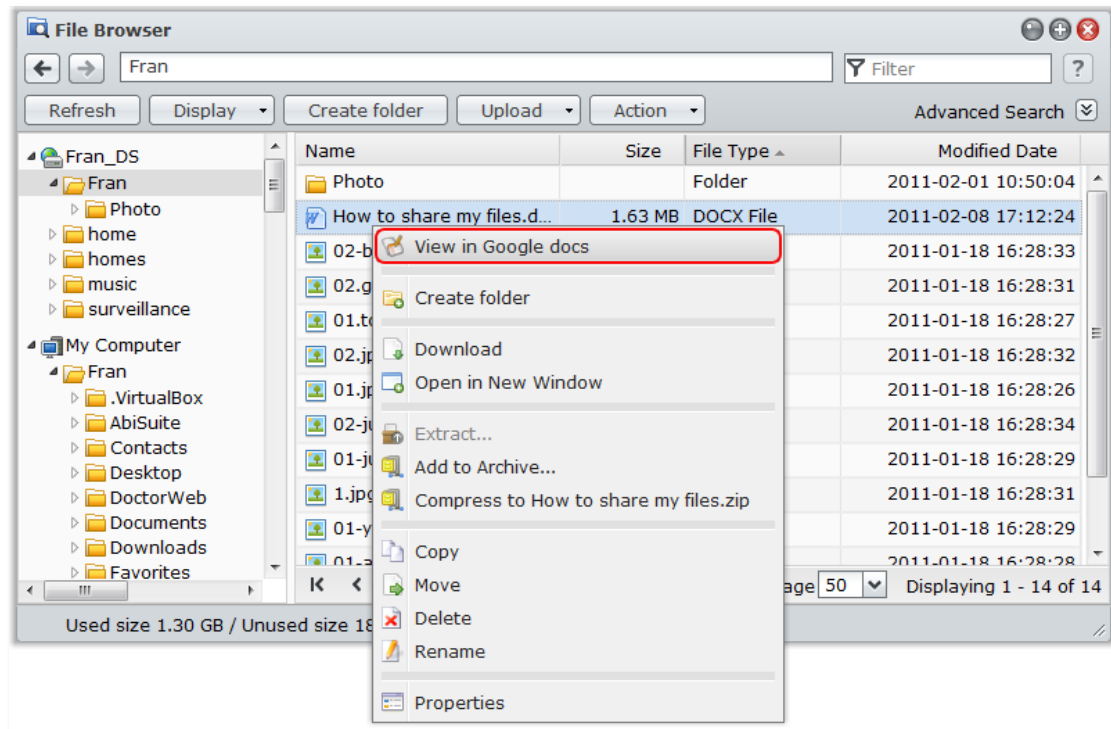


For previewing video clips, you can right click on the video and preview it in the **Video Player** if you have VLC player installed on your computer. Video Player also supports embedded and external subtitle.¹

¹ Currently, Video Player for File Browser is not supported by Google Chrome for Windows, nor Safari for Mac.

Preview Documents by Google docs

Without installing office software to open your documents on your DiskStation, now you can preview the documents on your DiskStation by Google docs service. All files formats supported by Google docs can now be opened for preview in your web browser.



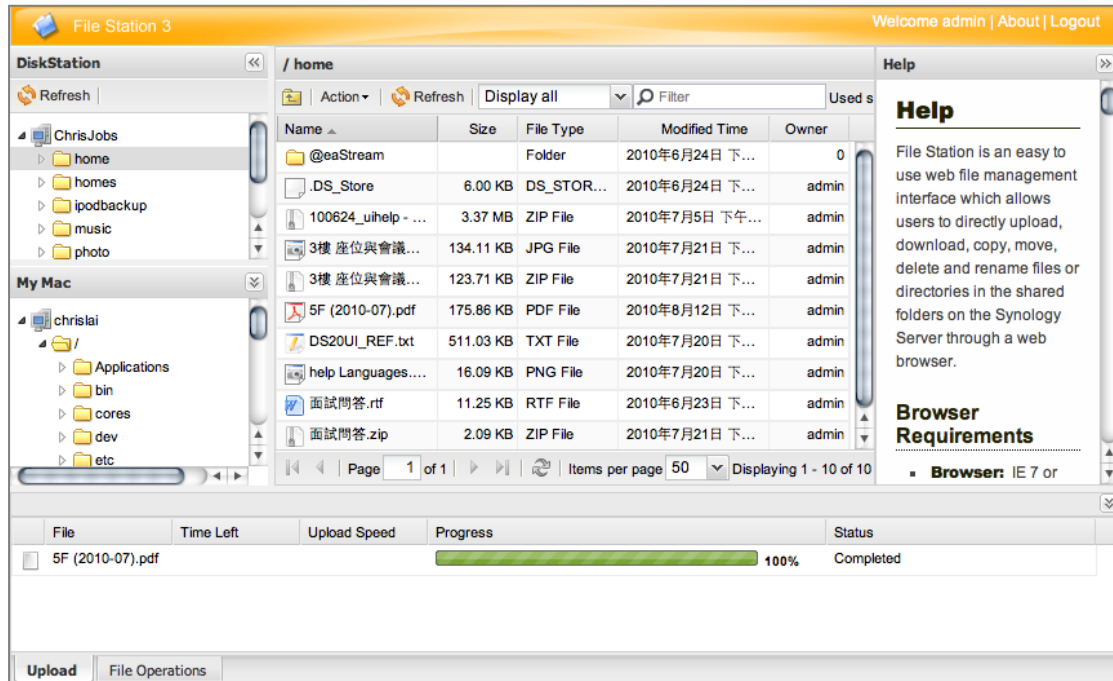
Windows, Mac, Linux

DSM offers several flexible options for data storage and sharing among Windows, Mac, and Linux clients. Windows users can access the server via SMB/CIFS (Windows My Network Places), FTP, and WebDAV; Mac users via SMB, FTP, AFP, and WebDAV; Linux users via SMB, FTP, NFS, and WebDAV. UTF-8 support allows users to share files in different languages across operating systems.

CIFS Network Recycle Bin

When the **CIFS Recycle Bin** is enabled, files deleted via Windows CIFS protocol will be automatically moved into the CIFS Recycle Bin.

File Station



Synology **File Station** is a simple web-based file management interface for users to locally and remotely access and manage files. Requiring only a web browser, you can access data anywhere with no extra installation needed.

File Station can operate under a different network port to prevent users from accessing DSM's management interface for security concerns. For extended security, HTTPS is supported for secure access. It is also customizable to match corporate or organizational requirements.

Familiar and Intuitive Experience

File Station has an intuitive user interface to minimize the learning curve for all levels of users. The AJAX technology used on **File Station** allows for more sophisticated features such as drag-and-drop and right-click action. You can directly copy, move, compress, delete or rename files and directories stored in the shared folders of the Synology DiskStation. Moving files among different shared folders with **File Station** is particularly efficient, as it does not require data to be routed through your desktop.

Enhanced Multiple File Upload/Download

File Station is equipped with local file browsing feature. It allows you to view all local computer files when you log in to **File Station**. Multiple folders and files may be uploaded/downloaded with the intuitive drag-n-drop functionality. **File Station** also enhanced its uploading and downloading methods as you can now continue managing your files while the tasks perform in the background.

Sub-folder Privileges

Properties

General

Properties

Name: admin

Location: /volume1/homes/admin

Size: 0 Bytes. Contain 0 file(s), 0 folder(s)

Modified Date: 2011-01-13 13:10:19

Download Link: <http://192.168.24.184:5000/fbdownload/admin.zip...>

Privilege

	Read	Write	Execute
Owner:	☒	☒	☒
Group:	☒	☐	☒
Others:	☒	☐	☒

Owner & Group

Owner: admin

Group: users

☐ Apply to this folder, sub-folders and files

OK Close

You may also set up sub-folder privileges for local or domain users in **File Station** for more precise security. Right-clicking the files or folders brings up the setup options for sub-folder privileges settings, and it is simply a matter of choosing the privilege level for the owner and user group.

Transfer Log

The **File Station** transfer log helps you see a full overview of which files have been uploaded, downloaded, moved, copied, deleted, renamed, by whom, and when the transfer occurred.

Windows ADS Integration

Windows ADS (Active Directory Service) support allows you to effortlessly manage numerous user accounts. After simple configurations, Windows domain users can make use of their existing user account and password to access the Synology DiskStation without further configuration.

Domain User Home

You can enable **User Home** function for domain users. When a domain user logs in to Synology DiskStation Manager, a **home** folder for that user will be automatically created to act as a private space for that user.

Sub-folder Privileges

You can set up sub-folder privileges for domain users via **File Browser**, **File Station** or through **Windows ACL** settings.

FTP Server

Synology DiskStation eliminates the requirement of advanced FTP knowledge for Internet file sharing. Manually installing a FTP server is now a past problem. Synology's user-friendly UI guides you through the FTP setup process. With just a few clicks, FTP service will be established.

Advanced FTP options allow you to assign a specific port number, limit maximum connections from each IP, permit anonymous account logins, control file transfer bandwidth, allow only SSL/TLS encrypted connections, and view a record of file transferring activities in a log.

WebDAV

Enjoy managing and editing file remotely on DSM with WebDAV (Web-based Distributed Authoring and Versioning) protocol support.

The Alternative Way for Remote File Access and File Editing

Similar to Windows File Service (SMB/CIFS networking protocol), WebDAV allows you to share, edit and manage files remotely. By enabling WebDAV, you can open up a Word document or an Excel spreadsheet that's located on a remote destination.

File Integrity Protection

WebDAV offers file-locking, making sure the file you are working on is locked away from other WebDAV users to protect file integrity. Some applications, such as Microsoft Office applications, also support simultaneous file sharing between users.

Hassle Free

Setting up WebDAV is easy, just a checkbox away, making it an easy alternative for remote file editing and sharing with the supported applications, such as Microsoft Office.

Share your Life Style with Family and Friends

Turn your DiskStation into a WebDAV server, publish and share your Outlook calendars with others. This is useful if you want to share a must-see concert, your busy schedule, or important appointments with others over Internet.

Storage

EXT4 File System

EXT4 file system is the next generation file system, developed as a successor of EXT3. Compared with EXT3, EXT4 comes with many new features, such as “enlarged file system”, “exceeding the 32,000 subdirectory limit”, “delayed allocation”, “multi-block allocator”, “backward compatibility”, etc.

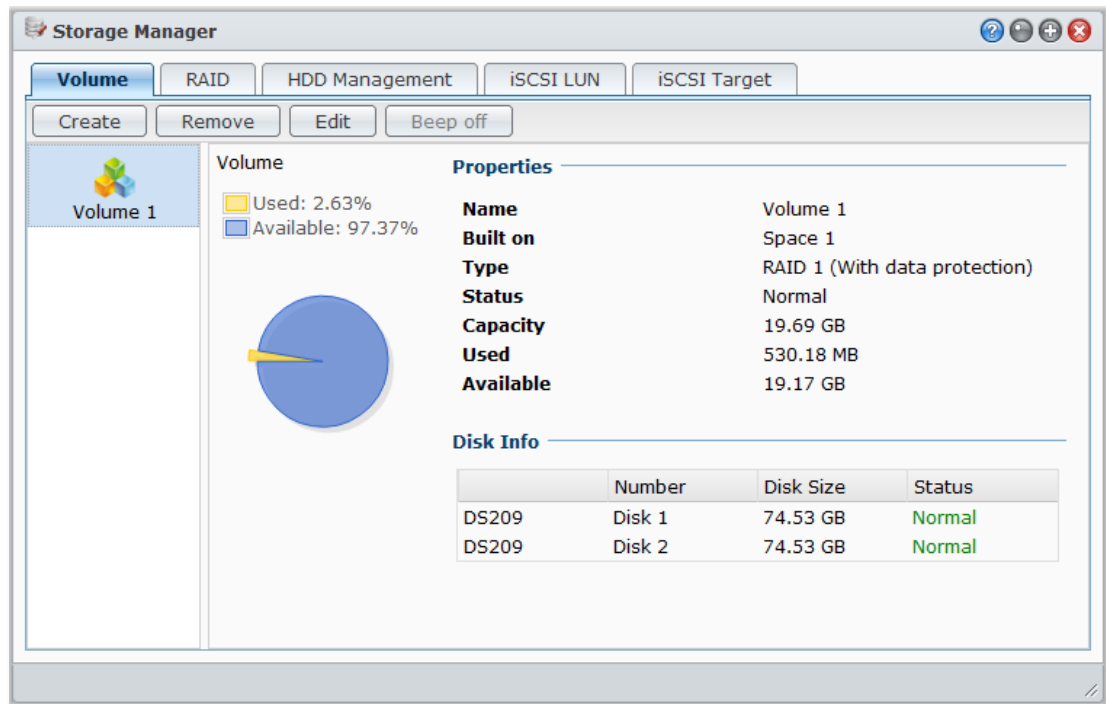
Large File System

EXT4 file system helps Synology DiskStation to create a volume with much larger capacity and support storing huge files. With the enlarged file system, EXT4 can support volumes with sizes up to 1 exabyte (EB), which is 1 million TB. Single file size can be up to 16 TB. By exceeding the 32,000 subdirectory limit, you can create up to 64,000 subdirectories in one folder. All these benefits meet the requirement of enterprise-level storage solution.

Better Performance and Less Fragmentation

With “Delayed allocation”, EXT4 will not allocate blocks until it is going to flush data to the disk. Therefore, EXT4 can buffer up a larger amount of data in cache and flush all data with blocks allocated in one go. “Multiblock allocator” allows EXT4 to allocate a group of blocks in a batch when it is going to write a large amount of data to disk. This means that the allocator has more information about what is being written and can make better choices for allocating files contiguously on disk. These two EXT4 features can improve performance and reduce fragmentation by improving block allocation decisions and significantly reduces processing time.

Storage Management



With the new Storage Manager of DSM, you can choose between different types of storage volumes and easily create a volume that best suits your data protection needs. You can even create multiple volumes on one RAID for better storage space arrangement. iSNS support helps you manage iSCSI devices more efficiently.

Synology Hybrid RAID (SHR)

Synology Hybrid RAID (SHR) is an intelligent volume type that optimizes volume size when combining hard disks of varying sizes into an array. When set as the **Standard** volume type in DSM, SHR provides from 1 to 2 hard disks fault-tolerance of data protection. It can be expanded to an optimal volume space when a larger or additional hard disks are inserted into the array.

For users who prefer manually configuring the volume type, DSM offers RAID-protected volume types (2-4 way RAID 1, RAID 10, RAID 5, RAID 5+Spare, and RAID 6) as well as volume types without data protection (Basic, JBOD, and RAID 0).

Multiple Volumes on RAID

Sometimes it's just not that easy to utilize every inch of the space. In business environments, IT staffs demand flexible volume allocation for that very reason. Volume size should not be limited to RAID type or hard disk capacity, yet having sufficient data protection is a crucial must-have. Multiple Volumes on RAID introduces a new way of space allocation. Storage manager allows you to create more than one volume on a RAID structure. Volume size is no longer bonded to RAID. You can dedicate a volume for a specified task, and no need to worry about running out of storage space or not fully utilizing the storage space. You can expand the RAID without impacting the volume size. And when you need to expand the volume, simply allocate more storage space by entering the desired space on the UI, and DSM does the rest for you.

Storage Expansion Made Easy

The new **Storage Manager** allows you to create more than one volume on a RAID structure. Volume size is no longer bonded to RAID. You can dedicate a volume for a specified task. No need to worry about running out of storage space or not fully utilizing the storage space.

When in need, you can expand the RAID without impacting the volume size. You can also expand the volume by simply allocating more storage space on the UI, and DSM will do the rest for you. Small volumes can be expanded whenever needed by changing the volume size on the fly. With just a few clicks in the **Storage Manager**, the new, larger volume will be created and ready to use in no time.¹

Change Volume Type

DSM provides the following four types of volume change:

- Basic to RAID 1
- Basic to RAID 5
- RAID 1 to RAID 5
- RAID 5 to RAID 5+Spare
- RAID 5 to RAID 6

Synology Expansion Unit

For businesses or power users, the large amounts of data exchanged calls for a more dynamic and flexible storage expansion solution. The unique expansion units of Synology --- DX510 and RX410 --- provide additional drive availability of 5 and 4 bays, respectively. Connected to a compatible Synology DiskStation with a provided locking eSATA cable, the expansion unit provides users more possibilities to expand their storage space. Its plug-n-use connectivity and eSATA 3.1 Gb/sec speed make it easier and faster to access and share your data.

As for the expansion units Synology RX1211/RX1211RP, they are connected to Synology RackStation by provided InfiniBand cable, which offers high-bandwidth connectivity to further ensure efficiency.

Furthermore, you can even expand an existing volume on your Synology DiskStation/RackStation to the expansion unit, or create an independent volume for backup and storage on it.

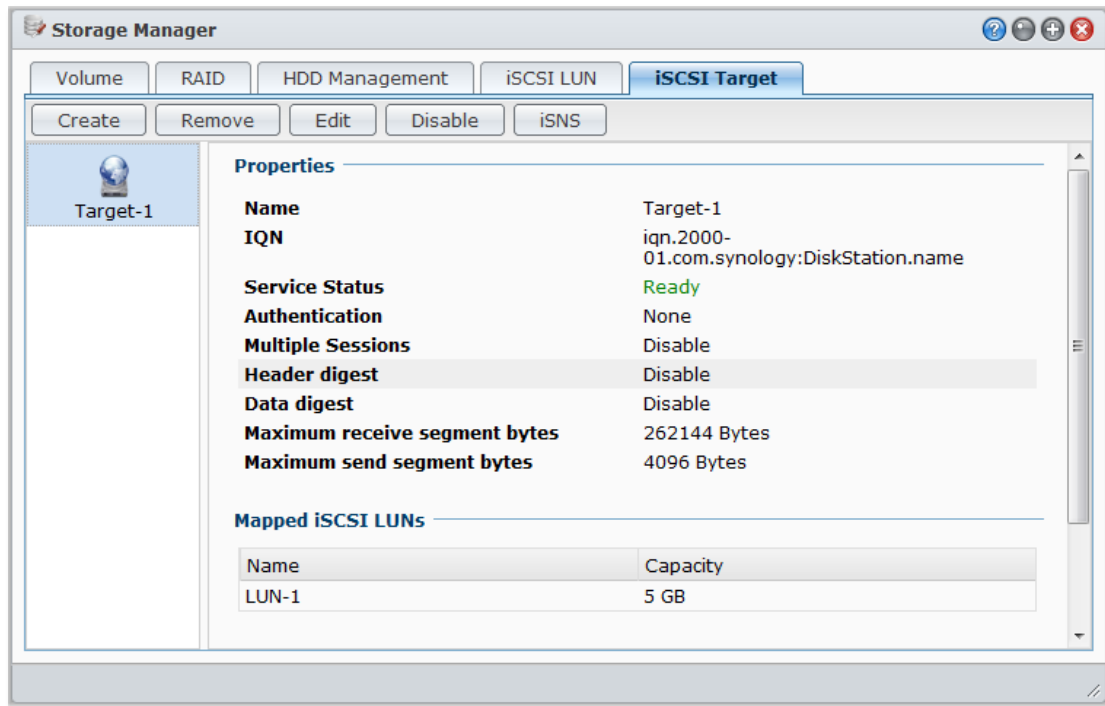
External Hard Drives

Plug your external hard drive into the USB or eSATA port on the Synology DiskStation to easily share its storage space across the network or use it as a target for server backup. Synology DiskStation supports the following external hard drive formats: EXT3, EXT4², FAT, and NTFS.

¹ Refer to the help file in DSM for more information on applicable volume type.

² Available on certain models only.

iSCSI



To meet the standard of a powerful file or storage server, Synology DiskStation is dedicated to providing the optimal solutions for clients in sharing both files and block-devices. As file sharing is covered in the previous chapter, this section will focus on block-device sharing.

While SAN (Storage Access Network) environment is ideal for building a block-device sharing structure, SMB (small and medium businesses) may not find this affordable. This is because the traditional SAN solution requires the expensive FC-SAN (Fiber-Channel SAN) which is very difficult to manage. In comparison, IP-SAN (Internet Protocol SAN), or the so-called "iSCSI" (Internet Small Computer System Interface), is the alternative solution that is more cost-effective.

iSCSI is an Internet Protocol based storage networking standard for linking data storage facilities. By carrying SCSI commands over IP networks, iSCSI can facilitate data transfers over local area networks (LANs), wide area networks (WANs), or the Internet. It also supports the storage and retrieval of location-independent data.

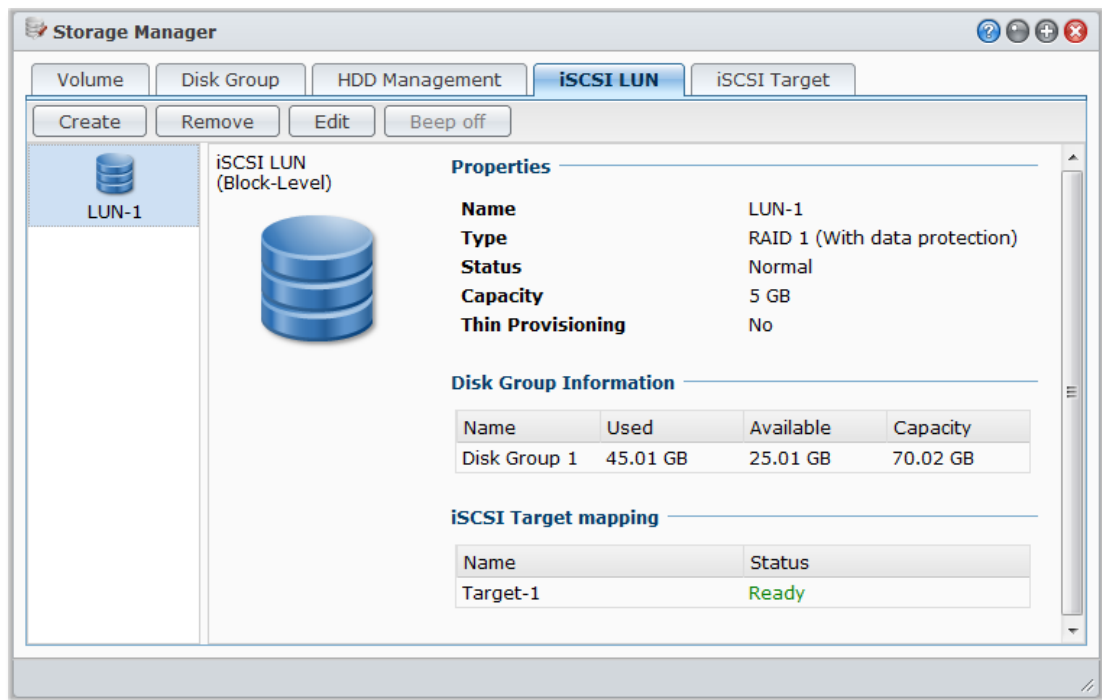
Through iSCSI, the space on storage server will be regarded as local disks by client's operation system. But in reality, all data transferred to the disk are actually transferred over network to the storage server.

Multiple LUNs Mapping

In SCSI terminology, A LUN (logical unit number) represents an individually addressable (logical) SCSI device that is part of a physical SCSI device (target). In an iSCSI environment, LUNs are essentially numbered disk drives. An initiator, or a client device, negotiates with a target to establish connectivity to a LUN; the result is an iSCSI connection that emulates a connection to a SCSI hard disk. Initiators can establish and manage file systems on iSCSI LUNs, as they would a raw SCSI or IDE hard drive.

DSM3.1 offers the flexible iSCSI management, allowing you to map multiple iSCSI LUNs to multiple iSCSI targets. Moreover, the EXT4 file system allows you to create iSCSI LUNs with immense data storage capacity that can go as high as 1 exabyte (EB).

Thin Provisioning



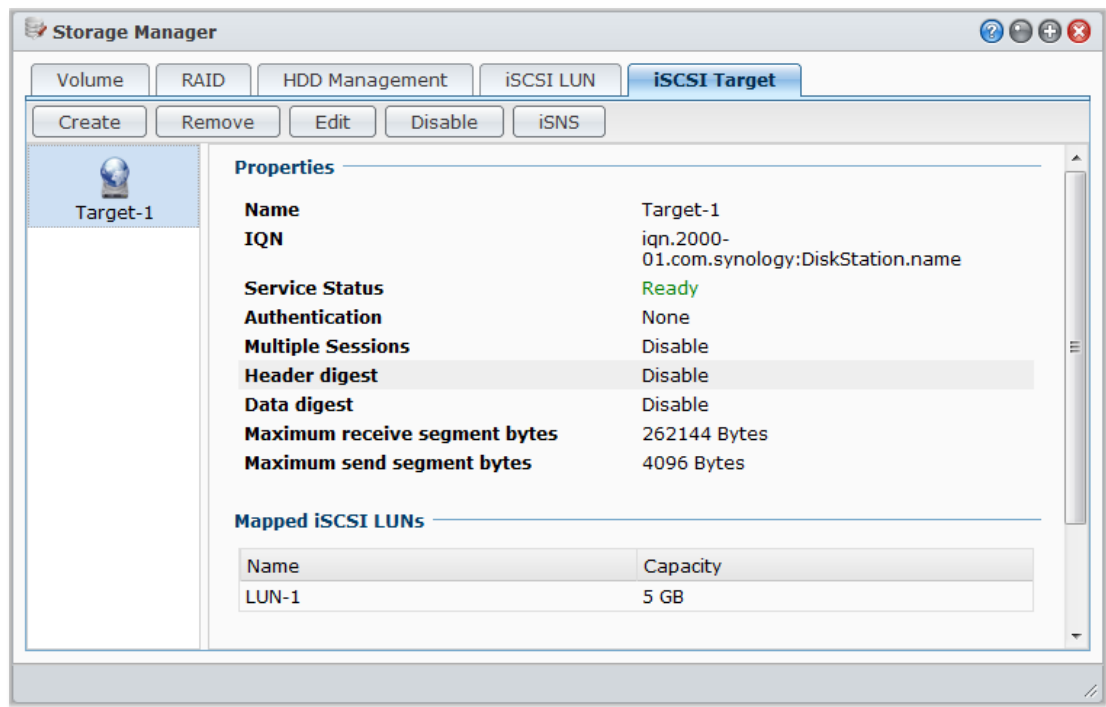
DSM supports both regular file and block-level iSCSI LUN in total number of 10 or 256. Both types of iSCSI LUN work perfectly with iSCSI Target, but only iSCSI LUN of regular file type supports “Thin Provisioning”. “Thin Provisioning” is a method for optimizing utilization of available storage. Unlike the traditional method of allocating storage space all at once, thin provisioning enables dynamic and on-demand storage space allocation. For example, you can create a 5TB regular file iSCSI LUN on a 4TB volume. When you find yourself requiring the extra 1TB iSCSI LUN storage space, simply expand your volume by adding additional hard disks. Thin provisioning will allocate the iSCSI LUN storage space accordingly.

iSCSI Target Masking

An iSCSI Target is like an interface. When an iSCSI Target is connected by an iSCSI initiator, all the LUNs mapped to the iSCSI Target are virtually attached to the client operation system.

With DSM, you can manage up to 10 or 256 iSCSI Targets (varies on different models) on one Synology DiskStation. This comes with iSCSI Target Masking for improved security. While every iSCSI initiator comes with an initiator IQN, iSCSI Target Masking can base on these IQNs to create different file access privileges (Read/Write, Read Only and No Access).

Multiple Session & SPC-3 PR Support



By enabling multiple sessions, you can allow one or more initiators to connect to one iSCSI Target at the same time. However, as most file systems, such as EXT3, EXT4 and NTFS, only allow single access on each file, enabling multiple sessions may cause file integrity issues. Only certain file systems¹ can work with multiple sessions.

Besides the features above, MC/S (Multiple Connections per Session) and MPIO (Multiple Path I/O) provide connection failover and load balance benefits to strengthen the stability of a network storage environment. As fully compliant with SPC-3 PR standard, DSM now supports Microsoft Windows 2008 Server Failover Clustering.

By adopting iSCSI with so many features, Synology DiskStation not only provides storage as NAS servers but also stands as a full-featured iSCSI target device, allowing SMB to construct an effortless and budget-friendly virtual storage solution.

