

# SpaceSniffer

Copyright © 2007-2009 Uderzo Umberto – [www.uderzo.it](http://www.uderzo.it)

...a simple and effective way to figure out where you waste your disk space

## Welcome

*"There was so much free space on this disk... why no space left?  
Where did I waste all this wonderful free space?"*

If you feel this is a deja-vu, SpaceSniffer may help.

### In few words:

- Gives you an idea of where big files reside on your disks, even network paths
- Fast and easy to use, simple interface
- No useless bells and whistles, only what's needed to help you find your files
- Lets you easily search with file masks (\*.jpg, \*.txt ...), by file size (>1mb ...), by file age (<3months ...) and combinations
- Gives access to the Windows files/folders popup menu
- Reacts to external disk modifications, keeps always in sync, warns you about external modifications by elements blinking
- Intuitive navigation with animated zooming effects, even during the scan process
- Multithreaded scanning engine with smart caching system to minimize disk access
- Lets you focus and complete the scanning on a zoomed portion of your disk even if the master scan is in progress
- Can scan NTFS Alternate Data Streams if needed
- Customizable interface: geometry, colors, behaviors
- It doesn't clutter your registry, only a plain XML configuration file
- No installation required, just put the executable somewhere and let's go

*"Hei! Look there! A lot of old 10+Mb JPEGs!"*

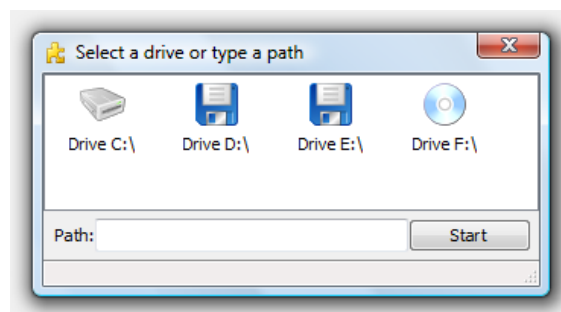
*"Oh! That old 2Gb database backup! Better moving it out of the way!"*

*"What is this biiiig folder? Oh, that's the O.S. folder. Better leaving it in place, eheh"*

Sound interesting to you? So... let's go on!

## Start the application

The main window of the application appears and a smaller dialog will ask where you want to scan. You can choose one of your disks or type a path. The path can be a local path or a network path. It works well also with Samba shares. Then, press the Enter key or click the Start button.



*the start dialog*

If you typed in a path and that path does not exist, an error message will appear. If everything is ok, scan process begins.

Ok, that was pretty easy. Let's go on.

## The scanning process



the sniffing process

The scan progress will be displayed on the main window. This is a real time display of the scan operation. As you can see, a lot of rectangles appear on the screen.

Each rectangle represents a folder or a file (generically an element). The folder elements shows other elements into them, recursively. A limit has been set to the display recursion, to avoid graphic cluttering. You can change this limit as you wish, see after how.

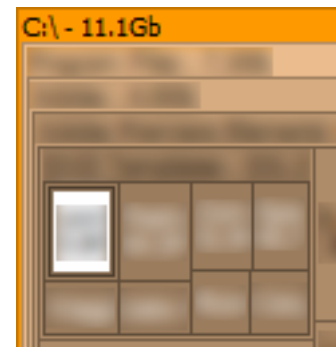
Elements change in size proportionally on the real size of the file or folder.

**Note:** This type of graphical representation is called *Treemap* and has been invented by Ben Shneiderman, Professor in University of Maryland. So, the bigger the element on screen, the bigger the folder or file on disk. It's in-too-i-tive.

If you want to examine an element in deep, just left mouse click once on it, and you will start digging.

You can dig into folders until you reach a file element (displayed in a different color).

If you wish, you can zoom into a folder element by double clicking into it. This will expand the folder to the entire view, showing more smaller elements previously hidden because of the smaller size.



folder nesting

## Navigation

You can navigate the disk structure by the tool bar buttons.



In order:

- **New view:** opens a new scan window. SpaceSniffer lets you open more windows and watch different parts of your disks. If you open more than once the same view (or part of it), the disk will be scanned only once. SpaceSniffer features a smart caching system that links also to the disk event system of the O.S. So if something changes outside the application, SpaceSniffer will be aware of it and will reflect the change into the view.
- **Go back + Go forward:** When you navigate the disk structure by zooming in and out, all locations you traverse are kept in memory (like an internet browser). So you can go back and forth as you wish.
- **Go upper level:** will zoom out by one folder level, until you reach the view root.
- **Go to home:** will zoom out at the root point of the view (the disk drive or the specified initial path)
- **Perform a new master scan:** While scanning, the button lets you to stop the process. While not scanning, the button lets you to start another scanning process.
- **Performs a new scan of the zoomed view:** When you are on the view root the button is disabled. When you are in a zoomed folder, you can start a secondary scan process to force the scanning of the selected folder. The purpose is to avoid waiting the termination of the master scan to be sure the zoomed view is complete. Only one active zoomed scan process is permitted for each view. If you want to focus another part of the structure and the secondary scan is in progress, you must stop and restart it.
- **Less detail + More detail:** Will dig less/more into the display structure. Note that the currently selected folder/file element will always be shown, to avoid you a lot of annoying zoom in/out operations.
- **Show free space:** will show an element that represents the free space of the selected drive. This option will work only if you select a drive (or type a drive path) and not with typed paths that are not drives.
- **Show unknown space:** similarly to the preceding option, this will show unknown space. Unknown space is space that SpaceSniffer is aware of, but has not examined yet. While scanning process goes on, the unknown space will diminish letting space

