

The outer limits

Call time on server hogs... The revamped SpaceGuard SRM helps you track down the culprits and cure them of their space-wasting habits

BY MIKE JAMES

An essential part of network management is making sure that users are well behaved enough not to restrict what other users are doing. In most cases this means detecting and controlling the resource hogs. Despite the availability of cheap mass storage, disk quota management is fundamental to making sure that file servers, even local machines, aren't abused by one or two users who have no concept of file management.

Although basic disk quota management is built into Windows 2000, Windows 2003 and even XP, SpaceGuard SRM makes it much easier to use and more capable. For example, you can set disk quotas and warning levels by a percentage of a drive or folder and you or the user surpassing the quota level can be alerted about problems, for example, via a pop-up, e-mail or SMS.

SpaceGuard SRM is not just a new version of SpaceGuard 4.2, but a completely rebuilt product for Windows 2000/2003/XP and NT. It is claimed that the

efficiency improvements are such that little or no impact on server performance should be noticed even though all quota monitoring goes on in real time. New in this version is support for Microsoft clustering. If you already use SpaceGuard 4.2, a Migration wizard will import your current settings into the new version.

SpaceGuard provides a client/server approach to quota management. You first have to install the client on any suitable machine. When you run the client, the first thing you see is your network hierarchy and Active Directory. Select any machine on the network and you can install the quota service. This has to be installed and started before you can manage the machine, but it is simple and can be done without leaving the client. Any machines that are not part of a domain can be added in the same way. If a machine isn't browsable, it can be added manually by typing its NetBIOS name or IP address.

To your specifications

Once the quota service is running your next task is to specify quotas. First you set up a quota as either an absolute or relative amount of storage. You can specify the size in megabytes or as the percentage of the volume or of the current directory size. Quotas can be set on NTFS or FAT volumes. The quota applies to the directory and all of the subdirectories it contains and it applies to everyone who uses the directory. That is, if you specify a 50Mb quota for a shared directory, the quota is reached when the total amount of space used by the directory and all its subdirectories reaches 50Mb – irrespective of who owns the files.

This method of setting quotas might seem like a blunt instrument but it integrates with other features of SpaceGuard to provide something much sharper. Any number of quota limits can be set on a given quota. Think of these as actions triggered when the directory usage reaches a particular percentage of the set quota. Currently the actions that can be triggered include making a pop-up appear on a user's machine or on a group of users' machines (**Figure 1**). Other actions are sending an e-mail (SMTP or MAPI), pager or SMS message, running a command or revoking write access to that particular directory. The action can be delayed or repeated at intervals up to a specified maximum.

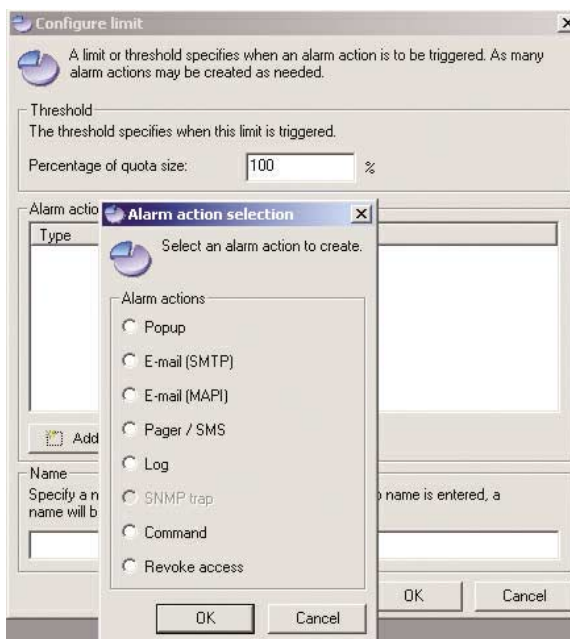


Figure 1: Set any number of actions that are triggered when a percentage of a quota is reached

As you can set multiple quota limits, you can set up a graduated scheme of actions that attempt to make your users see sense. For example, at 80 per cent you could send a pop-up message warning them, at 90 per cent an e-mail to their superior and at 110 per cent revoke their access. You can also have everything written to the system event log so you can analyse it later. Access can be revoked on an individual user basis or for an entire group. You can also transfer ownership of files automatically to an administrator account.

This combination of quotas and quota limits gives you a lot of control. For example, you can set a quota on a user's home directory as a percentage of the total volume and send warnings as they approach this limit before finally revoking their access. Similarly you could set a quota on a shared directory and warn the entire user group before revoking their write access and transferring ownership to a 'co-ordinator'. Access rights are automatically restored when a limit is no longer exceeded or if the quota is deleted or extended. You can only have a single revoke action associated with a quota so you can't revoke access to multiple groups. The solution to this problem is to create a new group consisting of the multiple groups you want to revoke.