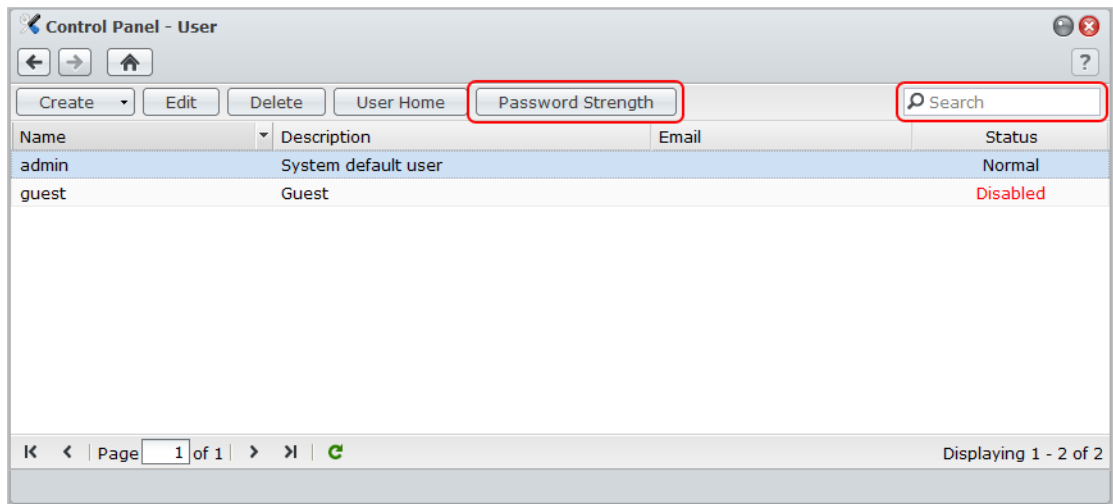
iSNS Support

It's a consensus that having to manage thousands of iSCSI targets is just too much for the IT administration. To cope with that, DSM enhances its iSCSI support with implementation on iSNS (Internet Storage Name Service). Often used in businesses with complex storage deployment, iSNS facilitates IT staffs by providing intelligent storage discovery and management of iSCSI devices.

¹ VMware Virtual machine File System (VMFS) or Oracle Cluster File System (OCFS)

Privileges

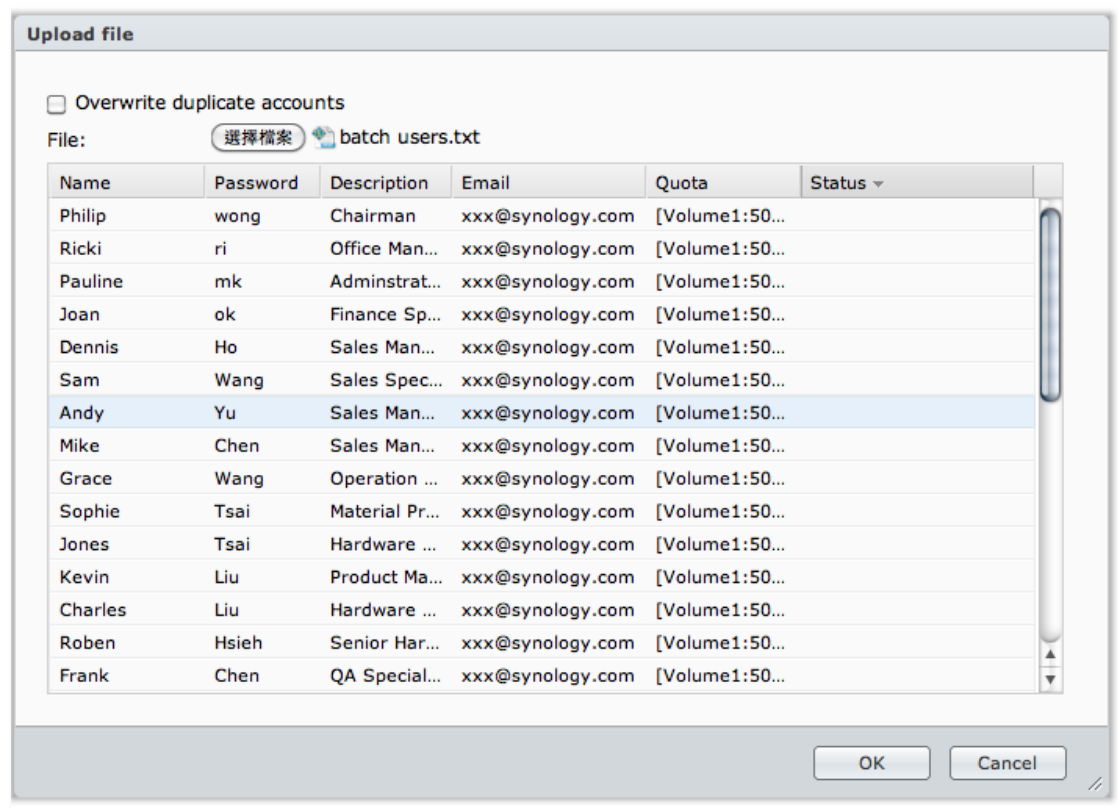
User



The user management interface allows you to create, edit, or delete users. In addition, the quick search function allows you to find users by simply typing their name in the search field.

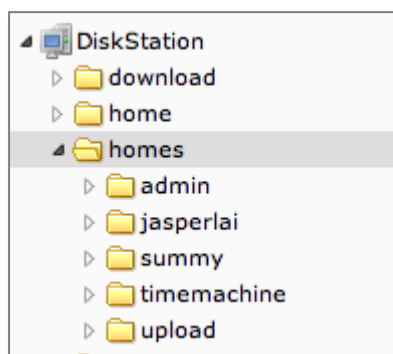
Password strength can now be applied to all user accounts to help protect the data and personal information and provide a more secure environment.

Import Users



The **Import Users** function allows you to create large amounts of user accounts quickly and efficiently. Simply list users in a text or Excel file, and upload it with the **Import Users** wizard.

User Home



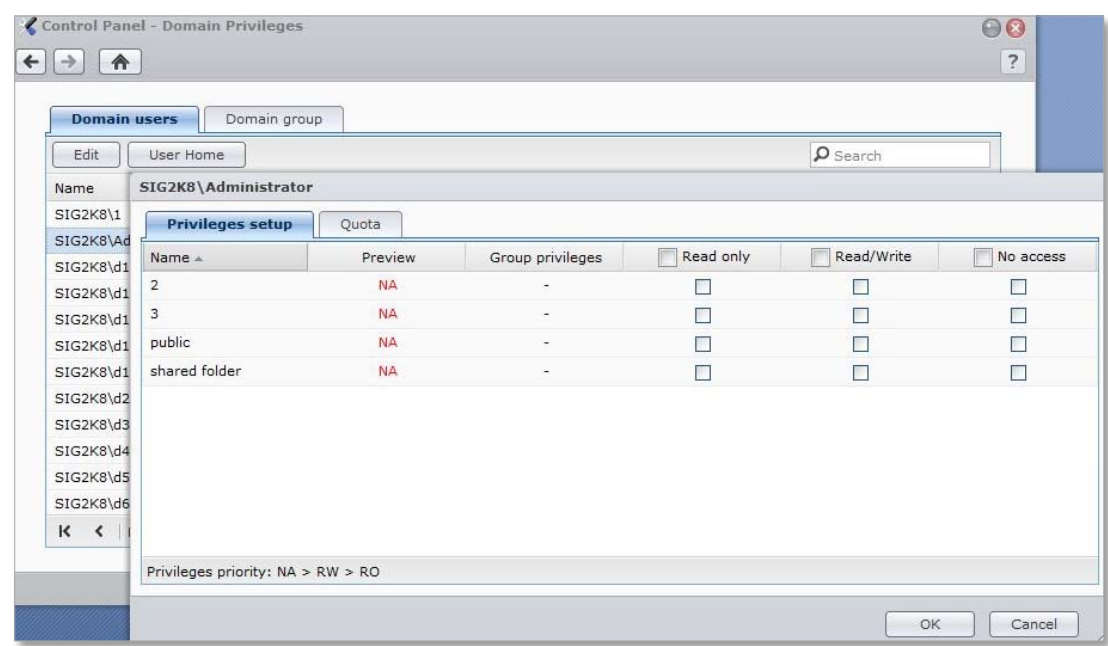
DSM automatically creates a **home** folder for every user account. This not only provides each user with a private space to store data, but also eliminates the time and effort spent on repeatedly creating shared folders for each account.

Group

Organizing users into groups gives you the convenience of assigning access rights to shared folders for a large amount of users. Group management allows you to create, edit and delete groups, as well as quickly search for groups by typing key characters in the search field.

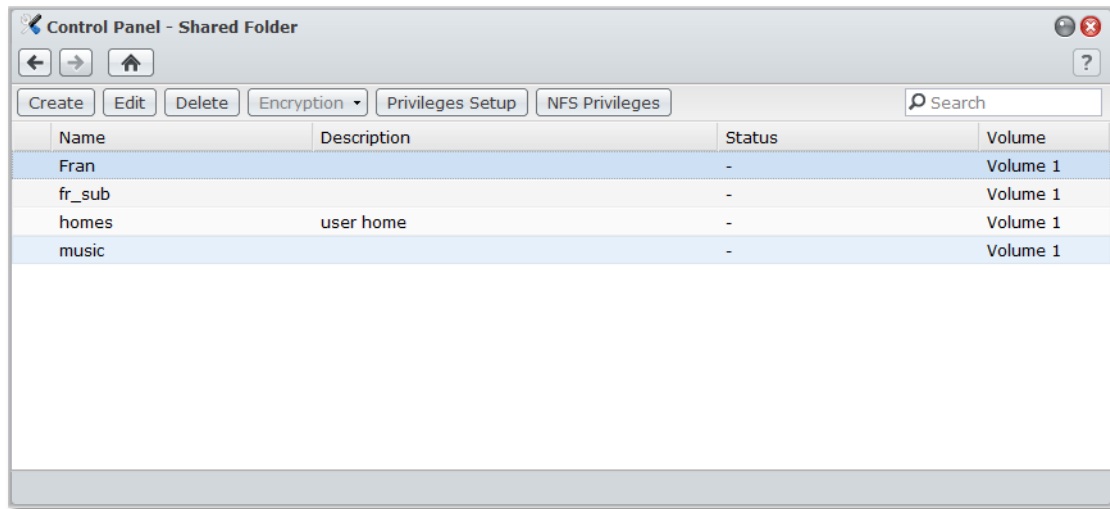
In DSM, the newly added **Administrator** group allows multiple administrators to help **admin** manage the fast growing data in your network. It also provides the ease of managing different MIS accounts.

Domain Privileges



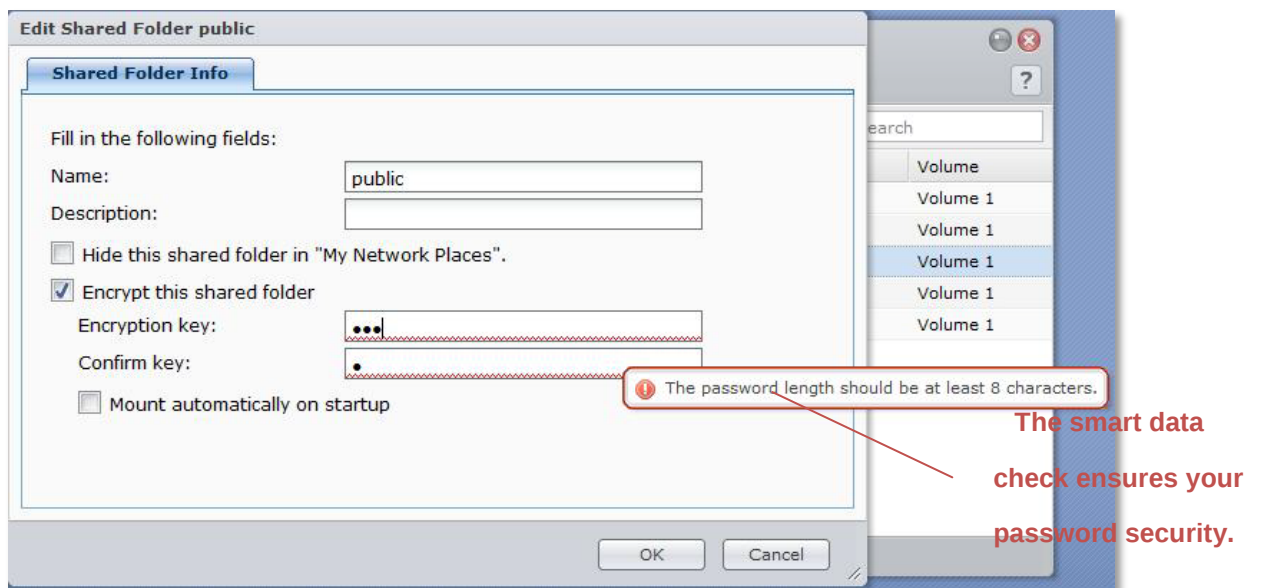
DSM comes with the **Domain Privileges** management interface, allowing you to manage domain user accounts and domain groups more easily. Besides the basic privilege and user quota settings, you can also assign each user a private **User Home** folder.

Shared Folder



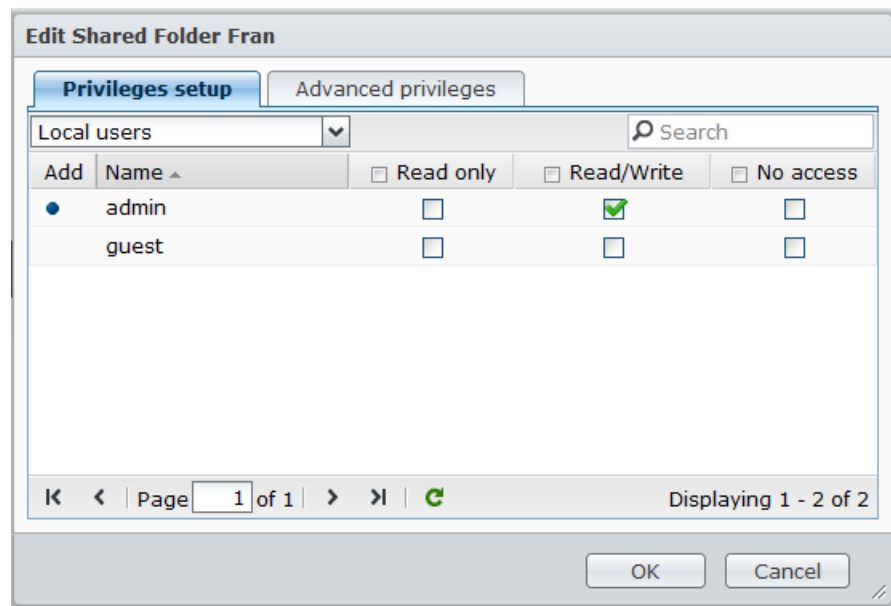
Shared folder management allows you to create, edit, search, delete, and encrypt shared folders. The **Privileges Setup** function provides flexible privilege settings according to the user or group.

Encryption

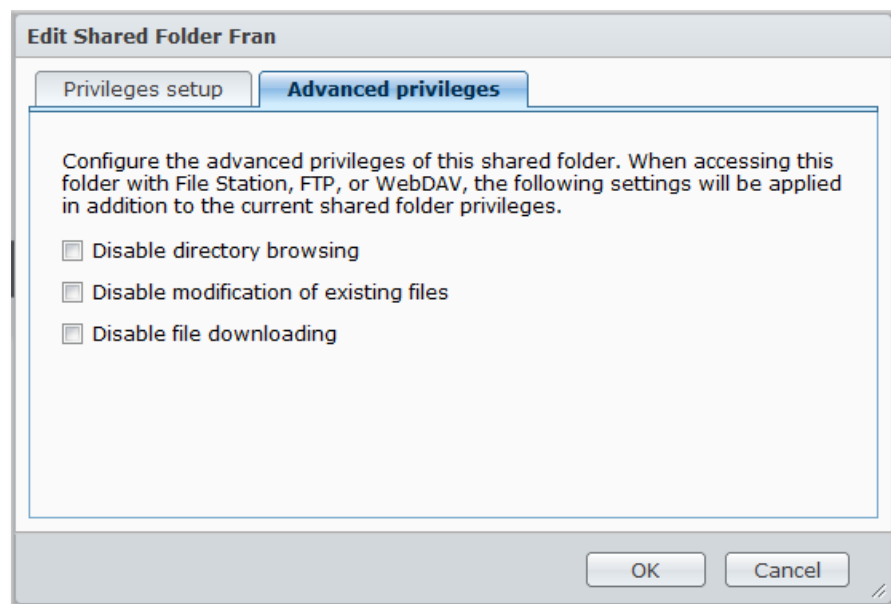


To further protect your critical data from being stolen, DSM provides share-level AES 256-bit encryption to block all unauthorized access attempts to your shared folders. The smart data check feature ensures the encryption key security is high enough for proper protection. The encrypted shared folder is usually unmounted and inaccessible, until it is mounted by entering the encryption key.

Privileges Setup



You can assign shared folder privileges for DiskStation local users or groups by checking up **Read/Write**, **Read only**, or **No access** in the **Privileges setup** section.



Besides the general privileges setup, the **Advanced privileges** allows you to further control access privileges with options such as "Disable directory browsing", "Disable modification of existing files", and "Disable file downloading". Enabling all three options equals to the "write only" access right, meaning files can be uploaded to the folder, but browsing or downloading are not permitted.

In addition, you can create NFS rules for each shared folder to allow or deny access. Besides the privilege setting, an advanced mounting option called "asynchronous" is also available for configuration. By enabling this advanced mount option, you can enjoy a better I/O performance when mounting a shared folder through NFS.

Create an NFS rule

NFS rule

Hostname or IP*:

Privilege:

Root squash:

☒ Enable asynchronous

* You may specify a host in three ways:

- Single host
- Wildcards: *, *.synology.com
- Network segment: 203.74.205.32/255.255.255.0, 203.74.205.32/24

OK Cancel

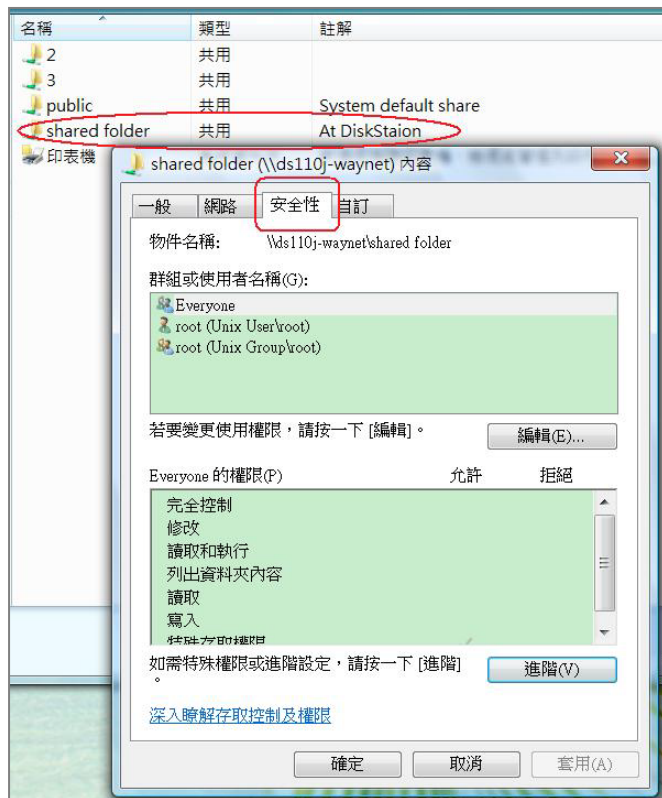
Sub-folder Privileges Setting

No longer limited to just the shared folder level, authorized users may modify privileges of folders, sub-folders, and individual files with File Browser or File Station.

Windows Access Control List

As a file server, Synology DiskStation provides several layers of privilege settings. You can define privilege settings for shared folders, sub-folders, or individual files. Such are all based on Linux rules (Read Write/Read Only/No Access). The full Windows Access Control List (ACL) support further benefits those administrators or IT staffs who are more familiar with Windows by offering a more native using experience. Windows ACL also offers a more comprehensive and flexible privilege settings.

Native Windows Experience

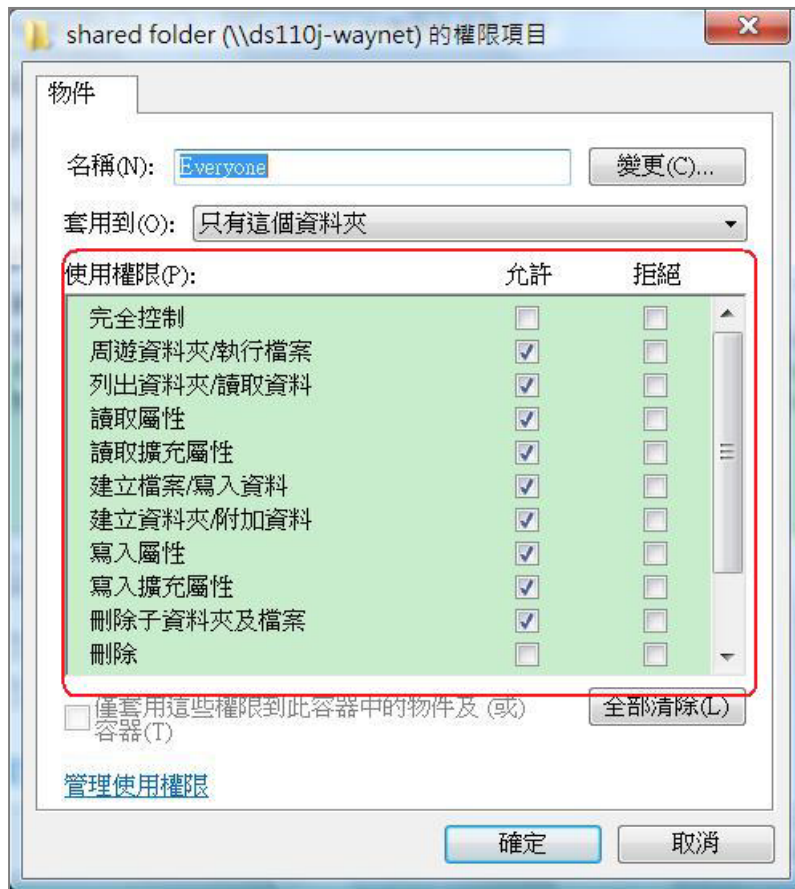


Windows ACL is the native privileges handling method within Windows environment. With DSM, administrators or IT staffs can setup privileges to files and folders on DiskStation through their familiar Windows user interface. Windows ACL support allows the administrators or IT staffs to setup the privileges of a single file or folder. Besides specifying privileges for local DiskStation users and groups, they can also set up settings for domain users and groups.

File-level Access Control List

“File-level ACL” indicates the ability to setup file privileges directly. This is the biggest difference between Windows ACL and Linux-style privileges. In the Linux environment, for each file or folder, you can differentiate privilege into three categories (owner/group/others). However, in Windows ACL, you can have a different permission setting for each user and group.

Better Security for More Specific and Flexible Setting



From 3 options to 13 options, under Windows ACL, the traditional Linux privileges are further defined. For example, the "Read" privilege is now elaborated to be "List Folder/Read Data", "Read Attribute", and "Read Extended Attribute". The privileges setup procedure will not be a difficult thing anymore with these specific privilege options. In addition to the privilege itself, Windows ACL also provides an even more comprehensive permission precedence rules to build a hierarchy, with each file's explicit permission settings rule above inherited ones.

Privilege Delegation

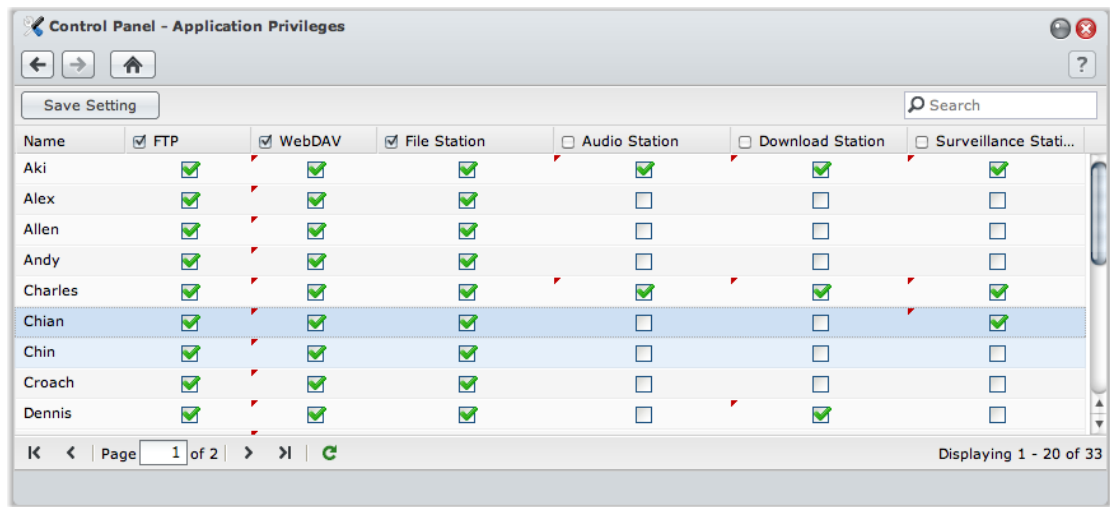
"Change Permissions" privilege allows certain user to manage other users' privileges toward the file or folder. Under some constraints, administrator or IT staffs can delegate this privilege to specific users, for example, department managers. Such will construct a more comprehensive management structure.

Full-scale Privilege Scope (AFP, FTP, File Station, NFS and WebDAV)

Once you setup the privileges, it will apply to all access entries that Synology DiskStations have, such as AFP, FTP, File Station, NFS and WebDAV. The secure privilege offers you peace of mind, no worries about any loopholes.

In DSM, Windows ACL is another feature that aims at providing administrators or IT staffs a more flexible management option to meet enterprise-level need. With the native Windows experience, flexible and precise privilege setting options, and file-level ACL, Synology DiskStation brings you greater level of security and Windows compatibility.

Application Privileges

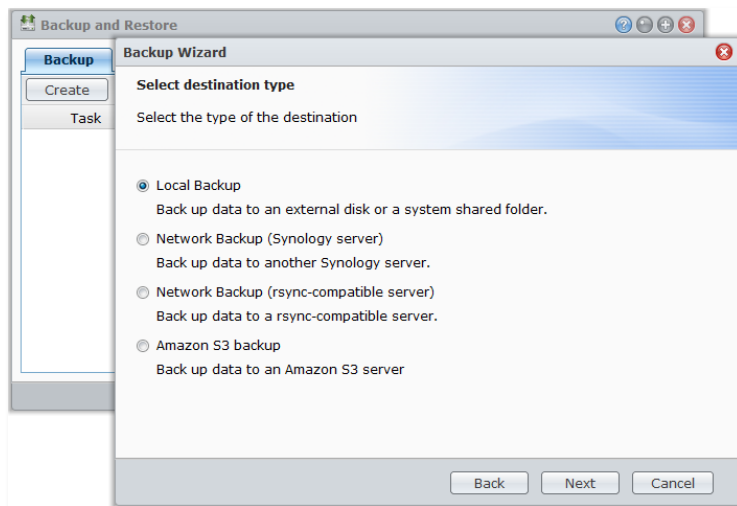


DSM allows you to individually assign privileges for both local DiskStation users and domain users, and determine which applications they are able to access.

Backup

DSM offers comprehensive solutions for data backup. In addition to saving your workstation data on the DiskStation, all data stored on a DiskStation can be backed up again locally or via the network. The USBCopy function simplifies USB storage backup with a one-touch design - no need to log on to the server, the backup process can be performed with a single push of a button. Standard to DSM is Amazon S3 backup, giving you the option of backup up to the cloud using the Amazon S3 service as your backup target.

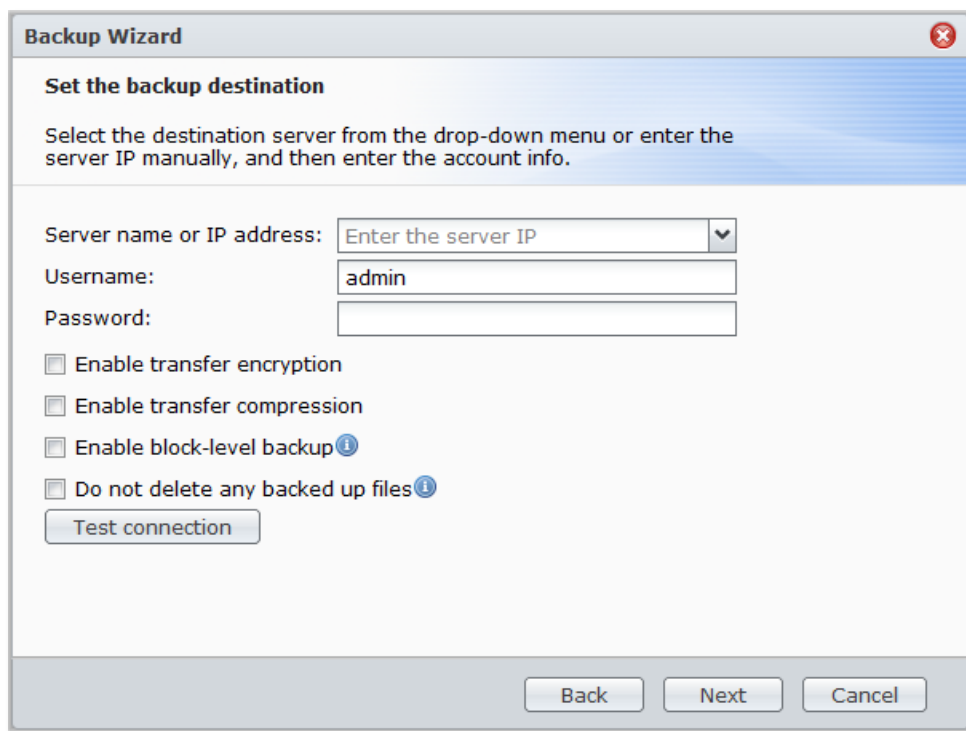
Backup and Restore



Server backup includes three alternatives: **Network Backup**, **Local Backup**, and **Amazon S3 backup**. You can backup data in shared folders or sub-folders and choose between incremental backup options or other flexible scheduling choices. All can be easily configured with a step-by-step wizard to make it simple to create an automated backup solution.