to the examined items. Similarly to free space, unknown space will not be displayed if the root path is not a drive. Sometimes after the scan completes, some unknown space is still visible. This is due to the inability to scan some protected folders.

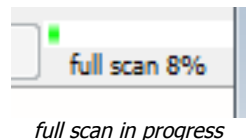
- **Donate:** Press this to connect to the donation page. Please support this software, let me know that you like it by donating something. [Thank you in advance.](#)

## The viewable percent bar

When zooming in and out you may notice a small green bar on the left side of the view. This small green bar will show you how much of the entire structure is currently showing. If you go to the view root, the bar will fill entirely the vertical space. If you zoom in, the bar will diminish his height, because you are displaying less and less disk space as you keep zooming in.

## The progress bar

Another item you can notice is the progress bar in the upper right side of the view. This will show you the scanning progress. Since the total size to be scanned is known only if you select a drive, the progress bar is shown only if you select a drive path. In all other cases, a simple message will be displayed.



## The filtering system

If you are interested only in particular types of files, you can type something in the filter entry field, as shown below. Then press Enter key or click the Filter button.

### ***Filtering by file mask***

It is possible to filter the view by file mask. Masks are defined with special characters "?" and "\*". The question mark character means "a single character", while the asterisk character means "some characters". It's possible to type also a complete file name if you know what are you looking for.

**Example:** by typing \*.jpg and pressing Enter key, only JPEGs files will be displayed.

### ***Filtering by file size***

You can look for files bigger/smaller than a given file size. The syntax of the search string is ">" (or "<") character, followed by the size and the measure unit with no separating spaces.

Available measure units are:

- **b:** byte
- **kb:** kilo byte (1024 b)
- **mb:** mega byte (1024 kb)
- **gb:** giga byte (1024 mb)

- **tb:** tera byte (1024 gb)

**Example:** by typing `>100kb` SpaceSniffer will show only files bigger than 100kb.

### ***Filtering by file age***

It is possible to search files by their age (modification date). The syntax of the search string is similar to the previous one, but the measure unit is different.

Available measure units are:

- **seconds**/secs/sec/s
- **minutes**/mins/min/m
- **hours**/hour/h
- **days**/day/d
- **months**/month
- **years**/year/y

**Example:** by typing `>1year` SpaceSniffer will show files older than 1 year.

### ***Filter combinations***

If you need to specify more than one condition it is possible by separating each condition with the ";" character.

Rules are :

- File mask conditions are or-red together
- All other conditions are and-ed together

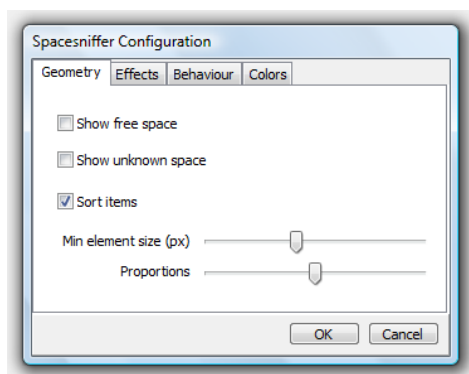
**Example:** `*.jpg;*.gif;>100kb;<6months` will show all JPEGs and GIFs bigger than 100kb and younger than 6 months.

**Note:** *You can change the filter string also during the scan process. The display will react to the new filter, but the process will scan always all elements. This is because you can change your mind and alter the filter string whenever you want. If you do that, a new scan is not required because the filtering is applied to the view and not to the smart cached data.*

## Configuration

SpaceSniffer can be configured in behavior and aspect. The configuration is stored in a XML file stored in the same folder of the application executable. No registry messing. Just one single XML file.