Actions can be customised using your own messages and keywords, which are replaced by quota-related information such as the directory, storage space used, and so on. You can construct a single quota that will automatically inform the owner of a home directory that they are about to exceed their set limits. If these actions aren't sufficient, you can arrange to run a command line to invoke a custom script. You have to set up the methods of notification, but this is usually simple – specify an SMTP post office or an Exchange server.

For the SMS or pager alerts you need a modem connected to the server that is running the SpaceGuard service. A drop-down list of SMS/pager providers completes the configuration details. You can check that you have everything configured correctly by sending a test message.

When you set a quota you have the option of assigning it a name as a quota policy. The next time you set a quota you can use your previously defined quota policies to make things easier. There is a policy manager and you can edit policies, but changing a policy doesn't change quotas that you have established using them. The Auto-Add quota facility automatically applies a quota every time a new directory is added. This makes it easy to add new users' home

directories with a suitable default quota. A new feature is the ability to specify directories that are explicitly excluded from the Auto-Add quota.

The SpaceGuard client is very easy to use and provides a clear overview of the state of quotas that you have set (**Figure 2**). Access to SpaceGuard can also be controlled by assigning user groups to four levels of privilege – administrators (modify security settings), operators (add/modify/remove), power users (edit/view) and users (view only). This means you can delegate quota management tasks to other network users without having to give up full control.

The quality of the documentation could be improved with some introductory material outlining general principles and overall quota management strategies. Some automatic report generation facilities would also be welcome. At the moment you have to generate reports by processing the event log manually.

If you want to go further than the interactive interface allows, there is a command-line interface and application API. The command-line interface can be used within scripts to automate quota assignment and management.

Exceeding expectations

SpaceGuard SRM goes well beyond the basic quota management facilities provided by Windows. Being able to manage users by sending them warnings as the quota limit is approached should make your network function more smoothly. If something really needs attention, however, you can still opt to be alerted at any time via the SMS message or pager call. Additional quota management features offered by SpaceGuard SRM make it easy to achieve the level of control you need. <

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System requirements

SpaceGuard Client Windows NT 4.0 (all versions, including Workstation, Server, Cluster Server), Windows 2000 (all versions, including Professional, Server, Advanced Server, Datacenter), Windows 98, Windows Me, Windows XP.

SpaceGuard Service Windows NT 4.0, Windows 2000/2003.

UK supplier

Tools4ever
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uksales@tools4ever.com

A 30-day trial version can be downloaded from <http://www.tools4ever.com/>.

Cost

Services are licensed at £399 each, with discounts for multiple installations. The client is free of charge.

Bottom line

Pros A powerful and time-saving approach to quota setting and management.
Cons Could do with some report generation tools and a better manual.

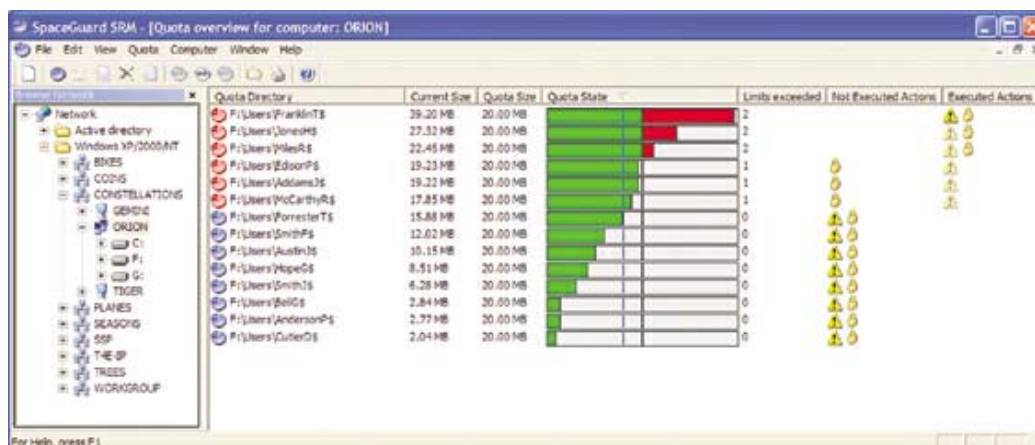


Figure 2: The SpaceGuard client makes it easy to see the current state of the quotas you have set for your user directories