In DSM, you can back up the same share to multiple destinations to allow you to keep multiple copies of the same data at different locations. Windows ACL privileges can also be backed up with the file therefore you can restore the data along with its complex privilege settings.

Network Backup



The screenshot shows a window titled "Backup Wizard" with a red close button in the top right corner. The main heading is "Set the backup destination". Below this, a blue banner contains the text: "Select the destination server from the drop-down menu or enter the server IP manually, and then enter the account info." The form includes the following fields and options:

- "Server name or IP address:" followed by a text input field containing "Enter the server IP" and a dropdown arrow.
- "Username:" followed by a text input field containing "admin".
- "Password:" followed by an empty text input field.
- Four checkboxes with labels:
 - ☐ Enable transfer encryption
 - ☐ Enable transfer compression
 - ☐ Enable block-level backup ⓘ
 - ☐ Do not delete any backed up files ⓘ
- A "Test connection" button.

At the bottom of the window are three buttons: "Back", "Next", and "Cancel".

Network Backup allows you to back up files and data from one Synology DiskStation to another Synology DiskStation (or other rsync-compatible servers) over the network.

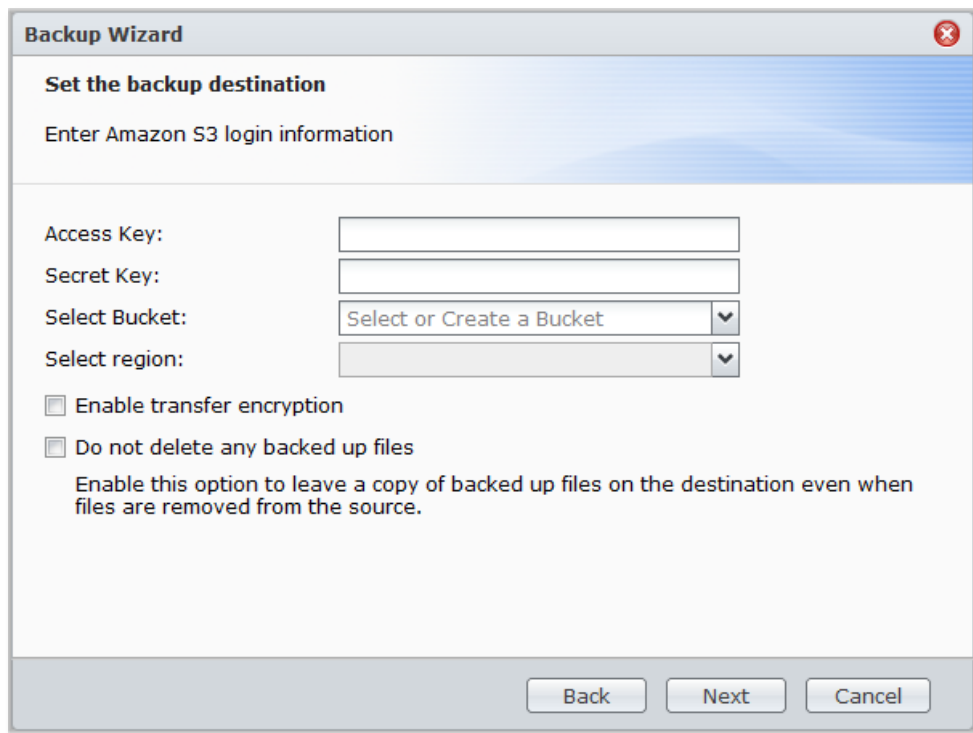
With the Encrypted Network Backup option, data is encrypted when a backup task is being processed, protecting your important data with a higher level of security.

The block-level backup option only backs up modified part of files. This option is especially practical when Network Backup is executed over the Internet.

Local Backup

The Synology Local Backup function allows you to backup data from certain shared folders to another shared folder located on internal hard drives or externally attached USB/SATA drives.

Amazon S3 Backup

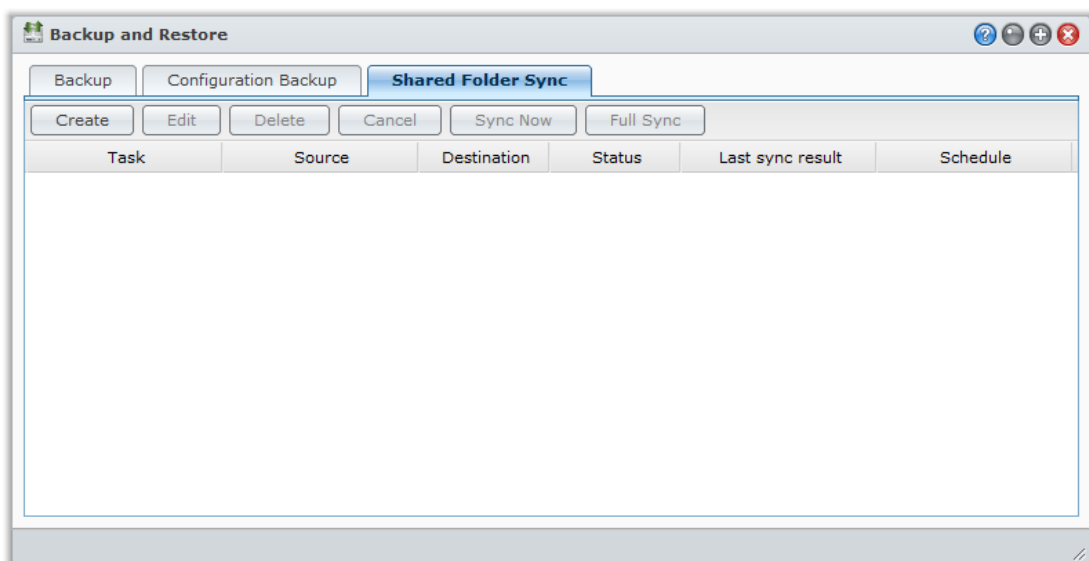


The screenshot shows the 'Backup Wizard' window with the 'Set the backup destination' step. The title bar says 'Backup Wizard'. Below the title bar, the text 'Set the backup destination' is displayed. Underneath, it says 'Enter Amazon S3 login information'. There are four input fields: 'Access Key:', 'Secret Key:', 'Select Bucket:', and 'Select region:'. The 'Select Bucket:' field has a dropdown menu with the text 'Select or Create a Bucket'. Below these fields are two checkboxes: 'Enable transfer encryption' and 'Do not delete any backed up files'. A note below the checkboxes says 'Enable this option to leave a copy of backed up files on the destination even when files are removed from the source.' At the bottom of the window are three buttons: 'Back', 'Next', and 'Cancel'.

Amazon S3 Backup allows backing up data from the DiskStation to an Amazon S3 server. The backup file is stored in the Bucket of your choice in your Amazon S3 account.

Shared Folder Sync

Shared Folder Sync allows you easily sync the shared folders from one DiskStation to another. You can schedule the sync task according to needs, and retain the mirror shared folders on the destination DiskStation. In case of hardware failure, your spare DiskStation can be up and running with minimal setup in no time.



The screenshot shows the 'Backup and Restore' window with the 'Shared Folder Sync' tab selected. The title bar says 'Backup and Restore'. Below the title bar are three tabs: 'Backup', 'Configuration Backup', and 'Shared Folder Sync'. Under the 'Shared Folder Sync' tab, there are six buttons: 'Create', 'Edit', 'Delete', 'Cancel', 'Sync Now', and 'Full Sync'. Below these buttons is a table with the following headers: 'Task', 'Source', 'Destination', 'Status', 'Last sync result', and 'Schedule'. The table is currently empty.

Synology Time Backup

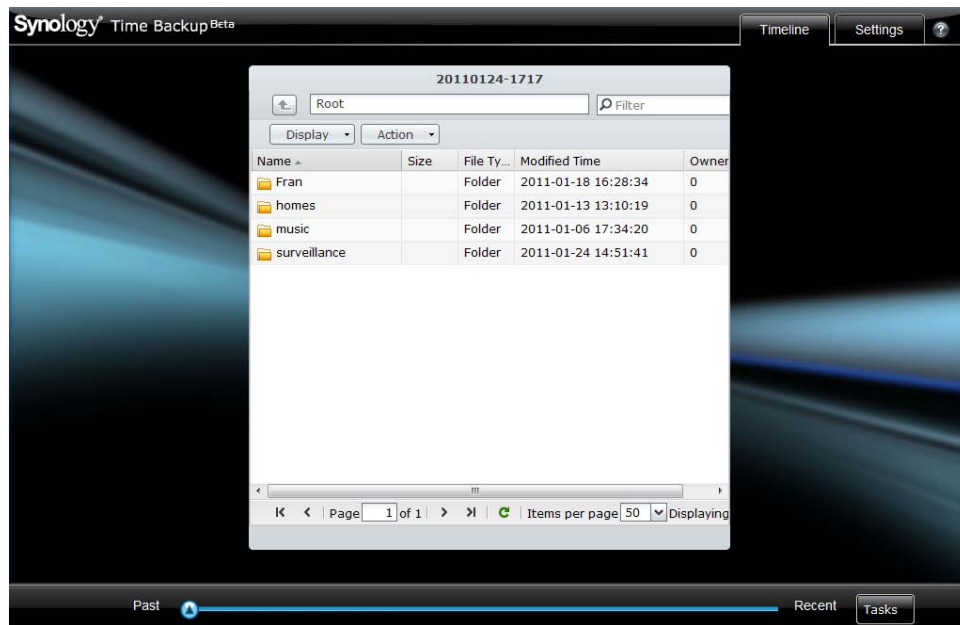


Synology Time Backup is available as an add-on package for DSM, and is an innovative backup solution that helps you backup all your data stored on Synology DiskStation, including documents, music, photos, video, etc. You can restore to any specific time of version by just a few clicks.

Snapshot

A “snapshot” is as taking a picture of the current volume status. Just like taking a picture, snapshot takes very little time. Time Backup adopts this modern technique, allowing the system to record the current data status in a short time, and then perform backup¹. All services will run smoothly during the backup process, so you can continue to access and modify files while the system is at work.

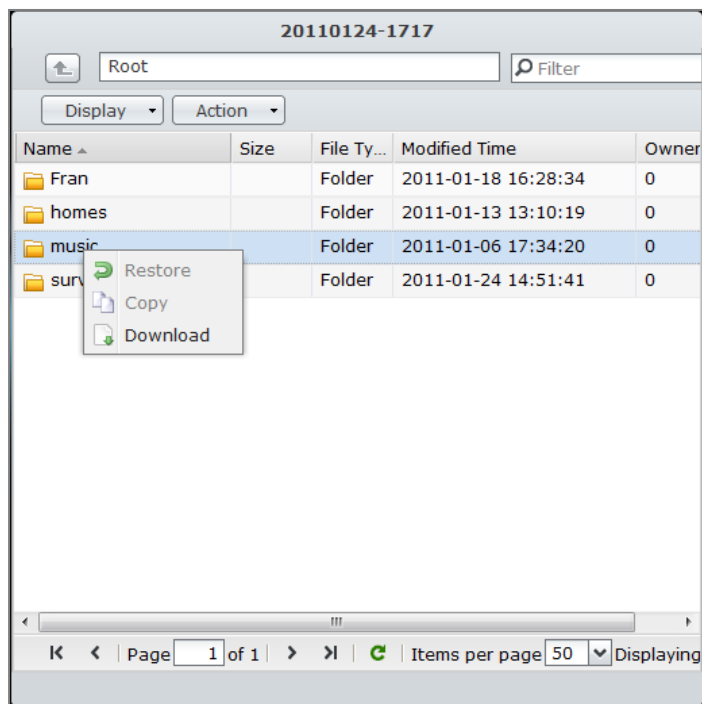
Intuitively Browsing among Versions



The snapshots for each backup task are turned into versions. With multiple backup tasks and versions, Time Backup provides a unique user interface to manage all versions in different backup tasks. By tracking the timeline to a specific version, or flipping through versions to find your most recent changes, you can not only browse but also manage the content in multiple versions.

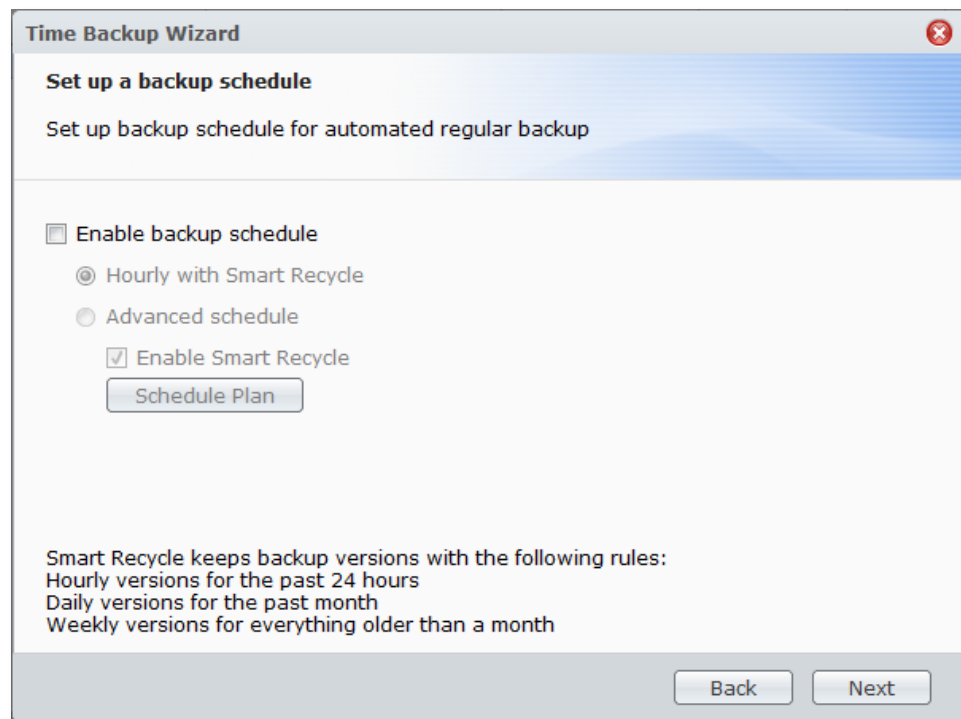
¹ The backup time varies depending on the amount of modified data. Therefore, the first backup and backup with large amount of data may take longer.

Data Flashback



Whenever you want your files or folders to flash back to a specific time, all you need is to find the version and choose the files or directories to restore.

Schedule Backup



Through the **Time Backup Wizard**, you can setup your backup task schedule. Once set up, you can have peace of mind of your important works or data, because Time Backup will backup all of your treasures by schedule. In addition to schedule backup, there is an option as "Back Up now", which allows you to execute your backup task whenever you want.

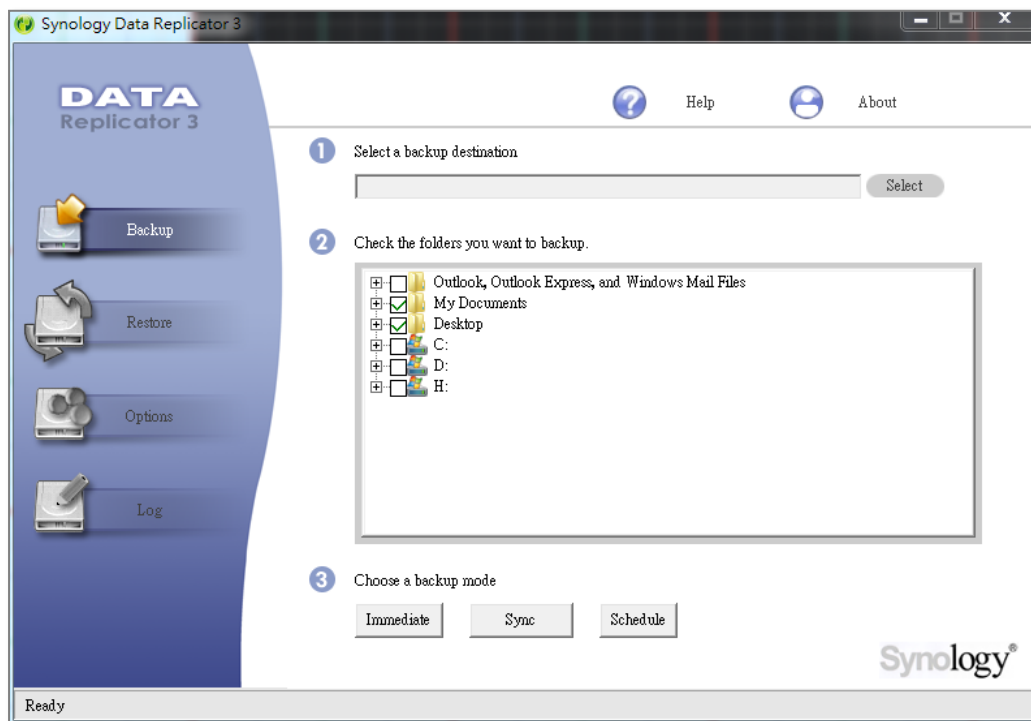
Smart Recycle and Lock

While you can setup many backup tasks with schedule, managing versions efficiently is very important, especially when the destination volume is running out of space. "Smart Recycle" is the recycle policy in dealing with this situation. It keeps the hourly backups for the past 24 hours, daily backups for the past month, and weekly backups for everything older than a month. However, to avoid the deletion of important versions, you can specify and "lock" versions to prevent it from Smart Recycle.

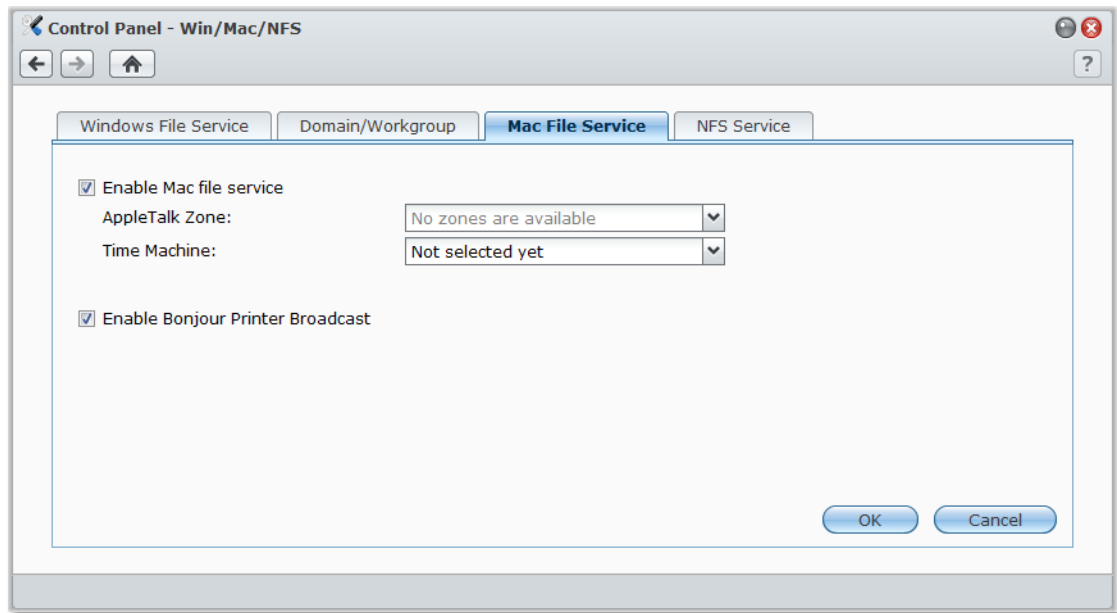
Desktop Backup

Windows User: Synology Data Replicator

Windows users can use the Synology Data Replicator to back up their desktop data, Outlook, and Outlook Express emails to their Synology DiskStation with the flexibility of three backup modes: Immediate, Sync, and Scheduled. Data Replicator is a free application provided for Synology DiskStation users.



Mac User: Apple Time Machine



Mac users (OS X 10.6 and higher) enjoy native Time Machine support of DSM; when Time Machine service is enabled, the DiskStation will simply appear as a target option.

USBCopy/SD Copy¹

USBCopy/SDCopy allows you to quickly back up data from a USB storage device (a USB flash or a USB card reader, for example) or a SD card to a Synology DiskStation with just a single touch. All you have to do is to connect the USB storage device or the SD card to your Synology DiskStation and to push the Copy button on the front panel, and then all files from the USB storage device or SD card will be uploaded to a specified shared folder on the Synology DiskStation.

¹ Available on certain models only.

Web Station

Want to save money hosting your own websites or just want to keep control of your data? Synology's **Web Station** is the simple and quick solution for you. With built-in support for PHP and MySQL, users can develop a dynamic, database-driven website or install a variety of open-source programs on their Synology DiskStation. In addition, you can simply point your browser to your DiskStation's IP address to view your website. To publish your website and make it available for people to browse over the Internet, you need to configure your DiskStation to use an external IP.

If you are an experienced PHP programmer, you can develop interactive programs on **Web Station**, such as shopping sites, blogs, or bulletin boards. You can also install a variety of open-source web applications to help you build your site.

Up to 30 Websites

With Virtual Host, you can host multiple websites on a single Synology DiskStation. After enabling the **Web Station**, you can host up to 30 websites, all from **Web Station**.

Personal Website or Blog

By enabling the User Home function then creating a **WWW** subfolder in the "home" folder, simply upload a personal website to easily establish a website with a unique URL: <http://server-ip/~username>

Surveillance Station¹

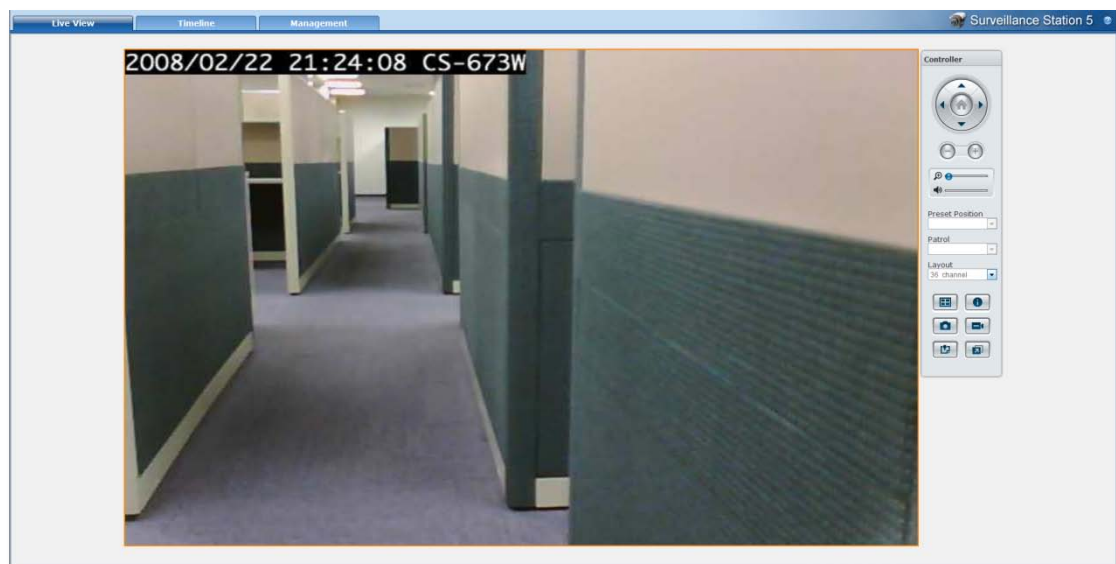


The Synology **Surveillance Station** provides you with an easy and economical network video recording solution. Gain peace of mind by simply plugging in IP cameras into your network and quickly configuring Surveillance Station. There are several features to customize your surveillance solution including video live-view, video recording, event playback, Smart Search, Image Enhancement, and Intelligent PTZ. The AJAX-based web interface adds a touch of user-friendliness to this well-equipped surveillance solution. Read through to learn how simple it is to set up a surveillance system in your home or office.

Live View

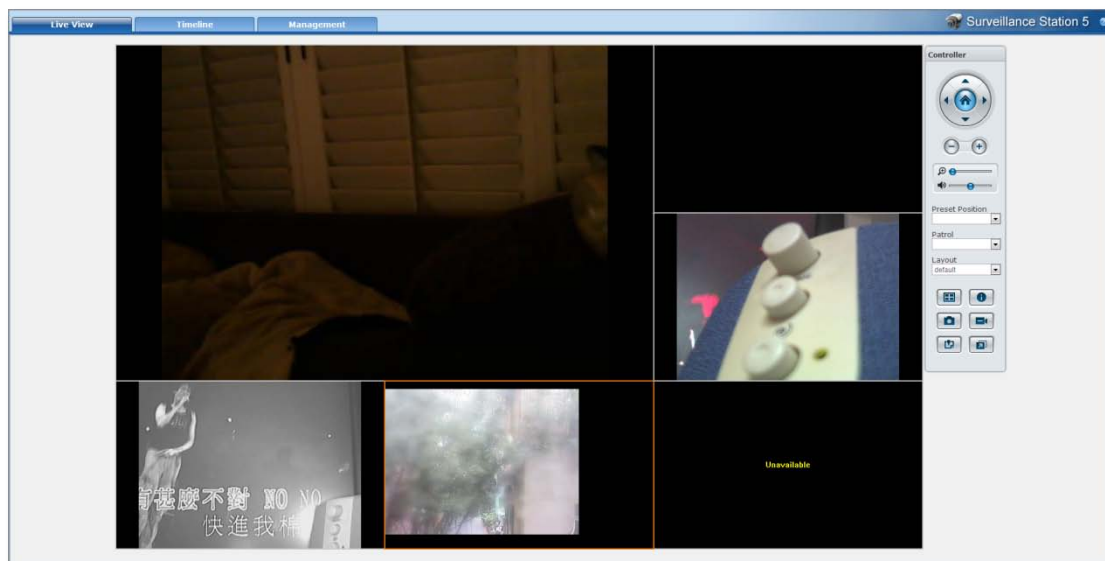
Surveillance Station provides the flexibility of 3 solutions to conduct live view monitoring (web browser, VS60, mobile device). Simply find a solution best fit to your needs, or use all 3 interchangeably to maximize your control. **Surveillance Station** provides full support to enrich your live-viewing experience.

Live View with Web Browser



¹ Some features of Surveillance Station are currently supported by Internet Explorer only.

Live View Anywhere

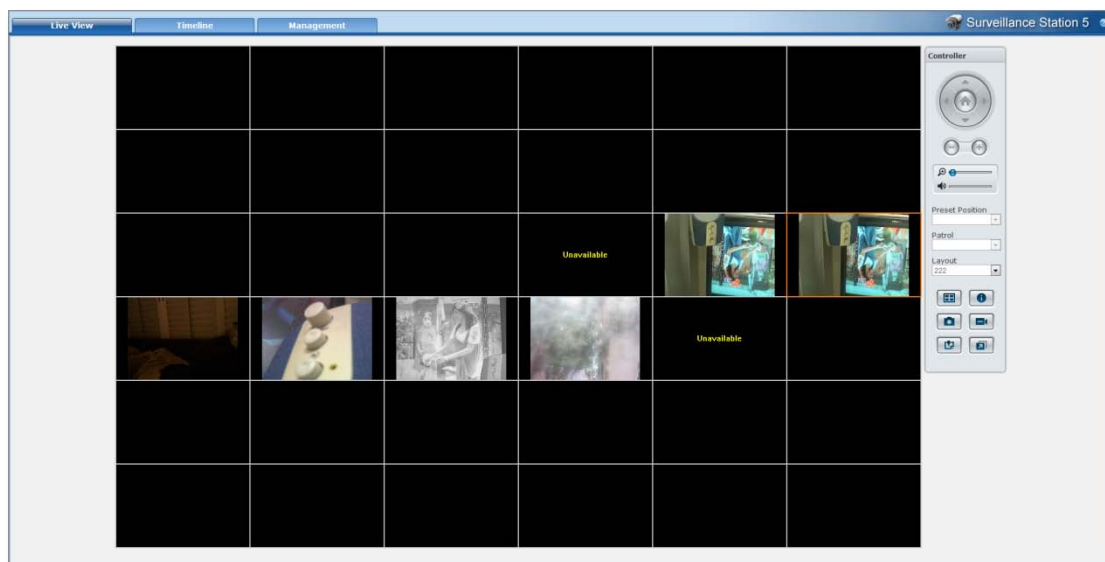


As long as you can find a computer with Internet connection, simply log on your Surveillance Station and start monitoring in real-time stream your Surveillance Station anywhere in the world.