### Geometry tab

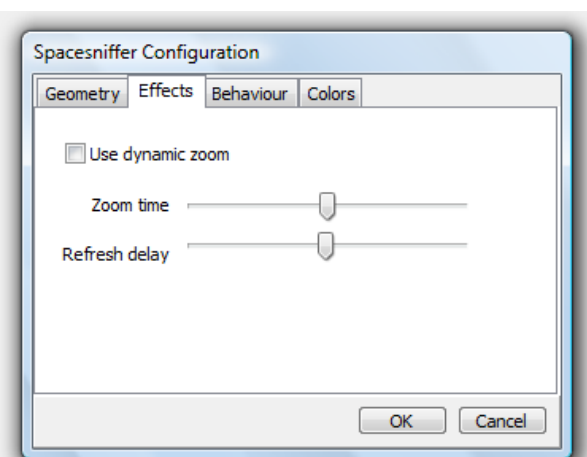


*geometry configuration tab*

- **Show free space:** if set, auto activates the "Show free space" option on new views
- **Show unknown space:** if set, auto activates "Show unknown space" option on new views
- **Sort items:** if set, items are sorted by size
- **Min element size (px):** the minimum size in pixel an element must have to appear into view (notice that only relevant items appear into view, not everything. This avoids display cluttering)
- **Proportions:** if you like a more horizontal or vertical layout for elements, play with this setting

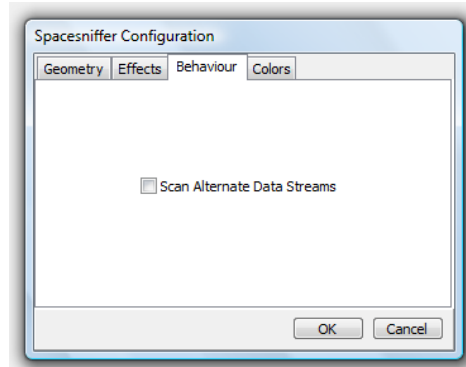
### Effects tab

- **Use dynamic zoom:** dynamic zoom is a zoom effect that animates the layout during zoom effect. It needs more CPU power but looks better (IMHO). Standard zoom effect simply works with a precomputed screen shot that may looks also nice and needs less CPU. It's a matter of taste.
- **Zoom time:** controls how long the zoom effect is.
- **Refresh delay:** controls the frequency of view display refresh. Higher frequency better the look, but slower the scan. Default is a mid-way.



*effects configuration tab*

## Behavior tab

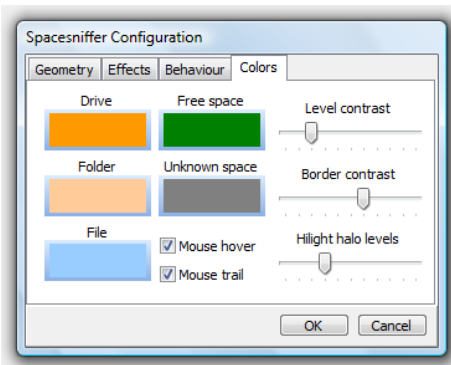


*behavior configuration tab*

- **Scan Alternate Data Streams:** enable NTFS ADS scanning. Slower.

## Colors tab

- **Colors:** you can specify your preferred color for drive, folder, file, free space and unknown space entities. Those are base colors, since they will be darkened to show nesting.
- **Mouse hover:** highlights an element when the mouse cursor hovers on it.
- **Mouse trail:** mouse leaves a fading trail over elements when it moves.
- **Level contrast:** Nesting are more or less noticeable because contrast of colors is more or less exaggerated.
- **Border contrast:** Elements borders are more or less noticeable.
- **Highlight halo levels:** When the mouse hovers on an element, this is highlighted. As the the halo levels setting increase, more parent elements are affected by the highlighting.



*colors configuration tab*



## Final notes

### ***File handling***

SpaceSniffer code works in read only mode. It is possible to access the Windows popup menu for a folder or a file by right mouse clicking on a view element. So, if you delete a file is because you deleted it through Windows functions, not SpaceSniffer's. The only exception is when SpaceSniffer saves the configuration into his configuration XML file. If it's possible to save, then it will be done. On the contrary, no saving is performed and the program quietly accepts the fact.

### ***Privilege request***

Whenever possible, SpaceSniffer tries to get the Backup Operator privilege, that gives the possibility to examine protected folders. If the application can obtain this right or not depends on your privileges in the O.S. If it's not possible to get this privilege, the application still works but you'll probably notice that some unknown space will stay in the way also after the end of the scan process.

### ***File system events***

SpaceSniffer listens to file system events, so it can reflect changes made outside of the application. This feature may be not supported, depending on the O.S. and media type.

### ***Internet connection***

SpaceSniffer plays polite, it will never attempt to connect to the internet. The only exception are the "Donate!" option, that will open the donation page in your default browser and the "About Box" that contains a link to "[www.uderzo.it](http://www.uderzo.it)". So, if SpaceSniffer connects to the internet, is because you told it to do.

### ***Compatibility***

SpaceSniffer has been tested on Windows 2000/XP/Vista systems.

### ***Contact infos***

If you want to contact me, please write to [info@uderzo.it](mailto:info@uderzo.it) and specify the keyword `spacesniffer` in the mail subject. Remember to specify the keyword or your mail could be ripped by the antispam.

### ***Donate***

If you feel this software comes handy to you, please consider donating to the project. You can go to the donation internet page by choosing the donation tool bar button or the "Donate!" option in the help menu. Thank you for your support.

Copyright © 2007-2009 Uderzo Umberto, please read the Disclaimer