Use any Browsers on Windows

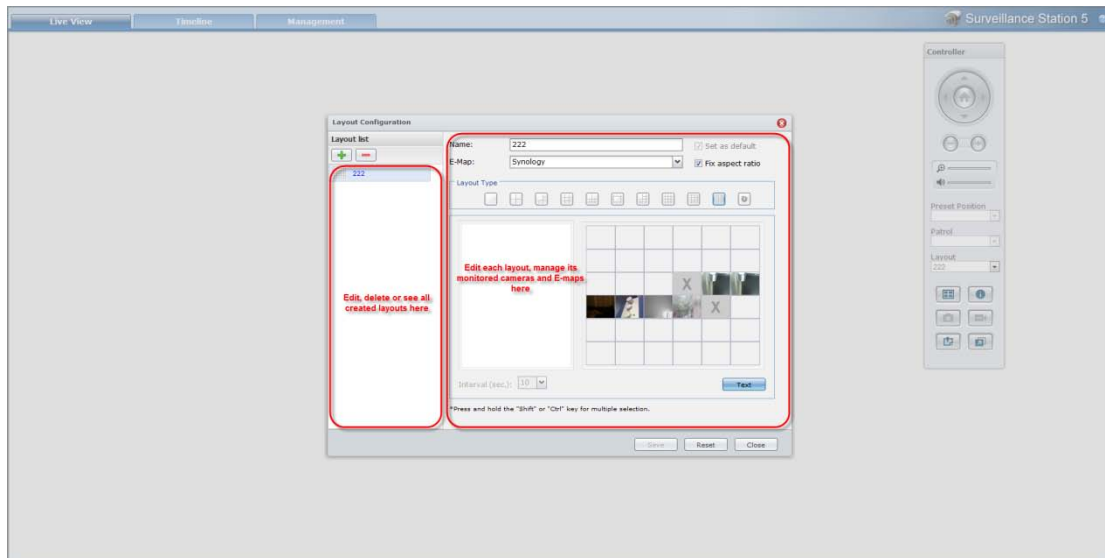
A first of its kind for any web based NVR system. Surveillance Station now breaks the limitation of using Internet Explorer as the only choice in a web browser based surveillance solution. For users of various preference and concerns, Firefox and Google Chrome are now officially supported on Surveillance Station.

Simultaneously View up to 36 Channels at Once



In the case of the large deployment, flexible layout management allows you to monitor up to 36 channels for live view concurrently. Double click on selected camera to switch to full screen mode, or use the mouse scroll control to perform digital zoom anytime on a selected camera.

Flexible Layout Management



The live view screen layout is critical for delivering valuable real-time data. Some environments might require up to 36 channels, while some require different placement of cameras at different part of the screen. The live view layout can be easily set up by dragging and dropping cameras to the selected layout cells with the preview function. Once set, the customized layout will be available in the live view page for easy selection. Live view screen layout can be customized first, and be summoned instantly with just a simple click on the controller panel.

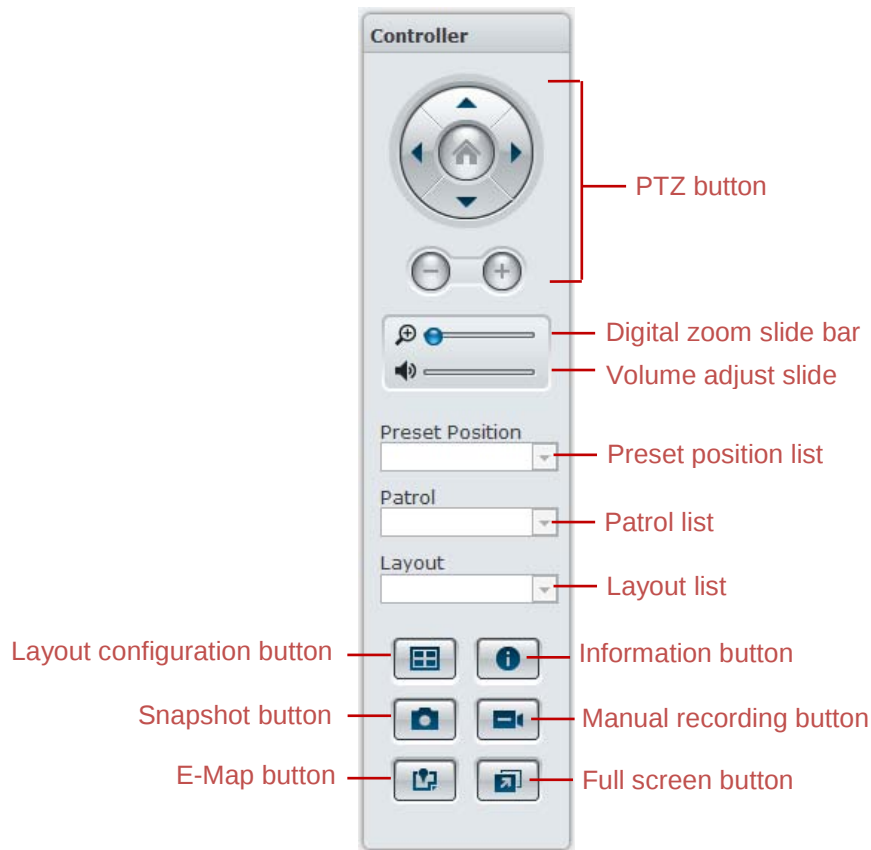
Not only local cameras can be added to the live view layout, but cameras from other DiskStations can also be integrated to be viewed together on the same screen. Centralized Management System daisy chains the local DiskStation with other DiskStation and form a large scale deployment, and serves as a portal for a one stop management portal.

No Brand Locking

Have cameras from different vendors? You don't need separate software to live view your collection of different cameras. With comprehensive IP Camera integration support, now you can log in Surveillance Station and use cameras from over 33 brands and 760 models.

Controller Style Camera Command Interface

The controller panel increases the ease to function live-view. You can operate the PTZ (Pan/Tilt/Zoom) and digital zoom in/out function, switch to a preset position or patrol path, and take snapshots, browse E-Map and manually record videos.



For cameras that support PTZ (Pan/Tilt/Zoom) or audio, use these buttons to adjust the camera's shooting angle and audio volume.

In addition to the optical zoom feature provided by the camera, the **Surveillance Station** also provides digital zoom function. You can drag to move the video screen with your mouse. Try scrolling your mouse or double-clicking on the video screen to enlarge it to fit the frame instantly.

Preset Position and Patrol list

Want to adjust camera angle but want to avoid bothersome clicking of the mouse? A quick way is to use a list of different PTZ camera positions, and the camera will adjust to that position right away with just one click.

In most scenarios, system administrators have a few commonly used camera positions. These positions can be saved during camera setup, and be quickly accessed by selecting from the Preset Position List.

A series of PTZ Camera Preset positions can be grouped together into a Cycle called "Patrol". Instead of moving from one preset to the other one by one manually, you can select a patrol and the camera will move through a series of position automatically. These patrols can be configured by during camera setup, and be quickly accessed by selecting from the Patrol List.

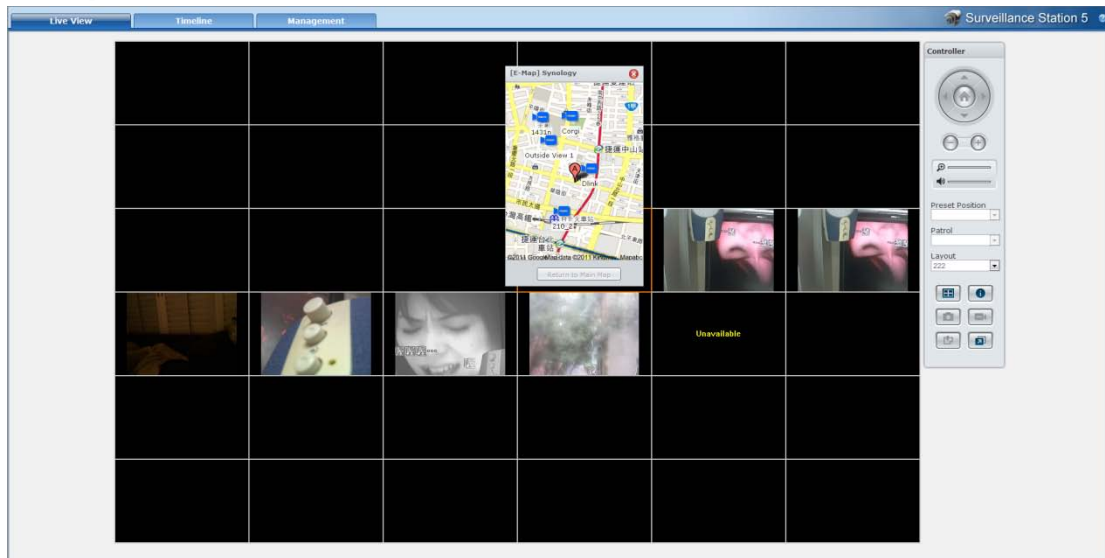
Snapshot

During live view, you have the option to take snapshot image from the selected camera. Alternatively, you can also record the event in high quality/frame rate setting, access the event player and study the event frame by frame to take the best snap shot.

Manual Recording

You may choose any camera during live view and start manual recording. The recording will end either by stopping manually or when the system experiences storage shortage. This is good when if you want to manually override any of the other recording modes for a short period of time, for ad-hoc event recordings.

E-map Cross Referencing



The built-in E-Map function quickly provides an overview on your camera deployment with visual assistance. User can pinpoint cameras' locations on the map.

Moreover, multiple sub-maps can be cascaded amongst each other, forming a larger surveillance network. Arranging cameras on the sub-maps allows for more precise monitoring.

This is especially useful in multi-camera angle setup, where efficient coordination among multiple sites is critical; enable multiple agencies to operate on the same system.

Each layout for live view can be assigned with its own E-Map. So depending on the number of camera deployed for a certain E-Map, user can choose the appropriate number of channels for the layout.

Full Screen and Camera Information

The full screen mode is available for pure monitoring purpose. Tool bar and controller panel will be hidden to maximize live view screen area. During live view, you can also view detailed camera information, including connection status, camera name, and recording status. All these can be displayed on the top portion to each live view screen upon user's request.

Live View with VisualStation VS60



Computer Free, Hassle free Simple Deployment

In an environment where only simple monitoring is required, save costs with VisualStation --- VS60. Once properly setup with **Surveillance Station**, the device is designed for directly live viewing or

playing events of cameras managed by **Surveillance Station**, via a LCD monitor or TV without a PC. At 5.2W on operation, VS60 is an economical monitoring solution. In addition, with the built-in digital signal processor (DSP), VS60 can still provide robust image decoding performance.

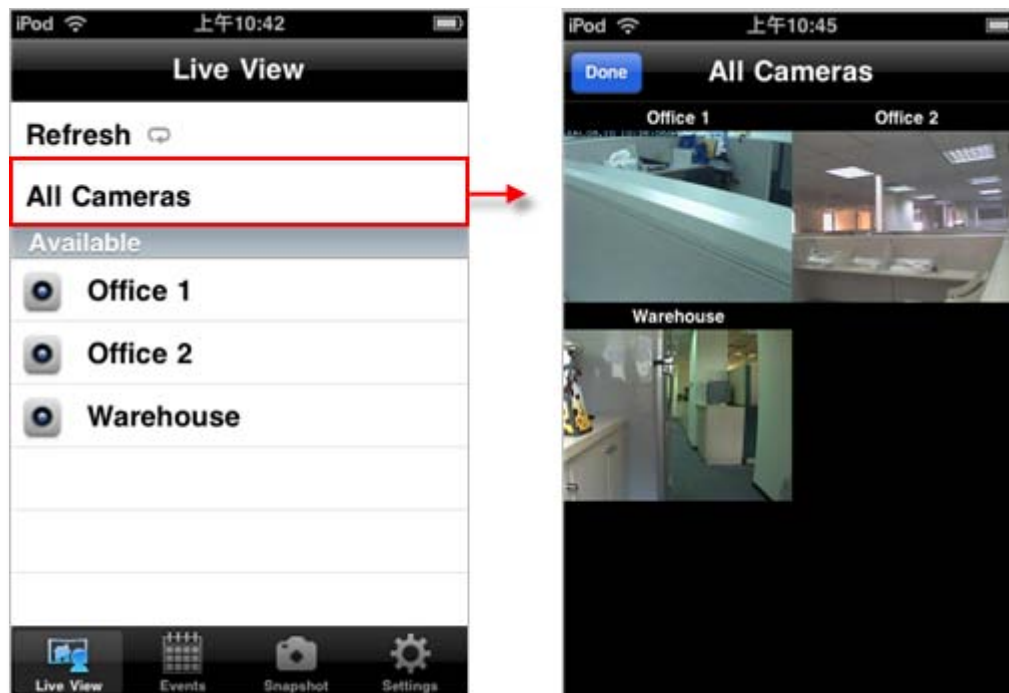
Powerful Functionalities with Mouse-only Operation

Videos can be streamed in MJPEG, MPEG4 and H.264 formats. Besides, PTZ enabled camera can be controlled directly from VS60 live view UI. Audio jack output is available for audio streaming. Double-clicking on an IP camera will maximize the image to full-screen for a clearer view. In addition, you can save an IP camera snapshot in the connected USB storage, or use Timeline event player for easy playback of archived videos. All these powerful live view features can be conveniently controlled with a USB mouse.

Low Energy Consumption & Eco-friendly

Specifically designed for PC-less monitoring, VisualStation VS60 takes only 5.2 watts to operate, which is far less than a regular PC server does. Over long-term use, the low power requirements of the VS60 can be a significant cost savings.

Live View with Mobile Devices



Live View IP Cameras Anywhere On-the-go

With the Synology's mobile phone application "DS cam", users can live view their IP cameras managed by Surveillance Station on their iPhone /iPad /iPod touch or Android phones. User can also perform PTZ functions just like using Surveillance Station all wirelessly. Live view snapshots can be taken and saved to phone memory or memory card.

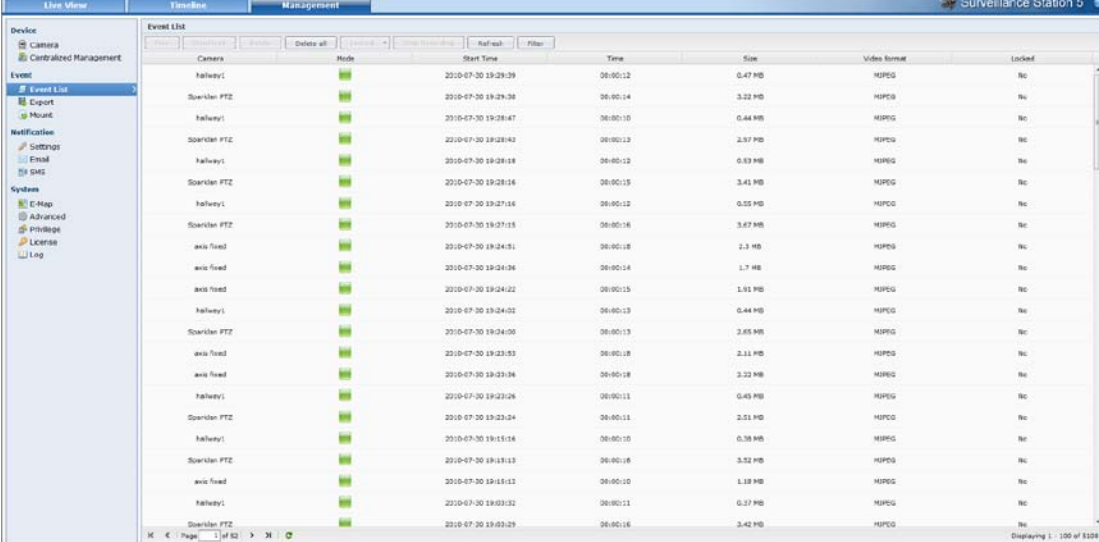
Access Any Camera in the World

In addition to live-viewing the IP cameras managed by Surveillance Station, you can also live-view other IP cameras by entering the camera's IP address and other information. DS cam can live view and control PTZ on any IP Cameras in the world wirelessly. (Available on iPhone /iPad /iPod touch.)

Available for Free Download

Most importantly, this amazing Application is available for iPhone/iPad/iPod touch and Android phone users at free charge. These applications are available for download via App Store or Market.

Event Playback



Camera	Mode	Start Time	Time	Size	Video Format	Locked
Halfway1	Motion	2010-07-30 19:29:39	00:00:12	0.47 MB	H264	No
Spurden PTZ	Motion	2010-07-30 19:29:38	00:00:14	3.22 MB	H264	No
Halfway1	Motion	2010-07-30 19:29:47	00:00:10	0.44 MB	H264	No
Spurden PTZ	Motion	2010-07-30 19:29:42	00:00:12	2.97 MB	H264	No
Halfway1	Motion	2010-07-30 19:29:18	00:00:12	0.83 MB	H264	No
Spurden PTZ	Motion	2010-07-30 19:29:16	00:00:15	3.41 MB	H264	No
Halfway1	Motion	2010-07-30 19:27:16	00:00:12	0.55 MB	H264	No
Spurden PTZ	Motion	2010-07-30 19:27:15	00:00:16	3.67 MB	H264	No
area fixed	Motion	2010-07-30 19:24:51	00:00:18	2.3 MB	H264	No
area fixed	Motion	2010-07-30 19:24:36	00:00:14	1.7 MB	H264	No
area fixed	Motion	2010-07-30 19:24:22	00:00:15	1.91 MB	H264	No
Halfway1	Motion	2010-07-30 19:24:02	00:00:13	0.44 MB	H264	No
Spurden PTZ	Motion	2010-07-30 19:24:00	00:00:13	2.65 MB	H264	No
area fixed	Motion	2010-07-30 19:23:53	00:00:18	2.11 MB	H264	No
area fixed	Motion	2010-07-30 19:23:34	00:00:18	2.22 MB	H264	No
Halfway1	Motion	2010-07-30 19:23:28	00:00:11	0.49 MB	H264	No
Spurden PTZ	Motion	2010-07-30 19:23:24	00:00:11	2.51 MB	H264	No
Halfway1	Motion	2010-07-30 19:15:14	00:00:10	0.58 MB	H264	No
Spurden PTZ	Motion	2010-07-30 19:15:13	00:00:18	3.52 MB	H264	No
area fixed	Motion	2010-07-30 19:15:13	00:00:10	1.18 MB	H264	No
Halfway1	Motion	2010-07-30 19:03:32	00:00:11	0.57 MB	H264	No
Spurden PTZ	Motion	2010-07-30 19:03:29	00:00:16	3.42 MB	H264	No

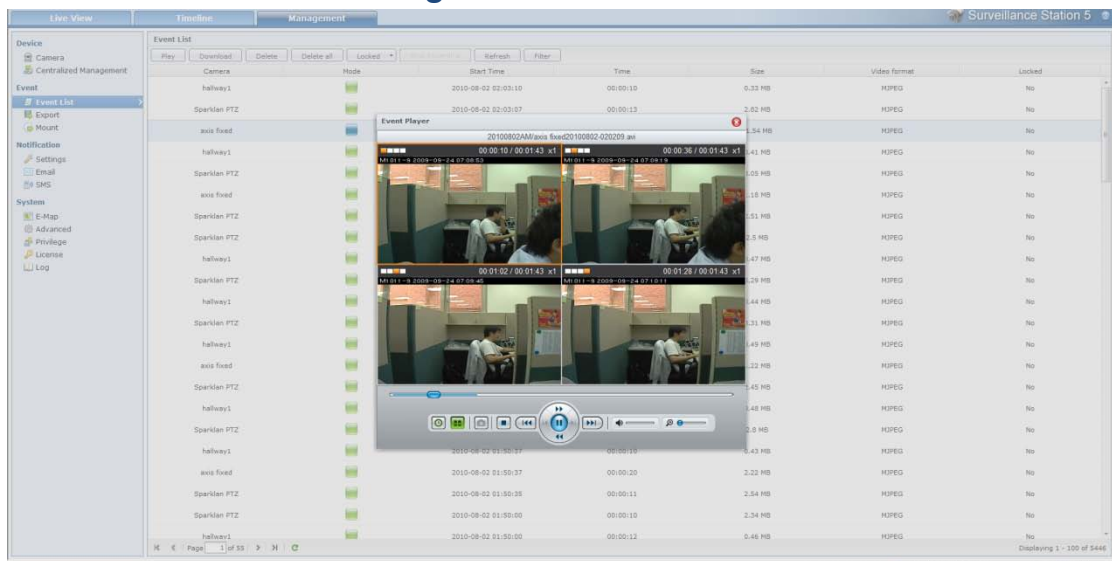
All recordings can be played, downloaded, and deleted. While managing events, you may lock critical events to prevent them from being deleted accidentally or removed during archive rotation.

Event Playback with Web Browser

Replay Any Critical Events Freely and Efficiently

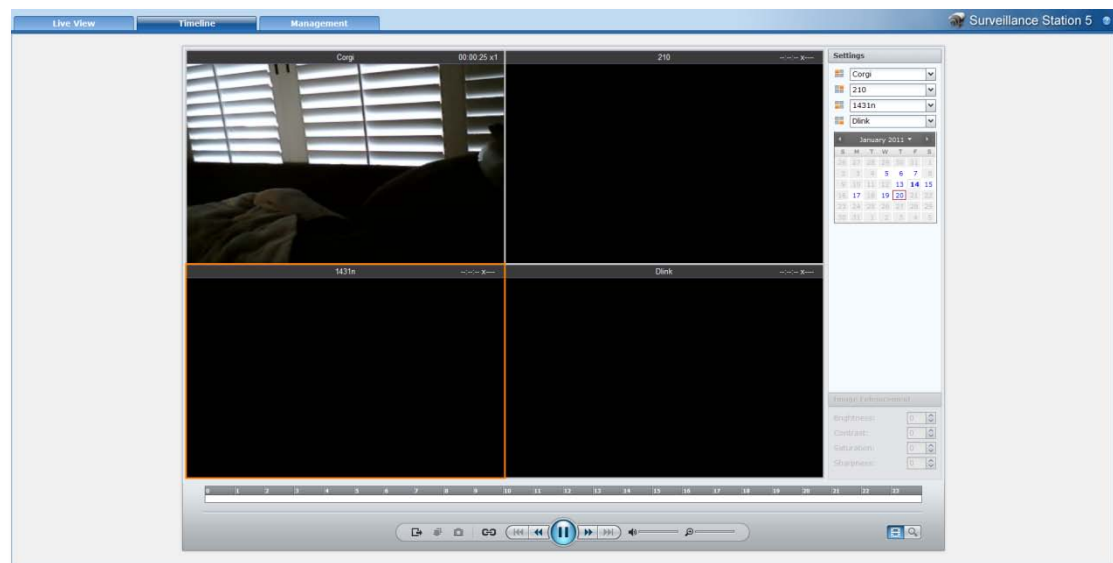
When playing a recorded video, you can use the control buttons to fast forward, slow down, zoom-in and zoom out, drag-n-move the video, or skip to the previous or next event. Pausing the video gives you the ability to skip to the previous or next frame as well as take a snapshot and save the picture.

Cut down Total Event Viewing Time



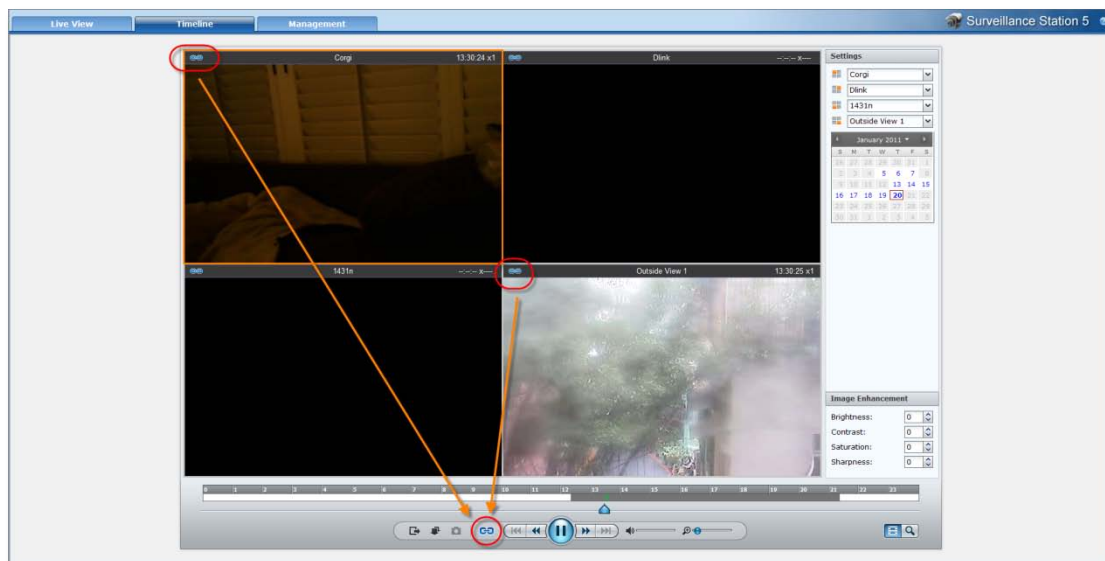
Time Slicing mode on the Event player is an innovative solution that uses only a quarter of the normal viewing time. It is done by dividing the original video clip into 4 parts and playing them concurrently. The end result is a shorter total viewing time.

Play Events Chronologically



The Event Timeline allows you to watch all recorded events of cameras on a certain day. When playing the recorded videos, you can fast forward, slow down, zoom-in and zoom out or drag-n-move the picture. Pausing the video gives you the ability to take a snapshot and save the picture. You can easily find the event you are seeking by sliding the arrow button, or switching between Day and Hour mode for different scale of timeline. The colored bar above the time scale shows the time intervals where videos have been recorded. Events recorded during Motion Detection and Alarm Recording modes are marked in different colors for quick identification. Detailed event information is listed beside the event player.

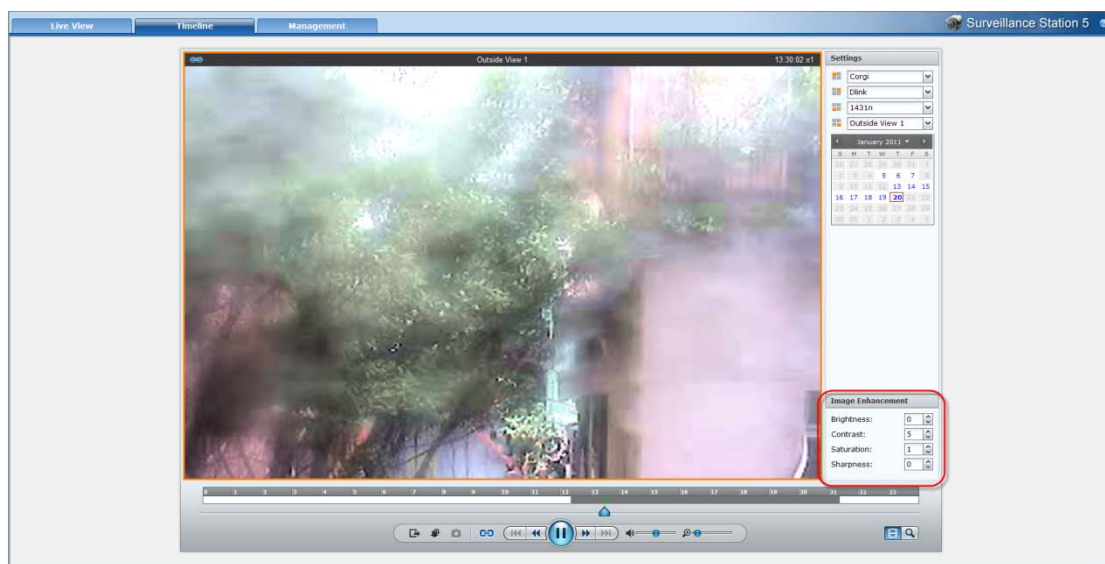
View Recorded Events Simultaneously



Sync Playback allows you to simultaneously watch videos from up to 4 channels on the same timeline, including events on the client server and mounted events. You can easily find the event you are seeking by sliding the arrow button, or switch between Day and Hour mode to scale the timeline. The colored bar below the time scale shows the time intervals where videos have been recorded.

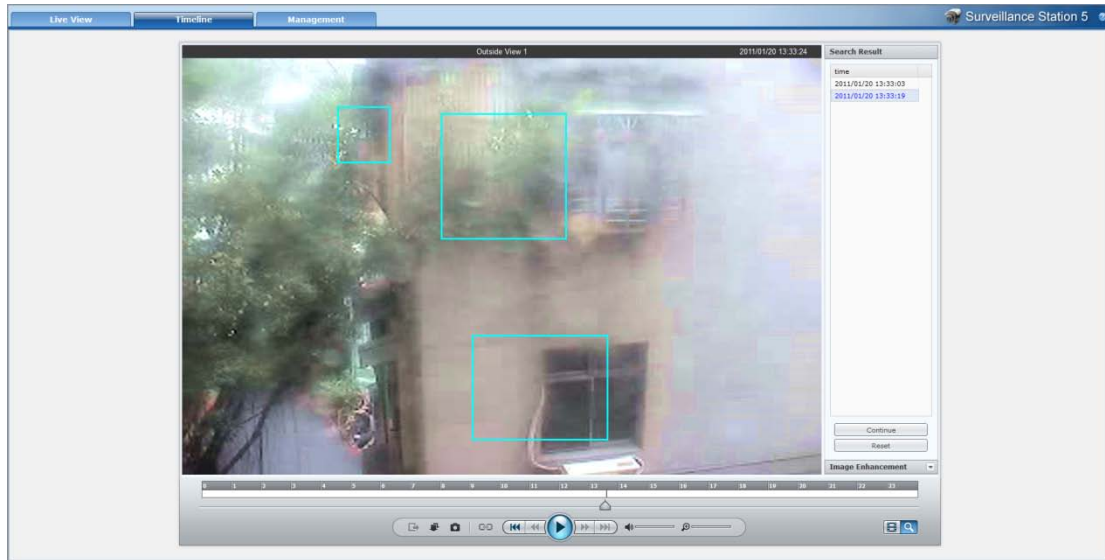
Surveillance Station also provides the flexibility of non-sync mode for Timeline playback. In this operation mode, gapless events playback can be viewed for up to 4 different cameras, a good way to quickly review multi-camera events.

Fine tune your image to your own liking¹



For recorded events storage on the **Surveillance Station**, a handy Image Enhancement feature helps extract more details from each image for more clarity and content. During event playback and Smart Search, you can modify image characteristics – saturation, sharpness, brightness and contrast for more customized viewing experience. For example, users can adjust the brightness to have a clear view during night recording, or increase the sharpness to identify a blurry letter or picture.

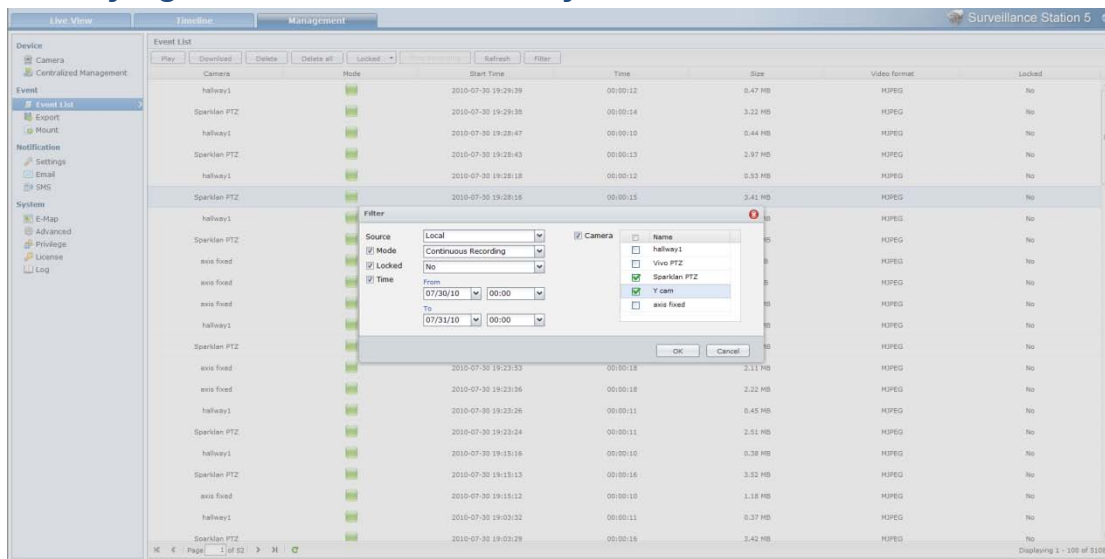
Find object and events of interest quickly based on image characteristics¹



Advance image analytic function is now accessible to all **Surveillance Station** users! During an event playback session, you can utilize the smart search function to examine suspicious events. You will be able to narrow down specific viewing areas to detect any motions, missing items, or foreign objects. You will even know if the camera has been blocked, or focus has been adjusted with unknown, possibly malicious intentions. In a burglary situation, you will be able to figure out the specifics and have a greater chance of solving the case.

Five types of powerful searching algorithms can be setup easily in a few simple steps. Key information throughout the day can be quickly processed and analyzed by the system to be archived as individual sub-events. This allows system operators to filter out unrelated information, and efficiently examine the content of interest. Not only will you save time and energy, this feature adds more value to your surveillance system investments.

Identifying Critical Events Instantly



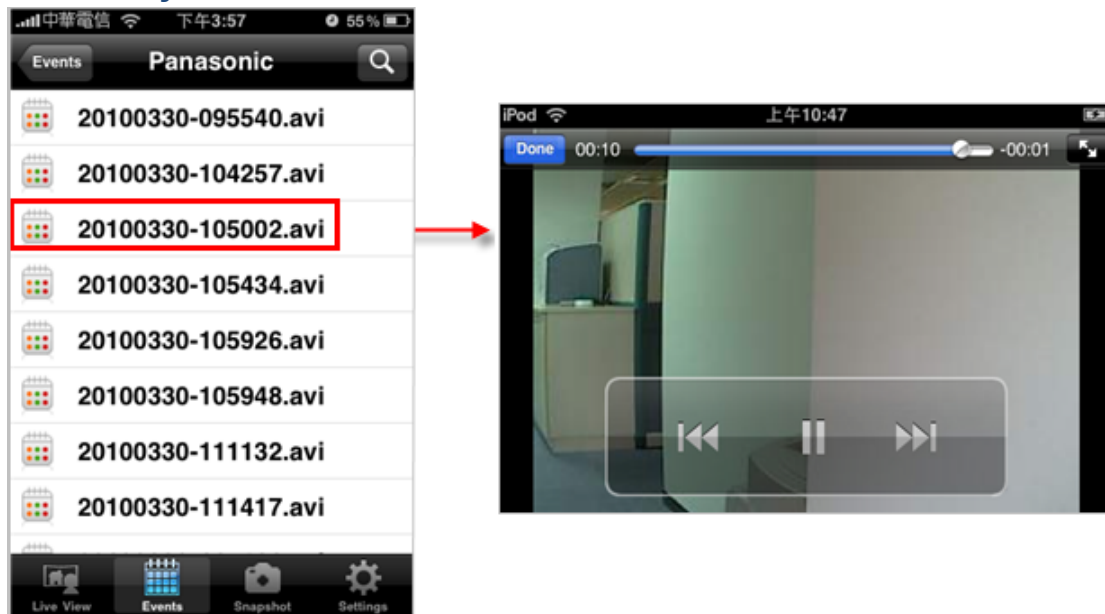
¹ Some features of Surveillance Station are currently supported by Internet Explorer only .

Under the “Event List”, users are able to use the built-in event filter to sort events by different requirements. When the search is complete, a query will appear on the top of the “Event List”, highlighting your search criteria.

Export and Mount Events with Flexibility

Export events from **Surveillance Station** to any shared folder or to an external USB/eSATA storage device. This allows you to save storage space without losing recording events. Should the need arise to review the old recordings, just mount them back onto **Surveillance Station** and they are ready for review in Timeline or event player. With this feature, you can mount the exported events onto another **Surveillance Station** for viewing.

Event Playback with Mobile Device



See the Latest Recordings Anywhere On-the-go

With the Synology's mobile phone application “DS cam”, users can view all recorded events on any **Surveillance Station** cameras, and perform advanced functions like play, pause, skip event, and drag along the timeline to jump. All these amazing functions can now be done all wirelessly.

Improve Productivity by Quickly Identifying Critical Dates

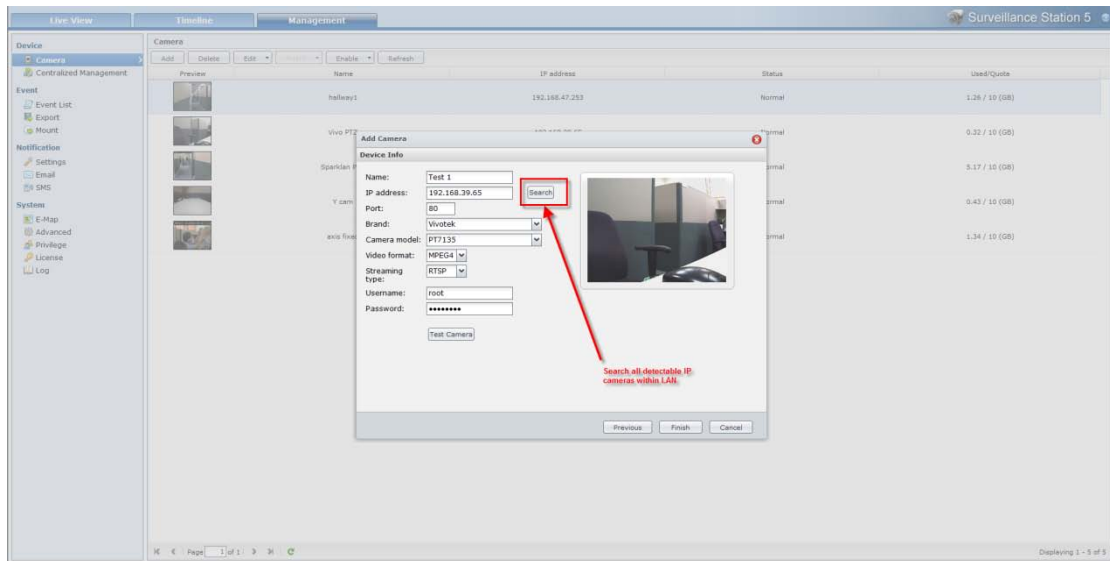
Instead of browsing through all recorded events, DS cam allow users to use the built-in event filter to sort events by date range. When the search is complete, the list of events will be ordered by starting date on the search range to most current ones.

Available for Free Download

Most importantly, this amazing Application is available for iPhone/iPad/iPod touch and Android phone users at free charge. These applications are available for download via App Store or Market.

Camera Management

Adding Cameras



Surveillance Station supports more than 760 IP camera models from over 33 renowned brands. These cameras include mega-pixel cameras, H.264 and audio-enabled models, giving you the freedom of selection for your surveillance deployment.

Straightforward Installation Process

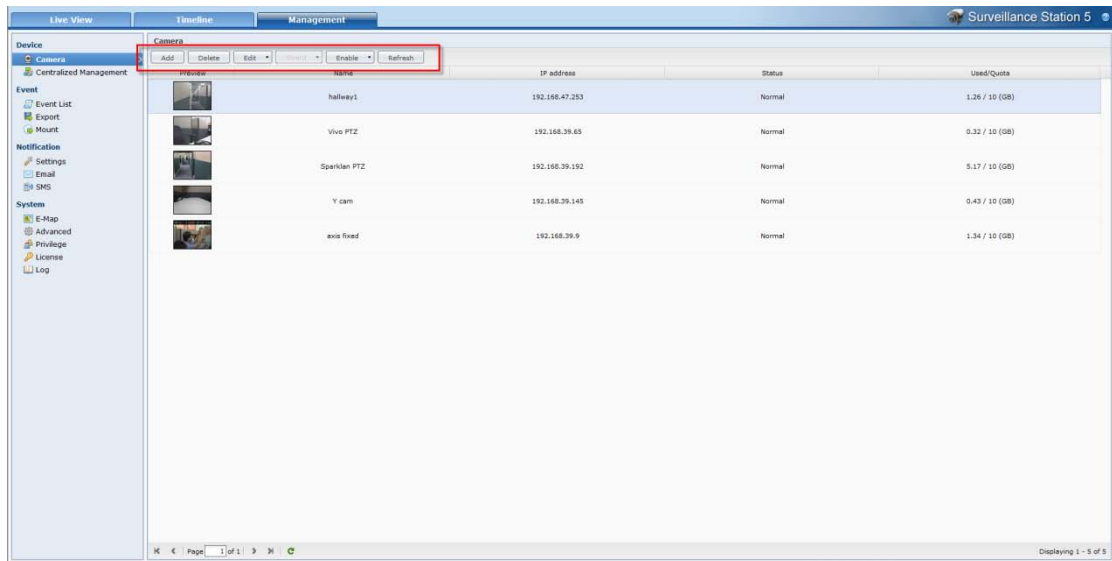
Adding cameras is straightforward. Quick Setup and Complete Setup are available for you to choose from for a standard or customized installation. Both come with a search feature that automatically searches for available cameras¹ on the network. All you need to do is select the camera to install from the search results and enter its username and password. This eliminates the trouble of remembering the camera's model name and IP address.

For cameras not officially supported, you can also try choosing the User Define option and manually entering the source path to see if it works.

Any ONVIF/PSIA compliant cameras/encoders could also be added to Surveillance System easily through a well thought out user interface and installation process. Setting up IP Surveillance system has never been easier than this.

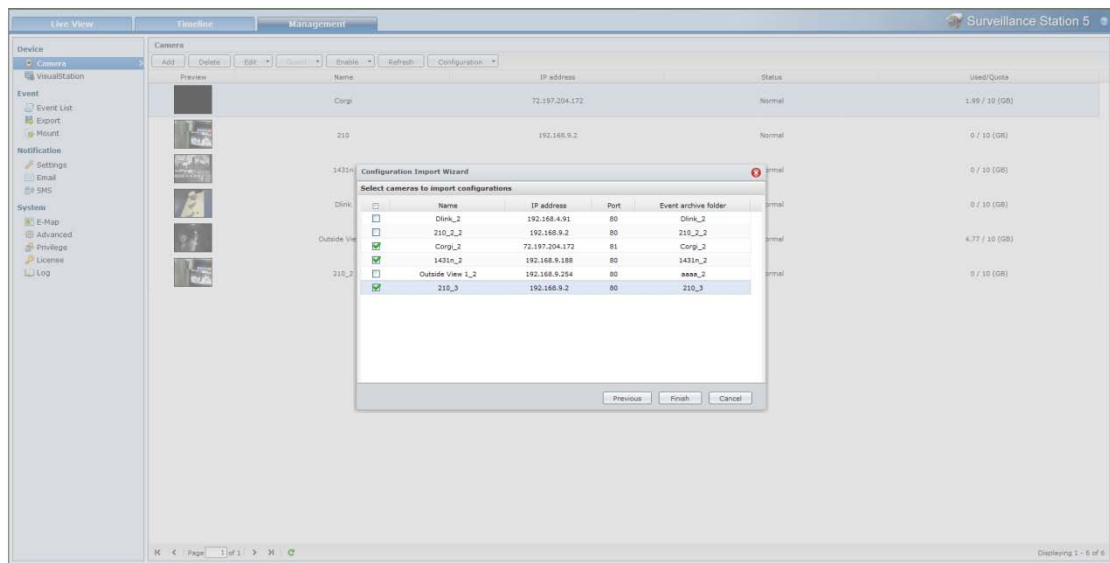
¹ UPnP cameras are required.

Powerful yet Easy-to-read Status Dashboard



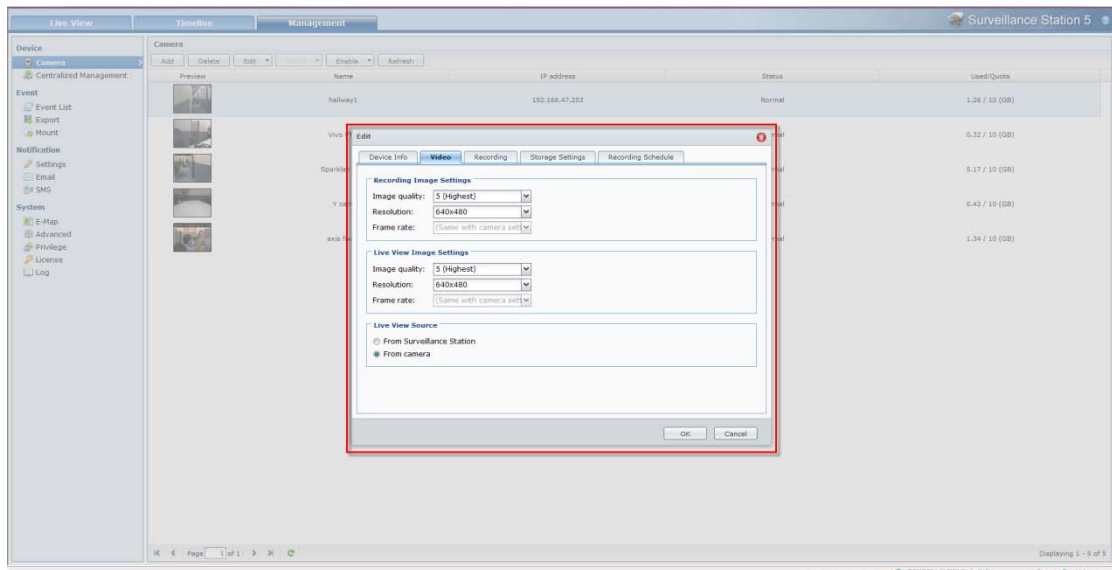
View and manage all your cameras in the camera list. Everything you need to know about the cameras can be found and accessed on this page. Use the well-organized buttons to add, delete, and edit your cameras.

Conveniently migrate and backup Camera Configurations



Entering camera settings and account information is long and tedious process. Not the case with the new **Surveillance Station**. Once camera has finished setup for the first time, their configurations could be saved in a folder for archiving or to be migrated to any **Surveillance Station** wherever you choose to. So whenever you need to setup your system again, or need to share camera with another DiskStation, **Surveillance Station** makes IP camera deployment simpler than ever.

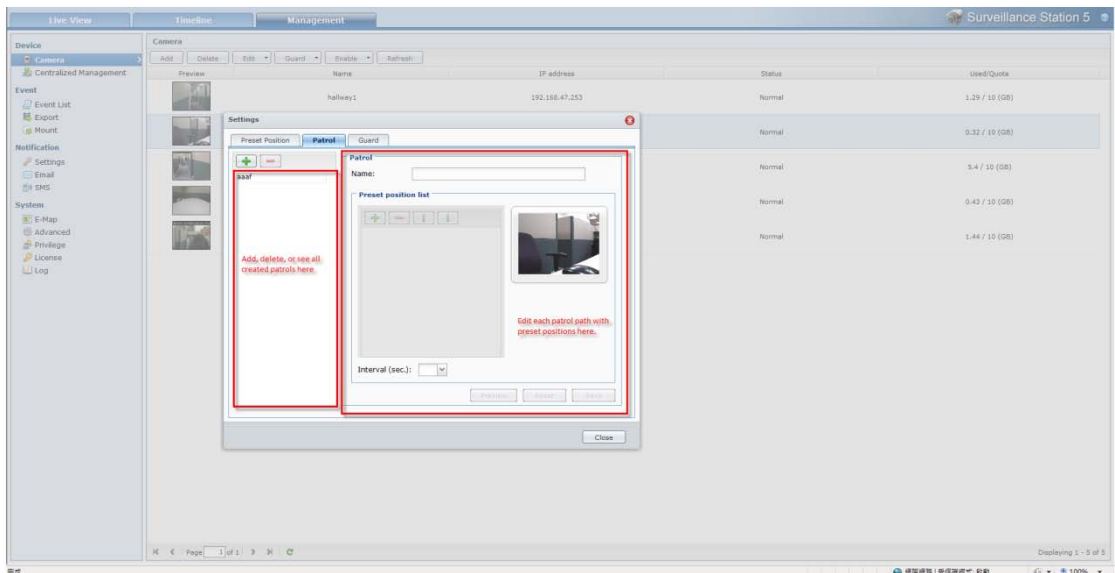
Flexible Camera Setup Process



Surveillance Station supports MJPEG, MPEG4, and H.264 video formats. For each camera, you can define different image settings including resolution, frame rate and image quality for recording and live view, respectively. Choose your live view source from either **Surveillance Station** or directly from the camera. Camera event recording can be easily managed by the various recording modes and scheduler.

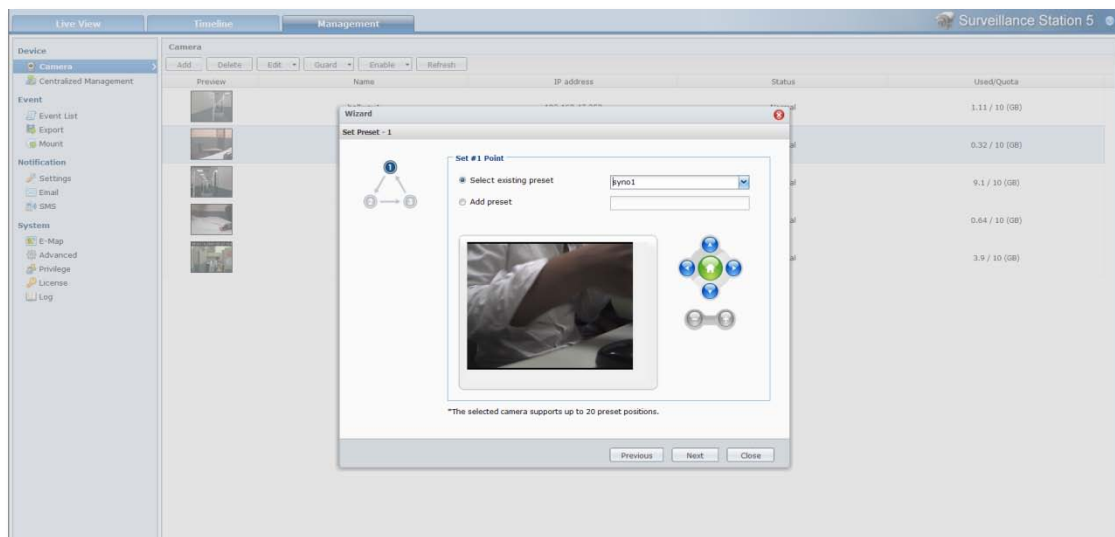
Intelligent PTZ

Program your PTZ Cameras to Think Intelligently



To create a sweeping path just set preset positions and create patrol paths to enhance your environment security. While the preset position is set by adjusting the camera angle to focus on a point you'd like to monitor, the patrol path is created by connecting several preset positions together to form a guard cycle. Set guard schedules to enable automatic patrol when event is triggered.

Program Camera Guard with a Smart Wizard

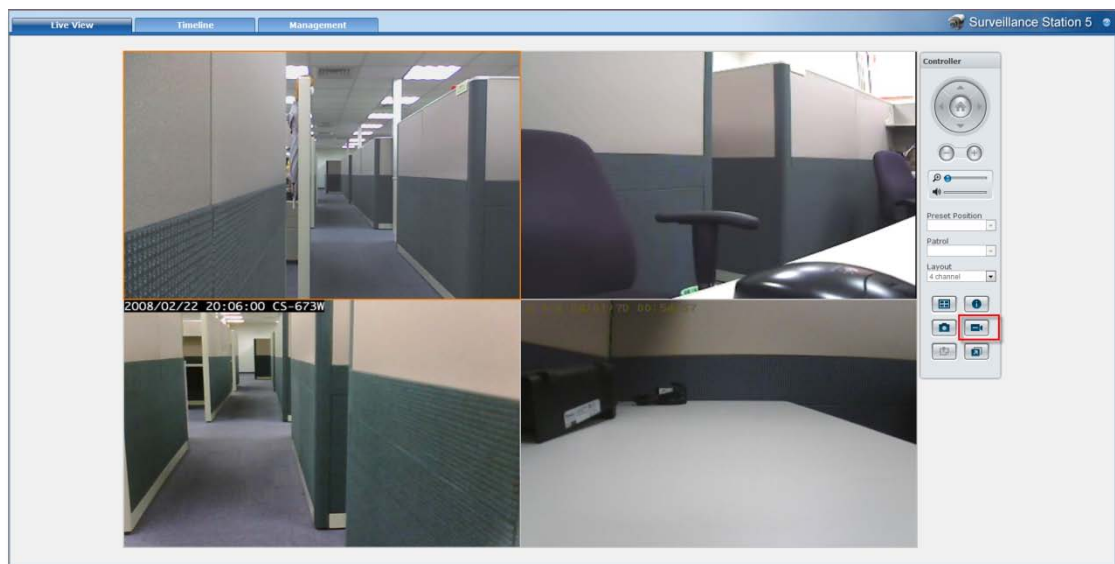


For users new to setting up Camera Guard function, the wizard takes out all the guess work by step by step following through the instruction and settings. This will break down the setting up process into: choosing total preset numbers, Configuring individual presets, defining patrol path, and scheduling Guard trigger.

Recording

Surveillance Station supports five video recording modes with intelligent built-in features such as custom detection areas motion detection, alarm recording and recording scheduling. Audio recording is also supported when an audio-capable camera is used.

Manual Recording during Live View

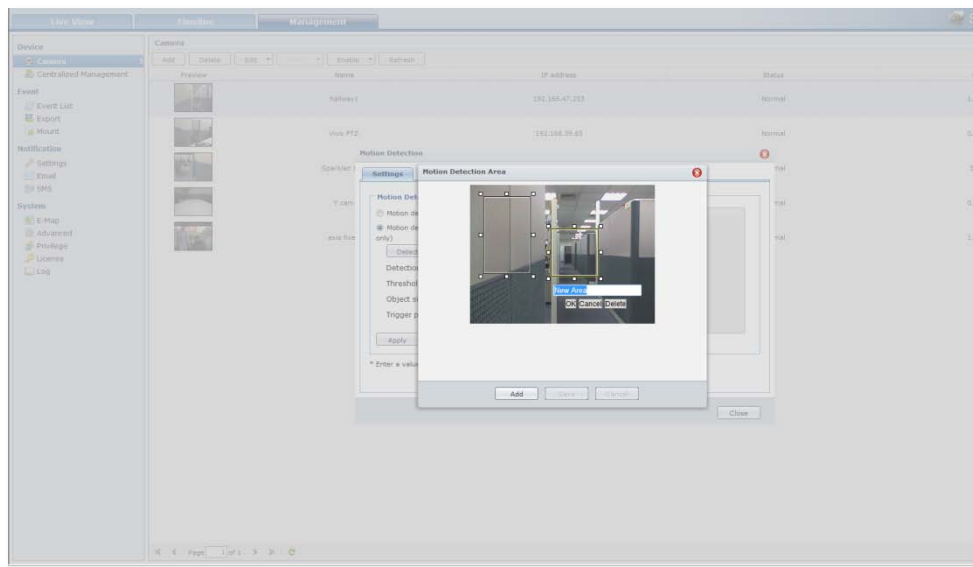


Users may choose any camera during live view and start recording by pressing the video camera button on the controller panel. The recording will end either by user termination or memory limitation. This is good when the user want to manually override any of the other recording modes for a short period of time, for ad-hoc event recordings.

Continuous Recording

Regardless of any event triggers or system inputs, the camera will record non-stop until the schedule has changed or storage becomes insufficient. This recording mode can be useful for archiving, or exporting for more advanced analytics. Each camera can be setup in their recording schedule to record continuous on their assigned time.

Motion Detection Recording



Recording will commence either when the camera or **Surveillance Station** detects a motion beyond the threshold setting. The level of intelligence in this recording mode is dictated by how well the threshold area and sensitivity was setup. Only suspicious movement are recorded and cut down waste by eliminating unnecessary recordings.

For motion detection recording, you can either rely on the built-in motion detection mechanism of the camera, or leave it to **Surveillance Station** (MJPEG only). User can define motion sensitivity and threshold to control the motion trigger. Designate up to 10 custom detection areas on the camera view and the recording will only begin when motion is detected within a designated area.

Alarm Recording Mode

When camera is equipped with digital input pin, this information can be read by **Surveillance Station** to create a recording trigger. Therefore the camera will only record when an external device (e.g. Door) detects some kind of alarm event, and triggers the camera recording.

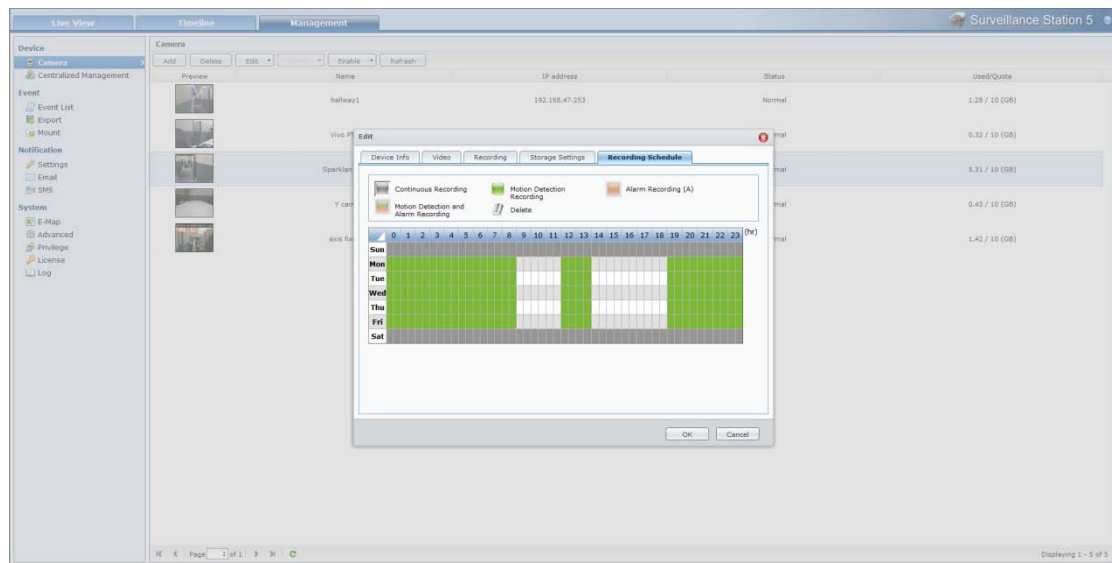
Motion Detection and Alarm Recording

This is a combination that reduces false alarm by a special condition where both motion detection and external device input is detected. With this double checking mechanism, more data point is considered; the recorded data set is more valuable.

Software Triggered Recording

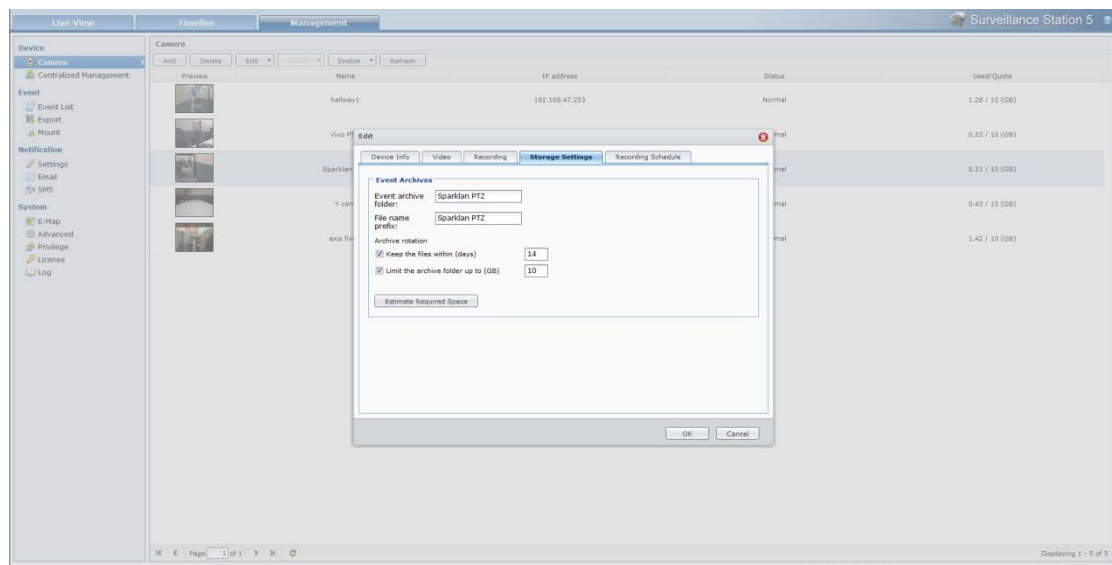
A special API is provided upon request for 3rd-party application that wishes to integrate with cameras controlled by **Surveillance Station**. When cameras are triggered by 3rd-party applications, the recording mode will be recognized as "External Recording".

Optimize your System by a Personalized Recording Schedule



Setting up a recording schedule for 24-7 surveillance solution is simple with **Surveillance Station**. Easily create a recording schedule by choosing a recording mode and clicking the preferred hours to set the time. You can select a certain day by tapping on the day of the week, a certain hour everyday by tapping the hour column, or all hours by tapping on the top-left corner.

Maximize Disk Space and Total Recording Time

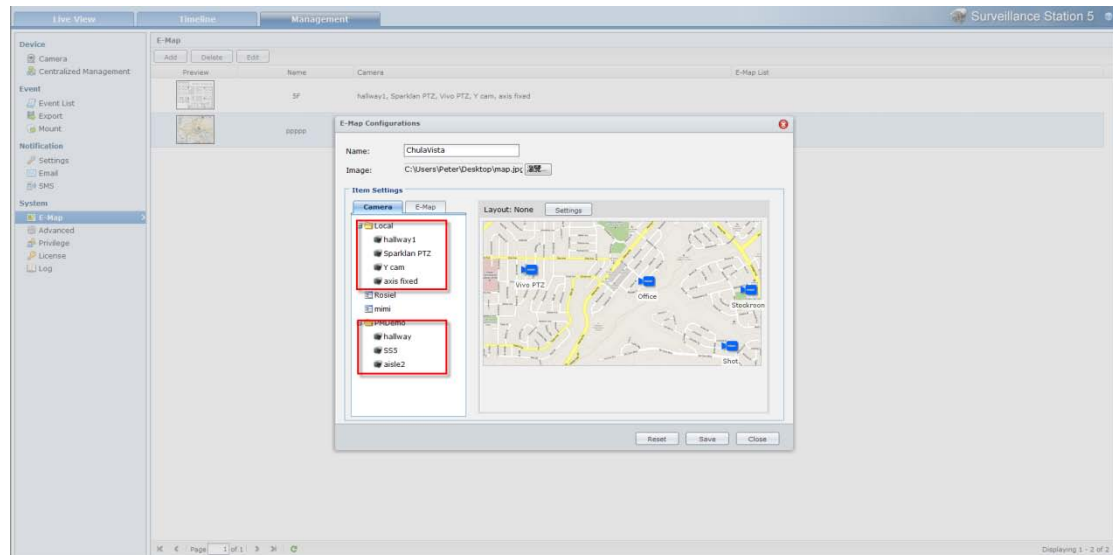


While all events are stored as an “archive”, **Surveillance Station**’s archive rotation system helps you to better control your available storage space. Manage the archive by preserving events for a limited period of time or by regulating the total size of the archive.

System Management

Centralized Management

Access Live View and Events from Multiple DiskStations



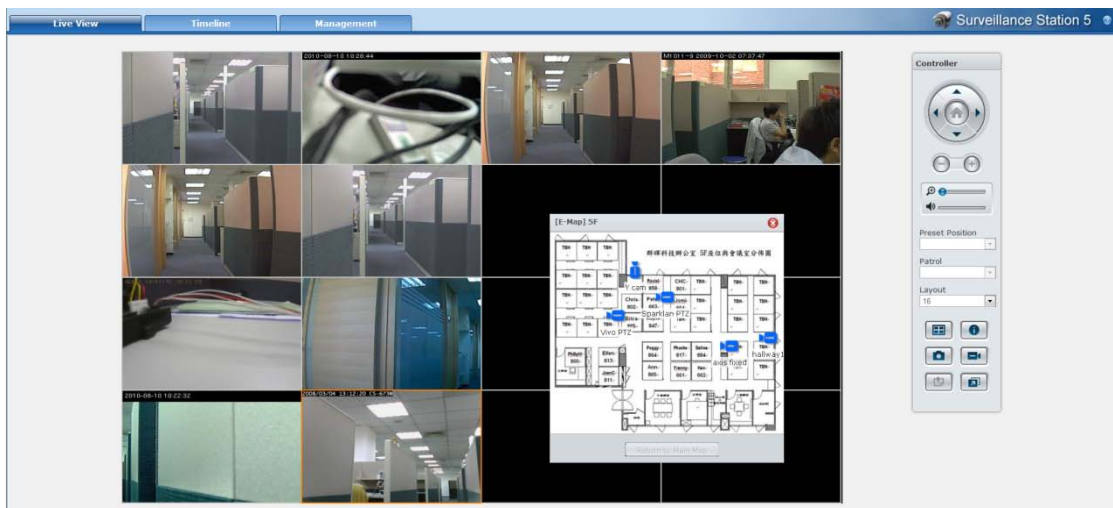
Centralized management helps you easily manage cameras installed on multiple DiskStations in the case of a large deployment. After proper setup, you can monitor the live view and events of all cameras installed on multiple DiskStations by logging in to the host server.

For live view, when you are logged on to the host sever of centralized management, you may choose any cameras from any client DiskStation locally or remotely. This implies it is possible to stream up to 36 live view cameras from around the world in one window, one software, and one DiskStation.

The same is also true for event playback. Host server can play other DiskStation cameras' recorded events in the timeline. The event from these cameras can also be played with other cameras simultaneously in a synchronized or non-sync manner.

E-Map

Cross Referencing Live View



For those who deploy several IP cameras, adding an e-map provides a visual aid to your surveillance deployment. Simply upload an image and set the cameras' locations and recording angle on the map, then assign a map for one or more live view layout.

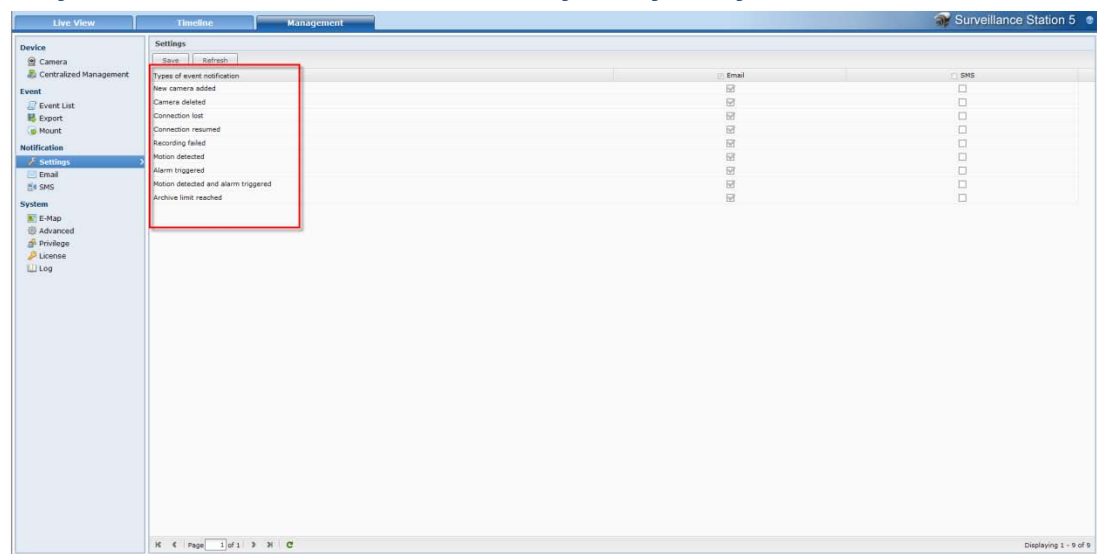
Each layout for live view can be assigned with its own E-Map. So depending on the number of camera deployed for a certain E-Map, user can choose the appropriate number of channels for the layout.

Cascade into Deeper Level with Sub-maps

You can also set up cross reference between maps and sub-maps to accommodate your needs. Moreover, multiple sub-maps can be cascaded amongst each other, forming a larger surveillance network. This is especially useful in multi camera angle setup, where efficient coordination among multiple sites is critical; enable multiple agencies to operate on the same system.

Notifications

Stay Connected Even When You are Physically Away



By setting up email account and SMS authentications, **Surveillance Station** will send you an email or SMS notifications when critical events occur. On the Settings page, you can specify which events trigger notifications, to stay on top of the of the latest security status for your property.

Privilege

Easily Manage New and Existing Users

Grant system users permission to access **Surveillance Station** with the privilege of either manager or spectator. Users with manager privilege have full authority to configure and view **Surveillance Station**, a spectator can only watch live view and event timeline and cannot edit the camera settings. In addition, administrators are free to decide which IP cameras each user can access.

Convenient Portal Page & HTTPS Protection¹

Frequent **Surveillance Station** users can choose a customized landing page and a dedicated access portal to directly their favorite page every time logging on. This feature saves unnecessary transfers between pages and opening of new windows. Moreover, secured HTTPS Access¹ can be allowed on these customized access portals, so users can have true peace of mind that privacy is ensured even over the Internet.

¹ Some features of Surveillance Station are currently supported by Internet Explorer only .

Log

Useful System Log for Trouble Shooting

Critical events such as camera disconnection or changes on the camera settings are recorded in logs. You can view the logs and manually delete/save the log for further use. Critical events can be quickly located by the use of Log filter. When the log size reaches its limit, the oldest record will be removed to make space for new entries.

Camera License

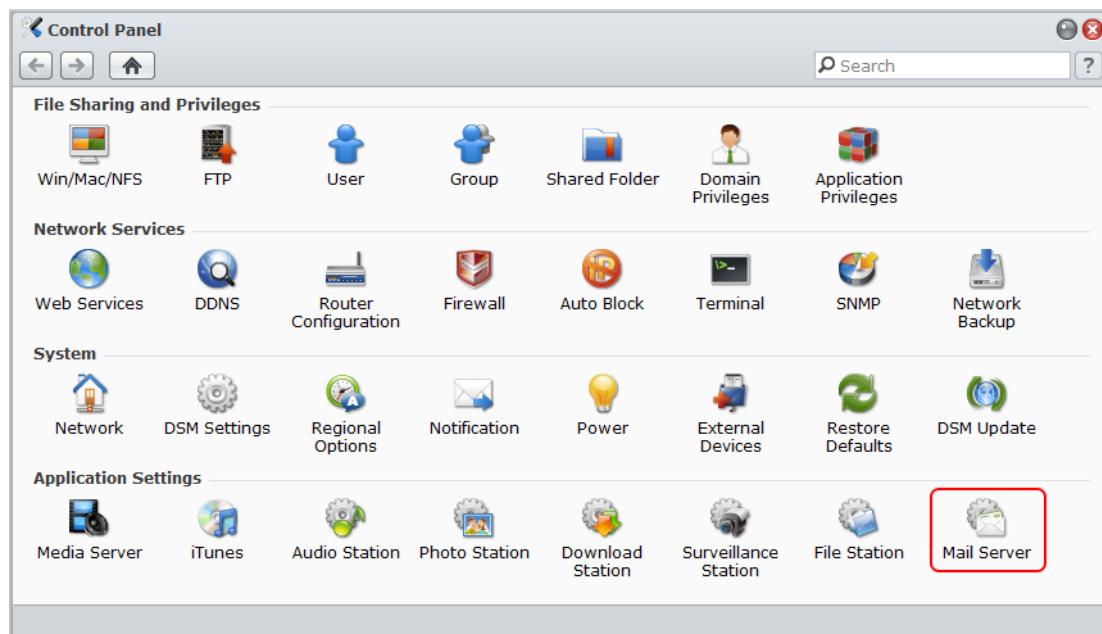


Cost Efficient Way to Expand Camera Network

Each DiskStation comes with one camera license. For DiskStation models that support multiple cameras, you may purchase Synology Camera License Packs to install additional cameras.

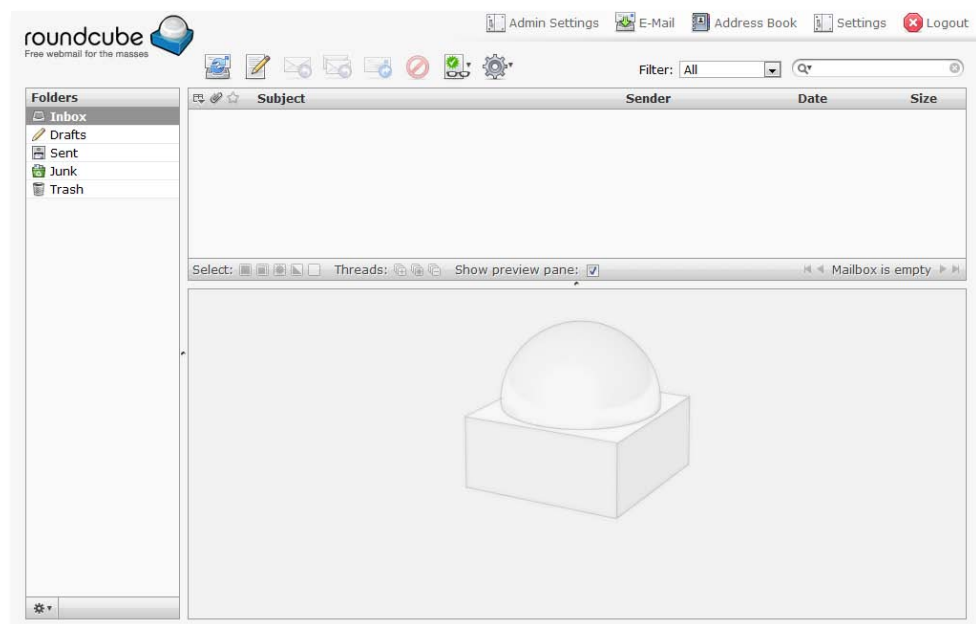
Mail Service

Mail Service



The built-in mail server provided by DSM allows you to host a mail service on your DiskStation. By using SMTP service provided by mail server on DiskStation, you are able to send emails from your DiskStation with your own domain name. Moreover, this mail server supports various protocols to communicate with different email clients. By using POP3 and IMAP service hosted by mail server, you are also able to use various email clients (e.g. outlook) to fetch emails from your DiskStation.

Mail Station

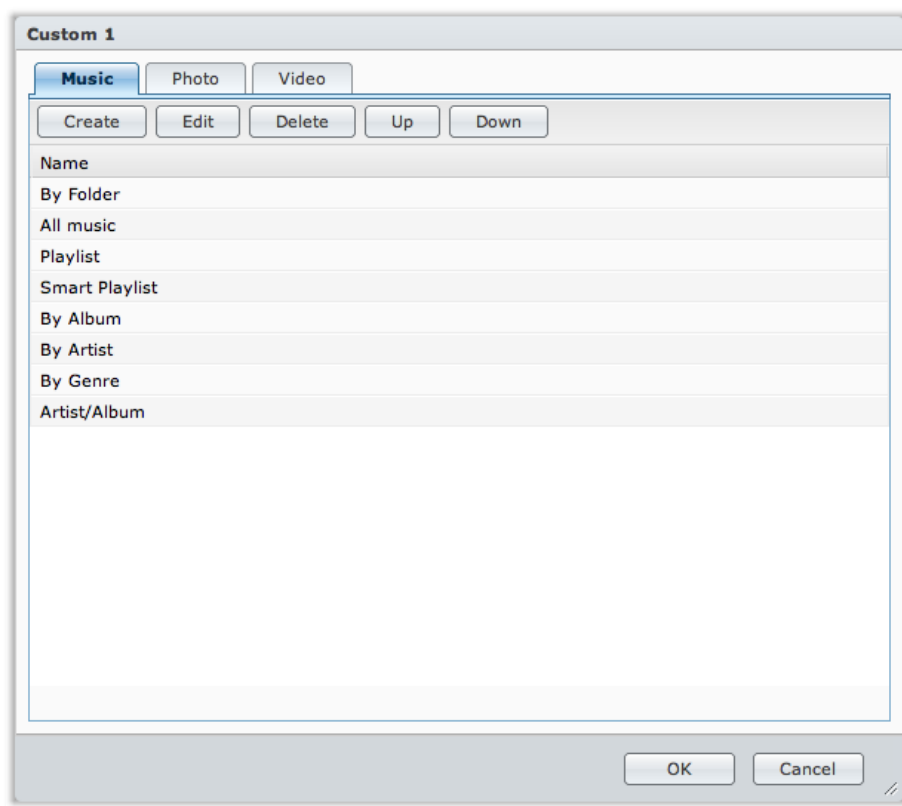


Mail Station is a mail client add-on package for DSM. After installing this package, you can use the web mail interface to access and manage the mails stored on your Disk Station. In addition to the mails from the DiskStation built-in mail server, you can also receive and store mails from any other mail servers (e.g. Gmail, Hotmail and so on) to consolidate all of your email. You can also send or reply mails by multiple identities as well. For people with many email accounts, it's time to get away from checking all your email boxes one by one. **Mail Station** will be your gateway to all of your email.

DLNA Media Server

You can stream digital multimedia content from a Synology DiskStation to a DLNA/UPnP compatible home device such as a stereo system or TV set.

Customizable DMA Menu

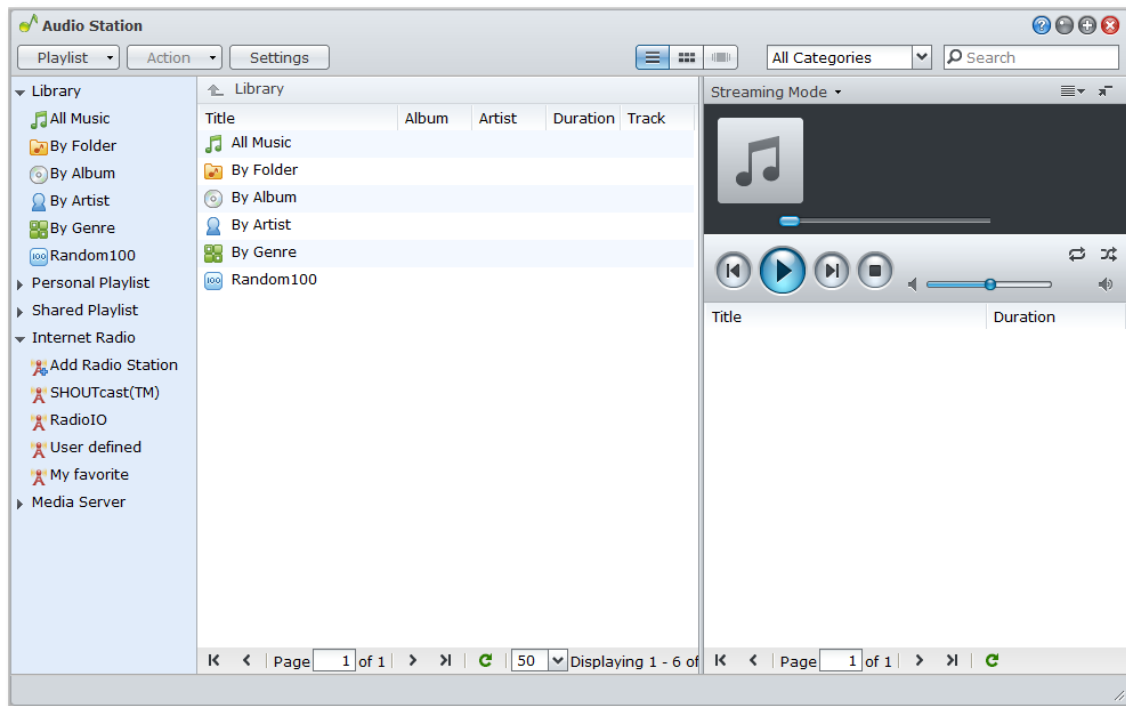


To improve the flexibility of DMA browsing menu for your multimedia files, 3 default menu styles are provided and you can customize 3 more styles based on your personal preferences.

PS3 and Xbox360 Support

Synology DiskStation pairs up perfectly with Sony PS3 and Xbox360 to act as a digital media adapter device. You can browse and stream multimedia content stored on your Synology DiskStation to your stereo system and TV set through any Sony PS3 or Microsoft Xbox 360.

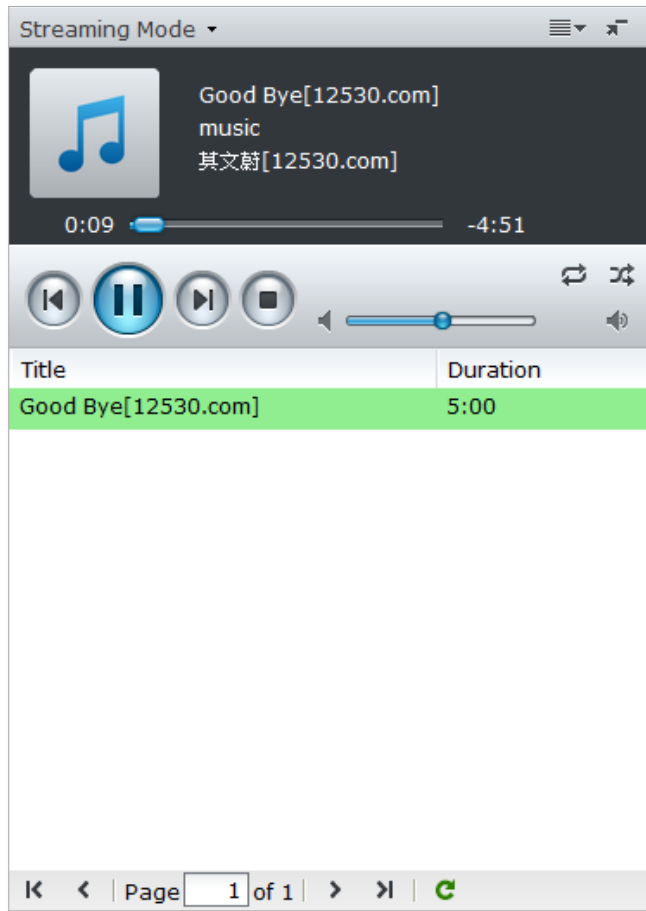
Audio Station



Audio Station utilizes AJAX technology to bring you an innovative and enjoyable listening experience. Organize music into playlists, browse your music library, and stream music over the Internet via a web browser become so easy any fun. From now on, you can listen to the music stored on the DiskStation from anywhere by your iPod, Internet radio, and other UPnP/DLNA media servers.

Audiophiles who are passionate for sound quality can easily break free from the limitations of USB speakers by bridging a supported USB audio adapter between the Synology DiskStation and Hi-Fi speakers. **Synology Remote** (by option) allows you to enjoy music and switch between songs without being near the computer.

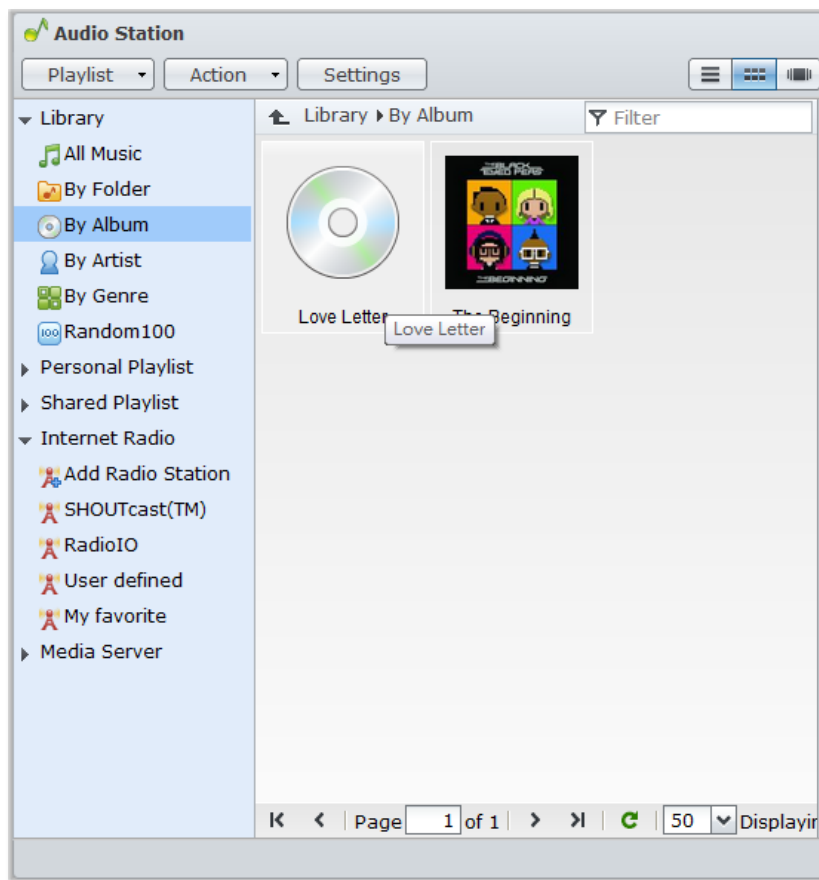
Music Player



Without installing additional media player software, you can conveniently play music on **Audio Station** using the compact music player. Play and listen to music simultaneously from a web browser (streaming mode), USB speakers (USB mode) or via a media renderer. Streaming mode supports playing music in MP3 or M4A format, and internet radios in MP3 format.

The music player displays detailed information on the current song, including the song's title, album, artist, and duration. Insert an album picture in the music folder to display it as the music plays. The queue panel beneath the music player shows the current playlist. Jump from music streaming mode to USB mode or media renderer with a click. Play music simultaneously in all three modes is possible. The shuffle button and the repeat button give you greater flexibility to your listening experience.

Music Library



View your music collection by category or let **Audio Station** do the selection with the Random100 option. Browse albums and songs by list, icon, or cover flow. Music lovers with vast song collection will find the quick search function handy with the search-as-you-type feature.

Playlist

Organize songs into playlists and access your favorite music more easily than ever before. Create a playlist and add songs with drag-n-drop move. You can also create a playlist for the songs you selected through the new right-click menu. Double-click a playlist and it will begin to play from the music player. Smart Playlists managed in DSM's iTunes service can be available on **Audio Station** for added convenience.

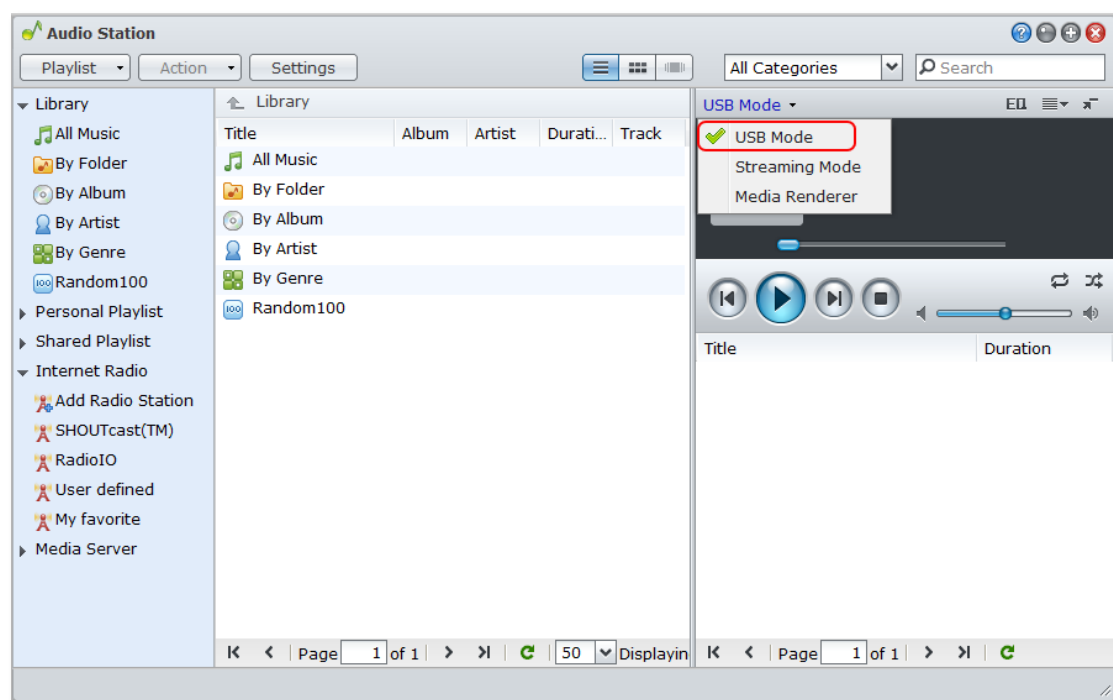
Personal Playlist

Being able to construct your own personal playlist is one of the crucial features on **Audio Station** as it embraces personalization and exclusivity for every account user. Every user can create their own playlists according to their preferences and will be the only person who can make changes to these lists.

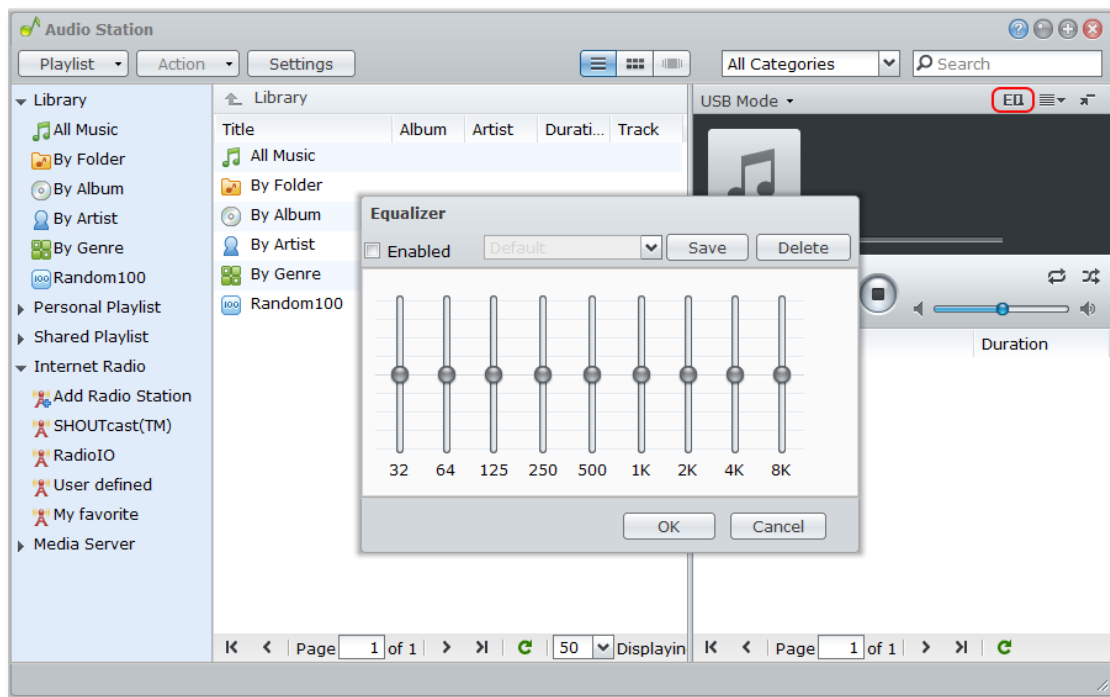
Internet Radio

Pick Internet radio stations from the various music categories. **Audio Station** comes preloaded with lists of Internet radio stations provided by SHOUTcast and RadioIO. You can also manually add, delete, and edit Internet radio stations to customize your listening experience. Drag-n-drop radio stations onto **My favorite** list and it will be played automatically by choosing Internet Radio with the available Synology Remote. In streaming mode you can also listen to MP3 format Internet radios.

Equalizer



When having USB speakers connected to the DiskStation, you can choose to play your music by **Audio Station** in USB Mode.



In USB mode, you can enhance the sound of your music by the Audio Station Equalizer. Located below the search field, Equalizer includes many presets — Rock, R&B, and Pop, to name a few. You can make selective adjustment to enhance the music by raising the volume or sharpening a particular sound, like increase the bass frequency to create a heavier rhythm.

ID3 tag editing

Edit music tag

Title:

Good Bye

Artist:

Karen Mok

Album:

Comment:

Track:

Genre:

Disc:

Year:

Album Artist:

Composer:

Codepage:

System default

Save

Cancel

You can edit ID3 tag of each song right on your **Audio Station** now to complete your music database. Sorting music by artist, album name or song name has become more organized, more flexible and easier.

Mini Player



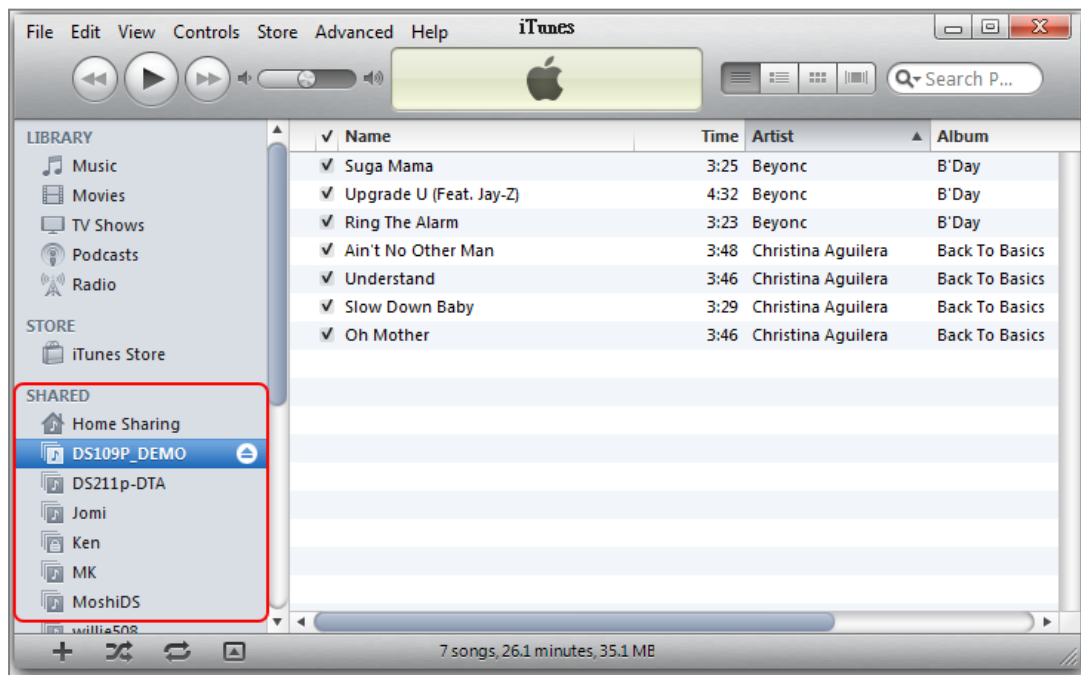
The mini player adds a fresh touch to the multitasking feature for you to control your music playback while working with other DSM applications. With a smaller control panel, you will have more desktop space left for you to open more applications and surf between them.

Synology Remote



Synology Remote is designed for enjoying music playback of **Audio Station** at the comfort of your couch. It further enhances your music listening experience with its customizable hotkeys and comprehensive audio interfaces. Break free from the limitations of USB speakers by bridging a supported USB audio adapter between the Synology DiskStation and Hi-Fi speakers. With the direction-free audio control, now you can enjoy the digital music collection freely in the house with **Synology Remote**.

iTunes Server



Music and Video Sharing

DSM can work as an iTunes server to share music and videos within a local network. You can simply install iTunes on your PC or MAC computer and use iTunes as a multimedia player to browse and play music and videos stored on your Synology DiskStation. After enabling iTunes service in DSM, iTunes will recognize the Synology DiskStation as an iTunes server under the SHARED list.

Smart Playlist

Synology's iTunes service provides the **Smart Playlist** function, allowing you to create playlists containing songs that match the criteria you specify. iTunes can play the songs in the smart playlist, and will update the songs automatically as you change the criteria with DSM.

Photo Station

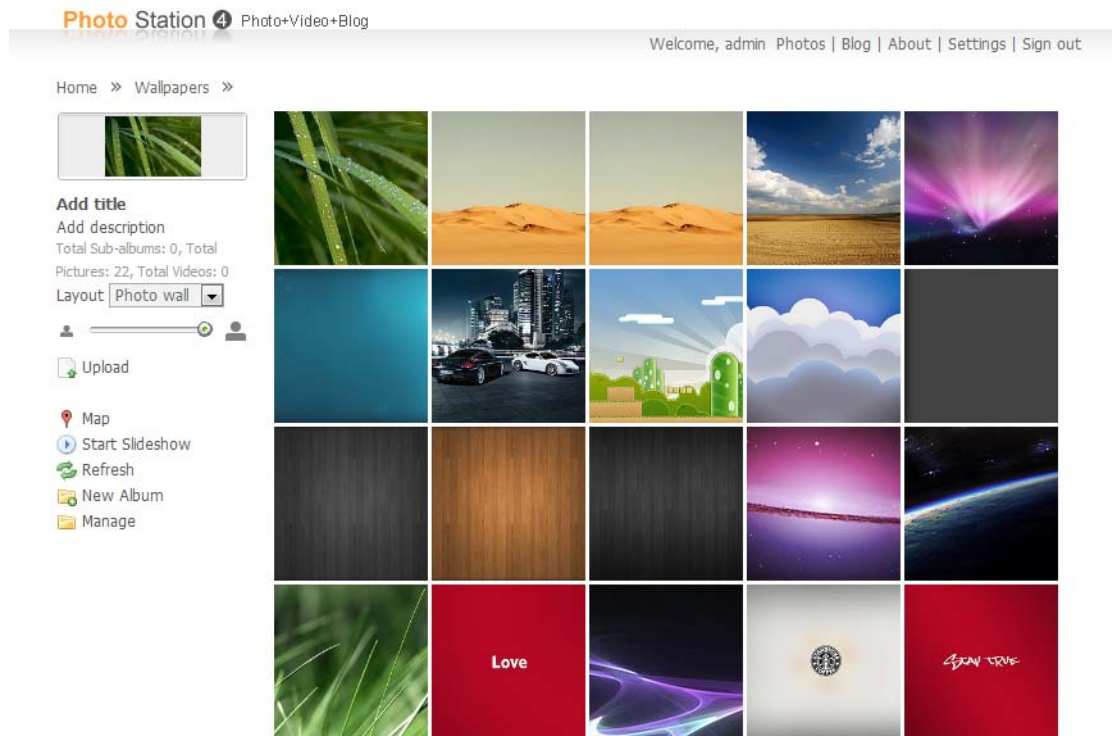


Photo Station is a convenient solution to share your photos, videos, and blog over the Internet. Free yourself from the capacity-limits of third-party providers of these services, and enjoy the freedom to share and store as many photos and videos as the capacity of your hard drives allows.

Photo Station comes with advanced photo wall and image flow browsing options. In addition, the flexibility of photo theme customization, visitors' privilege settings to view or upload photos, virtual albums of recently uploaded images, RSS feeds, and the dazzling 3-dimensional photo browsing of Cooliris make **Photo Station** your state-of-the-art lifestyle sharing center on the Internet. The newly-added Google Maps integration allows you to geotag your photos and trace your path.

Photos

Browse photo albums in variant number of styles including basic, photo wall or image flow. The thumbnail size is customizable according to your preference. Manage the album by editing album title and description and applying sorting rules to the albums. There are many options for each photo; you can edit information, rotate its angle, set it as the album cover, or publish it to the blog in **Photo Station**. The virtual albums provided by **Photo Station** show automatically created albums like "Recent Photos" and "Recently commented videos", helping you and your visitors quickly navigate your collection.

With the new Google Maps function, wow your friends by adding geo-tagging your photos to reveal the shooting location on a Google Maps. **Photo Station** also supports 3D photo browsing with Cooliris, which only requires a small browser plug-in installation to utilize.

The search function helps you find photos, videos and files using keywords. You can also click the arrow button for further advanced search options.

Uploading Photos

Photo Station offers flexible uploading choices. Expand your collection and add photos via **Photo Station**, **File Browser**, **File Station**, or **Synology Assistant**. In **Photo Station**, update your album instantly with the new direct uploading capability. In **File Station**, create new albums by organizing your photos or videos into folders and upload them onto the “photo” shared folder. DiskStation will automatically convert the photo thumbnails once new photos are uploaded.

The third and newest option is to use **Synology Assistant** and not have to launch the management interface at all. Simply choose the **Photo Uploader** application in **Synology Assistant** and it will provide a wizard-like, intuitive user interface. **Photo Uploader** simplifies the uploading process and enables you to publish photos and videos without the requirement of a browser. In addition, **Photo Uploader** converts the photo thumbnails and videos utilizing your desktop computation power to speed up the whole process. This compact application comes complete with thumbnail preview and video quality selection.

Videos

Photo Station supports various video formats. All supported videos are converted into compressed Flash format, or H.264 format if using **Photo Uploader**, for fast Internet streaming. Visitors can view the videos while they are still streaming to avoid a potentially long wait for download. Full-screen mode is also supported.

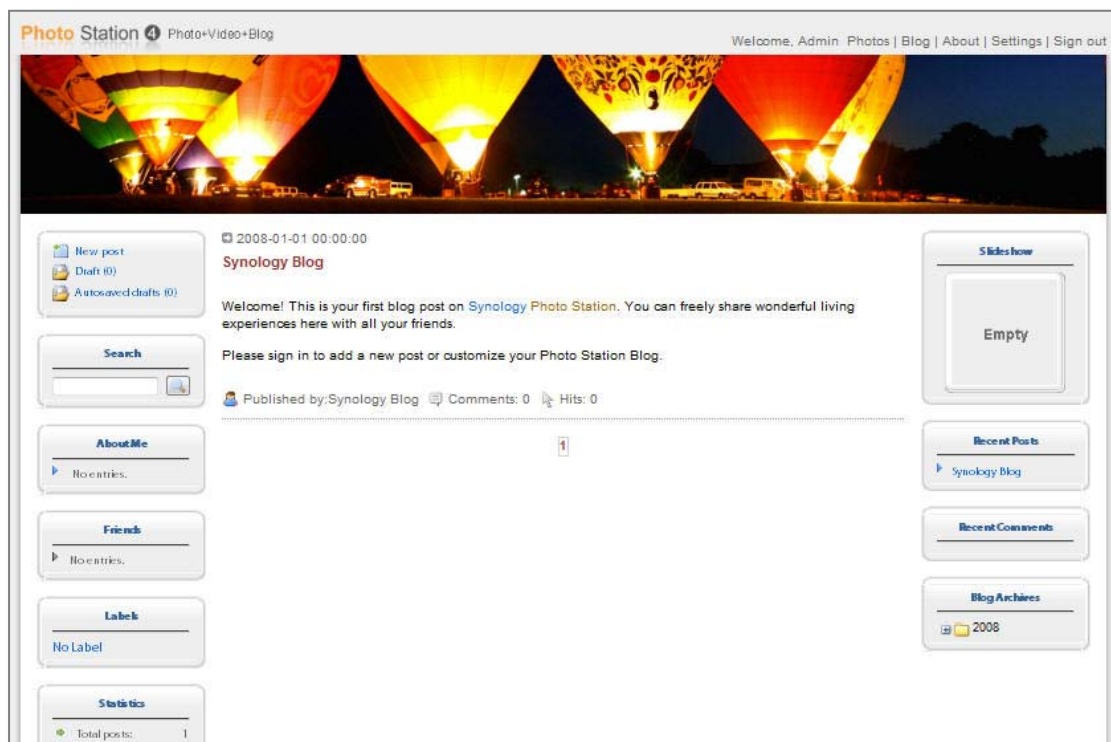
Social Network Integration

Sharing your digital content from **Photo Station** becomes even easier with integrated social network web sites. Now you can publish your favorite pictures and videos on Twitter, Plurk and Facebook with a simple click.

Personal Photo Station

Everyone should be entitled to his or her own photo collection and blog on the DiskStation, which is exactly what the **Photo Station** now offers in DSM. Each user can decide how his or her **Photo Station** should look like, as well as create one's own photo albums and setup person blog for others to see.

Blog



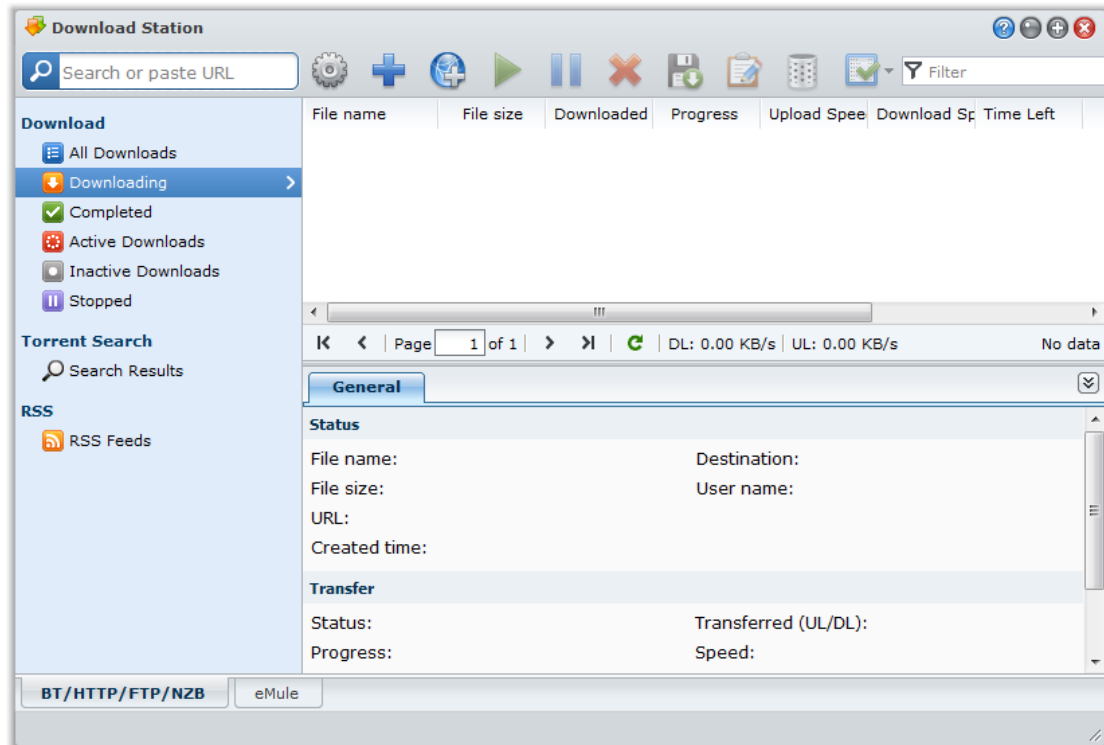
Besides sharing your photos on **Photo Station**, you can also create and share your own blog. In the Blog section, add posts and personalize your blog space by adjusting the layout and adding modules. Choose between 1024 x 768 or 800 x 600 blog layout and choose from an array of banners. Use the numerous built-in modules, including photo slideshows, recent posts, and recent comments to enrich your blog.

Customization

Control user privileges by assigning access permissions for each private album. Grant or deny uploading privileges to accounts to allow other users to contribute to building the album collection.

Customize your album and blog theme with several included styles. Change the theme among several system default styles or customize the theme with your own images. You can also back up blog posts, comments, labels, and module settings to a designated backup file and restore the blog data when needed.

Download Station



One of the most popular Synology applications is **Download Station**. You can turn off your computer while files are being downloaded and uploaded as the Synology DiskStation does these tasks autonomously. You can use the Synology DiskStation as a 24/7 download center for BitTorrent, FTP, HTTP, eMule, NZB news server, RapidShare and Megaupload files.

If you want to limit the download activities to certain hours of the day, simply set a download schedule. When a download task completes, you can choose to receive an e-mail notification from the system.

BitTorrent/HTTP/FTP/NZB

The BitTorrent service supports DHT network, BitTorrent protocol encryption, and RSS download. It also allows you to customize download/upload rates, BitTorrent port range, and seeding preferences.

To download through HTTP, paste or drag an HTTP download link to start the download task. For those with a Megaupload or RapidShare premium account, enter your account information to enjoy faster downloads.

When downloading from an FTP site, you can restrict the number of simultaneous connections from each FTP server. Connections exceeding the limit stay in waiting mode and will begin downloading when the previous connections are completed.

Download Station also supports NZB news server download.

Torrent Search

For those who think downloading from BitTorrent is complicated, to download BT files by **Download Station** is the solution. **Download Station** is embedded with search engine for torrents. By narrowing down the search categories, all users have to do is to find the torrent they want, while **Download Station** does the hunt. There is no need to download the torrent by another application and upload it to the DiskStation. Different listing is available as well to see the latest added torrent or the one with the most peers and seeds for faster download.

RSS Feed

Good news for the heavy BT users! **RSS Feed** feature is now available for you to be the first when the hottest and latest torrent is out. RSS feeds will bring the latest updates directly to you. You can then select to download all the updated files or just a specific file manually. You can subscribe multiple RSS feeds to follow all of your favorite download lists.

eMule

eMule download service is integrated into the **Download Station** web interface. Simply connect to any eMule server on the list and you can start searching right away. You may also set the upload/download rates and the maximum connections in the eMule settings. For batch downloads, you can create multiple download tasks by entering more than one ed2k links at once, or simply upload a text file containing multiple links. eMule protocol obfuscation is supported.

Print Server



All Synology DiskStations can serve as a print server within the local network. DSM allows users to connect two printers to each Synology DiskStation. The Add Printer wizard provided with Synology Assistant simplifies printer setup process for Windows users with only a few clicks.

Multifunction Printer

With the industry first multifunction printer support on NAS server, you can now enable sharing of print, scan and fax on your multifunction printer through the DSM. Now you will be able to share print/fax/scan functions on your multifunction printer among your family members or colleagues over the same network.

AirPrint

For those who have an iPhone/iPad/iPod touch, you will be able to print photos, email, web pages, and documents wirelessly from your handheld by connecting an AirPrint enabled printer to your DiskStation, as long as all the devices are within the same network. There is no learning curve to even set up the AirPrint server, just plug-and-play, and it is ready to use. You can print from your room, the living room, the kitchen or just about anywhere.

Mobile Access



Internet access continues to grow in popularity on mobile devices, and DSM provides users with several creative alternatives to communicate with their DiskStation using an iPhone/iPad/iPod touch or other mobile devices.

iPhone/iPad/iPod touch Support

Four applications are now available on the Apple App Store. The brand-new user interface for iPad provides users the more refined and luxury multi-media experiences.

DS audio

Live Music Streaming Straight to Your Apple Mobile Devices

Access all your DiskStation music collection with your smartphone. DS audio allows users to stream music stored on DiskStation to their iPhone/iPad/iPod touch where Internet/wireless access is available. Built in cache allows for continuous music enjoyment and quick replay even after losing network connection.

Tap and Play

If you are already familiar with the iPod, DS audio requires no learning curve once you've logged on. You will find the layout extremely familiar, and all the control is where you expect them. DS audio just likes an extension of your iPod, bringing more music over the network than your device can physically store. To add a bit of fun to this App, try shaking your iPad gently. Your song will immediately jump to the next one.

5 Buttons Navigation

It's easy to find songs on DS audio. To do so, there are 5 tabs readily available at the bottom of the screen to let you choose songs by: **Playlist**, **Artist**, **Album**, **Genre**, **Folder**, or simply use the search function. You may jump through any of those options anytime during browsing.

Remote control for your Home Audio System

Truly transform your living style to the digital age by using your iPhone/iPad/iPod touch as a remote control plus song menu for your **Audio Station** via "Remote Mode". Whereas DiskStation becomes a digital stereo system, when speakers attached via USB and the **Audio Station** operates in "USB Mode" for local music playback. Welcome to the new digital standard of living!

Secure Connection

With HTTPS support, now you can enjoy your own music in a secure connection.

Elegant UI with iPad Support

You can now enjoy music collections with the elegant user interface specially designed for iPad, the luxury 10" display. You will now be able to browse through more music all at once.

DS cam

Live Video Surveillance Straight to Your iPhone /iPad /iPod touch

If you are miles away traveling and just received a message from **Surveillance Station**, stating you may have a suspicious event at your property but don't have a computer with you. In this kind of situation DS cam comes in handy to remotely stream live views from all your IP cameras on your **Surveillance Station**.

Remotely Command IP Cameras

When camera is equipped with PTZ function, you can swipe the mobile device touch screen to interact with the camera by panning/tilting. Optical or digital zoom is also available by pinching the touch screen as well.

Recorded Events Streaming Straight to Your iPhone /iPad /iPod touch

DS cam is not only limited to live view your IP cameras. You can also view each camera's past recorded events. Skim through the event slider and tap on any entry. The event player will be familiar for anyone who has used an iPhone to play video clips. Controls will appear when the touch screen is tapped once. You will have the choice to play, pause, jump on the timeline, or skip to the next video recording.

To enjoy iPad's big screen layout furthermore, a continuous play option is available for non-stop playback of your recorded events. Enjoy the luxury of browsing cameras/events on a image flow menu bar while watching live/recorded events.

Multi-camera Live View

Live stream up to 6 IP cameras simultaneously on iPhone /iPad /iPod touch screen with DS cam. To view the next set of 6 cameras, simply swipe the camera screen, and it will rotate to reflect the change. By double tapping on the camera portion of the screen, the selected camera will display in full screen mode to reveal more detail.

Take Snapshot from Camera View

During live view, you may take live pictures of the camera screen. Pictures are archived in your phone's memory. To find the snapshots, they are organized according to different camera for easy access.

Direct Camera Access for Anyone, Literally!

If you have not yet joined the Synology family, you can still use DS cam to directly live view IP camera anywhere in the world for your evaluation at free of charge. As long as the camera is exposed on the internet, while not connected to DiskStation, DS cam can still stream live view from it with the direct camera access feature. In other words, any IP camera on the internet is viewable on your their iPhone /iPad /iPod touch (with access privilege).

DS photo+

View DiskStation Media Files Straight to Your Apple Mobile Devices

All photos and videos on DiskStation are ready for browsing in DS photo+. When you enter an album, media are presented as thumbnails wall, so you can swipe your finger across the screen to move through the list.

Play Your Pictures on a Slide Show

A different way to enjoy pictures at no effort. Let DS photo+ automatically shuffle through all the pictures in your album and display them in a full screen mode.

Drop a Comment on Any Media

Besides streaming photos and videos from DiskStation, DS photo+ allows you to have your say on all media entries. Any iPhone user with access to a DiskStation media file may leave a comment.

Stay Updated with Virtual Albums

Stay current and view the freshest upload to your DiskStation, a dedicated "Most Recent" section is available to do just that. To further enhance user convenience, the media types are organized by "Photo" and "Video".

Download Pictures to Your iOS Device

Saw a picture on DiskStation and want to keep it on your phone or share it some other way? A download function is available to save the selected picture onto your mobile device. Moreover, you can share pictures easily via built in email link or copying to a clip board.

Upload iPhone /iPad /iPod touch Media to Your DiskStation

Use the built-in camera to take a new picture or shoot a video. Upload them from your mobile phone to DiskStation. With DS photo+, select a folder/album on the DiskStation. The files are uploaded conveniently in seconds.

Remotely Create Photo Album

DS photo+ allows you to do more organization by creating a photo album/folder on DiskStation from your iPhone /iPad /iPod touch. Just browse to the directory level where you think the new folder should be, and start creating by naming the new folder. Upload existing pictures from your iPad to DiskStation. With DS photo+, select a folder/album on the DiskStation. The files are uploaded conveniently in seconds.

Elegant UI with iPad Support

You can now enjoy your family photos with the elegant user interface specially designed for iPad, the luxury 10 inches display. You will now be able to browse through more photos all at once.

DS file

Digital Suitcase on-the-go

You don't have to worry about leaving your important files behind. Anything stored on your DiskStation can now be acquired remotely with **DS file**. You will be able to open and view your files, documents, even music and videos right on your iPhone/iPod touch as long as the Internet connection is available.

Manage Your Files While You are Away

There are times that you need to manage your files while you are away from home and office. Now with **DS file**, the task is easy. **DS file** allows you to copy, move, rename or delete certain files on your DiskStation. Furthermore, you can create new sub-shared folders for your newly uploaded files.

Off-line Browsing Makes Easy

In case of any critical moments, you can always pre-download your important files and stored them on your iPhone/iPod touch via **DS file**. You will be able to view your downloaded files no matter where you are, no more worry about the Internet connection.

Android Support

As long as you have a DiskStation connected to the Internet, you can have access to the music, video surveillance or pictures/videos on DiskStation with Synology Android applications are now available at the Android Market.

DS audio

Control Music Playback from Speakers Attached to DiskStation

Remote control feature provides a convenient interface for users to use their smart phone as a remote to control **Audio Station** music playback on speaker attached to DiskStation. Now you can listen to music freely in the house without turning on any computer, or plugging your Smartphone into any other device. Simply, switch DS audio to remote mode, and hit play.

Live Music Streaming Straight to Your Android

Access all your DiskStation music collection with your Smartphone. DS audio allows users to stream music stored on DiskStation to their Android phones where Internet access is available.

Easy Navigation

It's easy to find songs on DS audio. To do so, there are six categories readily available at the homepage to let you choose songs by: Playlist, Artist, Album, folder, genre, or simply search. You may jump through any of those options anytime during browsing.

DS cam

Live Video Streaming Straight to Your Android

If you are miles away traveling and just received a message from **Surveillance Station** stating you may have a suspicious event at your property, but don't have a computer with you. In this kind of situation DS cam comes in handy to remotely stream live views from all your IP Cameras on your **Surveillance Station**.

Recorded Events Streaming Straight to Your Android

DS cam is not only limited to live view your IP cameras. You can also view each camera's past recorded events. Skim through the event slider and tap on any entry. The event player will be familiar for anyone who has used an Android phone to play video clips. Controls will appear when the touch screen is tapped once. You will have the choice to play, pause, jump on the timeline, or skip to the next video recording.

Narrow Down Event Search Quickly

An advance search function is available to help you track down events faster. To help user narrow down their search, use the calendar dial to adjust the year, month, day and minutes to generate a list of events ordered from the target date to the present.

Remotely Command IP Cameras

When camera is equipped with PTZ function, users can swipe the mobile device touch screen with their fingers to interact with the camera by panning/tilting. Optical zoom is also available by pinching the touch screen for multi-touch supported Android version (2.0 and up).

Take Snapshot from Camera View

During live view, you may take live pictures of the camera screen. Pictures are archived in your phone's memory. To find the snapshots, they are organized according to different camera for easy access.

Multi-camera Live View

Live stream up to 6 IP Cameras simultaneously on Android screen with DS cam. To view the next set of 6 cameras, simply swipe the camera screen with your fingers and the screen will rotate to reflect the change. By double tapping on the camera portion of the screen, the selected camera will display in full screen mode to reveal more detail.

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A different way to enjoy pictures at no effort. Let DS photo+ automatically shuffle through all the pictures in your album and display them in a full screen mode.

Drop a Comment on Any Media

Besides streaming photos and videos from DiskStation, DS photo+ allows you to have your say on all media entries. Any Android user with access to a DiskStation media file may leave a comment.

Stay Updated with Virtual Albums

Stay current and view the freshest upload to your DiskStation, a dedicated "Most Recent" section is available to do just that. To further enhance user convenience, the media types are organized by "Photo" and "Video".

Remotely Create Photo Album

DS photo+ allows you to do more organization by creating a photo album/folder on DiskStation from your Android. Just browse to the directory level where you think the new folder should be, and start creating by naming the new folder.

Download Pictures to Your Android

Saw a picture on DiskStation and want to keep it on your phone or share it some other way? A download function is available to save the selected picture onto your mobile device.

Upload Android Pictures or Videos to Your DiskStation

Use the built-in camera to take a new picture or shoot a video. Upload them from your mobile phone to DiskStation. With DS photo+, select a folder/album on the DiskStation. The files are uploaded conveniently in seconds.

Mobile Device Support

Enjoy Interoperability with Popular Mobile Platforms

Users with a mobile device running Windows Mobile 6.0 (Internet Explorer Mobile or Opera 9.0 and onward), Symbian OS 9.1 (S60 3rd Edition and onward), or iPhone OS 2.3.1 can also enjoy the mobile benefit of DiskStation.

Photo Station Viewing with Popular Mobile Platforms

Do you have a mobile device different from iPhone and Android? Synology offers a mobile version of the popular **Photo Station**. User can log on to their Synology DiskStation to view photos with Mobile **Photo Station**.

Remote File Access with Popular Mobile Platforms

Mobile File Station allows users to read supported file formats from anywhere in the world where Internet access is available.

Internet Connection

Set up your Synology DiskStation Internet connection to enable remote access from anywhere and at anytime. DSM offers options such as PPPoE (Point to Point Protocol over Ethernet) and router configuration settings to accommodate different Internet connection environment. Refine the settings with DDNS and firewall. Additionally, with the new EZ-Internet Wizard, connecting your Synology DiskStation to the Internet is simple, requiring merely a few clicks.

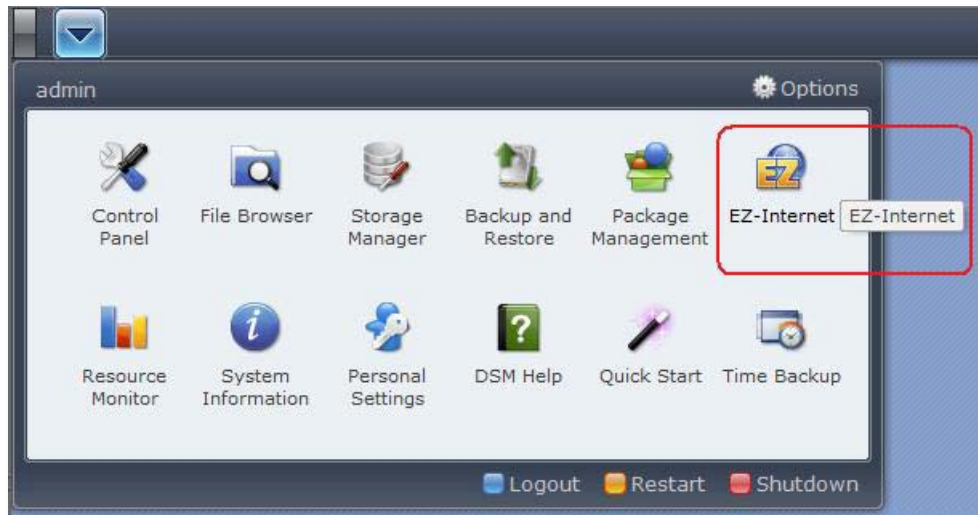
IPv6



Synology DiskStation with DSM is IPv6 ready. IPv6 (Internet Protocol version 6) is the solution to the exhausting IPv4 addresses. While the current form of IPv4 addresses is predicted to deplete soon, IPv6 offers the vast address space for extended flexibility. Besides, IPv6 has many other advantages: “Stateless address configuration” which allows hosts to configure themselves automatically once connected to a routed IPv6 network; the mandatory “Internet Protocol Security (IPsec)”; and “Jumbograms”, which aims to deliver better performance. For users who need IPv6 implementation in their network environment, DSM takes on the path to offer you complete network support.

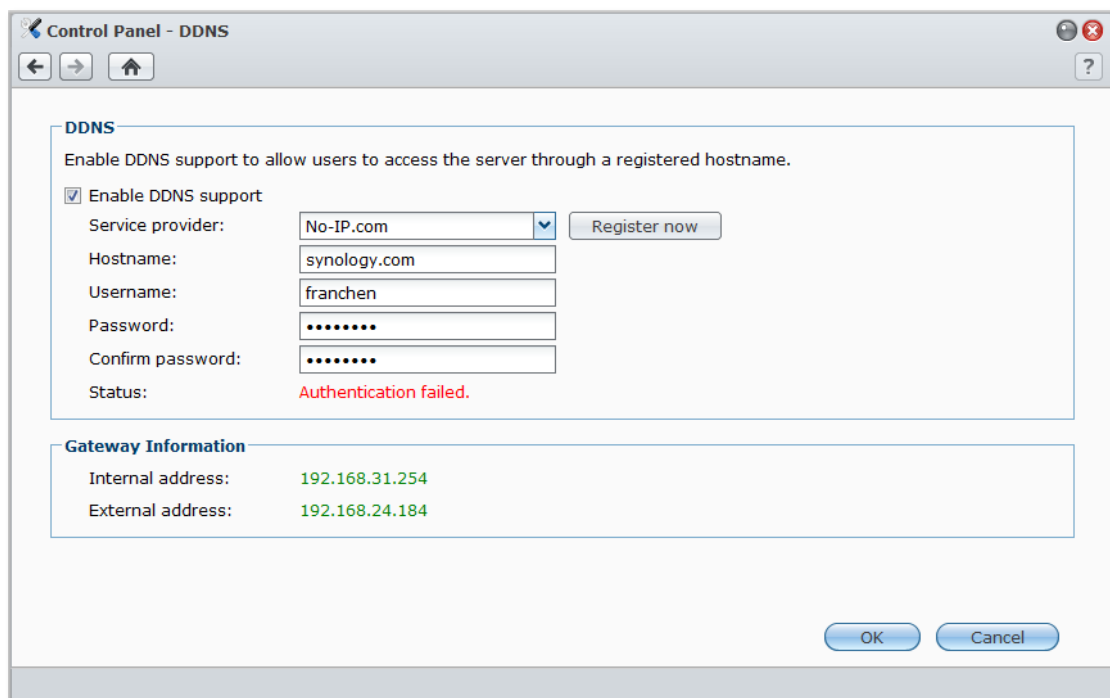
In order to be compatible with IPv4 network backbone, an isolated IPv6 host or network must use the existing IPv4 infrastructure to carry IPv6 packets. This is done by using a technique known as tunnel, which consists of encapsulating IPv6 packets within IPv4 packets. DSM provides a user-friendly settings page, all you need is to configure IPv6 by filling in the settings provided by your ISP and everything else will be IPv6 ready.

EZ-Internet Wizard



EZ-Internet Wizard guides the user through the steps necessary to establish remote Internet access to their DiskStation, including firewall settings, PPPoE setup, DDNS registration, and router port forwarding configurations. In addition, users who are new to DDNS service may simply register a new DDNS account (from No-IP.com) on EZ-Internet user interface. For novice users, the often-troublesome task of forwarding ports can be accomplished with the help of the EZ-Internet wizard. In just minutes, your router¹ will be automatically configured to allow remote access, freeing the user from complex configuration and management.

DDNS



¹ Check the supported router list on <http://www.synology.com/>.

DDNS (Dynamic Domain Name Service) support allows you to create a hostname that points to your home or office IP address, providing an easy-to-remember URL for quick access. DSM has 6 built-in popular DDNS providers for easy integration. You can also register a new DDNS hostname in EZ-Internet Wizard.

PPPoE

If you use a DSL or cable modem to connect to the Internet and your Internet Service Provider (ISP) uses PPPoE (Point to Point Protocol over Ethernet), enable PPPoE and enter the account information to directly connect to the Internet without the router.

Router Configuration

To establish remote access to a DiskStation that is connected to a router, you need to configure port forwarding. The Router Configuration page allows you to choose your router model from the drop-down list and set up the port forwarding rules on your router to forward the specified ports on your router to DiskStation.

Link Aggregation¹

The Link Aggregation function on Synology DiskStation uses two Ethernet ports in parallel to provide trunking and network fault tolerance features as long as both LAN cables reside on the same switch.

Synology DiskStations deliver support in two modes:

- 1 IEEE 802.3ad Dynamic Link Aggregation: IEEE 802.3ad is the standard for most Link Aggregation implementations. A switch with 802.3ad support is required.
- 2 Network Fault Tolerance only. If the LAN 1 port becomes unavailable, the system will use LAN 2 to provide service. You can select this option if your switch does not support IEEE 802.3ad.

WebDAV

Enjoy managing and editing files remotely on DSM with WebDAV (Web-based Distributed Authoring and Versioning) protocol support. WebDAV allows you to share, edit and manage files remotely. By enabling WebDAV, you can open up a Word document or an Excel spreadsheet that is located on a remote destination.

¹ Available on certain models only.

Built-in Telnet & SSH Support



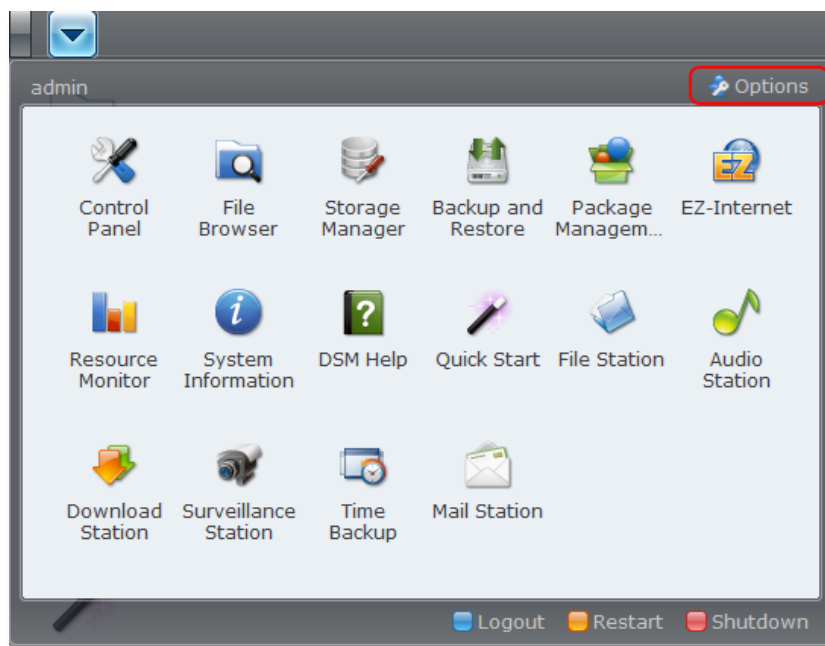
Synology DiskStation is Telnet & SSH-ready. You can enable Telnet/SSH service on the DiskStation and remotely log on via Telnet/SSH. It is designed for users with a solid understanding of Linux.

Management

Smart System Migration

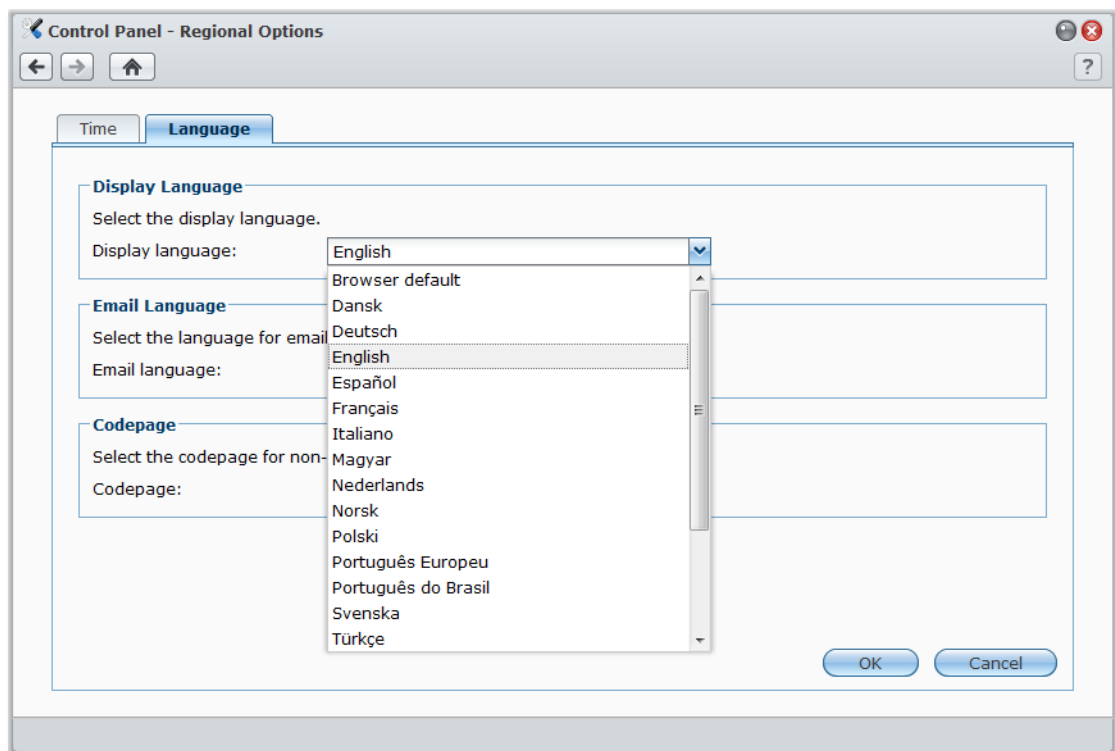
Synology products are known for its reliability. However, accidents do occur. DSM helps you to reduce your panic level by offering smooth and no-sweat system migration. Simply take out the hard disks and insert them to an identical DiskStation, run the initial setup process again, and all your data and server settings will be recovered in no time.

The Options Button



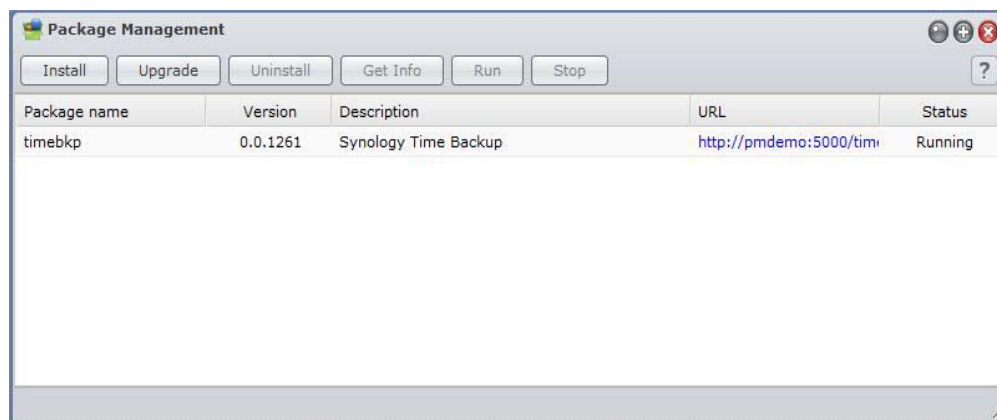
In the Options page, set the automatic logout timer and default port number for the UI management page. With the automatic logout timer, your account will be logged out of automatically after being idle for a specified period of time.

Quick Language Switch



DSM currently supports 20 languages. A simple drop-down menu allows you to set the default language for both the user interface and email notification. You can also select a proper codepage for non-Unicode files to be display correctly.

Package Management



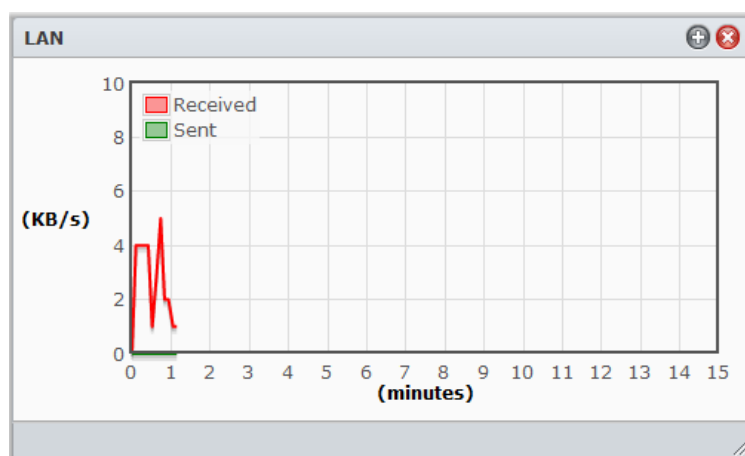
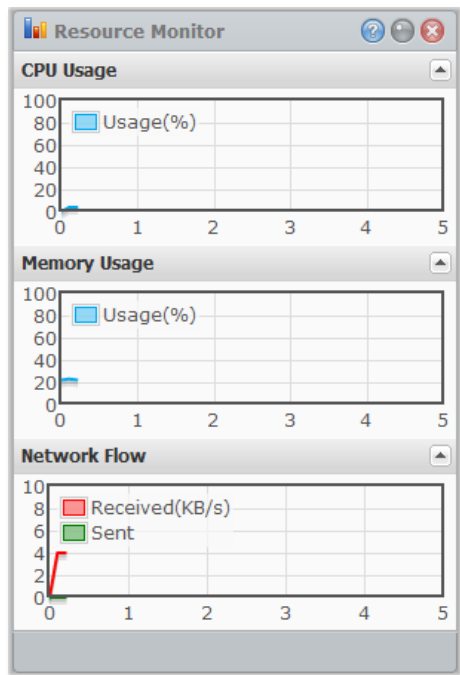
The package management allows you to install, uninstall or manage applications provided by Synology or 3rd-party vendors. You can find some of the available applications on Synology website under Value Applications.

SNMP

SNMP protocol support allows you to monitor the DiskStation with existing network management software.

Resource Monitor

Resource Monitor allows you to easily monitor the status of DiskStation. With simple and straightforward diagrams, you can monitor the CPU usage, memory usage, and individual network flow (LAN 1, LAN 2¹, PPPoE, etc). While the app opens up with an overview on the status of all sections, you can also click any of the sections to see its detailed information in a new window.

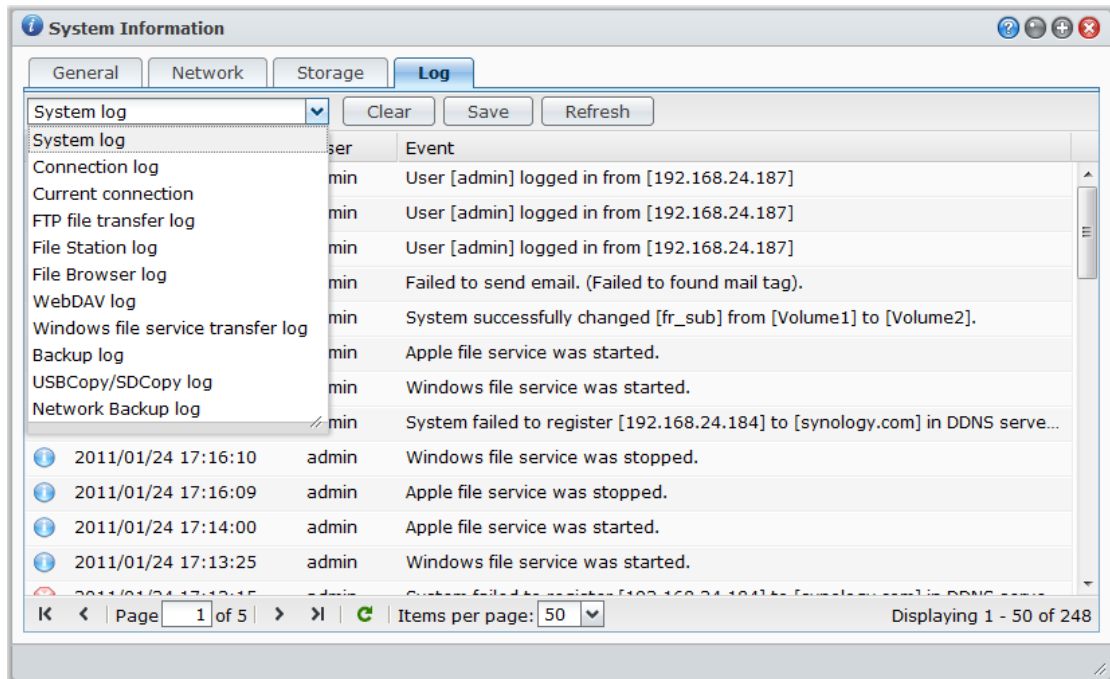


¹ Only for certain models.

Notification

By setting up email account and SMS authentications, the system will send out email or SMS notifications when critical events occur.

Logs



Every move users make will be recorded into a Log. On the Log tab, you can view the System log, the Connection log, the Current Connection log, FTP file transfer log, File Station log, Windows file service transfer log (CIFS), File Browser log, the Backup log, the USBCopy/SDCopy¹ log, and the Network Backup log. Furthermore, logs can be manually deleted or saved for further use. When the log size reaches its limit, the oldest record will be removed to conserve space.

3rd-Party Application Integration

Users who wish to install their favorite applications can now follow the steps illustrated in "Synology DiskStation 3rd-Party Apps Integration Guide", which is available for download at www.synology.com.

Auto DSM Update

Tired of having to remind yourself to check DSM updates every now and then? Want to make sure that you are enjoying all the latest features that DSM has to offer? **Auto DSM Update** allows your DiskStation to always be the latest version without any extra effort, keeping you and your DiskStation up-to-date.

¹ Available on certain models only.

With DSM auto update agent enabled, DSM will automatically download the latest patch in the background. Without manually download the patch file and waiting for the download progress, all you have to do is to confirm the installation to enjoy all the most update features.

Security

HTTPS



HTTPS is a secure way of interacting using the HTTP standard. When HTTPS connection is enabled, connecting to DSM, **Web Station**, **Photo Station**, **File Station**, **Audio Station**, and **Surveillance Station** will be encrypted using SSL/TLS.

Firewall

The built-in firewall allows you to decide which services, network port or IP addresses are allowed to access the DiskStation to prevent unwanted connections.

Auto Block

Blocking an IP address after a pre-defined number of failed login attempts further strengthens the security of the DiskStation against unauthorized access. The auto block feature applies to the management UI, File Station, FTP Access, SSH, Telnet, and rsync, as well as mobile devices.

Power

Synology DiskStations are designed and developed with energy efficiency in mind. Compared with the average PC counterparts, Synology DiskStations consume a relatively low amount of power and have the hard drives hibernate when not in use. All Synology products are products with RoHS compliant parts and packed with recyclable packing materials. In contrast to an average PC that operates at 200W, a 4-bay Synology DiskStation with hard drives fully loaded generally requires only 40W. Synology acknowledges the responsibility as a global citizen to continually work to reduce the environmental impact of every product produced.

HDD Hibernation

HDD hibernation can be enabled by setting the HDD to enter hibernation after being inactive for the specified period of time. This not only saves energy but also extends the lifespan of the hard disk.

Fan Control

The smart fan control of DSM automatically adjusts fan speed according to the system temperature. You can choose to use Quiet mode or Cool mode in order to achieve the greatest fan speed efficiency and able to fit your needs at the same time.

Schedule Power On/Off

The primary feature that makes Synology DiskStations “green products” is the unique power on and off functionality. You can schedule a timetable and set the system to power on or off automatically at a designated time, helping you to keep an eye on energy consumption as well as your wallet.

WOL (Wake on LAN)¹

WOL technology enables a DiskStation to be turned on remotely over the local area network or the Internet. Use the Synology Assistant or any other WOL application to perform WOL.

¹ Available on certain models only.

UPS

Connect an uninterruptible power supply (UPS) to your DiskStation to prevent data loss from unexpected power failure. DSM also allows multiple Synology DiskStations in the same network to share one UPS. With only one Synology DiskStation connected to the UPS, other Synology DiskStations within the same network may also be protected under the same configuration.

Product Details

Product Availability

DiskStation Manager 3.1 comes with all new Synology DiskStation models. It is also available for free download at <http://www.synology.com> for most models.

System Requirements

DiskStation Manager 3.1 requires a Synology DiskStation of all models and 4.5GB of available hard disk space.

Surveillance Station requires at least one compatible IP camera.

iTunes Server requires a desktop pre-installed with iTunes.

Included in DiskStation Manager

File Sharing/Protocols

- SMB/CIFS
- AFP
- NFS
- WebDAV
- Windows ADS
- FTP
- Telnet
- SSH
- iSCSI

Security

- HTTPS Support
- Firewall
- IP Auto Block
- FTP over SSL/TLS
- Encrypted Network Backup over rsync

Backup Solutions

- Network Backup
- Local Backup

- Shared Folder Sync
- Synology Time Backup
- Desktop Backup
- USB Copy/SD Copy
- 3rd-Party Backup Support

Applications

- File Browser
- Audio Station
- Download Station
- File Station
- iTunes Server
- DLNA Media Server
- Surveillance Station
- Photo Station
- Web Station
- Mail Station

Utilities

- Synology Assistant (includes Add Printer Wizard, Resource Monitor, Photo Uploader and WOL utilities),
- Download Redirector
- Data Replicator

Power

- HDD Hibernation
- Fan Control
- Schedule Power On/Off
- UPS

Features

- DDNS Support
- Email Notification
- SMS Notification
- Customized User Quota
- IPv6 Support
- PPPoE
- DSM Upgrade
- Resource Monitor
- UPS Management
- Schedule Power On/Off
- Customized Management UI HTTP/HTTPS Ports
- Privileges Setting
- File Transfer Log

Language

- Czech
- Danish
- Dutch
- English
- French
- German
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian
- Portuguese (European)
- Portuguese (Brazil)
- Polish
- Russian
- Spanish
- Swedish
- Simplified Chinese
- Traditional Chinese
- Turkish

For More Information

For more information about DiskStation Manager, visit <http://synology.com/enu/products/features/index.php>

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